

# Determinants of Financing Preferences of Micro and Small Enterprises Owners: In Case of Dire Dawa City Administration of Ethiopia.

Tadesse Demeke Awlache

Lecturer, Department of Accounting and Finance, College of Business and Economics, Dire Dawa University,  
Dire Dawa, Ethiopia

Azeb Dejene Motumma

Accountant, Yamet Construction plc. Addis Ababa, Ethiopia

## Abstract

The main aim of this study was to investigate the determinants of financing preferences of micro and small enterprises owners in Dire Dawa city administration of Ethiopia. Structured questionnaires were used to collect data from micro and small enterprises owners. Linear probability regression model was applied to test the effect of the determinants on financing preferences of micro and small enterprises owners. The findings of this study give direction that financing preferences is significantly influenced by age of owners and age of enterprises, whereas sex, education level of owners, size of enterprises, asset structure and interest rate do not have a significant effect.

**Keywords:** micro and small enterprises owners, Determinants, financing preferences

## 1. Introduction

Across countries, micro and small enterprise sector has been shown to be an essential ingredient for economic growth. Currently, throughout the developing countries, majority of poor earn their income from micro and small enterprises (Parsons, 2007). Micro and small enterprises appear to be an important means that contribute greatly toward the growth of Gross Domestic Product and provide job opportunities for both developing and developed countries (Khatab, 2010). Moreover, Olu (2009) discussed that micro and small enterprises are a prerequisite to develop the nation by creating job opportunity for individuals, especially for developing countries like Ethiopia. Particularly in developing countries like Ethiopia, where the financial market is weakly efficient, there is high information asymmetry to get sufficiency information about property, capacity and objective of micro and small enterprises. Because of this, financial institutions face severe challenges of adverse selection, which has great negative impact on micro and small enterprises to access formal finance from financial institutions (Tucker & Lean, 2003).

Generally, small firms have smaller financial reserves geared compared to larger firms due to the difficulty and expense of attracting new equity finance. Such firms do not only bear higher business risk, but also higher financial distress risk. Banks tend to respond to this risk by adopting a capital-gearing rather than an income-gearing approach to lending. Mean that Banks rather than focusing their attention more on evaluating income streams flowing from an investment project, they focus more on the value of collateral available in the event of financial distress. This creates a problem for small firms in that they often do not have significant fixed assets to secure on in their early years of establishment (GebreEgziabher, 2009). In addition, for the main driving factor for this study is because of lack of systematically documented literature on the determinants of financing preferences of micro and small enterprise owners in Dire Dawa city administration.

## 2. Statement of the Problem

Micro and small enterprises play a key role in global economy by adding value on the gross domestic product and creating sustainable employment. It is very necessary supporting and enhancing micro and small enterprises, because they are tool for poverty alleviation and job creation, especially for developing countries, where no other options are available (Khatab, 2010).

Study conducted by Osei-Assibey *etal* (2012) on micro enterprise financing preferences in Ghana found that age of enterprise was the significant determinant of financing preferences of micro enterprises owners. New enterprises are more likely to prefer low cost and less formal financing sources such as internal or bootstrap finances like grants, gift, sell of properties and hire purchase. However, as the enterprise gets established or matures, its capacity to seek formal financing sources increases, thereby becoming more likely to prefer or being in a higher category of formal financing like Banks. Furthermore, their findings revealed that micro entrepreneur's, and micro and small enterprises specific level socio-economic characteristics such as owner's education or financial literacy status is the determinant factor for their financing preferences. Highly educated micro entrepreneur's is more likely to prefer formal finance at start-up and futures financing model, but less

prefer formal finance at working capital model even if the owner is highly educated. In contrary, GebreEgziabher (2009) on the topic financing preferences of micro and small enterprise owners in Ethiopia in Tigray regional state stated that highly educated micro and small enterprise owners less likely to prefer formal finance at start-up stage, thereby becoming more likely to prefer formal finance at working capital model.

