

The Impact of Environmental Factors on the Performance of Micro & Small-Scale Enterprises in East Gojjam Zone, Ethiopia

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Abstract: *This study aims at investigating the impact of the internal and external environmental factors on the performance of Micro and Small-scale Enterprises in East Gojjam Zone Ethiopia. 362 Micro and Small Scale Enterprises found in eight purposively selected Woredas were considered for the study purpose. Accordingly, primary data was collected from the owner/managers of Micro and Small scale Enterprises found in the selected Woredas using structured questionnaires. Multiple regression analysis was employed to see if the identified environmental variables would explain the variance in firms' profitability i.e. gross profit. Results from the descriptive statistics indicated that inadequate power supply, inadequate water supply, unavailability of dry waste and sewerage system, unavailability of Business Development Service, unavailability of suitable market place, collateral requirements to get loan, shortage of working capital and unavailability of own working premise were reported to be serious problems resulting in low performance of micro and small sized enterprises. The findings of theregression analysis show that infrastructure and financial environment, technological environment and factors associated with entrepreneurial commitment have a clear significant relationship with performances of MSEs. Furthermore, based on the sign of the slope coefficients researchers found that infrastructure and finance had positive impacts on the performance of MSEs, while the rest has negative roles.*

Keywords: Micro and Small Scale Enterprises, Environmental Factors, Financial Performance

1. Introduction

Micro and small scale enterprises have been accepted worldwide as instrument of economic growth and development. They contribute significantly to the national economy of every country by virtue of alleviating poverty and creating jobs. No wonder that government, particularly in the developing countries, has made tremendous efforts and establish policies to enhance the capacity of micro and small scale enterprises (MSEs) [1].

MSEs exert a strong influence on the economies of all countries. They have been a major engine in the economic growth, innovation and technological progress of nations throughout the world. Moreover, they are considered as strategies to create productive jobs are of increasing importance in both developed and developing countries. Beck and Demirguc-Kunt[2] reported that small enterprises (along with medium) are major drivers of both employment and economic growth contributing to more than 50 % to GDP and 60 % to employment in developed economies. These types of enterprises, however, constitute less than 30% of employment and 17% of GDP in developing countries. In spite of these figures, the dynamic role of Micro and small scale enterprises in developing countries as engines through which the growth objectives of developing countries can be achieved has long been recognized. An extensive research conducted by Jack, et.al [3] has shown that it is virtually impossible for national governments in poorly developed nations such as Ethiopia to alleviate massive unemployment and abject poverty without utilizing Micro and small scale enterprises as a vehicle for realizing sustained economic growth and development.

As Ethiopia is one of the least developed nations of the world, the country needs to empower micro and small scale

enterprises in order to achieve sustained economic growth and development [4]. These kinds of enterprises categorically have significant roles to play in the country's economy, via generating employment for the teeming population of unemployed youths; alleviating poverty through incomes to poor household; participating in the global economy and partnering with larger corporations and so on [5].

However, in Ethiopia, the sector has only been given limited support and recognition by the national government in terms of access to finance as well as the provision of technical and managerial skills to citizens who operate small and medium enterprises. Although the Ministry of Trade and Industry has issued various policies that are helpful for the sustained growth and development of micro & small enterprises, the policies have not been implemented adequately due to lack of infrastructure and capacity [6].

As a result, in spite of the major role, the significance and contributions of the small-scale enterprises to the national economy, this set of enterprises are still battling with many problems and certain constraints that exist in promoting their development, growth and performance at large. They are faced with significant challenges that compromise their ability to function and to contribute optimally to the economy. Both internal and external environmental factors considerably affect the growth and development of small and micro enterprises. The external environment that bear on the institution include the administrative/legal, technological, political, economic, and socio-cultural contexts, the demands and needs of external clients and stakeholders, and relations with other pertinent institutions [7]. Whereas, the internal environmental factors affecting the performance of MSEs include business entity size, owner-manager competencies, commitment, resource, strategic choice, organizational

feature, types/importance of the goals. Moreover it's indicated in the research conducted by Belay [6] that the macro-economic environment in most Sub-Saharan African countries including Ethiopia is not conducive for the growth and development of small businesses.

Woldegebriel[8] found out that lack of capital, lack of markets, bureaucratic regulatory requirement, problems of Business Development Center, poor supply of infrastructure, lack of materials and in appropriate locations are still major problems the sector has encountered. Moreover, a study conducted about MSEs found in Addis Ababa by Admasu[9] shows that this sector faces lots of constraints such as policy problems, lack of adequate trainings, lack of credit and loan, lack of working space, poor production techniques and input access, lack of information, inadequate market linkage

Like MSEs' found in different parts of our country Ethiopia, MSEs' existing in East Gojjam Zone have also suffered from limited performance which has been associated with such impeding factors as the persistent low level of technology, inadequate entrepreneurial skills of operators, the absence of an effective management techniques., inflation, high interest rate, unfavorable system of taxation, high regulatory burden and corruption uncertainty about government policies, Lack of skilled labor, Poor utility services/inadequate supply of infrastructure (inadequate provision of public services).

