



SEEK WISDOM, ELEVATE YOUR INTELLECT AND SERVE HUMANITY!



**ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND  
ECONOMICS**

**MASTER OF BUSINESS ADMINISTRATION PROGRAM**

**Determinants of access to Bank Finance in Small and Medium Sized  
Enterprises in Addis Ababa: The case of Addis Ketema sub-city**

A Research Thesis submitted to Addis Ababa University, College of Business  
and Economics in partial Fulfillment of the requirements for the Degree of  
Masters of Business Administration (MBA)

By: Medhane Kidane

Advisor: Amare Abawa (PhD)

November, 2022

Addis Ababa, Ethiopia

ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND  
ECONOMICS  
MASTER OF BUSINESS ADMINISTRATION PROGRAM

Determinants of access to Bank Finance in Small and Medium Sized  
Enterprises in Addis Ababa: The case of Addis Ketema sub-city

By: Medhane Kidane

Approved by the board of examiners

---

Advisor Signature

---

Examiner Signature

---

Examiner Signature

## **Declaration**

This thesis is my original work and has not been previously presented for a degree or diploma in any university. To the best of my knowledge and belief, all sources of materials used for the thesis have been duly referenced and acknowledged.

Declared By:

Name: Medhane Kidane Tesfaye

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

Confirmed By:

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

## **Acknowledgement**

I am very much thankful to my supervisor Dr. Amare Abawa for his professional guidance during the various stages of this research project. I am also grateful to Addis Ababa University for granting me enough time and space to recover from a hard time I've been through and pursue my study to this level. I would also like to thank Addis Ketema Sub-city Trade Bureau for their cooperation in providing me all the necessary data for my study. Finally, I want to appreciate the support and sacrifice by my family during the study period. Thank you!

## Table of Contents

Declaration.....	i
Acknowledgement .....	ii
ACRONYMS.....	v
List of Tables .....	vi
List of Figures.....	vii
Abstract.....	viii
CHAPTER ONE: INTRODUCTION.....	1
1.1 Background of the Study .....	1
1.2 Statement of the Problem.....	3
1.3 Significance of the Study .....	5
1.4 Scope of the Study .....	5
1.5 OrganizationoftheStudy .....	5
CHAPTER TWO: LITRATURE REVIEW.....	7
2.1 Introduction.....	7
2.2 DefinitionofSMEsinEthiopia .....	7
2.3 SmallandMedium-SizedEnterprisesinEthiopia .....	8
2.4 Ethiopian SMEs' Financing Options.....	10
2.5 The Measurement of Financial Access .....	11
2.6 Determinants to access to bank finance .....	12
2.7 Hypothesis of the Study .....	17
2.8 Conceptual Framework.....	18
CHAPTER THREE: RESEARCH METHODS AND DATA COLLECTION .....	19
3.1 Site Selection and Description of the Study Area.....	19
3.2 Research Strategy and Design .....	19
3.2.1 ResearchStrategy .....	19
3.2.2 ResearchDesign .....	19
3.3 Data TypeandSource.....	20
3.3.1 DataType.....	20
3.3.2 Data Sources .....	20
i. PrimarySources.....	20
ii. SecondarySources .....	20
3.4 TargetPopulationandSampling.....	21
3.4.1 TargetPopulation.....	21
3.4.2 Sampling Design and Procedures .....	21
3.5 DataCollectionandInstruments.....	22
3.5.1 QuantitativeDataCollectionInstruments.....	22
3.5.2 DataCollectionProcedures.....	22
3.6 DataProcessingandAnalysis .....	22
3.6.1 DataProcessing.....	22
3.6.2 DataAnalysis.....	23
3.7 Definitionof Variables .....	25
3.7.1 Dependentvariable .....	25
3.7.2 Independent/Explanatoryvariablesofthestudy .....	26

CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION.....	28
4.1    DescriptiveStatisticalAnalysis .....	28
4.1.1    SourceofFinance .....	28
4.1.2    Owner-manager’sDemographicCharacteristics .....	29
4.1.2.1    Owner-manager’s Age and Access to Credit.....	30
4.1.2.2    Entrepreneur’s Gender and Access to Credit.....	31
4.1.2.3    Owner-Manager’s Educational Level and Access to Credit.....	32
4.1.3    FirmLevelCharacteristics .....	32
4.1.4    InstitutionalCharacteristics,ApplicationforLoanandAccesstoCredit.....	35
4.2    ModelOutput.....	37
4.2.1    Multicollinearitydiagnosis .....	37
4.2.2    DeterminantsofSMEs’ AccesstoFormalSourcesofCredit.....	38
4.2.3    InterpretationoftheResultoftheModel.....	40
CHAPTERFIVE: SUMMARY,CONCLUSIONANDRECOMMENDATION .....	43
5.1    Summary .....	43
5.2    Conclusion .....	46
5.3    Recommendation .....	46
References.....	48
Appendix I .....	57
Appendix II.....	58

## **ACRONYMS**

**MFIs:** Micro Finance Institutions

**MSEs:** Micro and Small Enterprises

**MSMEs:** Micro, Small and Medium Enterprises

**NBE:** National Bank of Ethiopia

**NGOs:** Non-Governmental Organizations

**OECD:** Organization of Economic Cooperation and Development

**SMEs:** Small and Medium Enterprises

**SPSS:** Statistical Package for Social Science

**SSA:** Sub-Saharan Africa

**UNDP:** United Nations Development Program

## List of Tables

TABLE 2.1: SME CLASSIFICATION IN ETHIOPIA. ....	8
TABLE 3.1: NAME, TYPE, CODE AND VALUE OF VARIABLES .....	27
TABLE 4.1.1.1:THE MAJOR SOURCE OF INITIAL/STARTUP FINANCE .....	28
TABLE 4.1.1.2:THE MAJOR SOURCE OF WORKING-CAPITAL.....	29
TABLE 4.1.2.1:OWNER MANAGER'S AGE AND ACCESS TO CREDIT FROM BANKS.....	31
TABLE 4.1.2.2: CROSS TABULATION OF DEMOGRAPHIC CHARACTERISTICS AND ACCESS TO CREDIT .....	32
TABLE 4.1.2.3: EDUCATIONAL LEVEL AND ACCESS TO CREDIT FROM BANKS.....	32
TABLE 4.1.3.1: POSSESSION OF FIXED ASSET AND STATUS OF ACCESS TO CREDIT .....	33
TABLE 4.1.3.2: AGE OF SMES AND ACCESS TO CREDIT.....	33
TABLE 4.1.3.3: EMPLOYMENT SIZE OF SMES AND STATUS OF ACCESS TO CREDIT .....	34
TABLE 4.1.3.4: SECTOR OF SMES AND STATUS OF ACCESS TO CREDIT.....	35
TABLE 4.1.4.1.1: APPLICATION FOR LOAN AND ACCESS TO CREDIT FROM BANKS.....	35
TABLE 4.1.4.1.2: REASON SMES DID NOT APPLY FOR LOAN FROM BANKS .....	36
TABLE 4.1.4.1.3: REASONS FOR REJECTION OF LOAN APPLICATION BY BANKS .....	36
TABLE 4.1.4.2: RESPONDENTS ATTITUDE TOWARDS FACTORS THAT AFFECT ACCESS TO CREDIT.....	37
TABLE 4.2.2: RESULT OF LOGISTIC REGRESSION ESTIMATION .....	39
TABLE 4.2.3: SUMMARY OF HYPOTHESIS TESTS.....	41

