

## Access to finance and its challenge for Micro and Small Scale Enterprise: A case study of Dawuro Zone, Tarcha, Ethiopia

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**Abstract:** *The Main purpose of this study is to examine access to finance and its challenge for Micro and Small Scale Enterprises in the case of Dawuro Zone, Tarcha, Ethiopia. Primary and secondary data were used to conduct the study, and to obtain primary data; the researcher used 257 Micro and Small Enterprises owners and 3 Micro Finance institutions. The sampling technique used for the study was a proportionate stratified sampling technique, and the type of the study was sequential explanatory. The regression result indicated that the location of operators, the size of Micro and Small Enterprises, the operator's sector, and the operator's financial literacy level have been found to be statistically significant and positively affecting the probability of access to finance for Micro and Small Enterprises while operators age and collateral requirement have negatively and statistically significant with the probability of access to finance for Micro and Small Enterprise. Therefore the study recommended that financial institutions should come up with more flexible, affordable, and attractive requirements in financing micro and small enterprises, and the researcher also advised the owners of Micro and Small Enterprises should have to put clear financial information which will counter problems of information that make Micro and Small Enterprises risky for credit giving institutions.*

**Keywords:** *Access to finance, challenge, Micro and Small Enterprises, Micro Finance Institutions, logit model*

### Introduction

In the current political and economic environment, jobs are at the center of political debates in both developed and developing economies like Ethiopia, and governments throughout the world are nowadays turning their attention to small-scale enterprises (SSE). This is not by choice but out of necessity in order to add value to the economies by creating jobs, enhancing income, and strengthening purchasing power, among others. They encourage entrepreneurship, generate employment, and reduce poverty (Kayanula and Quartey, 2000). Although the sector's contribution is very important, it is not without problems, and these challenges are lack of access to credit, insufficient loan size, time delay, and collateral (Gebrehiwot and Wolday, 2006). In addition, Beck (2007) and Vandenberg (2009) also stated that acute

financial constraint is a strong obstacle for Micro and Small Enterprises in developing countries like Ethiopia.

There are few studies carried out both within and outside Ethiopia and Africa on the relationship between challenges of access to finance and micro and small-scale enterprise development. Among those conducted outside Ethiopia in this area includes a study carried out by Matavire et al. (2013), Makena et al., 2014, and address by K.C.Chakrabarty<sup>3</sup>, Dy Gov. RBI, 2012) explained the reluctance on the part of formal financial institutions – mainly due to Micro and Small Enterprises incompetency in addressing lenders' demands – in funding the financial needs of micro and small enterprises, especially due to their inability to show their worthiness as a reliable and performing borrower. Looking at the Ethiopian scenario, the researcher found studies having similar

challenges with few exceptions. Studies by Admasu (2012), Brehanu and Mesfin (2014), Brhane (2014), and Birhanu (2015) showed that access to financial services is still a big challenge to the micro and small enterprises in Ethiopia due to inaccessibility to bank loans and other credits, most of the small businesses rely on own savings and reinvested profits. Micro and Small Enterprises owners and managers experience a big gap in obtaining financial resources since the savings and profits are inadequate. As a result, most small businesses find it difficult to grow, while others fail.

This study is unique in various aspects. First, the issue of Micro and Small Enterprises' financing challenges has been studied from the perspective of Micro and Small Enterprises (borrower) or financial institutions (lender) perspectives with more importance given to the former. Hence, most of the studies are focused on challenges faced by borrowers without investigating the ability and capacity of Micro and Small Enterprises to borrow from financial institutions. However, Micro and Small Enterprises (MSEs) face challenges in accessing finance; no single factor can explain why MSEs have such poor access to formal finance. What may seem like a supply-side cause may result from a demand-side cause, and vice versa, from the perspectives of the two key players: MSEs. The Financial Institutions in selected zones of SNNPRS, Dawuro zone, and the researcher believe that holistic investigation of the MSE financing challenges and determinants from the perspectives of these two key players, MSEs and the financial institutions are necessary to resolve the critical issue of the MSE financing challenges in the study area of Dawuro zone, SNNPR, Ethiopia. Second, Although many authors have concluded the above-listed challenges of MSEs, they still need to come up with the same clear-cut conclusion. Finally, this study would be restricted to specific factors, namely the number of lending institutions, lending terms and conditions in access to credit finance, and firm entrepreneur-level characteristics in access to finance by MSEs, which previous studies should have incorporated as challenging factors. Based on the above-mentioned gaps, the current study conducted on the access to finance and its challenge for Micro and small-scale enterprises for Micro and Small Scale

Enterprises in Dawuro Zone, with the following specific objectives.

To investigate access to finance and its challenges for micro and small-scale enterprise from the perspective of firm-entrepreneurs level characteristics and to examine access to finance and its challenges for micro and small-scale enterprise from the perspective of financial institutions in the study area. The contribution of this study is that, first, policymakers need to understand whether the policy set on Micro and small-scale enterprises are being followed by the Financial Institutions or whether there is a need to modify the existing policy on financing procedures and requirements so as to ensure the effectiveness of lending procedures and requirements in financial institution's. Second, Banks, Micro Financial Institutions (MFIs), and other lending organizations could also rely on the findings of this study in making lending decisions and developing friendly and attractive terms for the demands of financial services to MSEs. Third, for academicians and researchers, the study is used as reference material for the future.

## Literature review and hypothesis development

### *Micro and Small-Scale Enterprise (MSEs)*

Globally, there is no uniformly accepted definition of Micro and small enterprises (MSEs). However, most definitions comprise the number of employees and/ or capital requirement as a classification factor. For example, Molhotra et al. (2006) define, according to the World Bank, which defines a micro-enterprise as an enterprise with less than 10 employees, a total asset of less than US\$100,000, and a turnover of less than US\$100,000, while a small enterprise is defined as an enterprise with between 11 and 50 employees, total asset of between US\$100,000 and US\$3million and turnover of between US\$100,000 and US\$3million. The UNDP defines MSEs as firms with a maximum of 200 employees, while the African Development Bank uses a threshold of 50 employees.

