

SMART

Journal of Business Management Studies

(A Professional, Refereed, International and Indexed Journal)

Vol-16 Number-1

January - June 2020

Rs.500

ISSN 0973-1598 (Print)

ISSN 2321-2012 (Online)

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Founder - Publisher and Chief Editor



**SCIENTIFIC MANAGEMENT AND ADVANCED RESEARCH TRUST
(SMART)**

TIRUCHIRAPPALLI (INDIA)
www.smartjournalbms.org

**PERFORMANCE MEASUREMENT OF MICRO & SMALL SCALE
ENTERPRISES IN DEVELOPING COUNTRIES- A STUDY IN ETHIOPIA**

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Abstract

Micro and small scale enterprises are the backbone of any developing economy, with their effective innovative, professional skills. MSEs develop the economy, by generating employment opportunities, reducing regional imbalances, fostering equitable economic growth and alleviating poverty. Ethiopian Government has also recognized the role of Micro and Small Scale Industries in the economic development. Deliberate efforts to promote these industries are already in place in Ethiopia. But there are so many factors, which should be analyzed, for the better performance of these industries, which could help the economy to generate sufficient revenues. Hence this study is an attempt to analyze factors such as entrepreneurs' skill, access to finance, market, training, legal and regulatory framework and infrastructure, which affect the performance of micro and small enterprises in Ethiopia. Primary data and secondary data were used. Primary data were collected from 198 respondents, by using well organized self-administered questionnaire. For analyzing the data, statistical tools like Pearson's Correlation Coefficient and Regression analyses were used.

Keywords: *Performance Measurement, Micro and Small Scale Industries and Income Generation*

JEL Code : *M2, M13, O43, O55 and P42.*

Paper Received : *25-11-2019*

Revised : *04-12-2019*

Accepted : *15-12-2019*

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1. Introduction

Micro and Small Scale Enterprises (MSEs) are being considered as a tool for the growth of any economy. It helps to generate income, provide various job opportunities, increase exports and generate revenues. Moreover, it also creates a backward linkage with large organizations, which helps to curtail poverty issue of any nation. **Maad, 2008** observed that developing nations have started focusing more on MSEs because they understand its importance towards growth. It is considered as a center of attraction for driving business growth across the world. However, a variety of problems have been observed in the practice of MSEs and as a result, their performance is not, as expected. Hence numerous researchers have been conducted on the practices, implementation as well as challenges before MSEs. Research done by **Alemayehu and Gecho, 2016**, indicates that micro & small scale enterprises, performance mainly depends on the firm size, capital invested and external factors. According to the World Bank, formal MSEs contribute up to 60 percent of total employment and 40 percent of national income towards GDP. Among the developing nations, Ethiopia also understands the importance of MSEs and its role in generating revenue and improving national income because they would help to curb the problem of poverty and improve the living standards.

2. Review of Literature

Hailey 1987, observed that there was an increasing concern, to encourage human development. **Abdullah and Baker, 2000**, found that in many developing countries, the government focuses on the growth of micro and small enterprises, which in future, can become large-scale enterprises. Business performance is assessed by measuring the success or failure of an organization in achieving its goals and it

can be defined in a number of ways **Jarvis et al.; Wood, 2006. Alsadi, 2006** conducted a critical analysis of small and medium enterprises, performance and found that growth of small firms was synonymous with success and as the firm grows, products offering increases and unemployment reduces. **Gill and Biger, 2012** studied small firms' growth barriers and supports measuring firm performance. A large number of micro and small scale enterprises, in Ethiopia were able to grow and provide ample employment opportunities (**Habtamu, et al., 2013**). For example, among 1000 Ethiopian MSEs, nearly 69% were found to be survival types (**Gebreeyesus, 2009**) and particularly in Addis Ababa, approximately 75.6% MSEs were incapable of growing since its start-up (**Wasihun and Paul, 2010**). Performance Management consists of management measurement, and shareholder values, which are based on environmental, organizational, social and competitive factors (**Srimai et al., 2011**) The Ethiopian Government has formulated a development strategy, at the national level, for the promotion of small and micro enterprises in 1997. MSEs contribute a lot towards poverty alleviation, by launching various schemes and programs (**Seyum, 2015**).