Although factors noted here are important in explaining MSEs' limited performance, the extent to which the mentioned factors affect the performance of MSEs remained undesignated in the study area. Moreover, most of the studies conducted on MSEs were focusing on major urban cities of Ethiopia, and eventually no comprehensive study incorporating perceived internal & external environmental factors was conducted in the area considered. So, the purpose of this study is to investigate the impact of both internal and external environmental factors on the performance of micro and small scale enterprises in most comprehensive fashion.

2. Literature Review

2.1. Definitions of Micro and Small Scale Enterprises: International View

There is hardly any unique, universally accepted definition of MSEs because the classification of business into small and large scale is a subjective judgment. Egbuogu[10] noted that definitions of MSEs vary both between countries and between continents. The major criteria used in the definitions according to Carpenter [11] could include various combinations of the following: Number of employees, financial strength, Sales value, Relative size, Initial capital outlay and Types of industry.

Inang & Ukpong[12] however, stressed the indicators prominent in most definitions namely, size of capital investment (fixed assets), value of annual turnover (gross output) and number of paid employees. In countries such as the United States of America, Britain and Canada, small and medium business is defined in terms of annual turnover and number of paid employees. The Netherlands has classified businesses into four groups and defined small-scale industry

as one employing 10 – 99 persons in which the Manager personally performs all the functions of management without actually taking part in the production.

In Kenya Micro enterprises represent those enterprises with a limit of 10 employees or with annual revenue less than 50 million Kenya shillings, where as a limit for 50 employees for Small Enterprises. This definition is similar, in terms of number of employees, with the standardized definition of MSEs by European Union. Its current definition categorizes companies with fewer than 10 employees as "micro" and those with fewer than 50 employees as "small" [13].

Definition of Micro and Small Enterprises: Ethiopian Context

The Ethiopian Government has used various definitions and criteria in identifying what is referred to as micro and small sized enterprises. However, the new definition of MSEs provided by the Ethiopian government is used for the purpose of this study.

It considers human capital and asset as the main measures. This definition addresses the limitations of the old definition. Minimum asset requirement for services and industry is different as shown in the following table.

Table 2.1: New (Current) Definition of MSEs in Ethiopia

Level of Enterprise	Sector	man Power	Total Asset
Micro Enterprise	Industry	≤5	≤100,000ETB (\$6000 or E4500)
	Service	≤5	≤50,000ETB (\$3000 or E2200)
Small Enterprise	Industry	6-30	≤1.5 million ETB (\$9000 or E70000)
	Service	6-30	≤500,000 ETB (\$30000 or E23000)

Source: FeMSEDA[14]

2.2. Micro and Small Enterprises in Ethiopia

MSE is one of the institutions given recognition in the country's industry development plan and is the fact that it serves as vehicles for employment opportunities at urban center and as it underpin the economic development [15]. However, the sector has only been given limited support and recognition by the national government in terms of access to finance as well as the provision of technical and managerial skills to citizens who operate small and medium enterprises. Although the Ethiopian Ministry of Trade and Industry has issued various policies that are helpful for the sustained growth and development of small and medium-sized enterprises, the policies have not been implemented adequately due to lack of infrastructure and capacity. The top three obstacles to running a business in Ethiopia are lack of access to finance, difficulty in ownership of land, and difficulty in conducting business in the informal sector [16]. Based on a report issued by the Heritage Foundation (2013), 96.3% of in Ethiopia require collateral, compared to the regional average of 80.4%. Ethiopia is ranked 28th out of 46 countries in the Sub-Saharan Africa region, and its overall score is slightly below the regional average. Historically, large enterprises and state owned institutions have enjoyed much more support in terms of policy, legislation, tax break, and the supply of resources from successive governments in

comparison with small enterprises [17]. The study by Quin, Khoury et al. [18] has shown that lack of access to finance is the most influential factor hindering the growth and development of small and medium-sized enterprises in developing nations such as Ethiopia. The macro-economic environment in most Sub-Saharan African countries including Ethiopia is not conducive for the growth and development of small businesses [19].

2.2.1. Ethiopia's MSEs Promotion Policy

Examinations of attempts institutional involvement to support MSEs development in Ethiopia came late after 1950s. Teshome[20] pointed that the focus of government policy was to lay foundation of basic administrative and institutional infrastructure of the state during the 1940's and 1950's, in order to consolidate the gains of reforms to accelerate the process of industrialization. As a result, several reforms related to the development of MSEs were made during this period.

In the past few years, Ethiopia has launched various bold initiatives and development policies and plans to spur economic growth. Three major development plans have been executed so far, the last one being the ongoing Growth and Transformation Plan (GTP). The common and overarching objective of these development plans has been to ensure broad based economic growth. This is so because broad based economic growth is the main route to poverty reduction through employment generation. The role of Micro and Small Enterprises (MSEs) is indispensable in poverty reduction through employment generation. Cognizant of this, a national MSEs Development Strategy was formulated in 1997. Ethiopia's MSE Policy envisages not only reducing poverty in urban areas but also nurturing entrepreneurship and laying the foundation for industrial development. The strategy was revised in 2010/11 with renewed interests and more ambitious targets on employment and number of entrepreneurs and transition to medium size level.