The Ethiopian Government has used two definitions in identifying micro and small-sized enterprises since 1997. As to MoTI (1997), micro-enterprises have a paid-up

capital of not exceeding Ethiopian Birr (ETB) 20,000 and exclude high-tech consultancy firms and other high-tech establishments. While small enterprises are those business enterprises with a paid-up capital of not exceeding ETB 500,000, excluding high-tech consultancy firms and other high-tech establishments. However, according to the new MSEDSE (2011), the previous definition was revised as “Micro-Enterprise” consisting of the number of its employees (including the owner or family) is not greater than 5 and total asset is less than 100,000 ETB for industrial sector and less than 50,000 ETB for service sector; while Small Scale Enterprise is an enterprise which has 6-30 employees and total asset 100,001—1,500,000 ETB for industrial sector and 50,0001—500,000 ETB for service sector. Therefore, It is unsurprising that there is no uniformly accepted definition of MSEs.

#### *MSEs and Access to Finance*

There is no universal definition of access to finance because there are different dimensions of what constitutes access to finance. According to Claessens (2005), access to finance can be defined considering three factors: firstly, the availability of the financial service; secondly, the price or cost of the credit available, both explicit and opportunity costs; and thirdly, the range, type, and quality of finance being offered. Access to finance has been defined as the ‘absence of price and non-price barriers in using financial services’ (World Bank, 2008). Accessibility to finance can also refer to the possibility that individuals or enterprises can access financial services, including credit, deposit, payment, insurance, and other risk management services (GOK, 2013). Hence, it becomes necessary to distinguish usage and access to finance. Ganbold (2008) explains that access refers to the supply of financial services, whereas the use of the services is determined by demand and supply. Improving access to finance means improving the degree to which financial services are available at a fair price (Ganbold, 2008).

Generally, it takes work to measure access to finance. However, it is approximated by a country's financial depth (total loan outstanding/GDP or M2+/GDP) because an approximately greater depth is likely associated

with greater finance access among firms (Ganbold, 2008). However, Claessens and Tzioumis (2006) note that Measures of access to credit finance fall into two broad categories, those based on the providers’ information, such as banks and other service providers, and those based on users’ information – individuals, households or firms (Beck et al., 2009). More specifically, access to finance can be measured by access to certain institutions, such as banks, insurance services, or microfinance institutions, or the services these institutions provide, such as payment services, savings or loans, and credits. Another approach would be to look at details on the uses of specific financial products, such as debit cards, credit cards, life insurance, and home mortgages.

Interest rates as a cost of the loan have a significant effect on a company’s growth plans. They not only affect loan payments, but they also have an impact on enterprise funding (Ogolla, 2013). High-interest rates reduce business earnings, ultimately hindering the business's capacity to grow. High-interest rates also affect a business's cash flow because one has to borrow more money to repay the loans. This, in turn, reduces its disposable income hence affecting its ability to pay its other creditors.

Collateral refers to an asset that a borrower uses to secure a loan from the lender. A lender gets a fallback in case of default, where they can dispose of the asset to recover their money. A study carried out by Matavire et al. (2013); on challenges facing Small Scale Enterprises (SSEs) in accessing finance from financial institutions in Belaway, Zimbabwe, found that SSEs fail to secure loans because of restrictive requirements of the financial institutions, such as collateral security. Empirical studies have proven that collateral increases accessibility to institutional finance (Fatoki & Asah, 2011; Kira & He, 2012), long-term debt finance (Bougheas, Mizen, & Yalcin, 2006), and also credit access in general (Malesky & Taussig, 2009).

***Hypothesis 1: Micro and small-scale enterprises with available collateral are more likely to have access to finance than those without.***

### *Number of financial institutions*

The number of financial institutions offering credit in an economy impacts the overall growth of an economy. As observed by Schoof (2006), an inadequate number of financial institutions offering credit services to MSEs would constrain the development of the industries. When the number of small-scale traders is many whilst the financial institutions with the services customized to them are few (demand exceeds supply), the loan price will be high, therefore not affordable and hence low uptake by MSEs.

**Hypothesis 2:** *The unavailability of formal lending financial institutions has a positive and significant effect on MSE's access to finance from formal lending financial institutions in the study area*

### *Period for loan repayment*

The study, done at Arusha Central Market and Kilombereo Market by Nathaniel (2012), revealed that the payment period is another challenge to small entrepreneurs in loan access from banks. Sometimes, loans received are less than requested, and short periods are given for repayment. Kakuru (2008) found that when MSEs perceive repayment periods as inflexible, they will not apply for loans. Mutesasira et al. (2001) also found that short repayment periods do not meet MSEs' long-term credit needs, and as a result, MSEs take any amount of loan that the banks are willing to offer them.

**Hypothesis 3:** *Financial institutions' loan repayment period and lending interest rate positively and significantly affect Micro and small-scale enterprises' access to formal finance.*

### *Firm's Location*

For some reason, an entrepreneur in an urban area has more advantage of accessing loans than one in a rural area. In rural areas, there might be a need for more financial institutions. We can find that there is one bank branch available in the place, and because of this, it may be paying a high-interest rate which may hinder the small entrepreneur from accessing loans (Pandula, 2011). Likewise, the bank may be reluctant to lend to small entrepreneurs in

rural areas since the assets offered as security might have less market value. In case of default, they may need help to realize these assets. As a result, there may be a high amount of loan rejections or delays in approving loans requested by rural firms, as the applications are processed, approved, or turned down by officials in the head office who have no personal knowledge of customers or projects based in rural locations. Finally, property value and marketability differ substantially between rural and urban locations.

