

## Research Article

# Factors Affecting the Growth of Micro and Small Enterprises: The Case of Daro Lebu and Hawi Gudina Districts of West Hararghe Zone, Oromia, Ethiopia

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## Abstract

The purpose of this study was to identify factors affecting the growth of micro and small enterprises operating in Daro Lebu and Hawi Gudina districts of west hararghe zone, oromia region, Ethiopia. The study adopted both Quantitative and Qualitative research designed with arrangement of primary data collection via a cross-sectional survey. Survey Data collected through structured questionnaires from a sample of 197 MSEs selected using stratified sample techniques. The result of regression analysis revealed that access to credit, government support, Education, gender and enterprises' age were positively significant effects on MSEs' growth. But, Initial capital and infrastructure were negatively associated with capital growth rate of MSEs. However, Recordkeeping, access to technology, access to market and labor found to be insignificant variable in determining enterprises' growth. More evidence desired on factors affecting the growth of micro and small enterprises before any generalization of the results can be prepared. In addition, the empirical tests conducted only on 197 sampled enterprises employee in Daro Lebu and Hawi Gudina Districts since 2024. Therefore, the results cannot be taken as uniform to generalize for MSEs in the country. The study might help the entrepreneurs, donated to the body of knowledge on the factors affecting the growth of micro and small enterprises to take some corrective action for both planners and policy implementation in government organizations toward developing their performance and in turn contribute to employment creation, poverty alleviation, and economic development. This paper adds to the literature on factors affecting the growth of micro and small enterprises. In particular, it tests the influence of access to credit, government support, Education, gender, enterprises' age, Initial capital and access to infrastructure on growth of enterprises. The result forward key policy implications to take a corrective action that alleviates the existing challenges of the sector and calls for further MSEs bearing evaluation research.

## Keywords

Enterprise Factors, Growth, Hawi Gudina, Micro Enterprise, Small Enterprise

## 1. Introduction

Generating economic growth in developing countries while decreasing poverty and unemployment is the ultimate problem. One of the main significances of rapid urbanization

development has been the expanding supply of job seekers in both modern (formal) and informal sectors of the economy. In many developing countries, the supply of workers far ex-

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ceeds the demand. These result in an extremely high rate of unemployment and under employment in areas [44].

The micro and small enterprise development strategy of the country has started implementation recently in Ethiopia to reduce unemployment, poverty and bring economic development [32]. This sector plays essential role for socio-economic development and functions as vehicles for employment opportunities and ways of improving wealth creation by provision the economic growth. They also significant employment contributors and can function successfully in many areas of Ethiopia [24, 45]. Similarly, it emerged as an opportunity for productive employment and it progressively recognized as the prime means for achieving sustainable as well as equitable industrial diversification, growth and distribution. Although it generates wealth, represents a huge number of trades, and is considered vital to country competitiveness [5].

Ethiopian Government prioritizes MSE. The rationale for prioritizing this sector is that in any accomplishments of poverty alleviation, MSE play a critical role as the poor with limited skill and start-up capital can take part in wide ranges of slight business activities. By linking the limited capital and proficiency of the poor, now they can take part in large projects unfeasible before. Even the individual MSE who did not have access to start-up capital and workplace have now the opportunity to participate in income generating economic activities [46]. However, Unemployment is a big concern in Ethiopia and problematic recently. Joblessness in Ethiopia still stands excessive. The uncontrolled migration from rural to and huge demand for job opportunity is a pressing problem in the Ethiopian center [1].

The public servants' structure from top to bottom is over-saturated in employing unemployment. Hence, there is no vacant space to generate employment opportunities for the gigantic youth vision graduate from TVETs and different higher institutions. Due to this, unemployment has accumulated over four years. However, Hawi Gudina and Daro Lebu, in relation to the other districts of Oromia national regional state, were overcrowded by unemployment and sometimes affected by drought. This and other factors affect the districts to have many poor, unemployed, less income or poor people. In recent years, the problem of unemployment has been irritating in the towns of two districts because of the above factors, and there were limited job opportunities from the private and the government sector. Yet, the MSE organization was not as functional as what can be expected from them and policy support was not planned based on the environmental situation. They continue to work as a usual. As the programs vision existing MSEs should graduate after a certain time and create job opportunities for the others as it plays a lion share to employment creation. Due to many environmental constraints, the graduating process criteria planned failed [21, 28].

In addition to the MSE growth role, micro and small businesses face a slew of challenges that hinder their growth and

development. Although common environmental factors were affect the growth of MSEs in Ethiopia [39]. An investigation conducted in Lideta sub city argued that a multidimensional analysis, where a number of external and internal factors are taken into account that brought a clear understanding of growth of MSE [1]. In line to this, MSE faces several factors that impede Growth [41, 40, 20, 24, 32, 35, 5, 38]. However, the factors that affect the growth of MSEs could vary from one area to another due to the economic, geographical and cultural differences [2]. In line to this, the extent of the problems varies from country to country and business to business; and it depends on firms' characteristics [7]. In addition to this, the Ministry of Development & Housing of Ethiopia states that factors or challenges MSE encounters differ throughout the growth stages [36]. Therefore, against this background, the purpose of this study was to identify the factors that affecting the growth of MSEs in Daro Lebu and Hawi Gudina districts in the West Hararghe Zone, Oromia Regional State of Ethiopia. The novelty of this paper was that it incorporated demographics, internal and external factors to fill the gap in the slight MSEs' growth factors listed in literature. Most importantly, the paper tried to answer the question of what factors influence growth of micro and small enterprises in Daro Lebu and Hawi Gudina districts using multiple linear regression analysis. The remainder of this paper was organized as follows: Section 2 deliberates about review of related literature. Section 3 is about research methodology followed by Section 4 that presents empirical results and discussion. Finally, Section 5 provides the conclusion and thereafter forwards the recommendation.

## 2. Review of Related Literature

In the existing literature of micro and small enterprises, many empirical studies have been conducted on factors affecting enterprises' growth, covering various scopes using different sample firms and methods globally. However, findings of many studies with regard to the variables influencing growth of firms produced numerous factors with different impact on growth. To ascertain the utmost generally used variables as enterprises' growth factors; a concentrated and careful systematic review of literature was carried out on relatively recent empirical studies. Hence, the 24 authors conduct various variables were reviewed so far.

### 2.1. Education Level

Entrepreneur education and experience positively affects MSE growth [40]. The education level of the firm owner is a top factor influencing MSEs growth [9]. In line to this, higher levels of education result in improved turnover growth [4]. Other study reported that education was the significant factors that affect growth of MSEs [23, 27]. Education being the basic human endowment could improve the organizers' access to new information and their ability to process such evi-

dence resulting in efficient production and delivery of goods and services [25]. However, Education has insignificant effects in determining enterprises' growth [35].