## List of Figures

FIGURE1:CONCEPTUALFRAMEWORKOFDETERMINANTSOFACCESSTOFINANCEINSMEs .....	18
FIGURE2:MAPOF ADDIS KETEMASUB-CITY .....	19

## **Abstract**

Small and Medium Enterprises (SMEs) play an important role in developing countries, serving as driving forces for achieving the sustainable development goals of the country. By providing adequate quality and reasonably priced goods and services to a large number of people, and by effectively utilizing the skills and talents of a large number of people without requiring high-level training, large sums of capital, or sophisticated technology, the SME sector has been instrumental in bringing about economic transition. Access to credit, on the other hand, continues to be a fundamental issue that prevents SMEs from playing a positive role in the economy. The main objective of the study was to explore SMEs' source financings and analyze the major determinants of access to bank finance by administering a semi-structured questionnaire to 169 randomly selected SMEs in Addis Ababa, Addis Ketema Sub City. It is found that the major source of startup finance is friends/family, own savings, Equb, MFI and banks in their order. The source of finance for working capital on the other hand is own saving, Equb and banks again in their order. It concludes that the major source of finance both for startup and working capital is from informal financial sources. Binary logistic regression was also employed to identify determinants of access to bank finance and test hypotheses. The study found that owner-manager's age, possession of fixed Asset and perceptions about lending procedure had statistically significant effects on access to credit from banks. In contrast owner-manager's gender and educational level; firm's age, size and sector had no statistically significant effects on the probability to access to bank finance by SMEs. Using the age of 51-years-old and above entrepreneurs as a benchmark, entrepreneurs between the ages of 31 and 40 are 88.9% less likely than those aged 51 and more to obtain financing from banks. SME operators who have a negative attitude about lending procedure are 69% less likely to access credit from banks than those who do not. SME operators who possess fixed asset 14.028 times more likely to access credit from banks than those who do not. Given the importance of SMEs in job creation, income generation, and poverty reduction, all parties (government and non-governmental institutions) have a responsibility to ensure that SMEs have enough access to capital.

**Keywords:** Credit, Access, Owner-manager's Age, Fixed Asset, Lending Procedure

## **CHAPTER ONE: INTRODUCTION**

### **1.1 Background of the Study**

In both developed and developing countries' economy, the SME sector plays a fundamental role in promoting economic prosperity through its significant contributions to income creation, the absorption of labor, and the alleviation of poverty (Abera, Gadisa, Ali, & Girma, 2019); (Fatoki O. & Asah F., 2011);(Qureshi & Herani, 2011);(Yesseleva, 2012);(Le & Nguyen, 2009) and (Altman & Sabato, 2005).

According to the ministry of trade and industry development bureau (MOTI) Small & Micro Enterprises Development Strategy of Ethiopia (published 2011); the working definition of MSEs is based on capital and labor. The definition of medium enterprises is also based on capital and labor. According to definition of MSE in Ethiopia (Small and Growing Businesses in Ethiopia 2017), small enterprises are those hiring 6 to 30 personnel and having a capital of EUR 2,001 to 20,000 and EUR 4,001 to 60,000.00 for industry & service sectors respectively. Medium enterprises are also those hiring 31 to 100 personnel and having a capital of EUR 20,001 to 300,000.00 for both industry & service sectors (Betiglu, Goshu, Eva, & Zoltan, 2021).

As such, a well-functioning financial sector is vital in providing for the financing needs of SMEs. It is well known that while banks are the main providers of external finance to SMEs, bank finance is often not readily accessible for SMEs. In fact, a great deal has been written about SMEs having difficulties accessing finance from banks. Such issues have been proven to be of a global nature existing in both developed and developing economies but more so in the latter. This pattern sees no exception in Ethiopia, a developing country in struggle.

Researchers, scholars, policy makers and interested groups have, for a long time, voiced concerns about small and medium-sized enterprises' (SMEs) lack of access to finance. While much have been written about SME financing gaps, there is a lack of research investigating the determinants of access to bank finance by SMEs. Previous studies like (Macan, 2010) have been primarily concerned with the efficient provision of resource to the sector, and they frequently

refer to the difficulty of SMEs in sourcing adequate finance. This focus on market efficiency and supply of finance to the sector has resulted in less attention to the determinants of capital structures. Consequently, it is important that policy makers be well-informed about the determinants of access to bank finance.