Micro and Small-scale Enterprise development, being one of the key focus areas of the country's development strategy, receives massive support from the government in the form of access to finance, market, technology, training and working space. The government strongly believes that MSEs are the right solution to reduce urban unemployment and hence reduce poverty. This ambition is also reflected in the country's GTP with much emphasis. The GTPs have given a priority to MSEs development. The first GTP has put the MSEs development as one of the seven identified growth pillars of the country. The MSEs to be a development pillar, they have to be formal to get the necessary support [15]. Therefore, MSE promotion and support is the vital strategy to fulfill this national plan of employment creation in the short-run and achieving industrialization in the long-run.

2.2.2. Ethiopia's Direct Policy Support to MSE Development

In addition to creating a conducive business environment for MSE growth, Ethiopia extends direct policy support to MSE operators. The direct policy support includes access to markets, access to finance, access to industrial extension, access to training and technological support.

a. Access to Market

Federal Public Procurement Administration Agency has set a rule that enforces public institutions to source certain portion of their annual procurement from MSEs. That is, MSEs are given priority in government procurements. Secondly, the government tries to link MSEs with large and medium enterprises in the market in the form of subcontracting and input suppliers. The FeMSEDA has introduced a new directive on franchising, sub-contracting and out-growth linkage with large and medium enterprises.

b. Access to Industry Extension

The other area of micro and small scale enterprises promotion and support is provision of industry extension service. This strategy is adapted from Ethiopia's experience in agricultural extension. The primary objectives of the national industry extension service are to make MSEs competent enough in the market, to enable them to generate sufficient and sustainable job opportunities thereby improving their income. The industry extension service elements consist of entrepreneurship, business development services, production technique, marketing management, supplies management, book keeping and continuous productivity improvement or kaizen.

c. Access to training and Technological support

Skilled manpower and the use of appropriate technology are critical inputs to nurture micro and small enterprises. In this regard, the national MSE promotion and development strategy paid due attention to human resource and technological development. Pertinent to human resource development, the government is trying to intervene in the sector by directly providing various skill trainings to potential entrepreneurs of the sector.

d. Access to Finance

The other essential area of government intervention to promote MSEs is provision of financial support. In this regard, FeMSEDA has designed a national micro credit and saving directive that primarily focuses on alleviating the financial constraint of MSEs operating in the country. The priority areas of the national micro credit system include those MSEs that are engaged in import substitution, construction and export. This national micro credit and saving facility designed for MSEs has three different requirements. These are the credit requirement for start-up, growing and matured micro and small enterprises.

e. Access to Working Space

Another critical factor for MSE growth is working space. In response, although the government has massively built working spaces for MSEs in major cities and towns, working space still remains a critical challenge.

2.3. Factors Determining the Performance of Micro and Small Enterprises

Financial: Funds can be termed to be blood stream of any established enterprises. According to Ogunjuiba et.al [21] empirical research works indicate that finance contributes to the tune of 25% MSEs' success among the determinant factors. Most MSEs failed in most developing countries because of their inability to gain access to credit facilities.

Uduak, (2009) in Banabo and Koroye[22] shed more light on these by revealing that through lending activities, financial inject funds into the economy which if it is effectively utilized will improve the standard of living, enhance enterprises performance and invariably add value to the bottom-line of the economic development.

Political: It is not a gain say that “whoever controls political power also controls economy power”. The hand writing for many years of past administrations have been seen on the wall. This according to Awe [23] include: nationalization, expropriation, fundamental change in government policy and in government. Again, continuity and stability in government that will ensure the consistent implementation of good policy is another area through which politics affect MSE performance. Political instability declined performance of MSE.

Managerial Ability: Managerial ability in the context of micro and small enterprises represent the ability of owners or operators to produce sound business plans, perform standard bookkeeping, auditing and record-keeping duties, introducing appropriate technologies and expertise, commitment in terms of empowering employees, investing in skills related training opportunities for employees, ability in resolving business related disputes amicably, etc. Successful businesses and enterprises were associated with managers who enjoyed what they were doing, whereas unsuccessful businesses and enterprises were associated with managers with little or no motivation and commitment [24].

Infrastructure: The important role infrastructure plays in performance of MSE cannot be overlooked because infrastructure such as: power, good road network, steady water supply, effective communication system and market are referred to as factors on performance of MSE. The absence of the aforementioned facilities in the life of Enterprises act as a catalyst to some of the enterprises less performance which invariably can result to winding up if urgent step is not taken on time.

Government Policies: These are tools in the hand of government to create enabling environment for the MSEs to thrive. Government creates rules and frameworks in which Enterprises are able to compete against each other favorably from time to time. Government changes the rules and frameworks forcing Enterprises to change the way they operate.

Raw Materials: This is the input that the firm works with to produce output. The absence or the low supply of these raw materials increase cost of production. This shows that adequate supplies of raw materials ensure the good performance of the Enterprises [25].