## 2.2. Gender Gap

Gender has no significant on growth of enterprises [35, 38]. Although, insignificant effect of gender on enterprises' growth; there were a progress of man-owned enterprises than woman-owned for the fact that women have dual responsibility than men. Therefore, the evidence did not confirm female entrepreneurs face more difficulties than male entrepreneurs do in upgrading their enterprises [35]. However, Gender of the operator was highly significant and, enterprises led by men grow by 7% more than those led by women do [5]. Female participants have lower capital change compared to male [20]. Women were less likely to seek counseling and expert advice in launching and developing their business. In line with this, female businesses seem to have a higher rate of failure than male businesses [8, 16, 46]. Generally, Gender gap was existed throughout the MSE sectors [32].

## 2.3. Initial Capital

Firm size or start-up capital and age can explain the growth of MSEs. In addition, high-growth firms rely more on external sources of capital to support their growth in sales as compared to low-growth firms [34]. The initial investment was a significant contribution in explaining enterprises growth. Firms with higher initial investment grow faster than their counterparts which started their firms with relatively smaller initial investment [35].

## 2.4. Access to Recordkeeping

Recordkeeping factor has a statistically significant positive contribution on business performance of MSEs [43]. Weak formal recording of economic transactions were the one that challenge the enterprises, no or weak formal and well-organized relation among themselves and with other organizations [38]. However, formal recording practice has no significant effects on determining enterprises' growth [35]. Poor book keeping systems were having been hampering MSEs' growth [14]. Similarly, small business owners that fail to keep proper books of accounts for their company to have poor record-keeping skills; the inability to manage books of accounts was determined to be due to a shortage of skilled accountants [26, 39].

## 2.5. Labor

As an indicator of human capital, the number of skilled production workers has a positive effect on the growth of MSEs, which is consistent with the finding of Solomon, T. et al. [41] who stated that human capital does significantly af-

fect enterprise growth.

## 2.6. Access to Credit

Access to formal credit positively affects MSE growth [40]. Other argument stated as, access to finance has no statistically significant and direct contribution to business performance [43]. Other Study revealed that access to finance was a significant contribution in explaining enterprises growth [35]. Information gap about finance fear of business failures, short loan duration, failure to disburse loans timely and the tendency of group collateral requirements have been hampering MSEs from access to finance [14]. In line with this, lack of access to finance is the main factor affecting the growth of the MSE [32]. However, mature firms have more experienced and superior financial position their business to perform than their less mature counterparts. Yet accesses to credit from formal financial sources and growth of the MSEs have been a negative relationship [27].

## 2.7. Access to Market

Limited market facilities are one of the factors that affecting the growth of the MSE [32]. Moreover, enterprises which located in high business concentration areas grow faster than those located in low business concentration areas [41]. MSEs desire to establish in the center of town for attracting large customers even though rent in the center is high [47]. The second argument showed that MSEs that operate out of town have better performance. This is because MSEs have easy access for input and potential for business expansion [30]. But absence of market linkage was the critical problems of enterprises [18, 19].

## 2.8. Access to Technology

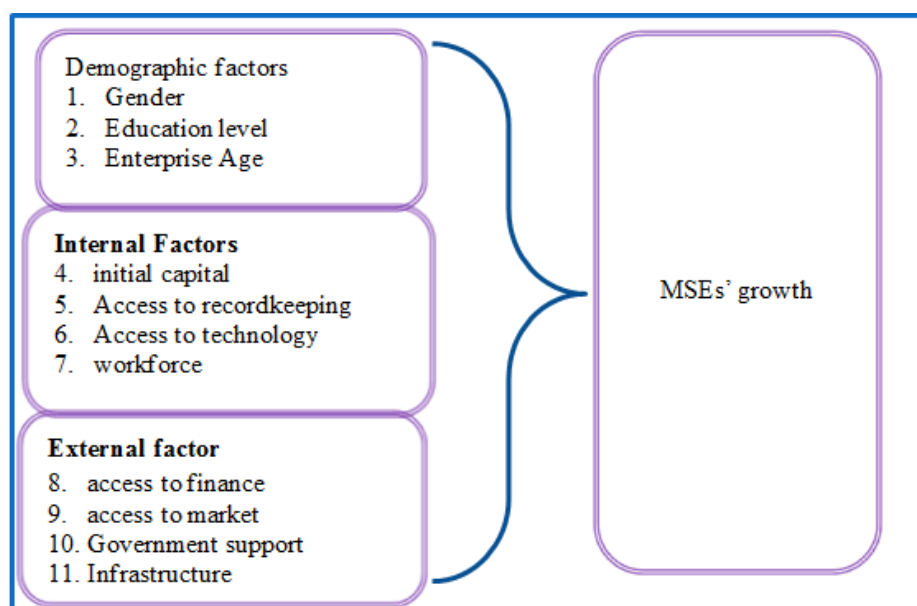
The use of technology is a top factor influencing MSEs growth [9].

## 2.9. Access to Infrastructure

The other investigation revealed that access to infrastructure has significant effect on the growth of the MSE [27]. Poor infrastructure [3, 31], would cause more than 25% work time loss daily due to power interruption [15].

## 2.10. Government Support

Government in enterprises' growth plays a crucial role [11]. On other side, lacks of government supports are the major constraints for SMEs' barriers to growth [12]. Finally, the following conceptual framework (Figure 1) developed based on the above detail review to show the relationship between enterprises' growth and its factors.



*Figure 1. Conceptual framework.*

### 3. Research Methodology

#### 3.1. Description of the Study Area

This investigation conducted in Daro Lebu and Hawi Gudina districts that selected out of 15 districts of West Hararghe Zone, Oromia, Ethiopia. During 1999, E. C Hawi Gudina was separated from Daro Lebu and established with its own administration. Still, communities share their culture, knowledge, skills and inter-trade with each other. The details of the background of each district presented in the following;

Hawi Gudina is one of the districts found under the West Hararghe Zone. The capital town of the district is Remeti, which found about 510 km southeast of Addis Ababa. The district is situated between Latitude 8°05'46.7844"N and Longitude 40°28'54.1272"E. The topography of the district is mainly flat lowland with altitudes ranging from 976 to 2077 meters above sea level. The annual rainfall of the district is 500 to 900 mm/year whereas minimum and maximum temperatures range 14-35°C respectively. The rain is occasional; the onset is unpredictable and the distribution and severity are very irregular. Agro-ecologically grouped into 2% Highland, 3% Midlands, 95% Lowlands. According to the inventory data conducted by the office of Job creation and skills in

2024, it has 142 MSEs, with 290 male, 161 female, and a total of 451 employees [28].

Daro Lebu is also one of the districts found under the West Hararghe Zone. The capital town of the district is Mechara, which found about 434 km South East of Addis Ababa. The district is situated between Latitude 8°36'08.2332"N and Longitude 40°19'55.6968"E. The district characterized mostly by flat with an altitude ranging from 1350 up to 2450 m.a.s.l. ambient temperature of the district ranges from 14 °C to 26 °C, and an average annual rainfall of 963 mm/year. The pattern of rainfall is bimodal and its distribution is mostly uneven. Agro-ecologically grouped into 44% mid-land and 56% lowlands. The district has a total of 134 enterprises with 209 employees who have been functioning recently [21].