3. Statement of the Problem

This study describes various factors, which could affect the performance of micro and small enterprises in Ethiopia. This paper also identifies the external and internal dimensions of MSEs' performance. It also helps to identify the growth and expansion of micro and small enterprises, by employing different strategies, in various sectors (**Table-1**).

4. Need of the Study

The present study explains internal and external determinants, that are highly significant, for the promotion and growth of MSEs.

Policymakers, economists, researchers, academicians, government and promoters of MSEs will also be benefitted by formulating strategies, to create a win-win situation for the organizations as well as the economy.

5. Objectives of the Study

This research proposes to appraise the different factors, affecting the performance of micro and small enterprises (**Figure-1**).

6. Hypotheses of the Study

- H₁: Entrepreneurial skill has significant relationship with MSEs' performance.
- H₂: Accesses to market has significant relationship with MSEs' performance.
- H₃: Accesses to finance has significant relationship with MSEs' performance.
- H₄: Infrastructure has significant relationship with MSEs' performance.
- H₅: Access to training has significant relationship with MSEs' performance.
- H₆: Legal and regulatory framework have significant relationship with MSEs' performance.

7. Methodology of the Study

7.1 Sampling Technique and Sample Size

Proportional stratified random sampling method was used for the study. Out of 380 active MSEs, only 198 were taken as the sample size proportionally distributed among five sectors of the MSEs.

7.2 Sources of Data

Both primary and secondary data were collected through reviewing existing literature, reports, field observation, conducting interview of top-level officials of MSEs.

7.3 Period of the Study

Data were collected for the period, 2018-19.

7.4 Tools used in the Study

Pearson's Correlation Coefficient and Regression analysis were used, to analyze the data. Based on the above information, the Researcher formulated the following linear regression model.

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + e$$

Where:

Y_i = Micro and Small scale enterprises performance; β_0 = Constant; β_i = Vector of unknown parameters;

X₁ = Entrepreneur skill;

X₂ = Access to finance;

X₃ = Access to market;

X₄ = Access to training;

X₅ = Legal and regulatory framework

X₆ = Infrastructure adequacy, and e = error term.

8. Data Analysis

8.1 Pearson's Product Moment Correlation Coefficient

Table-2 shows that there was substantial, significant relationship between access to training and performance ($r = 0.338$, $p < 0.01$). Hence providing more training to entrepreneurs would ensure better performance of MSEs. Moreover, there was strong relation between entrepreneurs' skills and performance ($r = 0.556$, $p < 0.01$) access to finance and performance ($r = 0.605$, $p < 0.01$) access to market and performance ($r = 0.630$, $p < 0.01$), legal and regulatory framework and performance ($r = 0.544$) and infrastructure adequacy and performance ($r = 0.575$, $p < 0.01$).

8.2 Regressions Analysis

Table-3 shows R value to be 0.838, which represented a high degree of correlation. The R² value indicated how much of the dependent variable, “**Performance of MSEs**”, can be explained by the independent variable. In this case, 67.5 per cent can be explained.

Table-4 describes regression equation, as indicated below:

Predicted performance score = 0.196 + 0.150 (Entrepreneurs’ skills) + 0.213 (Access to finance) + 0.197 (Access to market) + 0.094 (Access to training) + 0.138 (Legal and Regulatory Framework) + 0.136 (Infrastructure adequacy).

The hypotheses testing, based on regression model output, is discussed below:

H₁: Entrepreneurial skill has a significant relationship with MSEs’ performance.