The government of Ethiopia in its a Homegrown Economic Reform Agenda 2020, confessed extension of credit to underserved segment, such as individuals and small and medium enterprises (SMEs), remains constrained. Even though most of SMEs do have checking and savings accounts, access to finance is extremely low for this segment. Only 6 percent of micro enterprises, 1.9 percent of small enterprises, and 20.5 percent of medium have a loan or a line of credit (World Bank, 2014). This small amount of credit exposure is not from lack of interest from both the giving and receiving end. It is the knowledge blackout between them.

Therefore, improving SMEs' access to finance is significant and important in promoting firm performance and productivity in the country (World Bank, 2014). In addition to this, despite the enormous importance of the SMEs sector to the national economy concerning job creation and the alleviation of poverty, many of the SMEs are unable to realize their full potential due to the existence of different factors that inhibit their growth and performance (Wolday & Gebrehiwot, 2006). One of the leading factors contributing to the unimpressive growth and performance of the enterprises in Ethiopia are limited access to finance and the financing gap to SMEs can be attributed to both the demand side and supply side (Wolday & Gebrehiwot, 2006). In this regard, many studies have been conducted in Ethiopia. For instance, studies by (Wolday & Gebrehiwot, 2006); (Ashenafi, Yacob, & Mulugeta, 2013); (Nega, Fredu, & Hussien, 2016); (Sebsib & Ali, 2018); and (Abera, Gadisa, Mohammedsani Ali, and Haile Girma, 2019) are some of the studies on SMEs in Ethiopia from different perspectives but fail to identify the main determinants of financial inclusion in SMEs. Hence, by considering the above research gap, this study focuses on assessing the determinants of access to bank finance in SMEs.

Literature reviewed above indicates that there is a significant gap in knowledge of the determinants that affects access to bank finance. The purpose of this paper, therefore, is aiming to fill this gap by investigating what factors determine the access to bank finance, employing the firm level data from Addis Abeba Addis Ketema Sub city particularly from in and around

Merkato area. An understanding of the influence of the determinants could greatly improve our knowledge of the sector and could result in more appropriate support targeted at SMEs.

## **1.2 Statement of the Problem**

The significance of the contributions that SMEs have on the development of a nation is enormous. SMEs have assisted in regional and local development as they help accelerate industrialization in rural areas by linking them with other sectors in the urban areas (Haron, Said, & Ismail, 2013). According to the Organization of Economic Co-operation and Development(OECD, 2004), SMEs contributed about 70 percent to employment and more than 55 percent to Gross Domestic Product (GDP) in high-income economies. In middle-income economies, the corresponding figures were 95 percent and 70 percent, and in low-income economies the statistics were 70 percent and 60 percent for employment and GDP respectively.

The government of Ethiopia in its Ten Years Perspective Development Plan (2021 – 2030) has a derived objective of expanding micro and small-scale enterprises to reduce urban unemployment. However the capacity of SMEs in creating those jobs and any contribution to the economy is directly related to their very existence (FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA, 2020). According to the World Bank in its study of the existence of a missing-middle phenomenon in Ethiopia confirms, like many developing countries, Ethiopia has a large number of microenterprises and some large firms, but far fewer small and medium enterprises. Evidences show that SMEs aren't missing because they would not be profitable: they are missing because finance is not reaching them in an effective way. This shows that access to finance is a significant barrier (WORLD BANK, 2015).

Banks in the country involvement with SME foster on mere facilitating transactions and safe guarding their savings but very conservative in availing loan facilities. As researches indicate there is a high demand for bank finance by the SMEs but unable to get them due to different factors. Extant literature dictates high interest charges, unreasonable collateral requirements, and banks bureaucracy are among the most cited difficulties facing SMEs when dealing with banks (e.g. (Kotey & Sorensen, 2014); (Elmansori & Arthur, 2014); (Eltaweel & Brown, 2013).