#### 3.2. Research Design

Research design is a mapping strategy. It is essentially a statement of the object of the inquiry and the strategies for collecting the evidence, analyzing the evidence and reporting the findings. Therefore, this study was employed both Quantitative and Qualitative research designed to identify factors affecting the growth of MSE. Quantitative data were collected from MSEs' employee and supported by qualitative data gathered, and narrated from the interviews and secondary sources to validate the accuracy of finding.



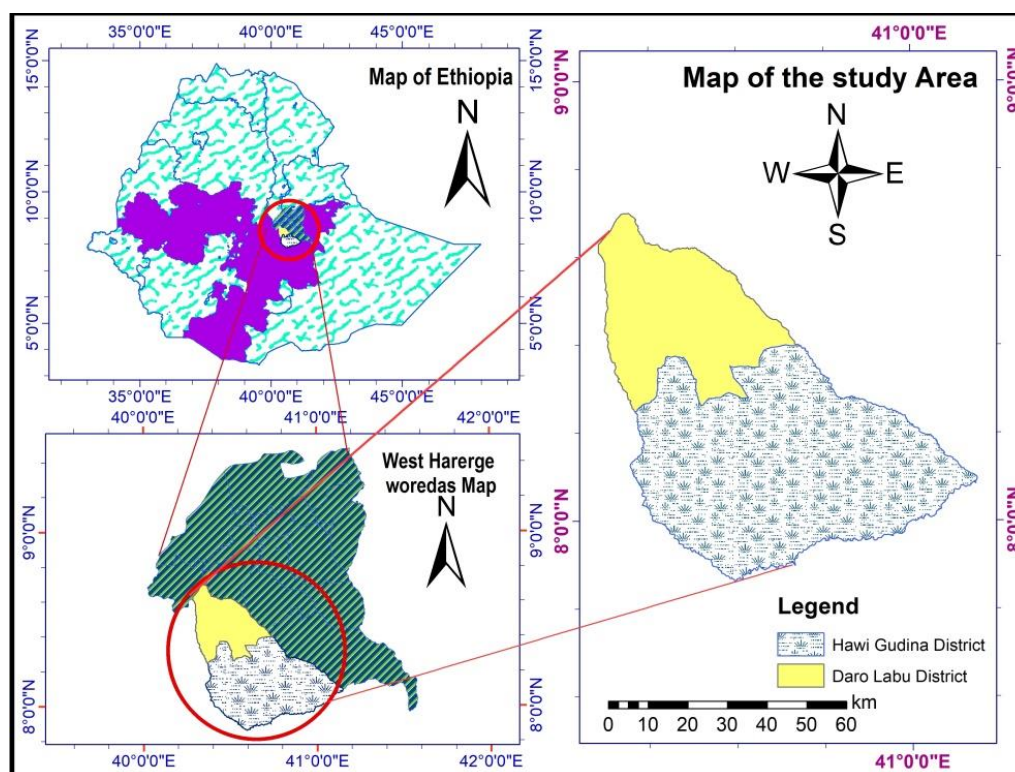


Figure 2. Map of the study area.

### 3.3. Sampling Techniques and Size

In this study, representative sample of micro and small enterprises were selected using multistage sampling techniques because it helps us to be adequately covered such geographically dispersed populations, while concurrently saving time and cost. 1<sup>st</sup> stage, Daro Lebu and Hawi Gudina districts were purposely selected out of 15 West Hararghe Zone Districts because of the beneficiary prior knowledge, due to areas in locating the problem. 2<sup>nd</sup> stage, stratified random sampling technique was used. In this stage, MSEs that functional in 2024 were included in the study, and then organize seven districts' towns into strata based on enterprises sectors. 3<sup>rd</sup> stage, two sample towns were selected by using simple random sampling techniques. In the selected sample towns, data obtained were 404 micro and small enterprises. Finally, sample size was determined based on 404 of target population by using Propor-

tionate stratified sampling techniques from the respective list of MSEs' five sectors which randomly selected. To determine the number of representative sample respondents for this study or determination of sample size through the approach based on precision rate and confidence level, a C.R.Kothari formula was adapted [17]. A Kothari formula written as follows:  $n = \frac{z^2 \cdot pq \cdot N}{e^2(N-1) + z^2 \cdot pq}$  Where:  $z$  = the value of the standard variate at 95% confidence Interval and to be worked out from table showing area under Normal Curve ( $1 - \alpha$  equals the desired confidence level. The value for  $Z$  was found in statistical tables that contain the area under the normal curve). E.g.,  $Z=1.96$  at 95% confidence level; and  $Z^2 = 3.8416$ ,  $n$  = size of sample,  $N$  = Total number of MSEs exist in the sample towns,  $e$  = given precision rate or acceptable Margin error at 5% (standard value of 0.05). According to the above formula, the sample size for all sectors is:

Table 1. Proportionate sample size for each MSE sectors

No.	District	Town	Strata	Number of Population	respondents in proportion
1	Hawi Gudina	Remeti	Manufacturing	21	10
2			Service	33	16
3			Construction	32	16
4			Trade sector	87	42

No.	District	Town	Strata	Number of Population	respondents in proportion
5			Agricultural	22	11
1			Manufacturing	38	19
2			Service	47	23
3	Daro Lebu	Mechara	Construction	21	10
4			Trade sector	72	35
5			Agricultural	31	15
Total				404	197

Source: HGJCrSk and DLJCrSk office, and Own Computation 2024

### 3.4. Types and Data Sources

A primary data sources collected from sampled micro and small enterprises and KIIs. Secondary data used were both published and unpublished sources. However, data from Hawi Gudina and Daro Lebu Job Creation and Skills offices, FeMSED and document types related to the research topic used to obtain background information on the issues under the study.

### 3.5. Methods of Data Collection

In this study, structured questionnaires and KII were used. The questionnaires were ready after making necessary corrections and pre-testing before actual use in order to obtain more cleared information translate into local language (Afan Oromo) and be distributed to and filled by the sampled enterprises. For Key Informant interview, managers of the business in the two districts were selected.

### 3.6. Methods of Data Analysis

To analyze the data obtained from different sources, Descriptive and Econometric analysis were employed based on the specific nature of the data. Therefore, the collected data was checked, classified, arranged and organized according to its characteristics and specific objectives of the study and prepared for analysis. In order to analyze and interpret the raw data, the quantitative data was tabulated and processed using Statistical Package for Social Sciences (SPSS V-20) and StataMP-12. The analysis of quantitative data was made using descriptive statistics like frequency, percentage, mean, standard deviations and T-test. Furthermore, analysis and description of them were made subsequent to the data clarified in each table and graph. Moreover, the qualitative data was gathered through interview and from secondary sources (official documents). This was plateful the researcher as an additional data for triangulation and justification purposes. After careful gathering of the appropriate data, it was ana-

lyzed by using multiple linear regression Model and employ diagnostic testing.