In addition, Osei-Assibey *etal* (2012) found that holding tangible assets such as land and building, enterprise size and sensitivity to interest rates are the most significant determinant factors for micro and small enterprise owners at start-up, present and future financing preferences. Holders of tangible assets are more likely to access formal financing sources. The interest sensitivity and negative perception of the use of credit are significant with negative signs in the future financing preferences.

As the literature reviews shows, there are inconsistent findings on the determinants of financing preferences of micro and small enterprises owners. Thus, this study fill this literature gap by assessing the determinants of financing preferences of micro and small enterprises owners in general and particularly in case of Dire Dawa city administration of Ethiopia. Furthermore, the study finding uses the responsible body such as city micro and small enterprise office to understand the determinants of financing preferences of micro and small enterprises owners and to make appropriate actions. Based on the above problem statement, the study formulated the following specific objectives:

- ✓ To identify the determinants of financing preferences of micro and small enterprises owners.
- ✓ To identify the motives of micro and small enterprises owners to be self-employed.

### 3. Literature review

#### 3.1 Theoretical literature review

Johnsen and McMahon (2005) summarized five competent theories of micro and small enterprises financing preferences, namely: Static Trade-off Theory, Agency Theory, Growth Cycle Theory, Bootstrapping theory and Pecking Order Theory.

Static Trade-off Theory stated that firms prefer external financing scheme to the extent that the marginal benefit due to tax shield advantage (Ross et al., 2000). Johnson and McMahon (2005) stated that other factors held constant firms with more intangible assets need to borrow less, compared with firms with more tangible assets, because of the collateral effect.

Agency Theory as explained by Jensen and Meckling( 1976) stated the principal-agent relationship between equity holders and debt holders. In a principal-agent framework, the micro and small enterprise is the agent and the finance provider is the principal. This theory asserts that principals have higher agency costs because equity-controlled firms have a tendency to invest sub optimally to expropriate wealth from debt holders (Jordan *et al.*, 1998) that in turn results in incremental risk for the principal.

Growth Cycle Theory initiated by Berger and Udell (1998) stated small business financing. This theory stated that as the small business becomes more experienced and enhanced informational transparency they have better to get access to venture capital as a source of equity and mid-term loans as a source of debt. According to Gregory *et al.*, (2005) finding only firm size, as measured by total employees, could significantly determine the decision of whether to use insider financing instead of going for public equity or long-term financing.

Van Auken (2005) defined Bootstrapping theory as a method of acquiring own sources financing before going to external financing sources( debt or equity financing) using different methods such as delaying payments, minimize accounts receivable, minimize investment, private owner financing and sharing resources.

Pecking Order Hypothesis (POH) proposed by Myers (1984) small firms strive for external sources of finance only if the internal sources are found inadequate. Usually they try to meet their finance problems with a pecking order of personal savings, retained earnings, short-term borrowing, long-term debt and issuance of new equity (Hussain and Matlay, 2007).

#### 3.2 Empirical literature review

##### 3.2.1 Definition of Micro and Small Scale Enterprises

There is no clear and universally accepted definition of micro and small enterprises. The absence of this clear and homogeneous definition of micro and small enterprises can affect the finding of different researchers and to understand their contribution to socio-economic development.