Entrepreneur Competencies: Awe [23] viewed entrepreneur as a person who organizes and manages a commercial undertaking with the ultimate purpose of profit making as a return on investment. Entrepreneur can be described as an innovating man, path-breaker and a pacesetter of economic and industrial growth. Their capabilities in terms of systematic ways of handling the available resources with the right knowledge of what it takes to make Enterprises to perform indicate his competency.

Technology: The part taking by technology in regards to the Enterprises performance in the stiff competitive environment is inevitable. Technology changes in dynamic manner with the potentiality of impacting negatively on the firm’s competitive position. Maine et al. [26] have shown that small and medium-sized enterprises need to be supported so that they can cut down their operational cost by utilizing modern technology and entrepreneurial techniques.

Channel of Distribution: This can be described as a process through which goods or services get to right consumers. It is not a gain saying that if MSE operating in the state is to survive and remain competitive in the market, there is need to adopt effective strategy channel to network their product to the end users while working assiduously to retain potential customers.

3. Research Methodology

3.1. Data Sources

The data used for the study purpose were obtained from primary sources, and it explicates that only primary data were used. The data were collected straight from the owner and/or managers of Micro and Small-scale Enterprises found in eight purposively selected Woredas and /town administrations.

3.2. Population and Sample

The population of the study under consideration represented 11, 875 micro and small scale enterprises found in East Gojjam Zone in the year 2014/15. Since the accessible population was too large, some woredas with large number of enterprises were selected purposively as indicated in table 3.1 below. There are 20 woredas (i.e. 16 woredas and 4 town administrations) in East Gojjam Zone, and from this a total of 8 localities (4 woredas and 4 town administrations) were purposively taken for the study purpose based on the number of enterprises they embraced. According to the East Gojjam Zone Micro and Small Scale Enterprises Promotion Office, there are 6576 micro and small scale enterprises in the selected woredas in the year 2014. Thus, 362 micro and small scale enterprises, from the selected woredas, were considered for the study purpose, so that a total of 362 owner-managers of the chosen enterprises (one from each) were considered as sample respondents. Simple random sampling technique was used (proportionally in each Woreda) to determine the respondents to be considered for the study purpose.

Table 3.1: Sample size distribution

S.No	Selected Woredas/town admins.	MEs	SEs	Total	Sample
1	DMAAdministration	2052	90	2142	118
2	Mota	840	202	1042	57
3	Bichena	647	62	709	39
4	Dejen	392	9	401	22
5	Enebse	450	138	588	32
6	Baso	603	112	715	39
7	Aneded	491	46	537	30
8	Goncha	319	123	442	24
Total		5794	782	6576	362

3.3. Data Collection Tools

As it was specified in earlier sub-topics, the study relied primarily on the survey method. A survey instrument i.e. questionnaire was developed to capture the information relating to the research objectives. The first part of the questionnaire addresses the demographic characteristics of sample owner/-managers followed by items addressing the business characteristics and enterprise's gross profit summoned up by them for the year 2014/15 in the second part. Whereas, sub-scales and items designed to represent major factors affecting MSEs' profitability were put on a display in the third part in tabular form (using Likert scale) to let sample respondents indicate their level of agreement toward the degree in which/extent to which the itemized factors affected their enterprise's business performance (profitability) using the scales provided in each case. This part was designed using five-point Likert scale arrangement containing multiple items for each variable. Items (indicators) considered for each sub-scale were taken from various studies conducted on similar issue based on their frequency of use by authors. Five-point Likert scale anchored by "to a very great extent through to no extent at all" was applied to measure each perceived factor comprised multiple items, trapped into one variable. All these factors related to both internal and external environment that affect the profitability of MSEs are comprised of 56 items, trapped into eleven variables. Gross profit of the year 2014/15 was used as it was found to be the preferred profitability metrics for this study, as it's a bit easier to get information about, to compute too. A panel of experts comprised of four subject matter scholars at DebreMarkos University has established the content validity of the instruments. Moreover, a pilot test has been conducted on thirty five (35) respondents conveniently. Comments obtained from the pilot test were also considered accordingly. Construct validity for constructs that did not have existing measures, items were conceptually driven from theory. Effort has been put to interpret empirical evidence in terms of how it clarifies the construct validity of the each particular measure. An alpha coefficient reliability test has been conducted for each sub-scale, and rearranged until it yields an acceptable result. A reliability coefficient (Cronbach's alpha) of 0.60 or higher is considered "acceptable" in most social science research situations [27]. The internal consistency result for each item mentioned under the aforementioned subscales (latent variables) is presented as follows.

Table 3.2: Reliability test results

S. No	Variable	Number of items	Cronbach's alpha (%)
1	Political Factors	3	76.4
2	Legal and Administrative Factors	4	81.0
3	Economic Factors	5	71.1
4	Socio-cultural Factors	4	70.2
5	Marketing Factors	8	80.9
6	Technological Factors	2	62.4
7	Infrastructure	6	88.2
8	Financial Factors	5	83.9
9	Management Competency	5	85.6
10	Entrepreneurial Commitment	6	72.4
11	Resource	6	85.2
	Reliability of the entire scale	56	93.0

So, based on the alpha coefficient test results indicated in the above table, one can conclude that items incorporated in each variable and entire scale in general have good internal consistency, and the research instrument used in this study was reliable according to Zikmund, et al. [27].