### 3.7. Model Specification

Based on the assumption of a multiple linear regression model (MLR), when the outcome variable is identified or measured as a continuous scale and two or more predictor variables are either continuous or categorical (an ordinal or nominal variable), a multiple regression model was employed. MLRs are a statistical method that uses several exogenous variables to predict the outcome of a response variable. As a result, the main reasons why we use a multiple Regression over a SLR is dependent variable can be explained by using more than one independent variable [22]. Estimation of the parameters of a model and interpretation of them depends on the correct specification of the model [13]. So, the MLR model was uncontroversial to undertake this study. The general form of multiple linear regression models can be expressed as:  $Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_{10} X_{10} + \varepsilon_i$ ; Where; Y= enterprise Growth,  $\varepsilon_i$ =residuals/models error term,  $\beta_0$  = intercept term (mean value of "Y" when the independent variables takes the value 0).  $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7, \beta_8, \beta_9$  and  $\beta_{10}$  indicates Parameters (regression coefficients of explanatory variables) associated with education level, start-up capital, gender gap, labor, access to recordkeeping, access to market, access to infrastructure and government support respectively.

### 3.8. Definition of the Variables and Its Measurements

In this study, enterprise Growth was taken as the dependent variable which explained by different demographics, internal and external factors. Variables definitions were given as follows. Enterprise Growth: - Measured in terms of capital or total asset. Simply, it was determined as Change in capital between the years of beginning and sampling periods divided by initial capital of the enterprises. It was a continuous variable.

Enterprise(MSE)Growth =  $\frac{Y_{t+1}-Y_t}{Y_t}$ , where;  $Y_{t+1}$ = Capital during survey,  $Y_t$ = Initial Capital or starting-up capital.

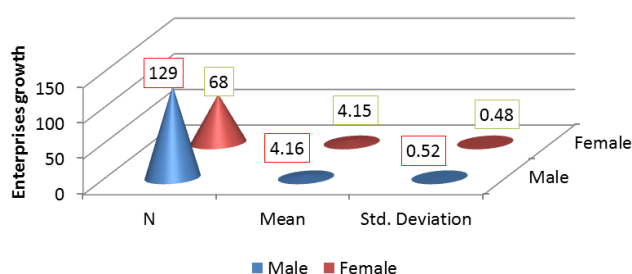
**Table 2.** Variables in the study.

S. N	Variable	Notation	Nature	Measurement
	Enterprise growth	Growth	Continues	Change in capital between the years of beginning and sampling periods divided by age of the enterprise (i.e., capital), EA= Previous work experience of enterprises
	Initial Capital	StarCapital	Categorical	Start-up capital of the enterprise in birr
	Education Level	EduLevel	Categorical	(1 = grade 12 and below, 2 = Level, 3 = Diploma, and 4 = Bachelor Degree and above)
	Access to Market	AccMarket	Dummy	1 if they have access to market linkage and 0 if otherwise
	Access to Technology	AccTechno	Dummy	1 if they access to technological adaptation and 0 if otherwise
	Recordkeeping	RecKeep	Dummy	1 if there is recordkeeping of financial transactions and 0 if otherwise
	Government Support	GovSupport	Dummy	1 if there is Government support and 0 if otherwise
	Access to Finance	AccCredit	Dummy	1 if enterprises have access to credit and 0 if otherwise
	Gender Gap	GenGap	Continues	The percentage difference between total male and female in enterprises employee to run the business
	Infrastructure	InfraAccess	Dummy	1 if access to infrastructure and 0 if not
	Enterprise age	Ent_Age	Continues	Previous work experience of enterprises
	Manpower	Labor	Dummy	1 if MSE has skilled manpower, 0 if otherwise

## 4. Results and Discussions

### 4.1. Descriptive Analysis

#### 4.1.1. Demographic Profile of Respondents



Source: Own design, 2024

**Figure 3.** Gender of Respondent.

The Figure 3 shows that a majority (65.5%) of the sample enterprises' employees were male, while 34.5% were female. This indicates that there were more male workers in sample MSEs than female. The gender composition of workers in the MSEs seems skewed toward male workers. MSEs Mean growth in capital for male was 4.16 which higher than that of female average capital 4.15. This may due to female was overburden in homework.

#### 4.1.2. Education Level of Respondents

There was mean difference between MSEs operators with grade 12 and below it, and those has Diploma certificate at %5 significance level. However, mean difference was negative which indicate mean capital of those have diploma was greater than that of grade 12/below. This reflects as level of education changed or improved, mean growth of capital of MSE increased. Higher level of education generated higher mean growth of capital of MSEs relative to Grade 12 and below it, Level and Diploma.

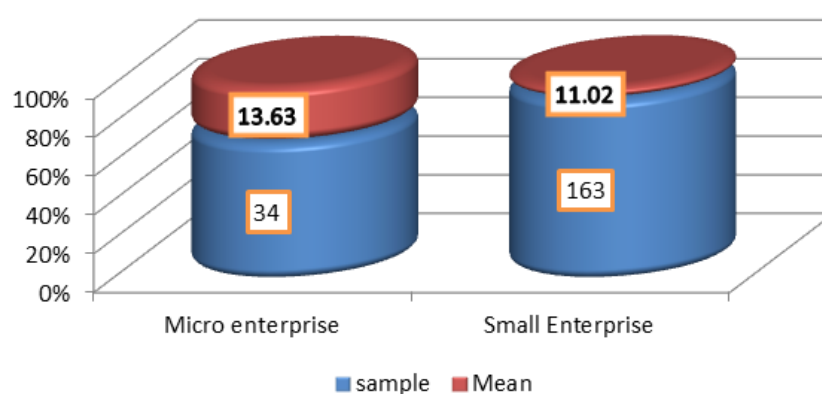
**Table 3.** Educational level of enterprises' operators.

(I) What is your level of education?	(J) What is your level of education?	Mean Difference (I-J)	Std. Error	Sig.
Grade 12 and below it	Level	-.17788	.08791	.266
	Diploma	-.30220*	.10032	.018
	Bachelor degree and above	-.63032*	.12198	.000
Level	Grade 12 and below it	.17788	.08791	.266
	Diploma	-.12432	.08791	.954
	Bachelor degree and above	-.45244*	.11199	.000
Diploma	Grade 12 and below it	.30220*	.10032	.018
	Level	.12432	.08791	.954
	Bachelor degree and above	-.32812*	.12198	.047
Bachelor degree and above	Grade 12 and below it	.63032*	.12198	.000
	Level	.45244*	.11199	.000
	Diploma	.32812*	.12198	.047

Source: Survey result, 2024. The mean difference is significant at the 0.05 level.

In the study area, number of enterprises responded were 34(17.3%) micro and around 163(82.7%) were small enterprises. The mean capital growths of sampled micro enter-

prises were higher than the mean capital growth of small enterprises.

**Figure 4.** Mean growth of sampled Respondents, Source: Own design, 2024.

#### 4.1.3. Enterprises Related Characteristics

According to Figure 5. below, around 39.1% of the sampled respondents were engaged in the Trade sector followed by the Service sector (19.8%), while the remaining

14.6 % ( manufacturing) and 13.2% (Agriculture and Construction) sectors which operated respectively in the study area.