A study Murang'a County in Kenya reveals SMEs credit access was determined by interest rate

charged, number of lending institutions, and collateral security and literacy levels (Wanjiku, 2016). In contrast gender of the entrepreneur, firm age, sector and perception about interest rate had no effect on access to credit from formal financial institutions (Selamawit Niguse, 2014).

(Nega, Fredu, & Hussien, 2016) also studied Small and Medium Enterprise Access to Finance in Ethiopia and finds, access to finance is significantly influenced by the age of the firm, firm's previous engagement with banks, experience of the manager and whether firms are managed by the owner (owner-manager) without saying much about institutional characteristics including cost of lending.

Even though they share significant characteristics, most of the studies were made around small enterprises together with micro enterprises (MSEs) ( (Abagissa, 2020), (Tewodros Amene, 2017), (Bekele, 2021),(Selamawit Niguse, 2014)) & little has been studied those determinants in lieu of accessing bank finance by small & medium level enterprises (SMEs).

Although several have been undertaken that greatly focused on the factors and determinants in accessing bank finances by SMEs, they have not been consistent, inclusive as well as conclusive in the findings. The purpose of this study therefore is to identify determinants of access to bank finance by SMEs' in Addis Ketema Sub City and filling the voids identified in the aforementioned discussions.

### **General Objective**

The main objective of the study is to explore and assess the determinants that affect access to bank finance by SMEs in AddisAbaba.

### **Specific Objectives**

The specific objectives are to:

- Identify the sources of startup and working capital finance of SMEs
- Investigate and examine owner-manager's, firm and institutional specific characteristics that affect access to bank finance

### **1.3 Significance of the Study**

#### **Financial institutions (Banks) & Traders:**

The findings of the study are expected to better understand the determinants and urge the financial institutions to review some of the credit policies & procedures to ensure access to finance by SMEs is improved. It will also intend to supplement banks in designing and refining their range of products tailored to suit the needs and demands of small and medium business. In the meantime the SMEs also will get familiar with the results and consider them while approaching banks for credit facility.

#### **Government:**

The government can use the findings of this study to help in policy formulation and development of a framework for a better access to finance. Moreover, it will help governing bodies and the policy makers' to pave away how to encourage establishment and expansion of upcoming businesses.

#### **Researchers:**

The research findings and analysis are of great significance to those who wishes to do further research on and around this topic. This research is also expected to add to the existing literature on determinants of access to bank finance of SMEs.

### **1.4 Scope of the Study**

As the topic indicates the research revolves around the determinants of access to bank finance by SMEs in Addis Ketema sub city specifically in and around Merkato area. The research is conducted in order to identify major determinants that affect access to bank finance by SMEs in Addis Ketema sub city. In addition it will try to identify sources of finance or funds available for the start-up and the expansion of SMEs.

### **1.5 Organization of the Study**

This study was organized as follows; second chapter presents the literature review, where as methodology, data type, targeted population and variable issues are discussed in chapter three of

this study. Chapter four presents the empirical results and discussion of obtained empirical results. Chapter five is about summary of findings, conclusion and recommendations and the later presents references used in due course of conducting the study.

## **CHAPTER TWO: REVIEW OF RELATED LITRATURE**

### **2.1 Introduction**

SMEs are defined in a variety of ways, varying from country to country and from source to source when reporting statistics on SMEs. The number of employees, net assets, sales, and investment are all common benchmarks. However, employment is the most commonly used definitional basis. Even when the number of employees is used as the criterion, there is some difference in defining the top and lower limits of the work force. The lack of a universally agreed definition of SMEs is due to the diversity and richness of SMEs' characteristics, as well as the political strategies and economic conditions in each country (OECD, 2004). According to (Curran & Blackburn, 2001), SMEs operates in practically every sector of the economy; hence there are no conventional criteria that apply to them across all industries. Furthermore, (Harvie & Lee, 2002) noted that SMEs are defined differently in different nations because each economy and sector in a country goes through different stages of social and economic development.