**Hypothesis 4:** *Micro and small-scale enterprises in an urban area are more likely to have access to finance than those in rural areas.*

### *Firm Age*

As firms' sources of finance change over time, firm age can be stated as another important challenge of access to bank finance. Previous studies (North et al., (2010)) have found a positive correlation between firm age and access to bank finance. Being in the business for many years suggests that the firm is competitive in general and more transparent so that the information required by the lenders to evaluate and process applications is readily available. This is supported by Quartey (2003), who concluded the significant positive effect of firm age on the ability to access external finance. Klapper et al. (2010) also found that young firms (less than four years) rely more on internal financing than bank financing. Similarly, Woldie et al. (2012) in Tanzania observed that firms at start-ups and less than five years depended more on informal financing sources. Therefore, the researcher should expect that older firms will use less debt as compared to younger firms.

**Hypothesis 5:** *Micro and small-scale enterprises run by older operators tend to have more access to finance than those run by younger ones.*

### *Business sector*

The industry or sector in which the company operates may also impact the decision of financial institutions while appraising loan proposals. For example, the MSEs in the manufacturing sector require relatively large investments in assets such as land, factory



building, plant and machinery, and vehicles. In contrast, most of the service organizations and retail sector organizations in the MSE sector need fewer investments in fixed assets. Using data from Mozambican manufacturing firms, Byiers et al. (2010) found that the industry sector was an important determinant of having access to credit. Their interpretation was that banks attached a lower risk premium to the food processing sector than other sectors.

**Hypothesis 6:** *Business type affects access to finance such that manufacturing firms have more access to finance than other sectors*

#### *Having audited financial statements*

Audited financial statements are very useful in accessing credit from financial institutions. Previous studies stated that the imperfect information of the borrowers was a great limitation for banks to grant loans. Aga and Reilly (2011) conducted a study using firm-level data from Ethiopia. They found that a firm that maintained accounting records was six percentage points more likely to have access to credit than firms that did not have such accounting records. In other words, audited financial statements improve borrowers' credibility and reduce risk for lenders (Sacerdoti 2005).

**Hypothesis 7:** *Operators of micro and small-scale enterprises with audited financial statements are likelier to have access to finance from formal financial institutions in the study area.*

#### *Financial Literacy level*

There is a certain relationship between financial literacy and access to formal finance. For example, the study by Miller et al. (2009) indicates that financial literacy is often tied to a lack of access to financial products, including credit, or failure to use them even when available. Moreover, Cole, Sampson, and Zia (2009) found that higher financial literacy is significantly associated with greater use of bank services suggesting that financial literacy strongly influences banking behavior.

**Hypothesis 8:** *Appropriate financial literacy levels of Operators of MSEs positively and*

*significantly affect access to formal finance from formal lending financial institutions.*

#### *Firms Size*

The findings relating to firm size suggest that MSEs that employ full-time workers can access finance. For example, Martin and Daniel (2013) suggested that the reason for the effect of the size of the business on the ability to access finance is that larger firms are likely to have collaterals that act as a security in securing finances. Similarly, in a study of credit constraints in four African countries, Bigsten et al. (2003) suggested that firm size is a strong determinant in obtaining credit with the probability of success of 31%, 20%, and 13% for micro, small, and medium-sized firms, respectively, as compared to large firms.

**Hypothesis 9:** *Micro and small-scale enterprises with larger sizes have more access to finance than those with smaller sizes.*

### **Research method**

#### *Population and Sample*

The study is a Sequential Explanatory Design characterized by the collection and analysis of quantitative data followed by a qualitative method built on the results of the quantitative method. Sources of data are both primary and secondary data. Primary data in this study have been obtained from current owners or managers running micro and small enterprises and loan officers working in the study area. While the study obtained and used secondary data from financial institutions and MSE like records, files, report documents, and published data such as various reports, magazines, newspapers, survey research papers, business brochures, and academic journals. The unit of analysis consists of all 790 micro and small business owners operating in the South Nation Nationality and People Region in Ethiopia in the Dawuro zone and 10 loan officers. Therefore the targeted population was 800 units, and stratified random sampling techniques were used to select the sample size of 260 from the total population of 800 by classifying the populations on their characteristics base and determining the optimal sample size for this study, Kothari (2004) was used.

### Model specification

This study employed binary logistic models to analyze the covariates effect of the likelihood of access to finance from formal financial institutions. According to Gujarati (2004), the cumulative logistic probability distribution model for this study is econometrically specified as follows:

$$p_i = F(Z_i) = \frac{1}{1 + e^{-(\alpha + \sum \beta_i X_i)}} \dots \dots \dots (1)$$

Where:  $P_i$  is the probability that an individual has accessed credit given  $X_i$ ;  $X_i$  represents the  $i$ th explanatory variables;  $\alpha$  &  $\beta_i$  are regression parameters to be estimated, and  $e$  is the base of the natural logarithm. For ease of interpretation of the coefficients, a logistic model could be written in terms of the odds and log of odd. The odds ratio is the probability that MSEs would have access to credit ( $P_i$ ) to the probability that MSEs would not have access to credit ( $1 - P_i$ ). That is,

$$\left(\frac{p_i}{1-p_i}\right) = e^{Z_i} \dots \dots \dots (2)$$

and taking the natural logarithm of equation (2) yields:

$$\ln\left(\frac{p_i}{1-p_i}\right) = Z_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \dots \beta_m X_m \dots \dots (3)$$

If the disturbance term  $U_i$  is taken into account, the logit model becomes:

$$Z_i = \alpha + \sum_{j=1}^m \beta_j + X_{ji} + U_i$$

Where  $Z_i$  is the dependent variable with a value of 1 = "access to credit" or  $Z_i = 0$  "no access to credit," a binary model was set up to define  $Z_i = 1$  for situations where MSEs accessed credit and  $Z_i = 0$  for situations where MSEs did not access credit from formal sources.  $X_{ji}$  is a vector of explanatory variables which include MSEs level characteristics such as the age of the firm, locations of the firm, size of the firm sectors of the firms, audited financial statement of the firm, financial literacy levels of the firms, and commercial terms and conditions such as collateral requirement, short durations loan repayment and lending interest rate and inadequate numbers of lending financial institutions.. And finally,  $U_i$  is the discrepancy term, and these factors measure a firm's ability and challenges to access finance from formal lending financial institutions. The finally employed model has the following form:

Access to finance (A2F)

= Firm – entrepreneurs level characteristics  
+ commercial lending terms +  $U_i$

$$A2F = \alpha + \beta_1 OPRL + \beta_2 OPRS + \beta_3 OPAGE + \beta_4 MSESIZE + \beta_5 OPRAFS + \beta_6 OPRFLL + \beta_7 COLL + \beta_8 SDLR\&IR + \beta_9 NFI + U_i$$

**Where:**

A2F= Access to formal credit finance

OPRL= Operators locations

OPRS=Operators sector

OPRAGE=Operators age

MSESIZE=MSE SIZE

OPRAFS=Operators audited financial statement

OPRFLL=Operators financial literacy level

COLL=Collateral requirement

SDLR&IR=Short duration of loan repayment and the interest rate charged

ALFI=Availability of lending financial institutions

$\alpha$  = Constant (intercept)

$\beta_1 - \beta_{10}$  = Coefficients

**Table 1.** Variable Measurement

Variable	Symbol	Nature of the variable	Measurement
Access to finance by MSE	A2F	Categorical	1 if operators access to finance 0 if otherwise
Operators location	OPRL	Dummy	1 if operators located Urban 0 if otherwise
Operators Sector	OPRS	Categorical	1 if manufacturing, 0 otherwise
Operators Age	OPRAGE	Dummy	1 if operator is younger than 40 and 0 otherwise
MSE Size	MSESIZE	Continuous	Numbers of employee
Operators audited financial statement	OPRAFS	Dummy	1 if owners prepare AFS, 0 otherwise
Operators financial literacy level	OPRFLL	Continuous	the numbers of years in doing business

Collateral requirement	COLL	Dummy	1 if the loan is collateralized, 0 otherwise
Short durations of loan repayment and interest charged	SDLR&IR	Dummy	1 if flexible duration with an affordable interest rate 0 if otherwise
Availability of lending financial institutions	ALFI	Categorical	1 if available, 0 if otherwise

## Result and discussion

### Descriptive Analysis

As it was presented in Table 2, the Age brackets of the respondents range from 18-35 youth, 36-

50 adults, and above 50 are old 204 (79%), 53 (21%), and 0 (0 %), respectively, given the total of 257 respondents. This implies that most sample respondents were found under the youth age bracket.

**Table 2.** Age brackets of sample respondents of MSEs under access to finance

Age brackets of sample respondent	Frequency	Percentage	Cumulative
Youth-18-35	204	79	79
Adult-35-50	53	21	21
Old-Above 50	0	0	100
Total	257	100	

From the findings, Table 3, 95 (37%) of the respondents indicated that they are certificate holders, 120 (46%) stated that they had attained TVET college, 35 (14%) of the respondents

indicated that they are diploma holders and the rest 7 (3%) stated that they are degree holders. This indicates that the majority of the respondents had attained TVET College.

**Table 3.** Distribution of Respondents by Academic Qualification

	Descriptions	Frequency	Percentage	Cumulative
Academic qualifications of MSE's owners	Certificate	95	37	37
	TVET	120	46	46
	College Diploma	35	14	14
	Degree and above	7	3	100
	Total	257	100	

The research also discovered that most businesses are located in the rural areas 151(59%), the dominance of Dawuro zone in the survey explains this, and 106 (41%) are located in the urban area. This implies that most

of the sample respondents or the operators of MSEs are not located in a strategic place, and it is highly difficult to access finance from formal lending institutions.

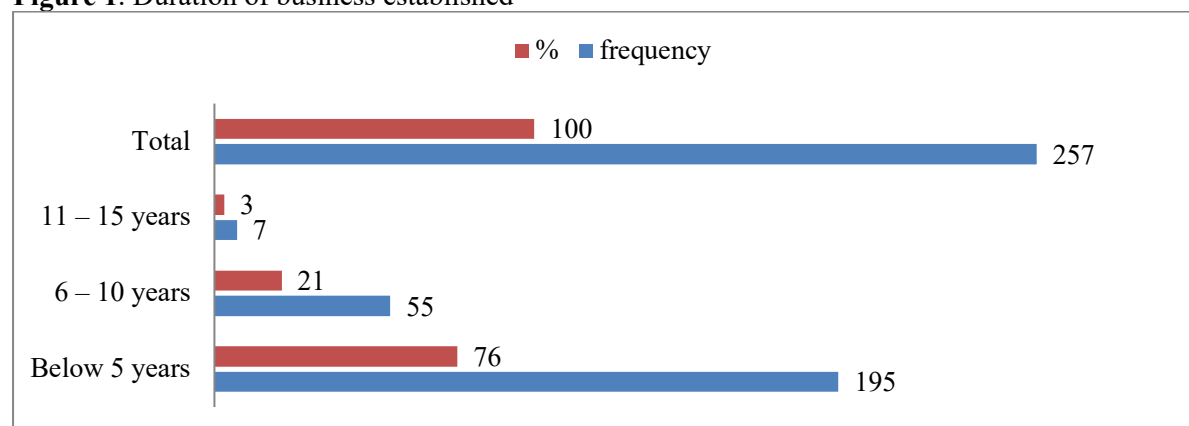
**Table 4.** Locations of sample respondents

	descriptions	frequency	Percentage	cumulative
Where are you located?	Urban Area	106		41
	Rural area	151		59
	Total	257		100
Does your location affect your access to debt finance?	yes	106		41
	no	151		59
	Total	257		100

The respondents were asked to indicate the duration their businesses have been in operation. The findings are presented in Figure 1. According to the findings, 76% stated they

had been operational for below 5 years, 21% stated they had been operational for 6- 10 years, and 3% stated they had been operational for 11- 15 years. This shows that most businesses had been operational for 1-5 years.