From the **Table-4**, it can be observed that beta coefficient of entrepreneurial skill was 0.150, which indicated that if the operators of small and micro enterprises were skillful, then the performance could be increased by 15%, by holding other factors constant. Since the beta coefficient of entrepreneurial skills was a positive sign, it experienced positive impact on the performance of small and micro enterprises. Entrepreneurial skills were statistically significant. Therefore, the formulated hypothesis was accepted.

H₂: Accesses to market has a significant relationship with MSEs’ performance.

As it is revealed in **Table-4**, beta coefficient of access to market recorded 0.197, beta coefficient, which showed that if access to market was increased by 100%, small and micro enterprises would improve by 19.7%, by controlling other factors constant. Since the beta

coefficient of access to market recorded a large magnitude of positive sign, it exercised a strong positive impact on the performance of small and micro enterprises. Access to market was statistically significant because the p-value of this variable was 0.009, which was less than 1%. Therefore, the null hypothesis was accepted in the study because it reported a positive significant impact on the small and micro enterprises. The result concurred with **Zewde & Associates, 2002**. Studies like **Gebrehiwot and Wolday, 2006** also maintained that the presence or absence of market networks did play a role in influencing performance and the viability of a business venture.

H₃: Accesses to finance has a significant relationship with MSEs’ performance.

The third hypothesis of this research is, “Accesses to finance has a significant and negative relationship with MSEs’ performance”. This hypothesis was also supported by the regression result, which indicated significant positive relation with the performance of MSEs. As **Table-4** depicts, beta coefficient of access to finance was 0.213 and showed that if the operators of the enterprises were to receive finance 100%, then the performance of the enterprises would be increased by 21.3%, with other variables being constant. Relative to the other variables taken in this study, access to finance reported greater and positive beta coefficient and this implied that the influence of access to finance on the performance of small and micro enterprises was high. Since the probability value of access to finance was 0.001, which was less than 1%, it was statistically significant. Therefore, the formulated hypothesis, “Access to finance has a significant and negative relationship with MSEs’ performance” was accepted. This result was also supported by different researchers like **Mbonyane** and

Ladzani, 2011, and Zewde and Associates, 2002.

H₄: Infrastructure has a significant relationship with MSEs' performance.

The adequacy and accessibility of infrastructures of the enterprises recorded statistically significant relationship with the performance of the enterprises. According to **Table-4** infrastructure, fulfillment recorded beta coefficient of 0.136, which indicated that if the needed infrastructure for small and micro enterprises, were totally fulfilled, then the performance of the enterprises would be increased by 13.6%, controlling other variables constant. In other words, enterprises with good facilities and infrastructures, experienced higher probability of having good performance.

H₅: Access to training has a significant relationship with MSEs' performance.

Based on the results displayed in **Table-4**, access to training recorded 0.197 beta coefficient. If the operators of the enterprises were trained 100%, the performance of the enterprises would increase by 19.7%. Therefore, the hypothesis, "access to training has significant and positive relationship with MSEs' performance", was accepted. This result was supported by other researchers like **Paul and Rahel, 2010** and **Codjia, 2010**.

H₆: Legal and regulatory framework has a significant relationship with MSEs' Performance.

According to **Table-4**, legal and regulatory framework reported a beta coefficient of 0.138, which showed that an increase in the legal and regulatory activities, at 100%, would increase the performance of MSEs by 13.8%, by keeping other factors constant. The positive sign of beta coefficient of legal and regulatory variable indicated that it exercised positive impact on the

enterprises' performance. Legal and regulatory framework variable was not statistically significant because the p-value was 0.024. Therefore, the null hypothesis was rejected in the study. The results were consistent with **Paul and Rahel, 2010** and **Codjia, 2010**.