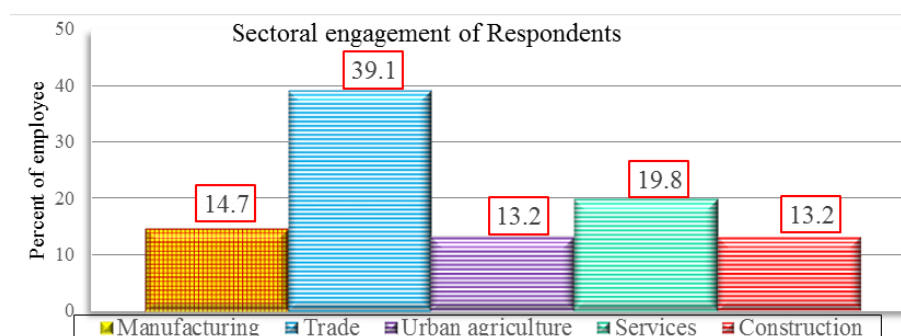
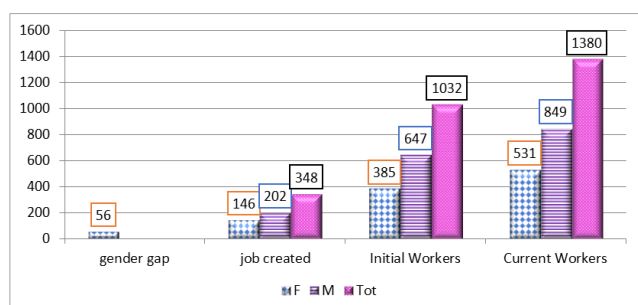


Figure 5. Sectorial engagements of respondents.

In the following Figure 6. Depicted that among the sampled micro and small enterprises, total number of workers operated MSEs were while launching their business has female 385(37.3%) and male 647(62.7%) employees. Nevertheless, currently in sampled MSEs there were female 531(38.5%) and male 849(61.5%) workers. The job opportunities created were 146(42%) for female and 202(58%) for male. Regarding job prospects, employment gap or gender disparities were 72.3%. High percent of disparity shows there were huge gap diversity in gender inclusivity in enterprises. This needs efforts to bridge up disparity to focus on diverse and inclusive workforce in micro and small enterprises in the study area.



Source: Survey result, 2024

Figure 6. Number of Employees and job opportunities created by MSEs.

#### 4.1.4. Rule and Regulation Regarding MSEs

As shown in table 4, in the study area there are unfair rules and regulations that affect MSEs. Among sample respondents, 78.7% of participants express the presence of unfair corporate law and policy that affects their business. The types that affect MSEs in the study area, as respondents stated, there was high tax levied on a business (16.2% of sample), and a high interest rate was imposed (29.4% of sample). Similarly, 13.2% of business said there was bureaucracy in business registration and licensing while cooperating. Most respondents (18.8%) replied that enterprises face high taxes levied, high interest rates imposed, and bureaucracy in busi-

ness registration and licensing simultaneously, 1% of them encounter other types of regulation problems. However, 21.3% of respondents stated MSEs they operate cannot face such kinds of problems. This table revealed that almost high percent of MSEs faced unfair corporate law and policy affects enterprises growth in the study area.

Table 4. Corporate law and policy regarding enterprise.

#### Is there any unfair corporate law and policy that affecting your business?

Response	Respondent	Percent
No	42	21.3
Yes	155	78.7
Total	197	100.0
What types of unfair rules and regulations affect your business?		
High tax levied	32	16.2
high interest rate imposed	58	29.4
Bureaucracy in business registration and licensing	26	13.2
All	37	18.8
Others	2	1.0
Total	155	78.7
Not faced such problems	42	21.3
Total	197	100.0

#### 4.1.5. Descriptive Analysis on Factors Affecting Growth of MSEs

To see the general perception of the respondents regarding the selected factors affecting the growth of MSEs; this study has summarized statistical measures of central tendency and Dispersion, and degree of association of the factors affecting the growth of MSEs in the following details.

The Relationship between Outcome and Predictor Variables

### Comparison of means by t-test

An independent sample t-test commonly used to test statistical differences between the means of two groups. It carryout only when a dependent variable is continuous, an independent variable is categorical (has exactly two categories). The independent samples/groups (i.e independence of observations) tests reveal there is no relationship between the subjects in each sample. As a result, researchers tried to test relationships among the mentioned variables by using a t-test based on:  $H_0$ : the difference between the two populations means equal to 0,  $H_a$ : the difference between the two populations means not 0. The T-test also requires the assumption of homogeneity of variance by Levene's test hypothesizing  $H_0$ : population variances of two groups are equal (equal variances assumed) and  $H_a$ : equal variances not assumed [37]. If the  $p$  value for the Levene's test is greater than .05, the homogeneity of variance assumption has been satisfied,  $t$ -value and degrees of freedom under "equal variances assumed." Based on this, the detailed explanations of corresponding variables were given on table 5.

Regarding initial capital: the results of this independent sample t-test shows the average growth of sample respondents of those starting their business with initial capital greater than or equal to 50,000 was 3.877 with its SD of 0.363. However, the mean growth of those starting capital below 50,000 was 4.204 with its 0.512 standard deviation. The mean growth of enterprises second group was greater than that of first group. This was due to the majority of sample respondents in enterprises (85.3%) were starting their business by capital below 50,000. Only 14.7% of sample participants in their enterprises begin business by having capital above or equal to 50,000. Contextually, the collective mean growths of the majority of sample respondents were greater than that of fewer sample respondents. The mean difference was -0.326 and the negative sign indicate the mean growth of initial capital for the first group was greater than that of the second one. The test concludes that the mean growth between two groups were significantly different at ( $t_{195} = 3.230$ ,  $P = .001$ ). The effect size of Cohen's  $d$  value was 0.74. The general rule of thumb for Cohen's  $d$  was 0–0.20 = weak effect, 0.21–0.50 = modest effect, 0.51–1.00 = moderate effect and >1.00 = strong effect. As a result, Cohen's  $d$  value lies between 0.51–1.00, which suggests there was a moderate effect between the enterprises' growth and the initial capital of launching the business.

Regarding education level, the results of this independent sample t-test shows the mean growth score level of education of enterprise employees that have a degree and above was 4.569 with an SD of 0.698. But the mean growth of those have a qualification certificate below a degree was 4.103 with its 0.450 standard deviation. This result implies that the mean growths of higher educated respondents were greater than that of those have below degree education level. In line with this, an investigation in Kenya stated higher levels of education result in improved turnover growth [4]. The asso-

ciated P-value (.005) was less than the thresholds rejects  $H_0$  and concludes that the mean growths of sample respondents in MSEs of two sets were significantly different. There was a significant difference in mean growth between the two levels of education at ( $t = 3.120$ ,  $P = .005$ ). The effect size Cohen's  $d$  was 2.57 and it reveals there was strong effect between two groups' education levels of employees.