**Table 3.1: Definition and Classification of Micro and Small Enterprises in Ethiopia**

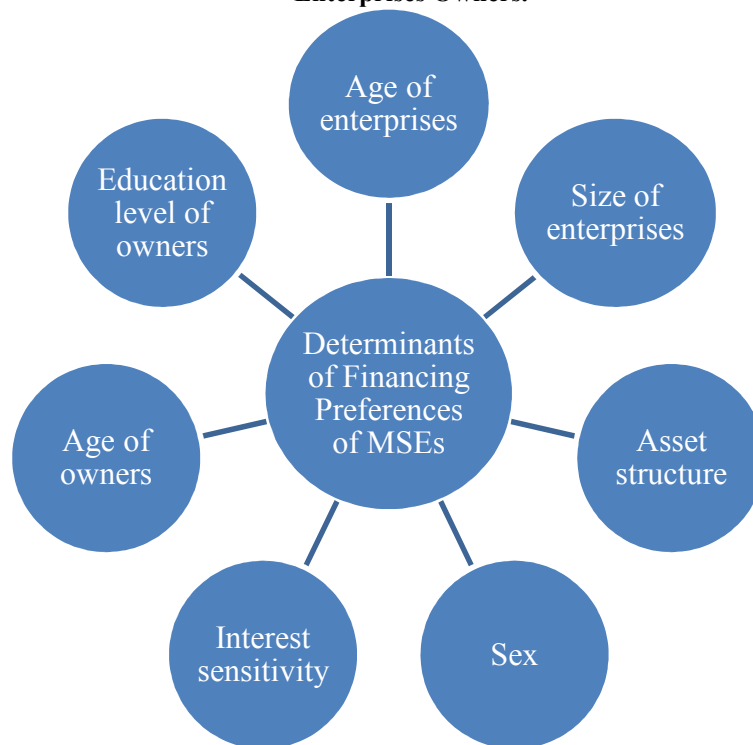
Enterprise size	Sector	Asset in Birr (excluding working building)	Number of workers (including family members)
Micro	Service	Not more than 50,000	Not more than five individuals
	Industry	Not more than 100,000	
small	Service	50,000-500,000	6-30 individuals
	Industry	100,001-1,500,000	

Source: Federal Democratic Republic of Ethiopia, 2011

### 3.2.2 Source of financing of Micro and small enterprises

Source of financing for micro and small enterprises can be one or more of the following sources, namely: formal, semi-formal and informal financing sources. Formal financing sources like banks and micro finance institutions. Traditional saving and credit union are the parts of semi-formal financing sources. Informal financing sources such as friend, money lenders and bootstrapping financing like leasing/hire purchase, gift, grants and sell of properties (Osei-Assibey *et al.*, 2012).

**Figure 3.1: Conceptual Framework of Determinants of financing preferences of Micro and Small Enterprises Owners.**



Source: Adopted from UNDP, n.d.

### 3.2.3 Motives of Entrepreneurs

Motivational factors are reason that driven individuals into entrepreneurial activities. There are various factors that affect individuals to be entrepreneur. According to Lebakeng and Merwe (n.d) and Mulugeta (2010) ranked the motives of individuals as follows:

**Need of independence:** individuals to be free from economic dependence or self-sustained, they initiates to be entrepreneur. Business creativity helps individuals to be self dependent, morally, financially and economically, because they can get return from the field joined and construct self-esteem.

**Social status (to get recognition in the community):** the perception or value of the societies for financially strong individual, talented individual, and skill full individual is high. On the other hand, businessman has a greater value than those who are not.

**Role model:** An individual could be initiated to be a businessman as the result of role model. Their friend, family or other leading entrepreneur can be good businessman; thus, those individuals can be initiates by observing them.

**Insufficient family income:** The income generated by the family may not be enough to cover the costs of that family. Those who live with this problem are risk taker or initiated to engage in business activities, because they are interested to way out from this problem or poverty. On the other hand, the people live with insufficient income are more strong ideally and psychologically to start a business.

**Bring high income:** is the preference of individuals to get greater return than the return that has been earned from previous engagement or field of work.

**Job redundancy:** is the event of getting dismissed or fired from once field of engagement, which was previously used as a source of income to either his/her self or even for family survival. This is a serious problem in the life or health of individuals that may a cause for mentally distress.

**Experience:** is the familiarity of individuals with job that may arise knowing all the process required for business, the cost and returns gained from business from the previous engagement or field of work. Those who have been engaged in previous field of works have better motives than those who were not, because it is easy for them to make cost benefit analysis and less afraid of risk of any failure.