3.4. Variables

The constructs considered in this study made a cause and effect relationship. The impacting external environmental factors which include: economic, political, legal, socio-cultural, technological, marketing environments and infrastructure; and internal environmental factors including owner-manager' management competency, resource, and their entrepreneurial commitment were designed to make up the independent variables. Among the Micro and small scale enterprises performance measures which include sales volume, profitability, and numbers of employees hired [28], only profitability was considered as the performance proxy (the dependent variable) in this study. Profitability was chosen to measure performance of MSEs in this study mainly because of the following two reasons. First, MSEs are more focusing on profitability than other modes of performance measures [29]. Second, profitability had been considered by most researchers as a recommended and probably the best proxy measure of firm's performance [30-31]. So, putting the below mentioned conceptual framework, the researchers have tested the impacts that the environmental factors will put on the performance variable, i.e. Profitability.

3.5. Methods of Data Analysis

The collected data were manually examined, checked up and corrected until all measurement errors were avoided. They were encoded, processed and analyzed with the help of SPSS/PC+ 20.0, and presented using charts, tables and graphs.

To meet the objectives of the study both descriptive statistics and inferential statistics were employed. Descriptive statistical tools like frequency and percentages have been used to analyze the demographic details of the respondents and describe the general characteristics of enterprises. Moreover, mean and standard deviation were used to analyze and interpret sample respondents' subjective response indicating their level of agreement toward the degree in which/extent to which the itemized factors affected their enterprise's business performance.

Multiple Regression analysis was employed since it takes the inter-correlations among all variables involved and the correlations among the predictor scores into account. In multiple regression analysis, more than one predictor is jointly regressed against the criterion variable. This method was used to determine if the independent variables (environmental factors) would explain the variance in dependent variable (firms' annual gross profit).

Regression Function

The equation of regression on this study was generally built on two sets of variables, namely dependent variable:

enterprises' performance (annual gross profit of the year 2014/15) and independent variables (political, legal, economic, socio-cultural, marketing, technological, infrastructure, management competency, entrepreneurial commitment and resources). The basic objective of using regression equation on this study is to make the study more effective at describing and predicting the stated variables.

The general performance function is explained below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + u_i$$

Where:

- Y = the dependent variable i.e. profit (used as proxy for performance).
- β_0 = the intercept term- constant which would be equal to the mean if all slope coefficients are 0.
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9, \beta_{10}$ and β_{11} = the vectors of coefficients associated with each independent variable which measures the change in the mean value of Y, per unit change in their respective independent variables.
- X_1 =political, X_2 =legal, X_3 =economic, X_4 =socio-cultural, X_5 =marketing, X_6 = technological, X_7 =infrastructure, X_8 = financial environments, X_9 = management competency, X_{10} =entrepreneurial commitment and X_{11} = resource are the explanatory variables.
- U_i = Error Term (stochastic random term)

Composite scores were computed for all independent variables stated above since the items developed under each sub-scale were all categorical. So, all independent variables are designed to be composite continuous variables.

4. Results and Discussions

From the total of 362 questionnaires distributed, 340 (93.9%) were completed and returned during the data collection. All of the filled up questionnaires were found usable for the study. Since this is adequate enough to make the analysis, all the discussions were made with $n=340$ as the effective number of respondents.

4.1. Demographic Background of Respondents

Most of the respondents who own/ manage/ or mainly run micro and small enterprises i.e. 205 (60.5%) were males, and the remaining 134(39.5%) of them were females. Considering the age category of the respondents the survey result showed that most 228 (68.7%) of the respondents who own/ manage/ or mainly run micro and small enterprises fall within 18-29 years age category, 91 (27.4%) of them lie within 30-45 years age bracket, 11 (3.3%) fall under the age of between 46 and 65 years, whereas, only 2 (0.6%) of the respondents are having the age of above 65. This signifies that most of the enterprises' are owned/managed or mainly run by young, dynamic and potentially productive people as they fall in the working age group. The respondents were further requested to indicate their highest level of education. Results indicated that majority (42.9%) of the respondents were primary and secondary school leavers (12 complete and below), while 29.2% of the respondents were certificate and diploma holders. Those with a University level education made up 12.85%, where as 13.1% of the respondents were with only reading and writing skills. The least were those

who were found to be illiterate indexed by the remaining 2.1%. This implies that most of the MSEs found in East Gojjam Zone are run by individuals who had a maximum of primary level education. This also presupposes that they were generally able to contribute meaningfully to the profit maximization of the enterprises.

Pertaining to the years of technical and managerial experience owners/managers had which is composed of both prior experience and experience in the enterprise, survey results established that most (58.8%) of the respondents who own/ manage/ or mainly run micro and small enterprises had a management and technical experience of years between 1-5, while 23.7% of them had an experience of less than one year, 10.7% of them have been working for about 6-10 years in the enterprise, and the remaining 6.8% of the respondents had above 10 years of management experience in the enterprise. This result implies that most of the enterprises found in East Gojjam Zone are run by people with moderate/reasonable management experience. This is strongly linked to the age of the enterprises people run and prior experience in other organizations.