**Figure 1.** Duration of business established



The respondents were requested to indicate the number of employees they have. The results were as shown in Table 5. According to the analysis exhibited in Table 5, 67 (26%) of the respondents stated they had employed 1-6 employees, 122 (48%) of the respondents stated

that they had employed with 7-30 employees, 55 (21%) of the respondents stated that they had employed 31-50 employees. In contrast, 13 (5%) stated that they had employed over 50 employees. This implies that most businesses in the Dawuro zone had 7-30 employees.

**Table 5.** Numbers of employees by sample respondents

	Descriptions	Frequency	Percentage	cumulative
Numbers of employee	1-6 employees	67	26	26
	7-30 employees	122	48	48
	31-50 employees	55	21	21
	Over the 50 employees	13	5	100
	Total	257	100	

As presented in Table 6, 43% of the MSEs in the sample used Personal savings for start-up, while 56 (22%), 82(32%), and 8(3%) Operators of MSEs used friends and relatives, MFI or banks and gifts and grant respectively for starting the operations of MSE's. This implies

that the source of start-up capital for the operators of MSEs in the study area of Dawuro is dominated by personal savings followed by MFI or banks, contributions from friends and/or relatives, and gifts and grants.

**Table. 6.** Start-up capitals of the sample respondents under access to finance by Operators of MSEs

	Descriptions	Frequency	Percentage	Cumulative
Source of Initial Capital	Personal saving	111	43	43
	Friend and relatives	56	22	22
	Loan from MFI or bank	82	32	32
	Gift and grant	8	3	100
	Total	257	100	



### Correlation Analysis

The term correlation is used with statistical functions to refer to the movement of two or more variables on a consequence provided by a function in the study. The correlation occurs when two elements have harmony in variation, and this harmony is dependent, i.e., the stabilization of one depends on the position of the other. The main components of a

correlation show the variable's associations in strength and direction. There are two types of correlation; these are Positive and negative correlation. The positive correlation indicates the increment or decrement of variables together. In contrast, the negative correlation shows that the increment of one variable leads to the decrement of the other and vice versa. The Pearson correlation coefficients( $r$ ) can range values from  $-1$  to  $+1$

**Table 9.** Pearson Correlation Matrix among the Variables under Study

Variables	A2F	OPR	OPR	AGE	SIZE	OPRAFS	OPRFL	COL	ALFI	SDLR & IR
A2F	1.000									
OPR	-.263	1.000								
OPR	-.331	.016	1.000							
AGE	-.075	-.019	-.107	1.000						
SIZE	-.105	-.015	.084	-.250	1.000					
OPRAFS	-.265	.055	-.007	-.037	.087	1.000				
OPRFL	-.260	.082	.095	.015	.028	.068	1.000			
COL	-.007	-.084	-.005	.045	-.059	-.073	-.085	1.000		
ALFI	-.702	.049	.012	.018	-.022	.031	-.282	.017	1.000	
SDLR&IR	-.228	-.008	.122	-.292	-.061	.021	.066	-.059	-.041	1.000

### Regression Analysis

The other common test in regression analysis is the problem of heteroscedasticity. However, in binary logistic regression, heteroscedasticity is not a problem due to the binary nature of the dependent variable, as maximum likelihood estimation is used instead of ordinary least square estimation. Binary logistic regression does not make some assumptions of multiple linear regression and general linear mode; that are based on ordinary least square algorithms,

particularly regarding linearity, normality, and homoscedasticity (Tabachnick & Fidell, 2007, Pallet, 2005). Stevens (1996) recommended that for social science research, about 15 subjects per independent variable are required for reliable results. Therefore, 9 independent variables were used in this study; the minimum required sample size should be  $135(15 \times 9)$ . Thus the 257 respondents used in this study are well above the minimum required under this formal and satisfy the sample size requirement for this specific regression model.

**Table 10.** Logistic Regression Result.

Variables	B	S.E.	Wald	df	Sig.	Exp(B) or odd ratio	95% C.I. for EXP(B)	
							Lower	Upper
A2F								
OPRL	0.784	.357	4.824	1	0.028***	2.191	1.088	4.411
OPRS	0.982	.401	5.998	1	0.014***	2.669	1.217	5.854
OPRAge	-0.398	.411	.940	1	0.332	.671	.300	1.502
MSESize	0.864	.383	5.094	1	0.024***	2.373	1.120	5.026
OPRAFS	0.974	.388	6.299	1	0.012***	2.648	1.238	5.663
OPRFL	1.624	.636	6.527	1	0.011***	5.072	1.459	17.625
COLL	-0.294	.368	.638	1	0.425	.746	.363	1.533
ALFI	3.501	1.103	10.085	1	0.001***	33.162	3.821	287.835
SDLR&IR	1.004	.509	3.892	1	0.049***	2.729	1.007	7.399
Constant	6.954	1.312	28.094	1	0.000	.001		

\*\*\* (P=0.05), \*\* (0.01)

## Analysis and Discussion

### *Effects of MSE's Locations on access to finance*

According to the analysis in the table above, the variable MSE's locations have a positive and statistically significant effect on MSE's access to credit finance from formal financial institutions at a 5% significance level. With an odds ratio of 2.191, MSEs operating in urban areas or commercial zone are 2.191 times more likely to access credit finance from formal financial institutions than MSEs which are operating in rural areas. This is due to some reasons. In rural areas, there having a scarcity of financial institutions, we can find that there is only one bank branch or only one MFI branch available to the place, and because of this, it may be paying a high-interest rate which may hinder the small and micro-entrepreneur in access to credit finance. Likewise, the bank or MFI may be reluctant to lend to small entrepreneurs in rural areas since the assets offered as security might have less market value. In case of default, they may find it difficult to realize these assets. The results of this study are consistent with other studies (O'Farrell, 1990, Pandula, 2011) their study in Canada reported that banks appear to be more reluctant to lend to small entrepreneurs located in rural areas because if this small entrepreneur fails, it will be difficult to sell the assets.