9. Findings of the Study

Table-2 represents strong positive relationship between entrepreneurs' skills and performance. In other words, MSEs, with entrepreneurial skills, performed considerably better. It was also discovered that the working premises, marketing and finance did play a significant role in determining the performance of MSEs, in the selected sub-city. There was also substantial, statistically significant relationship between access to training and performance ($r = 0.338$, $p < 0.01$). Providing more training to entrepreneurs would ensure better performance of MSEs. Further, there was a substantial positive correlation between legal and regulatory framework and performance ($r = 0.544$) and infrastructure adequacy and performance ($r = 0.575$, $p < 0.01$), which were statistically significant at 99% confidence level. **Table-4** observed that entrepreneurial skill has 0.150 beta coefficient, indicating that if the operators of small and micro enterprises were skillful, then the performance would be increased by 15%, other factors remaining constant. Since the beta coefficient of entrepreneurial skills recorded positive sign, it indicated a positive impact on the performance of small and micro enterprises.

10. Suggestions

Ethiopian Government should boost these enterprises, by providing basic requirements to start-up because expansion of enterprises would create job opportunities and sustainability of enterprises in the business. Federal Government should provide adequate training to people, involved in MSEs. The Government should

organize different trade fairs and exhibitions, which would help enterprises to increase the sales of products and services and as a result, they can earn huge revenue and help the economic development. Commercial Bank of Ethiopia should provide sufficient loans, at a low rate of interest, to increase their capital. The Government should put some restrictions on the profit, that is to be distributed among the owners, so that a major part of profit could be reinvested for capital formation. Incentives should be given for the best performing enterprises. Respective government authorities should strengthen their efforts, by keeping close monitoring on the performance of such types of industries. The Government should also motivate females, to be owners of Micro and Small Enterprises.

11. Conclusion

The aim of this study was to determine the factors, that influenced the performance of micro and small scale enterprise, in Ethiopia. From the empirical results, it can be concluded that there were number of factors such as inadequate entrepreneurial skill of the promoters, lack of initial capital to start the business, lack of experience of managers, low education level of the promoters, limited access to training to initiate and capture knowledge, limited access to market to exchange their products and services, that hindered the performance of Micro and Small Scale Enterprises.

12. Limitations of the study

The study was limited to only Amhara Region in Ethiopia. It is possible that results might be different if study had been conducted at the national level, which might provide actual picture. Secondly, the sample size was not large and it was limited to five sectors only.

13. Scope for Further Research

Further studies can cover wider geographical, area or other sectors to study the MSEs performance. Researchers can compare the

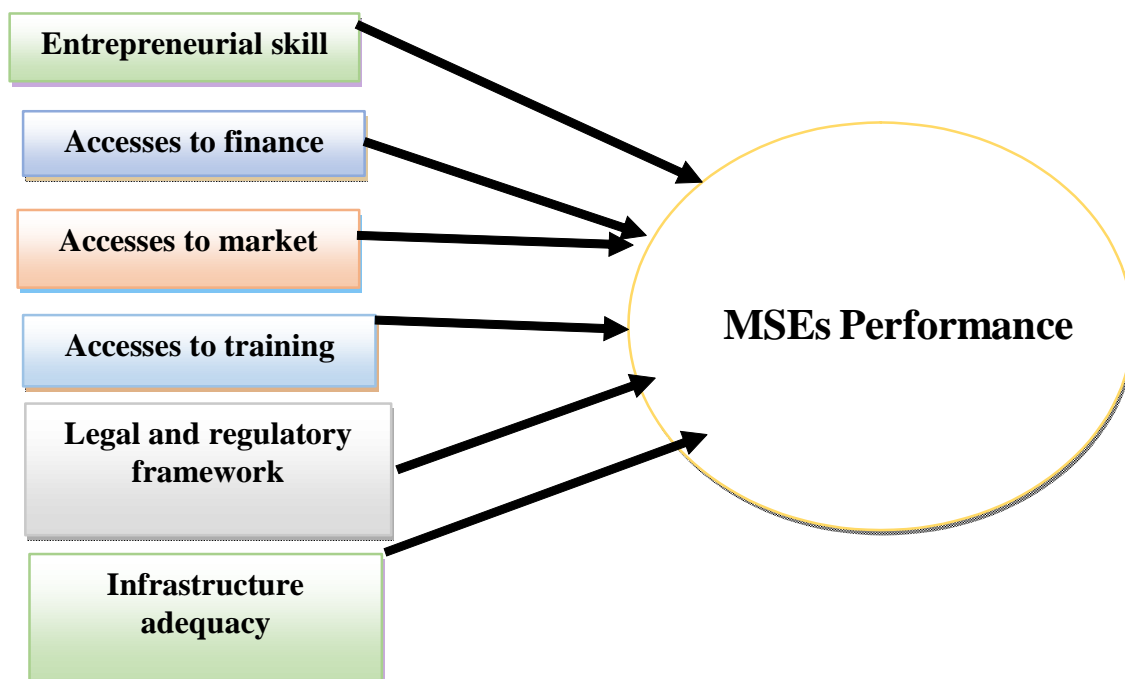
performance of MSEs, between developed and developing countries and find the gap. The sample can also be increased, by including all MSEs in Ethiopia. Further research can be done, to identify financial and non-financial factors, which affect the company performance.