Access to Credit: based on an independent sample t-test, the mean growth of respondents those have credit access was greater than the mean growth of those have no credit access. This shows that enterprises with financial access can have better investment and expansion in their business and employ more workers. At the cutoff point (5%) level a significant P-value for sample groups was 0.001. So, reject the null hypothesis and conclude that the mean growth of sample respondents between two groups were significantly different at ( $t_{195} = 2.606$ ,  $P = .001$ ,  $d = 0.487$ ). The effect of a relationship between outcome and predictor variables, Cohen's  $d$  reveals there was a modest effect between the two groups. It also suggests the enterprises that have credit accessibility were more effective than that not access to credit.

Regarding workforces: the mean growth of enterprises that have access to skilled personnel and those have no access to skilled workers was determined to test the mean difference between the two groups. The mean growth of enterprises that recruit skilled workers was much higher than those that do not employ influential workers to run their business. The MSEs that did increase talented workers in their business become more economically efficient than those that did not. The t-test concluded that there was a significant difference in mean growth between two groups at ( $t_{(195)} = 3.152$ ,  $P = .002$ ). The effect of the relationship Cohen's  $d$  (0.5181) value recommends there was a moderate effect between enterprises those have skilled worker and that have no skilled labour. Enterprises, which have talented employers, were more effective than that have no skilled worker.

Recordkeeping: the mean difference for both groups was 0.303 as depicted on table 5. The P-value (.001) was less than a 5% significance to reject  $H_0$  of mean difference equal to 0. Tests revealed that the mean growth of sample respondents in their enterprises, those with access to recordkeeping and those do not have access were significantly different. Micro and small enterprises that record account/financial transactions have higher mean growth than businesses that do not do that. It implies that enterprise employees those record day-to-day business activities can reduce risk, maintain their capital, and be effective in forecasting to better success and efficiency. There was a significant difference in mean growth between enterprise employees, those doing day-to-day activities and those not doing that at ( $t_{195} = 3.507$ ,  $P = .001$  and  $d = 0.693$ ). The effect size of Cohen's  $d$  reveals the mean difference is moderate compared to variability. Average growth in enterprises those access to recordkeeping was 0.693 SD greater than the average growth in enterprises not have access Recordkeeping.

Access to technology: the below table 5 shows the mean difference for both accessibilities was 0.182. Tests revealed that the mean growth of sample respondents in their enterprises those were access to technological adaptation and those not access to adapt were significantly different. The average growth of enterprises that have access to technology was better than that of no technological adaptation. There was a significant difference in mean growth between enterprise employees that were able to adapt/upgrade their technology and those not doing that at ( $t_{195} = 2.475$ ,  $P = 0.014$ ,  $d = 0.361$ ). The Cohen's  $d$  tells there was a modest effect between the two groups. Average growth in enterprises those access to knowhow was 0.361 of SD greater than the mean growth in enterprises not adapt technology.

Regarding market linkage: the mean difference of two groups was 0.174. The P-value (.029) was less than a 5% significant level and the test revealed that the mean growth of MSEs that have access to market linkage and those do not have access to a link were significantly different. The mean

growth of businesses that have market access was greater than that have no market access. This implies that market access adds value by making goods and services available at convenient times and locations, by creating a better environment in terms of location, allowing multiple distributions, size and making them more responsive to customers' needs. There was a significant difference in the mean growth of enterprises that are access to market linkage and those not linked at ( $t_{195} = 2.203$ ,  $P = 0.029$  and  $d = 0.359$ ). The Cohen's  $d$  suggested that average growth in enterprises those access to market linkage is 0.359 of Standard Deviations greater than the average growth in enterprises those have no market linkage. The results of the independent sample t-test also fail to show significant mean difference in between access to infrastructure and no access to infrastructure as well as no significant mean difference between mean of enterprises that get government support and enterprises that does not get government support.

**Table 5.** Comparing means of two groups of predictor on outcome variable.

Group Variables	Mean	Std. Deviation	Mean Difference	t-value	P-value
>=Degree Credential	4.569	0.698	0.466	3.120	.005**
< Degree Credential	4.103	0.450			
Initial Capital 50,000 <sup>+</sup>	3.877	0.363	-0.326	-3.230	.001*
Initial capital below 50,000	4.204	0.512			
Credit access	4.202	0.509	0.235	2.606	.001*
No credit access	3.968	0.455			
access to Skilled worker	4.230	0.527	0.243	3.152	.002**
No access to skilled worker	3.987	0.410			
Access to recordkeeping	4.220	0.522	0.303	3.507	.001*
No access to recordkeeping	3.917	0.352			
access technology	4.226	0.491	0.182	2.475	.014**
No access technology	4.045	0.513			
access market linkage	4.207	0.523	0.174	2.203	.029**
No access market linkage	4.034	0.444			
access infrastructure	4.183	0.503	0.058	0.799	.425
No access infrastructure	4.125	0.511			
access to GovSupport	4.166	0.512	0.092	0.797	.426
No access to GovSupport	4.074	0.473			

Source: Own survey result, 2024, \* and \*\* are a significance level at 1% and 5%, SD: Standard Deviation

## 4.2. Inferential Analysis

### 4.2.1. Model Specification and Diagnostic Test

Diagnostic tests for CLRM assumptions carried out first before proceeding to interpret the regression output for explain the persuading factors of enterprise growth. It also checks whether the regression model used in the analysis correctly specified. If the model not correctly specified, the problem of model specification error encountered [22]. Thus, model specifications with regard to omission of variables were formally tested using Ramsey's RESET test, which is a general test for misspecification of functional forms. Accordingly, the Ramsey RESET test performed on a model specification with a null hypothesis that the model had no omitted variables (see Appendix-1). Therefore, the model does not have omitted-variables bias; the p-value 0.2035 was higher than the threshold (5%). As a result, accepting the  $H_0$  and conclude that no need to add more variables and the model was correctly specified.

*Test for Heteroskedasticity:* an important assumption by using Breusch-Pagan/Cook-Weisberg testing Heteroskedasticity was used with  $H_0$  that variance in the residuals has to be constant or Homoscedastic. So, based on diagnostic test; accept the null hypothesis and concluded that residuals were homoskedastic (Prob > chi2 = 0.7268) at 5% significance

level (see Appendix-2).

*Test for Multi-collinearity:* According to the rule of thumb for multicollinearity, test of the model states a variable whose values are greater than 10 or whose 1/VIF value is less than 0.1 indicates possible problem of multi-collinearity. However, the value of coefficient of contingency lies between 0 and 1 never attains 1. Values near to 1 indicate a high degree of association. Accordingly, the general thumb rule for correlations of .01 to .30 are reflected minor, correlations of .30 to .70 are considered moderate, Correlations of .70 to .90 are considered large, and correlations of .90 to 1.00 are considered very large [33]. Thus, based on results of table (Appendix-1) Contingent coefficients between all categorical/dummy variables (Gender, Start-up capital, Education level, labour, Access to credit, market, infrastructure and government support) were below 0.70. Therefore, the VIF, 1/VIF and contingent coefficients test revealed that there was no multicollinearity problem in the model used in this study.

### 4.2.2. Result of Multiple Regression Analysis

The following table 6 model summary revealed that 0.813 variation in enterprises capital growth rate was due to changes in factors affect MSEs growth. The remaining 0.187 of variation in enterprises capital growth rate is due to other factors that not included in the study.