4.2. Characteristics of the Enterprises

The study has gathered pertinent information regarding the type of sampled enterprises among the major categories/divisions/ set by the country's Micro, small and medium enterprises Organization and Promotion Agency which include trade, service, construction, manufacturing and urban agriculture. The survey outputs exhibited that more than half i.e. 196(58%) of the Micro and small-scale enterprises considered for the study purpose are engaged in trade activities, 59(17.5%) of the enterprises are operating under the service category, 46(13.6%) of them are involved in manufacturing business activity, whereas small number of enterprises constituted around 21(6.2%) and 16(4.7%) are engaged in construction and urban-agriculture business divisions respectively. This finding indicates that most of the MSEs found in East Gojjam Zone are engaged in trade activities, while small numbers of enterprises involve themselves in construction and urban-agriculture business divisions/activities.

Considering the number of years the businesses had been in existence/in operation, the survey result established that most i.e. 61.9% of the businesses had been in existence for about 1-5 years followed by those in operation for less than one year at 21.1% and then those with above 10 years of existence at 8.8%. Only 8.2% of the enterprises had been operating for 6-10 years. This leads to the fact that the businesses have been around for an intermediate period of time, experiencing different environmental conditions practically, to understand the issues sought by the researchers.

Exploring types of enterprise ownership the survey result revealed that more than three quarter i.e. 270 (81.3%) of enterprises considered for the study purpose were solely owned. Whereas, 31(9.3%) of them were group-owned, 30(9%) of them were cooperatives, and one enterprise indexed by 0.3% was identified with other form i.e. rental. This implies that most of the Micro and Small-scale

enterprises found in East Gojjam zone are established and run with sole-ownership form of business enterprise.

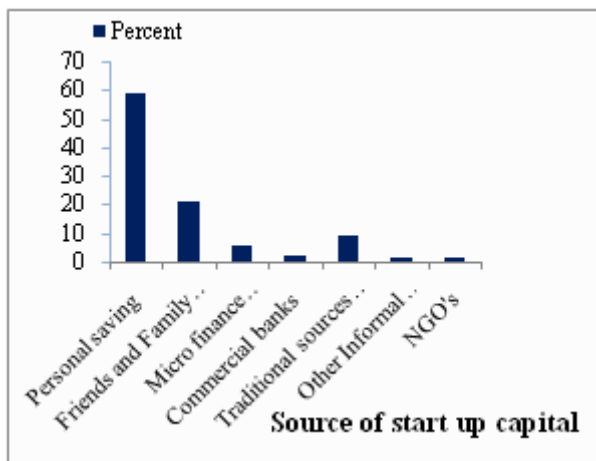


Chart 4.1: Source of businesses' initial capital

The study further requested the respondents to indicate where they obtained their initial capital from. The survey results established that majority (59.7%) of the businesses obtained their initial capital from personal savings followed by 21.2% of the respondents who obtained their initial capital from family members and friends. 9% of the respondents obtained the start-up capital from traditional sources (Equib), and only 5.7% and 2.1% of the respondents got their initial capital from Micro Finance Institutions and Commercial Banks respectively. Moreover, small number of respondents constituting 1.2% has obtained their capital from other informal sources (Arata) and NGOs. This implies that MSEs found in East Gojjam Zone largely and primarily obtain their initial capital from sources that attract little or no interest rates. The reason behind the conclusion that most firms are dependent on their own capital to start their business appeared to be justified by the finding of a study conducted in DebreMarkos Town on similar sub-matters by Birhane[32] which established that most of these enterprises lacked access to finance from other because of the point that many of the financial institutions (creditors) including banks were not willing to lend MSEs since most of MSEs are having no collateral. Moreover, the finding of this study confirm to the findings of the longitudinal study on MSEs by Zeleke[24] which established that the majority of small and medium-sized enterprises in Ethiopia are denied access to credit from formal financial institutions such as commercial banks.

The study also sought to know the amount of start-up capital for each enterprise. Accordingly, the results of the survey showed that around three quarter (75%) of the respondents have started their business with less than 50,000 ETB followed by 18.1% of the survey respondents who have started their business with the amount ranging from 50,000-100,000 ETB. Only 6.9% of the respondents have commenced their enterprises with a financial amount ranging 100,000 through 1,500,000 ETB. This indicates that most of the enterprises have started operation being Micro Enterprises.

Finally, the study further tried to find out the size of the businesses by virtue of the number of employees each had.

90.3% (valid percent) of respondents have reported that their businesses had less than 5 (five) employees. Whereas, the remaining 9.7% (valid percent) the sample respondents conveyed that their businesses had more than 5 (five) employees. Of the MSEs having more than five employees around 52% are cooperatives and group owned enterprises. This indicates that most of the businesses in East Gojjam Zone met the requirements of Micro Enterprises according to the new definition provided by the Ethiopian government, and the enterprises are generally at the infant stage when it comes to employment generation.