#### 4. Research Methodology

##### 4.1 Description of the study Area

Dire Dawa which is the capital of the Dire Dawa province is the 2<sup>nd</sup> most populated city in Ethiopia, which is located at 9° 35' 0" N latitude and 41° 52' 0" E longitude. The surface area of the city was 1,559 sq. km in the year 2013(www.travelmath.com).

##### 4.2 Data sources and instruments

The target population of this study was micro and small enterprises owners in Dire Dawa city administration of Ethiopia. Data were collected from owners of micro and small enterprises through survey via self-administered questionnaires. Because, questionnaire is a common place instrument for observing data beyond the physical reach of the observer (Wubishet & Dejene, 2013).

##### 4.3 Sample design

Sample designs are basically two types viz., non-probability sampling and probability Sampling. Non-probability sampling is that sampling procedure which does not afford any basis for estimating the probability that each item in the population has of being included in the sample. Non-probability sampling is also known by different names such as deliberate sampling, purposive sampling and judgment sampling. In this type of sampling, items for the sample are selected deliberately by the researcher; choice concerning the items remains supreme. In words, under non-probability sampling the organizers of the inquiry purposively choose the particular units of the universe for constituting a sample on the basis that the small mass that they so select out of a huge one will be typical or representative of the whole. Probability sampling is a sampling technique in which each member of a population has a known non-zero probability or has an equal chance of being chosen (Gebregziabher, 2011; Anderson *et al.*, 2010; Kothari, 2004).

This study used, stratified random sampling is type of probability sampling technique involves dividing your population into homogeneous subgroups and then taking a simple random sample from each subgroup. Each of the homogenous sub-group is known as strata. If the sizes of each group are not comparable, unequal sampling fraction can be used (Gebregziabher, 2011& Kothari, 2004).This study classified enterprises into three based on sectors, namely: manufacturing, service and merchandise. According to the office of micro and small enterprise of the city, there were 243 micro and small enterprises during the year 2013, of which 178 were engaged on manufacturing sector, 54 on service sector and the remaining 11 are on merchandise sector. The study took 50 micro and small enterprises as a sample size from 243 enterprises and the following formula was applied to determine the number of sample size form each stratum:

$$n_i = \frac{nN_i}{N}$$

Where; n= Total sample size  
 N=Total population  
 Ni=size of each stratum  
 ni= sample size from each stratum

**Table 4.3.1: Sample size determination from each stratum.**

Sectors	Sample size form each stratum
Manufacturing	50x178/243= 37
Service	50x54/243= 11
Merchandise	50x11/243= 2
<b>Total sample size</b>	<b>50</b>

#### 4.4 Operational Definition of Variables

Variables	Definition	
Financing preference(dependent variable)	Formal and informal financing sources	It is dummy variable; "1",if the entrepreneur prefer formal financing source,"0" otherwise
sex	Sex of the owners of the enterprises	It is dummy variable; "1", if they are female,"0" if they are male.
Age of owners (independent variable)	Age of micro and small enterprises owners	It is discrete variable
Education level	Education level of micro and small enterprises owners	Measured by grade level of owners such as illiterate, read and write, primary education completed, secondary education and above
Age of enterprise (independent variable)	Duration of the business after established measured by year.	It is discrete variable
Size of the enterprises (independent variable)	Measured by number of employees	It is discrete variable
Asset structure(independent variable)	Enterprises(owners) with title of fixed asset such as land, building, equipment etc.	It is dummy variable;"1",if the enterprises(owners) have fixed asset,"0" otherwise
Interest rate(independent variable)	interest rate charged by financial institutions	It is dummy variable;"1",if the interest rate is high,"0" otherwise

#### 4.5 Model Specification

This study identified the determinants of financing preferences of micro and small enterprises owners in Dire Dawa city administration of Ethiopia. Thus, linear probability model (LPM) was used to analyzed, data obtained via a structured questionnaire using STATA version 12. If dependent variable has binary outcomes, linear probability model is one of the preferable models of binary choice models:

$$y_i = \beta_0 + \beta_1 x_i + \beta_2 x_2 + u_i$$

Where:  $y_i$ = dependent variables,  $\beta_0$ = constant terms,  $X_1, 2, \dots$ = independent variables,  $\beta_1, 2, \dots$ = regression coefficient of independent variables, and  $U_i$ = error term

#### 5. Finding and Discussion

This study aimed to assess the determinants of financing preferences of micro and small enterprises owners in Dire Dawa city administration of Ethiopia. 50 questionnaires were distributed to the respondents, of which 47 (94%) were properly filled and collected and the remaining 2(6%) were not returned by respondents.