**Table 6.** Model Summary.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	.902 <sup>a</sup>	.813	.802	.07691

a. Predictors: (Constant), GovSupport, infrastructure, Gender, Labour, market, Credit, Technology, Record, education, Ent\_age, StarCapita

b. Dependent Variable: Growth

Source: Own Survey, 2024

ANOVA table was used to identify model adequacy by testing null hypothesis of no linear relationships between Enterprises capital growth rate and explanatory variables that included in the model. As shown in the below table 7, model is adequate and significant at 5% with P-Value .000 to reject  $H_0$  of no linear relationships.

**Table 7.** ANOVA Table.

ANOVA<sup>a</sup>

Model	Sum of Squares	Df	Mean Square	F	Sig.
Regression	4.772	11	.434	73.343	.000 <sup>b</sup>
Residual	1.094	185	.006		
Total	5.867	196			

a. Dependent Variable: Growth

Model	Sum of Squares	Df	Mean Square	F	Sig.
b. Predictors: (Constant), GovSupport, infrastructure, Gender, Labour, market, Credit, Technology, Record, education, Ent_age, StarCapital					

Source: Own Survey, 2024

**Table 8.** *Econometric Result.*

Model	Unstandardized Coefficients		Standardized Coefficients		T	Sig.
	B	Std. Error	Beta			
(Constant)	.021	.011			1.966	.051
Gender	.023	.009	.094		2.483	.014**
Ent_age	.217	.021	.854		10.377	.000*
Education	.021	.005	.242		3.997	.000*
StarCapita	-.052	.007	-.679		-7.764	.000*
Credit	.025	.011	.116		2.190	.030**
Labour	-.014	.010	-.057		-1.373	.171
Record	-.018	.011	-.087		-1.649	.101
Technology	.023	.013	.091		1.802	.073
Market	-.007	.012	-.027		-.558	.578
Infrastructure	-.024	.010	-.087		-2.471	.014**
GovSupport	.097	.014	.457		7.083	.000*

a. Dependent Variable: Growth, \* and \*\* were significant at 1% and 5% critical point

The results of Multiple regressions  $\hat{Y} = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_9 X_9$  :  $\hat{Y}_{new} = .021 + .023X_1 + .217X_2 + .021X_3 - .052X_4 + .025X_5 - .014X_6 - .018X_7 + .023X_8 - .007X_9 - .024X_{10} + .097X_{11}$ . Where;  $\hat{Y}$  = predicted enterprise Growth,  $X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9$  and  $X_{10}$  indicates explanatory variables associated with education level, start-up capital, gender, access to credit, labor, access to recordkeeping, access to technology, access to market, access to infrastructure and government support respectively.

Based on Table 8, the estimations of the multiple regression output relying on dependent variable (growth) against its explanatory variables with sample of 197 enterprise employees interpreted accordingly. Based on this, the educational levels of MSEs employee are significantly affecting the growth of enterprises in a positive way. Improving/changing level of education leads to an increase in the growth of MSEs by .021, keeping other factors in the model as constant. In this research finding, the educational levels of sampled enterprise employees are statistically significant at 1% with P-value .000. It shows that increasing an educational qualification have been expected to rise up enterprises growth. Because, increasing level of educations generates a high level of knowledge and

technique; convince enterprises to create new knowledge practices that boost the growth. This evidence was in line with the finding that reported as education has positively significant effects on enterprises growth [4, 5, 9, 23, 40, 42]. In addition, extra education of owners of the business positively affects growth of small business. But inconsistent with the finding which founded education levels to influence enterprises growth negatively [24] and insignificant effects of education on enterprises growth [6, 35].

The evidence of this study revealed that there was a significant effect of the gender on enterprise growth at a 5% level. Therefore, the need for additional workers could be crucial for the enterprises hiring influential labors in the right position. This regression output showed that hiring or adding one extra male or female worker leads to .023 changes in the capital growth rate of MSEs by keeping other factors constant. This evidence was in line with the study stated as a gender of the operator was highly significant and female businesses seem to have a lower capital change than male [5, 8, 16, 20, 32, 46]. However, this finding contradicted with the evidences which articulated no more significant effects of gender on enterprises' growth [35, 38].



In this finding, enterprise age has a positive influence on the growth of MSEs. Empirical result revealed that there was a positively significant relationship between enterprise age and growth at a 99% confidence level. It reflected out that the growths of MSEs are due to the accumulated experience in withstanding business challenges. This empirical result was in line to the finding which stated, older MSEs grow faster than new enterprises because overtime there is increasing rate of return to experience [4, 10, 34]. But contradict with the result of Jovanovich Learning Theory which articulated growth and age were negatively relationships. Changes in growth were due to chance, size and age of firms have no effect on growth of small enterprises [33].

Adequate start-up capitals can smooth and brighten the success of enterprises and reduce the risk they encountered. This study revealed that enterprises that started their business operations with smaller initial capital grow faster than their counterparts that started their business operations with relatively higher capital. An initial capital of enterprises were significantly and negatively influencing enterprises' growth and as a unit increase in initial capital, *Ceteris paribus*, leads to a .052 decline in the capital growth rate of enterprises included in the model. Therefore, this empirical evidence was in line with the finding that reported as Start-up size and growth of the MSEs were negatively correlated [41]. But contradict with the research that reported as the positive impact of initial capital on growth shows fast growth of enterprises with higher initial capital than those with lower capital [34, 35, 38].

As the regression result indicated, access to credit has positive and significant influence on enterprises growth at 5% significance level ( $p\text{-value}=0.03$ ). This empirical evidence showed that as access to credit increased by one unit, the capital growth rate of MSEs included in the model would be rise by .025, *Ceteris paribus*. It implied enterprises that have credit access could grow faster than credit-constrained. From this result, it can be stated that enterprises those have access to formal credit are more grow than those who have no access to formal credit. In the study area, majority of the enterprises encounter various problems in securing debt finance. According to evidence of interviews, Poor lending procedure and lack of collateral found as principal reasons for not acquiring finance. This may be because the formal financial institutions are in fear of micro and small-scale enterprises for several reasons including lack of record of accomplishment of financial transactions, irregular record keeping, and high cost involved in aiding disorganized enterprises. Evidence of this study was consistent with the finding of empirical study in different year [14, 32, 35, 40]. Nevertheless, inconsistent with the evidence that reported access to credit has a negative relationship with enterprises' growth and no more effects on MSEs [43].

Regarding access to infrastructure, MSEs operating with available infrastructural facilities have a higher probability of long lasting existence and growth as compared to those

working with inadequate infrastructures. An infrastructural factor has a positive and significant relationship with enterprise growth at 5% significant level, that P-value is .014. Data collected through key informant interviews shows that there were low levels of accessibility and inadequate road maintenance, electrical interruption, and lack of adequate water facilities in the study area. Electric facilities that distributed in this town were using as a museum. If it serves town for one week, then it interrupted and does not go back until a month later. Similarly, due to severe shortage of water, enterprises face high costs in the purchasing of water that was supply by private individuals during the dry season. There was inadequate supply of water services by government organizations. The empirical evidence of this finding was in line with empirical evidences that said infrastructure has significant effects on enterprises growth and leads to more work time loss daily due to power interruption [27, 3, 15, 31].