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Figure -1 : Factors Affecting Performance of MSE



Source: Authors' Frame

Table-1:Federal government of Ethiopia differentiate Micro and Small enterprises

Micro Enterprises (Ethiopia)	
Industry Sector (Manufacturing, Construction & Mining)	Service Sector (Retailer, transport, hotel, tourism, ICT & maintenance services)
<ul style="list-style-type: none"> ➤ 5 people including Owner ➤ Total asset up to Birr 100,000 	<ul style="list-style-type: none"> ➤ 5 people including Owner ➤ Total asset up to Birr 50, 000
Small Enterprises (Ethiopia)	
Industry Sector (Manufacturing, Construction & Mining)	Service Sector (Retailer, transport, hotel, tourism, ICT & maintenance services)
<ul style="list-style-type: none"> ➤ 6-30 people ➤ Total asset from Birr 100,000 to Birr 1.5 million 	<ul style="list-style-type: none"> ➤ 6-30 people ➤ Total asset from Birr 50,000 to Birr 500,000

Source: Compiled by Authors

Table-2: The Relationship between Independent Variables and Performance

Variables	Y	X1	X2	X3	X4	X5	X6
Performance of MSEs (Y)	1						
Entrepreneurs' skills(X1)	0.556	1					
Access to finance (X2)	0.605	0.419	1				
Access to market(X3)	0.630	0.365	0.357	1			
Access to training(X4)	0.338	0.097	0.103	0.363	1		
Legal and regulatory frameworks (X5)	0.544	0.405	0.370	0.378	0.047	1	
Infrastructure adequacy(X6)	0.575	0.354	0.408	0.442	0.025	0.410	1

Source: Survey data, 2019 SPSS output

Table-3: Model Summary of the Multiple Regressions

Model Summary ^b										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.838 ^a	0.702	0.675	0.16897	0.702	26.268	6	67	0.000	1.448
a. Predictors: (Constant), INFRA, TRAIN, INTR, RULE, ACCF, ACCM										
b. Dependent Variable: PERFORMANCE OF MSEs										

Source: Survey data, 2019 SPSS output

Table-4: Regress Performance on the Selected Variables using Multiple Regressions

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Coefficients	(Constant)	0.196	0.220		0.892	0.376
	Entrepreneurs' skills(X1)	0.150	0.062	0.191	2.432	0.018
	Access to finance (X2)	0.213	0.063	0.266	3.378	0.001
	Access to market(X3)	0.197	0.073	0.229	2.691	0.009
	Access to training(X4)	0.094	0.035	0.195	2.679	0.009
	Legal and Regulatory F (X5)	0.138	0.060	0.183	2.314	0.024
	Infrastructure adequacy(X6)	0.136	0.051	0.217	2.672	0.009

Source: Survey data, 2019 SPSS output