4.3. Comparison of the Severity of Environmental Factors Affecting the Performance of MSEs

Even though, all the factors affect the performance of MSEs found in East Gojjam Zone, this does not necessarily mean that all have equal impact. The following table clearly compares the overall impact of all the key factors based on the descriptive statistics result.

Table 4.1: Comparison of environmental factors affecting MSEs' Performance

Variables	Grand Mean	Std. Deviation	Severity Rank
Infrastructure	3.546	1.02497	1 st
Technological Environment	3.354	1.09375	2 nd
Resource	3.341	0.94539	3 rd
Financial Environment	3.312	1.01457	4 th
Legal Environment	3.215	1.13017	5 th
Marketing Environment	3.141	0.83103	6 th
Economic Environment	3.137	0.85031	7 th
Managerial Competency	2.842	1.00711	8 th
Entrepreneurship commitment	2.678	0.99358	9 th
Social Environment	2.656	0.923	10 th
Political Environment	2.411	1.02607	11 th

The descriptive statistics results presented in the above table revealed that problems associated with infrastructure affected the performance of Micro and Small-scale enterprises found in East Gojjam Zone to a great extent followed by environmental factors linked to technology, resource and finance evidenced by high mean values. Whereas, political environment scaled with minimum mean value did not importantly affect the enterprises' profitability.

4.4. Regression Analysis Results

Using an ordinary least square (OLS) method of estimation researchers tried to see the effects of certain factors on performance of micro and small scale enterprises considering profitability of firms as a proxy for measuring performances. The researchers also tried to see effects of some determinants (i.e. gender and type of the firm) through constructing binary choice variables in order to see certain variations though their effect on performance is found to be insignificant. The basic model is constructed from certain theoretical and empirical works which tried to show some of the possible factors that could determine the performance of micro and small scale enterprises. Based on those information researchers tried to construct the following functional form which shows the relationship between performances with major factors.

Thus, the original model is:-

$$\begin{aligned} \text{annual profit} = & \beta_0 + \beta_1 \text{political factors} \\ & + \beta_2 \text{legal factors} \\ & + \beta_3 \text{economic factors} \\ & + \beta_4 \text{sociocultural factors} \\ & + \beta_5 \text{marketing} + \beta_6 \text{technology} \\ & + \beta_7 \text{infrastructure} + \beta_8 \text{finance} \\ & + \beta_9 \text{management competencies} \\ & + \beta_{10} \text{resources} \\ & + \beta_{11} \text{entrepreneurial commitment} \\ & + e_i \end{aligned}$$

Those factors considered here are both exogenous and endogenous variables based on their determination and relation with the dependent variable. Management competencies, resources and entrepreneurial commitments are considered in the model in order to capture internal effects while the rest of the variables are considered as external factors. Transforming the model in to *ln* transformation the researchers came up with the following transformed model.

$$\begin{aligned} \ln(\text{annual profit}) = & \beta_0 + \beta_1 \text{political factors} \\ & + \beta_2 \text{legal factors} \\ & + \beta_3 \text{economic factors} \\ & + \beta_4 \text{sociocultural factors} \\ & + \beta_5 \text{marketing} + \beta_6 \text{technology} \\ & + \beta_7 \text{infrastructure} + \beta_8 \text{finance} \\ & + \beta_9 \text{management competencies} \\ & + \beta_{10} \text{resources} \\ & + \beta_{11} \text{entrepreneurial commitment} \\ & + e_i \end{aligned}$$

The independent variables are composed of scales and two binary choice (dummy) variables thus, the researchers kept them with initials. Finally the estimated results from the model are presented as follows.

Table 4.2: Regression results showing coefficient of determination between the variables stated in the model

In profit	Coefficient	t-value
Sex	0.24	1.78
Experience	-0.02	0.08
political factors	0.07	1.1
legal factors	-0.006	-0.09
economic factors	-0.13	-1.37
sociocultural factors	-0.02	-0.25
marketing factors	0.003	0.04
technological factors	-0.15	-2.13**
infrastructural factors	0.27	3.37*
financial factors	0.18	2.23**
management competency	0.06	0.83
entrepreneurial commitment	-0.15	-2.14**
Resources	-0.08	-0.98
Constant	9.03	21.77

N.B. * and ** shows significant variables at 1% and 5% respectively

Overall significance of the model $\text{prob} > F = 0.0015$, while $R^2 = 0.1017$

From the results one can deduce that most of the factors stated are found to be insignificant though some of them have expected signs. Infrastructural factors are significant

and have positive effects on the performance of micro and small scale enterprises which is consistent with other related works. Agwu[33], Kamunge[34] shows there is a diverse effect on performances of micro and small enterprises in relation with poor infrastructures. In this particular study the problems raised under infrastructural related problems were like existences of power cuts, paved roads, water shortage, telecom and other related factors.

Most of the infrastructures stated here were used as inputs or augmented inputs which are essential for the production process. Thereafter, they could have further effects on determining profitability of the firm and also its performance. Thus, improving such infrastructural problems is essential and it will have significant impacts on maintaining performances of small and micro enterprises. Moreover, it will pave a way for such firms to become medium and large scale enterprises which will have a significant role on the macro economy besides helping with unemployment and poverty problems.