Generally, internal factors that affect growth of MSEs from variables included in the model, Start-up Capital was significantly and negatively associated with growth of MSEs. External factors like access to credit, and government support were positively significant influence the growth of enterprises. However, infrastructure was negatively significant effects on enterprises growth. Demographic factors like Education, gender and enterprises' age were positively significant effect on MSEs growth. Yet, the regression output of the empirical evidence in this study failed to show significant effects of Recordkeeping, access to technology, access to market and labour on the capital growth rate of enterprises (See Table 8). This investigation highlighted that the growth of MSEs in the study area was highly influenced by the specified enterprise constraints.

#### 4.2.3. Normality Test

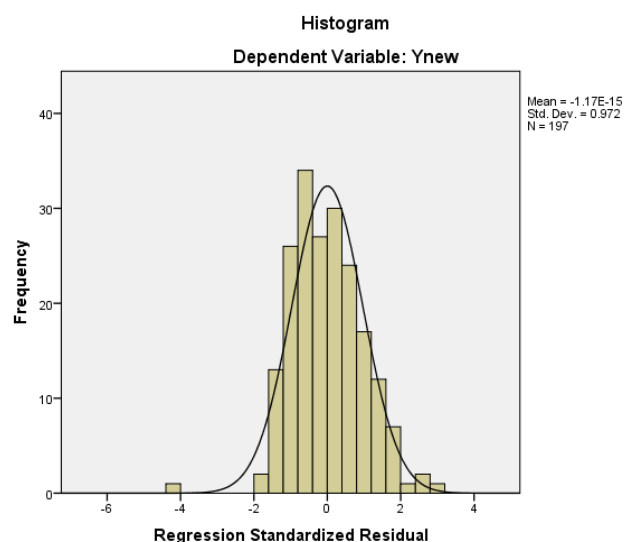
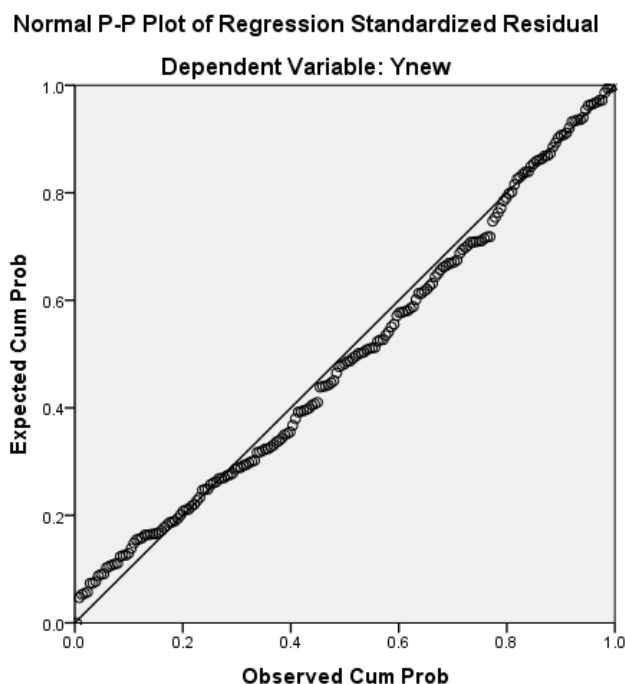


Figure 7. Normality test; Source: Own Survey, 2024.

The standardized normal distribution is a purely theoretical probability distribution, but it is useful distribution in inferential statistics. The normal dispersion is relatively simple distribution involving only two parameters i.e. mean and standard deviation. Accordingly, if we are dealing with a small sample size, say data of less than 100 observations, the normality assumption adopt a critical role. However, the sample size is practically large; we may be able to relax the normality assumption [22]. Moreover, strengthens of Gujarati that "we know that normality plays no role in the unbiasedness of OLS or does it affect the conclusion that OLS is the best linear unbiased estimator under the Gauss-Markov assumptions [29]. But exact inference based on  $t$  and  $F$  statistics requires. Based on the above assumptions this study finds out the mean of 1.17 and standard deviation 0.972 with a picked distribution as showed in Figure 7.

#### 4.2.4. Linearity Test

The scatter plot of residuals in the following figure indicates that the points lied in a reasonably straight line from bottom left to top right. Therefore, it shows linearity. An underlining assumption of regression analysis is that the relationship between the variables is linear which means the points in the straight-line plot must form a pattern that can approximated with a straight line. Therefore, Normality P-P plot for standardized residual shows that Standardized normal probability plot for non-normality in the middle range of residuals slightly off the line but it looks normally distributed.



Source: Own Survey, 2024.

Figure 8. Linearity test.

## 5. Conclusion and Recommendations

### 5.1. Conclusions

This study was going to examine the internal and external factors that affect the growth of MSEs, and to pinpoint possible mechanism that embolden enterprises growth in the study area. Enterprises bolstered when organized at the center of market, supported by low regulatory burden, and good economic condition. Lessening regulatory burden for MSE can encourage further improvement and growth of enterprises. Increasing level of educations generates a high level of knowledge and technique; convince enterprises to create new knowledge practices that boost the growth. Gender inclusivity in occupational operators at the right position can boost the business success rate. Enterprises that had credit access can grow faster than those can credit-constrained. Providing proper infrastructure aids micro and small enterprises to thrive on the progressions and lessens the costs they encounter.

### 5.2. Policy Recommendations

Based on the major finding of the study, the following policy implications forwarded with the view to improve the contributions of MSEs in the study area in particular. Government organizations: should provide machinery leasing and rent spaces for MSEs to reduce initial capital problems. Develop sources of finance for MSEs by organizing and supporting the growth of micro and small enterprises. Distribute and expand infrastructural accessibility, specifically water and electric power. Have to Promoting a decent work across all sectors of MSEs.

Enterprises (MSEs): have to Revisit their business plan, formalize workflows and operating systems. Although, focused on diverse and inclusive workforce, embrace skill to keep up with customer demands. Create realistic, accurate forecasts to help drive their goals and stay on track. The job creation and skill office stakeholders should give attention to the MSEs; especially work hard in the areas of accurate access of support to micro and small enterprise regarding business sectors with its stages. However, this study was restricted only to two districts and not generalizes it to all west harghe wordas. Therefore; future investigators that emphasize on the enterprises' factors were better to deliberate different areas; for enhanced comparison purposes and useful implications; they should pay attention on cross-region/country to be conducted.

## Abbreviations

CLRM	Classical Linear Regression Model
DLJCrSkO	Daro Lebu Job Creation and Skills Office
FeMSED	Federal Micro and Small Enterprises Development
HGJCrSkO	Daro Lebu Job Creation and Skills Office
KII	Key Informant Interview

MSE            Micro and Small Enterprises

## Author Contributions

Kemer Omer is the sole author. The author read and approved the final manuscript.

## Conflicts of Interest

The author declares no conflicts of interest.

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