##### 5.1 Descriptive statistics result

In this section the results from descriptive statistics were discussed. Generally, the data that were collected for this study were primary in nature. The descriptive statistics was used in order to get insight about the variables of the determinants of financing preferences of micro and small enterprises owners and was used as a base to forward recommendations after determining the relationship between the variables from the regression analyses.

**Table 5.1: Descriptive statistics for the study variables**

Variable	Observations	Mean	Std. Dev.	Min	Max
Financing preferences	47	.6170213	.4913686	0	1
sex	47	.4255319	.4997687	0	1
Age of owners	47	29.12766	6.986375	18	50
Education level of owners	47	3.234043	.8898648	2	4
Age of enterprises	47	4.319149	2.294667	1	10
Size of enterprises	47	5.042553	3.413257	1	14
Asset structure	47	.3829787	.4913686	0	1
Interest rate	47	.3829787	.4913686	0	1

Source: Field survey result, 2013

The above table indicates the mean, standard deviation, minimum and maximum values of the variables. This study had used eight variables for the analysis and interpretation one, financing preferences, dependent variable and seven explanatory variables. As shown in table 5.1, the mean value of financing preferences for micro and small enterprises owners was around 0.62. This means, the majority of the total respondents their financing preferences were using formal sources than informal financing sources. As the above table indicates, the mean value of sex was around 0.43, which indicated that micro and small enterprises were more dominated by male owners. Therefore, the government should give emphasis to attract female entrepreneurs.

As can be observed in table 5.1, the mean value of age of respondents was almost equal to 29.13 year. This implies that the majority of micro and small enterprise owners in Dire Dawa city administration were dominated by productive age generation. As the above table shown, in average the education level of micro and small enterprises owners was almost 3.24, which means more of the micro and small enterprises owners education level was above primary education. Age of enterprises after started their business in average was 4.3 year as the above table indicates. This indicates that majority of micro and small enterprises were at infancy stage. According to this study, size of enterprises was measured by number of employees. As table 5.1, shows, in average micro and small enterprises which were operated in the city of Dire Dawa administration created job opportunities around for five individuals. As shown in table 5.1, the mean value of asset structure of micro and small enterprises owners was almost 0.38. On the other hand, the majority of micro and small enterprises owners had not fixed asset, which used as collateral. Also table 5.1 shows the interest rate sensitivity from micro and small enterprises owners' point of views. Its mean value was around 0.383, which indicates that the dominated micro and small enterprises owners were not influenced by existed interest rate.

**Table 5.2: Motives of Entrepreneurs**

Response	Frequency	Percent
Need of independence	4	8.5
Social status	5	10.6
Role model	10	21.3
Insufficient family income	21	44.7
Job redundancy	3	6.4
Experience	4	8.5
<b>Total</b>	<b>47</b>	<b>100.0</b>

Source: Field survey result, 2013

As table 5.2, indicates insufficient family income was the reason for 21(44.7%) entrepreneurs to be self-employed, followed by 10(21.3%) and 5(10.6%) of total respondents established their business because of role model influence and social status, respectively. Need of independence and experience were the fourth ranked reasons. The remaining 3(6.4%) of the total respondents were job redundancy.

This implies that majority of the total respondents motivated by insufficient family income to be self-employed. This finding is inconsistent with the finding of Lebakeng and Merwe (n.d); Mulugeta (2010). They ranked the motivation factors of entrepreneurs as: need of independence, social status, role models, insufficient family income, job redundancy and experiences.