Financial factors are also found to be significant and having a positive impact on performances of MSEs which is consistent with related works[1], [33], [34] and [35]. Finance is the most important variable in any production function as it determines the way factors of production were combined. Further, it determines the survival of the firm in long-term which in turn determined by current performances of firms. Availability of finance is more or less related with issues regarding credit institutions; their availability and certain finance related variables like interest rate and collaterals. Availability of Alternative sources of finance is also considered in order to see different options. The result shows us there is significant problem of finance which will have negative impact on firm's performance.

The other significant variables from the estimated results are technological factors and entrepreneurial commitment. The signs from the coefficients tell us there is an adverse effect on the performance of MSEs considering technology and entrepreneurial commitments. This may be due to the production function that many of the MSEs exhibit, the type of business they engaged and the number of years they have been in operation. This can be proved by having a good look at the results of the survey which established that most (83%) of the enterprises found in East Gojjam Zone have been in operation for less than five years. This result indicates that an overwhelming number of enterprises are virtually at their introduction stages financing a substantial amount of money for technological tools and equipment which in turn leads to a sizeable increment in their cost and a reduction in their revenue. Eventually, such increments in the cost of technology might have led the enterprises' annual profit to go down. Several literatures support such kinds of situations. Brynjolfsson and Young [36] described such types of problem as productivity paradox, and they proposed four explanations for its occurrence which include mis-measurement of inputs and outputs, lags due to learning and adjustment, mismanagement of technology and redistribution and dissipation of profits.

Related justifications would also work for the negative sign of entrepreneurial commitment. When we see the results of

the survey which established that most (81.3%) of the enterprises found in East Gojjam Zone are having a nature of sole proprietorship, we can come to notice that entrepreneurial competencies might not have mattered a lot. This may be due to the inapplicability of the theoretical factors or perceived elements developed to measure the owner/managers entrepreneurial quality in the enterprises with sole ownership. Most of the MSEs would have hired reasonable number of employees which they didn't (as observed from the descriptive analysis) if their owner/managers had an entrepreneurial quality.

5. Discussion, implications, and limitations

5.1. Conclusion

It has already been observed from the aforementioned discussions that Micro and Small Scale Enterprises play a crucial role in the development of entrepreneurial capabilities and indigenous technology which generate employment. Particularly MSEs' contribution towards both employment creations and income generations for the large sections of unskilled and semi-skilled labor force in developing countries has stimulated significant interest among policy makers and practitioners alike. Therefore, promotion of such enterprises in developing economies like Ethiopia is of paramount importance as it brings about a great distribution of benefits. The study focused on examining the impact of environmental factors affecting the enterprises' performance. The following conclusions were generally drawn based on the survey results discussed in the previous section.

Most of the Micro and Small-scale Enterprises found in East Gojjam Zone were run by individuals who had a maximum of primary level education. This presupposes that they were generally would have been able to contribute profoundly to the profit maximization of the enterprises if their level of literacy was raised to the college/TVET or higher academics level. The reason adduced to these findings is that literacy level tends to influence the general performance notably in small-scale enterprises. Goedhuys and Hardi[37] stated that entrepreneurs or managers with higher formal education, work experience and training would be expected to perform well and grow faster than those with low level of formal education and training.

Most of the enterprise owners obtain their initial capital from sources that attract little or no interest rates which include personal savings, family members and friends, traditional sources (such as Equib). This finding agrees with the finding of a study conducted in DebreMarkos Town on similar sub-matters by Birhane[32] which established that most of MSEs relied on own finance to start enterprises, and lacked access to finance from other because of the point that many of the financial institutions (creditors) including banks were not willing to lend MSEs since most of MSEs are having no collateral.

The descriptive statistics results showed that inadequate power supply, inadequate water supply, unavailability of dry waste and sewerage system, unavailability of business development service, unavailability of suitable market place,

collateral requirements to get loan, shortage of working capital and unavailability of own working premise were reported to be serious problems resulting in low performance of micro and small sized enterprises. The regression analysis results also showed that there is a clear significant relationship between some of the factors (i.e. infrastructural, financial, technological and entrepreneurial factors) and performances of MSEs. Furthermore, based on the sign of the slope coefficients we found infrastructure and finance had positive impacts while the rest has negative roles.

5.2. Limitations and Implications for Future Studies

The contribution of this research, i.e. its scientific and practical implications, is certainly derived from the fact that the research, with its dynamic approach, has covered a broad and diverse range of internal and external factors and their influence on the performance, more precisely on the profitability of MSEs. There are several directions for future research indicated in the present study. One important direction, based on the findings of this research, would be to further analyze the standing point of this study by involving such additional sets of factors as business characteristics and owner/managers demographic characteristics. Moreover, future researchers would take a step to study this similar issue with a consideration of other dependent variables i.e. business performance in different ramifications in terms of growth, survival, quality and quantity, product, number of employees and so on. Future research should also seek to investigate into the factors using panel data or longitudinal data which would help to reveal a trend in constraints to entrepreneurial success that this study was not able to uncover.

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