### *Effects of MSE's sector on access to finance*

According to the survey result in the table above, the variable sectors of MSEs in which it operates have a positive and statistically significant effect on MSEs' access to credit finance from formal financial institutions at a 5% significance level. With an odds ratio of 2.669, MSEs operating in manufacturing sectors are 2.669 times more likely to access credit finance from formal financial institutions than MSEs which are operating in other sectors. This is because the manufacturing sector is now a political issue, which is very much expected as the government is paying special attention to the manufacturing sector. One of the supports the sector gets is easy access to credit.

### *Effects of owners or managers of MSE's age on access to finance*

According to the analysis in the table above, the variable age of MSE's owners or managers has a negative and not statistically significant effect on MSE's access to credit finance from formal financial institutions at a 5% significance level. With an odd ratio of 0.671, MSEs with adult and old aged are 0.0671 times more likely to access credit finance from formal financial institutions than MSEs with young. This result is inconsistent with a previous study by Anthony et al. (2013) but consistent with the study of Sabopetji and Belete (2009) and cited in Selemawit (2014). The personal financing preferences of entrepreneurs appear to change according to age, and the age of the entrepreneur is a significant determinant of the risk of borrowing. This implies that as the age of MSEs increases, so does his business experience, practical wisdom, and income-generating capacity Swain cited in Selemawit (2014). In addition, due to the capability of older entrepreneurs to accumulate assets that are used as collaterals, formal financial institutions perceive them as creditworthy. As a result, they are more likely to access credit from formal financial institutions than younger entrepreneurs.

### *Effects of MSE's size on access to finance*

MSEs size is another independent variable with a positive and statistically significant effect on MSEs' access to credit finance from formal financial institutions at a 5% significance level. Taking MSEs with employment size as a reference, the odds ratio for MSEs with employment size is 2.373. This means that compared MSEs with large employees, MSEs are 2.373 times more likely to access credit finance from formal financial institutions. This result is consistent with previous studies (Selamawit, 2014; Cassar, 2004; Gebru, 2009; Honhyan, 2009). A World Bank survey confirms that large firms everywhere generally have more access to bank credit than small firms (Cull et al., 2005). Formal sector credit is out of reach for smaller enterprises, and compared to large firms, smaller firms face a relative disadvantage in raising finance from formal institutions such as banks because they are considered to have higher financial risk

(Gebbru, 2009). Small firms face information opacity, such as the inability to provide financial information. When the firm is small, most of the time, it is owned and operated by the entrepreneur himself, and there is no such legal requirement to report financial information many firms regularly do not maintain audited financial accounts (Storey, 1994) cited in Selamawit (2014).

#### *Effects of MSEs with an audited financial statement on Access to finance*

According to the analysis in the table above, the variable MSEs with appropriate and audited financial statements have a positive and statistically significant effect on MSEs' access to credit finance from formal financial institutions at a 5% significance level. With an odds ratio of 6.648, MSEs with appropriated and audited financial statements are 6.648 times more likely to access credit finance from formal financial institutions than MSEs without audited financial statements. The results of this study are consistent with other studies (e.g., Bass and Schrooten (2005) concluded that the lack of reliable information leads to comparably high-interest rates even if a long-term relationship exists between borrowers and financial institutions. In such a situation, having audited financial statements plays a major role. In other words, audited financial statements improve borrowers' credibility and reduce risk for lenders. Most small enterprises do not have the technical capacity to do these things. This makes it difficult for them to access loans. However, the relationship between the audited financial statement and access to credit by MSEs has no empirical study done in Ethiopia. This study, therefore, contributes to the extant literature by investigating one explanatory factor for access to formal credit finance.

#### *Effects of MSEs' financial literacy level on access to finance*

According to the survey result in the table above, the variable financial literacy levels of owners or managers of MSEs have a positive and statistically significant effect on access to credit finance from formal financial institutions at a 5% significance level. With an odds ratio of 5.072, owners of MSEs with better financial knowledge have 5.072 times more access to credit finance from formal financial institutions than their counterparts needing to be more

financially literate. The results of this study are consistent with other studies (Miller et al. (2009), indicating that a lack of financial literacy is often tied to a lack of access to financial products, including credit or failure to use them even when they are available. Other studies (ACCA, 2006, Johnson, 2004; Kidwell and Turrisi, 2004) confirm the view that financial literacy explains variances in access to credit by borrowers. Moreover, Lusardi and Tufano (2008) and Stango and Zinman (2009) also state that households with low financial literacy tend to borrow at higher interest rates and participate less in the formal financial system than their more financially-literate counterparts. It is thought that microfinance institutions are doing a good job of providing loan facilities for MSEs, but they sometimes need to tell the truth. Some of these institutions take advantage of their educational weakness and, for one reason or another, refuse to give details and explain the interest rates and their implications on the loans lent to small businesses. This becomes a problem when they must re-pay the loans (Donkor, 2012). Knowing the different sources one can borrow from increases the chances of success accessing credit finance from formal financial institutions. However, the relationship between the MSE's financial literacy level and access to credit finance by MSEs has yet to empirical study done in Ethiopia. This study, therefore, contributes to the extant literature by investigating one explanatory factor for access to formal credit finance.

#### *Effects of Collateral on access to finance by MSE*

The analysis revealed in the table above that the odd ratio for the variable of collateral was 0.746 showing a positive relationship with MSEs in access to finance. All things being equal, when the other independent variables are held constant, MSEs in access to finance would be increased by 0.746 times if there was a 100% demand for collateral before the credit was given to MSEs. This is, however, not statistically significant, and collateral is not making any unique contribution to the prediction of MSEs in access to finance because it has a significant value of 0.425, which is greater than 0.05, indicating that Collateral does not affect MSEs in access to credit finance from MFI if other requirements are fulfilled.