## 5.2 Regression analyses of independent variables on financing preferences of micro and small enterprises owners

Correlation analysis was applied to determine the interrelationships among the independent variables by examined the variance of inflation factor (VIF). In no case was the VIF higher than two. Thus, there is very little probability that the findings have been tainted by multicollinearity(Cohen & Sayag,2010). Regression analysis using linear probability model was used to test the relationship and the significant of independent variables and dependent variable.

**Table 5.2: Regression result for determinants of financing preferences of micro and small enterprises owners**

	Coef.	Std. Err.	P> t	VIF	Tolerance
(Constant)	1.335344	.493859	0.010		
sex	.0119318	.1577073	0.940	1.22	0.820950
Age of owners	-.025433	.0116205	0.035*	1.29	0.773755
Education level of owners	-.0081481	.0825396	0.922	1.06	0.945336
Age of enterprises	.0204451	.0338476	0.054**	1.18	0.845403
Size of enterprises	-.0000886	.0232179	0.997	1.23	0.812032
Asset structure	-.1662702	.164501	0.318	1.28	0.780561
Interest rate	.0511092	.1566337	0.746	1.16	0.860941

N=47, F=10.19, R-squared = 0.1762, Adj R-squared = 0.0284  
 \* 5% significant level \*\*10% significant level

Source: STATA outcomes of survey data, 2013

This study has intended to test seven factors that expected to determine the financing preferences of micro and small enterprises owners: sex, age of owners, education level of owners, age of enterprises, size of enterprises, asset structure and interest rate. Its surprised findings, since except age of owners and age of enterprises all other independent variables were insignificant effects on financing preferences of micro and small enterprises owners.

Age of owners had negative and significant at 5% level of significance on financing preferences of micro and small enterprises owners. This indicates when owner going to elder, the confidence of taking loan from formal financial institutions has been decreased. On the other hand, when the age of the owners increases by one year their probability of preferences of formal financing sources is decreased by almost 2.5% holding other variables constant.

According to table 5.2, age of enterprises measured by year of established had positive and significant at 10% level of significance on financing preferences of micro and small enterprises owners. The marginal effect showed that when the age of the business increase by one year, the probability of preferences of formal financing sources is increased by almost 2% holding other variables constant. This study finding consistent with the finding of Osei-Assibey *etal* (2012) and growth cycle theory (Berger and Udell (1998). New enterprises are more likely to prefer low cost and less formal financing such as internal or bootstrap finances like grants, gift, sell of properties and hire purchase. However, as the enterprise gets established or matures, its capacity to seek formal financing increases, thereby becoming more likely to prefer or being in a higher category of formal financing

like Banks(Osei-Assibey *et al* ,2012). In addition, Growth Cycle Theory(Berger and Udell (1998) stated that as the small business becomes more experienced and enhanced informational transparency they have better to get access to venture capital as a source of equity and midterm-loans as a source of debt.

## 6. Conclusion and implication for further research

The main objective of this study was to assess the determinants of financing preferences of micro and small enterprises owners in Dire Dawa city administration of Ethiopia through quantitative research method. Generally, from the regression result, this study concluded that age of owners and age of enterprises were the most determinant factors for financing preferences of micro and small enterprises owners. To support the regression result, we can observe the descriptive statistics, table 5.1, the mean age of micro and small enterprises was 4.3 year. This indicated that majority of micro and small enterprises were at infancy stage. Thus, the responsible bodies such as micro and small enterprise office of Dire Dawa city will be expected to do more on micro and small enterprises not to stop their business, since there are many challenges related to business activities, especially at infancy stage.

Moreover, micro and small enterprise office of the city and other responsible bodies should not undermine the contributions of other determinants on financing preferences of micro and small enterprises owners, even though they were not statically significant in this study.

Finally, this study was conducted only in Dire Dawa city administration that could not be used to generalize to a region or a country. Also, it could not be differentiated the determinants of financing preferences of micro and small enterprises owners by sectors. Therefore, future studies should consider these gaps.

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