This result is inconsistent with previous studies by (Selemawit, 2014 and Anthony et al., 2013; Mabhungu et al., 2011; Odit and Gobardhun 2011 and Wu et al., 2008) and is consistent with a study by (Tsehaye, 2013). Financial institutions are more likely to approve loans to firms that are able to provide collateral. Due to asymmetric information, formal financial institutions base their lending decisions on the amount of fixed assets available. Collateral acts as a screening device and reduces financial institutions' lending risk. By pledging his assets, a borrower signals the quality of his project and his intention to repay. In the case of default, collateral serves to put the lender into a privileged position with regard to other creditors. Small firms are disadvantaged in this regard due to the fact that they need more collateral security and also they need a proven credit track record. Therefore, start-up firms with new innovative products may be constrained access to finance due to the fact that they may fail to furnish collateral security and also due to information asymmetries, financial institutions may fail to see the profitability and viability of the proposals (Green, 2003 cited in Selemawit, 2014).

#### *Effects of Numbers of lending financial institutions on access to finance by MSEs*

The analysis revealed in the table above that the odd ratio for the variable numbers of lending financial institutions was 33.162 showing a significant and positive relationship with MSEs in access to finance at 0.05. All things being equal, when the other independent variables are held constant, MSEs in access to finance would be increased by 33.162 times if there was a 100% accessibility of lending financial institutions for MSEs. These findings are consistent with studies by Mwongera (2014) examining the relationship between the number of lending institutions and access to credit in Athi River, Machakos County, Kenya. The results showed that licensing more finances would encourage more loan uptake. Findings also revealed that the need for more lending institutions was the chief determinant of credit accessibility for women entrepreneurs. Further, it was established that there is a positive relationship between the number of lending financial institutions and credit accessibility by MSE. However, the relationship between the number of lending institutions and access to

credit by MSEs has yet to empirical study done in Ethiopia. This study, therefore, contributes to the extant literature by investigating one explanatory factor for access to formal credit finance.

#### *Effects of short durations of loan repayment and lending interest rate on access to finance by MSEs*

The analysis revealed in the table above that the odd ratio for short durations of loan repayment and lending interest rate charged was 2.729 showing a positive relationship with MSEs in access to credit finance from formal financial institutions. All things being equal, when the other independent variables are held constant, MSEs in access to finance would be increased by 2.729 if there is 100% flexibility in loan repayment durations and the interest rate charged when MSEs seek credit finance. This is, however, statistically significant, and durations of loan repayment and interest rate charged on credit are making unique contributions to the prediction of MSEs in access to finance because it has a significant value of 0.049, less than 0.05. These findings are consistent with studies done by Toci and Hashi, 2010; Stephanou and Rodriguez, 2008; Mambula, 2002; Okpar and Wynn, 2007) in finding that high-interest rates and short durations of loan repayment are significantly challenging MSEs in accessing credit finance from lending financial institutions. The reasons for high-interest rates and inflexible duration of loan repayment have typically included risks associated with MSEs and small and younger firms with shorter MFI relationships (Berger and Udell, 2005). This is inconsistent with previous studies by (Bhende 2003 and Wenner 2000), cited in Selemawit (2014). Formal credit institutions have rules and regulations limiting the time the borrower should repay the loan. If the respondents fail to repay on time, they will be sent to court, or their property may be confiscated. Due to this reason, individuals fear taking loans from formal credit sources and are discouraged from participating in the credit market.

To sum up, the above results thus provide support for hypothesis 1(H1), which states that 'favorable commercial lending terms and conditions have a significant and positive effect on access to formal credit finance by MSEs' except Collateral requirements which



were negative and statistically not significant with MSEs in access to credit finance from lending financial institutions, indicating that Collateral does not affect MSEs in access to credit finance from formal lending financial institutions, if other terms are required and hypothesis 2 (H2) which states that 'Firm-entrepreneur's level characteristics have positively and significantly affects access to formal credit finance by MSEs except' MSE's owner's age, indicating that MSEs owner's age does not matter in access to credit finance by MSEs if other requirements are met to lending institutions. it can be concluded that MSE location, MSE-Sector, MSE's Size, MSEs-audited financial statement, MSEs-financial literacy level, number of financial institutions, short durations of loan repayment, and the lending interest rate charged significantly determine access to credit finance from formal lending financial institutions at p-value at 5%. Other variables, including MSE's age and Collateral requirements, are not found to determine access to credit finance from formal FIs.

#### *Challenges encountered in providing loan services to small and micro enterprises according to loan officer's interview*

The author asked loan officers, "What are the general factors or challenges do you encountering in providing loan services to micro and small enterprise?" the loan officers answered this question as follows: Micro and small-scale enterprises find it difficult to provide loan facilities because micro and small enterprises need to learn the factors financial institutions consider before lending to their customers. Credit bureaus demand things like audited financial information, convincing business plan, and bankable proposal before they lend to small businesses, but most small enterprises need more technical capacity to do these things, and this makes it difficult for them to provide loans. It has been observed that a key factor that makes the MSEs unable to access financial assistance from loan offices is the lack of understanding of the operations of Credit bureaus and vice versa. Owners of MSEs don't give the true information about their assets, liabilities, and profits to credit bureaus, making it difficult to assess creditworthiness, and this blocks to lend to the MSEs sector Most MSEs perceive MFIs as grant providers. They

forget that MFIs are also doing business and that the loan they took is repayable. MSE operators need to understand that MFIs perceive most of MSE businesses as highly risk and will likely charge high interest to cover for the risk and make profit. Another reason is lack of knowledge on financial management by MSE's. There was a time we gave a client a loan to buy Machine for his operations. lack of enough evidence from MSEs that enable lending MFIs perform the required analysis, lack of MESS' awareness as to why they do the business they do, limited knowledge on financial management as well as unfaithfully records especially of utilizing funds different from what was requested for. Other factors established were lack of collateral, poor performance and stagnant MSE's' businesses.

## **Conclusion and Recommendations**

### *Conclusion*

The major objective of the study was to investigate key challenges affecting MSEs in access to finance from formal lending financial institutions in Dawuro zone, SNNPR, Ethiopia. Access to finance is one of the root causes for all the other problems faced by the MSE sector not only when starting the business project but also when operating. According to loan officer's interview, the study found out that Micro and small scale enterprises find it challenge to obtain credit finance since they do not fully understand the requirements and procedures of acquiring credit finance. lack of enough evidence from MSEs that enable lending FIs perform the required analysis, lack of MESS' awareness as to why they do the business they do, limited knowledge on financial management as well as unfaithfully records especially of utilizing funds different from what was requested for. Other factors established were lack of collateral, poor performance and stagnant MSE's' businesses.

These challenges were revealed by the study to include, the inability of MSEs to provide information needed by lending institutions such as audited financial statement couple with the high cost of loan in terms of high interest rates make it extremely difficult to access formal financial institutions loans. Many MSE complained of the financial institutions charging a high interest rate. This was reported



too high for them considering the nature of their enterprise firms.

Secondly, financial challenges among MSE's operators in Dawuro zone include commercial lending terms and conditions such as inadequate numbers of formal lending institutions, short durations of loan repayment, and high-interest rate charges and collateral requirements. However, collateral does not significantly influence MSEs' access to credit finance from lending to formal financial institutions. Also, the study finds that access to credit finance is affected mostly by MSE's specific characteristics such as MSE's location, MSE's sector or industry, MSE Size, having adequate and audited financial statements, and Owner's financial literacy level. However, owner Agedo does not significantly influence MSE's access to credit finance from lending formal financial institutions in Dawuro zone, SNNPR, Ethiopia.

Finally, the study concluded that access to credit finance by MSEs is affected by a mixture of firm –Entrepreneur level characteristics and commercial lending terms and conditions. Specifically, a firm's location, firms not having audited financial statements, firm's size, a firm's financial literacy level, short durations of loan repayment and the high-interest rate charged, and inadequate numbers of lending institutions significantly affect MSE's access to credit finance from formal lending financial institutions.

### Recommendations

The study recommended the following after coming up with the finding and conclusion. These recommendations will help the financial institutions, government, and other stakeholders who have an interest in the development of MSEs in Dawuro zone and the Ethiopian countryside as a whole.

First of all, with regards to firms-entrepreneurs' attributes such as age and size of financial dependents, it is advised that financial institutions should endeavor to overlook such attributes, as it is more natural and regularly peculiar to MSEs than the larger business organization to which financial institutions often advance credits without considerations to such elements. In the area of Commercial

lending terms and conditions of MSEs which affects their access to credits, it is suggested that all Micro and small-scale enterprises in the Dawuro zone develop a voluntary interest in such legal activities as accurate preparations of business financial statements, appropriate and clear business planning so that, it situates their ventures in the best positions to access finance to boost their operations. This is because lending is a risk, and to advance a loan to a business that is not legally recognized is riskier for financial institutions.

Credit is more likely to be extended to those with a stronger knowledge of business practices and financial literacy; these skills predict how productively the credit will be used. Therefore, Business associations, incubators, and Government-supported programs should expand capacity-building assistance to MSEs. Support is needed in financial statement preparation, business plan development, and other areas.

The study suggests that the repayment duration time and interest rates should be reflected to match the reality of life. Small business holders need higher interest rates and short repayment duration. This eliminates these small business holders' ability to plan their growth and sustainability well. Therefore the study recommends changes in this area by lowering the interest rate per annum and increasing the loan's payment duration. This will enable small business holders to participate in the economy profitably.

The study recommended that financial institutions eliminate the regulatory differentiation of "prime" and "adequate" collateral and require banks to assess risk and establish reserves based on identifiable risk factors or losses. At a minimum, if these rules must remain, consider expanding the definition of "adequate" collateral to include other types of pledged assets often used for MSE borrowing (e.g. inventory, Cattles etc.) and Promote the development of the non-bank sector and alternative forms of financing.

Collateral/security requirements needed to qualify for a loan should not be tied to some assets or properties like land or household items because this discriminates some groups of entrepreneurs, for example, youth and women, who do not have access to

these properties. This implies that loan givers should develop a system whereby collateral requirements will be affordable to MSEs.

Government, chamber of commerce, and other non-governmental organizations should regularly organize seminars for potential and actual small and micro-enterprise operators where they should be educated on how to plan, organize, direct, and control their businesses. The government must introduce entrepreneurship development courses at all levels of education from primary, secondary, and tertiary institutions to equip graduates with skills such as basic business management and preparing business plans/simple accounts and finance. There should be a re-introduction of soft loans for small and micro businesses by the government and financial institutions.

This study recommends that credit-giving institutions develop programs to educate the MSEs on how they can obtain credit facilities. It also advises the MSEs to clear their information which will counter problems of information that make MSEs risky for credit-giving institutions. Another recommendation is that the government should actively support and develop MSEs by providing finance on suitable terms of lower interest rates and longer loan repayment periods, reducing transaction costs, and creating separate financial institutions like Small Industries and Commerce banks that should deal exclusively with MSEs financing. This would help create an MSE-friendly environment that would boost the economic prosperity and stability of a nation like Ethiopia.

Finally, this study recommended that the government formulate programs to strengthen the economic power of MSE operators so that financiers perceive the sector players as attractive. This is possible through facilitating seminars and training on business skills and management, providing technical assistance, and advisory and consultation services. In addition, to promote the growth of MSEs, the government should facilitate the participation of MSE owners in regional and international trade affairs.

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