### **2.2 Definition of SMEs in Ethiopia**

In 1997 Ethiopia adopted definition micro enterprises as businesses with a total asset of less than 20,000 Birr (\$1200) while Small Enterprises as businesses with a total asset of 500,000 Birr (\$30,000) or less. Unlike the international organization's definition base, the total asset is the only base used in this definition. In 2011, the country changed the definition of Micro and Small Enterprises to align it with at least a few other countries and international organizations (Esubalew, Amare, & Raghurama, 2020). However, the new definition only focuses on Micro and Small Enterprises and it does not put any demarcation between Small and Medium, and Medium and Large Enterprises. According to the then ministry of trade and industry development bureau (MOTI) the new Small & Micro Enterprises Development Strategy of Ethiopia (published 2011); the working definition of MSEs is based on capital and labor. The definition of medium enterprises is also based on capital and labor. The classification based on the number of employees and registered capital is shown in Table 2.1.

Table 2.1: SME classification in Ethiopia

Sr.no	Enterprise-Level	Sector	HiredLabor	Capital
1	Small	Industry	6–30	2001–20,000EUR
		Service	6–30	4001–60,000EUR
2	Medium	Industry	31–100	20,001–300,000 EUR
		Service	31-100	

*Source: Definition of MSE in Ethiopia (Small and Growing Businesses in Ethiopia 2017).*

### 2.3 Small and Medium-Sized Enterprises in Ethiopia

In most economies, particularly in developing nations, small and medium enterprises (SMEs) play a critical role (OECD, 2017). (Oláh, et al., 2019) recognize and underline the importance of small and medium businesses in the overall economy. The majority of firms in development economies are small and medium-sized enterprises (SMEs). SMEs, which account for seven out of ten jobs in emerging markets, generate the majority of formal jobs. When we look at the state of small and medium businesses in Africa, we can see that they are the continent's backbone, accounting for more than 90% of all businesses and employing over 60% of the continent's workforce (Durst, Susanne, & Gertstberger, 2021). Despite the fact that SMEs in Africa have a considerable impact on economic growth as a result of economic integration, they confront several challenges, including infrastructure deficiencies (Mallinguh, Edmund, & Zoltán, 2019). Access to capital, on the other hand, is a major stumbling block for SME expansion in emerging markets and developing countries; it is the second most commonly stated barrier (World Bank, 2019). Furthermore, if SMEs are able to generate high-quality jobs, they can help to eliminate economic disparities (Kamal-Chaoui & Lamia, 2017).

SMEs are inextricably related to economic development. For example, in their study of SMEs, growth, and poverty, (Beck, Demirguc-kunt, Laeven, & Maksimovic, 2006) explained, cross-country evidence shows that the relative size of a country's SME sector and economic growth are related positively. Another study by (Ayyagari, Beck, & Demirguc-Kunt, 2007) found that formal SMEs in high-income countries contribute on average 50% of GDP. Furthermore, data suggests that SMEs are the primary source of employment in many economies (Thorsten, Asli, & Soledad,

2008). Small and medium-sized enterprises (SMEs) are seen as critical to the development of a country's economy, particularly in developing countries (Samir & Samujh, 2020).

Likewise, a study by (Ong & Hishamuddin, 2012) backs up others' claims that SMEs are critical to economic development, especially in underdeveloped nations like Africa. Similarly, according to the (ITC, 2019) and (World Bank, 2019) reports, MSMEs (Micro, Small and Medium Enterprises) account for 60–70 percent of global employment and 50 percent of GDP, but they face access to credit, with the report revealing that 40 percent of formal MSMEs in developing countries have an unmet financing need of \$5.2 trillion per year. Globally, Over 200 million Micro, Small, and Medium Enterprises (MSMEs) around the world do not have access to banking services (Ernst and Young, 2017). Access to credit, according to (Samir & Samujh, 2020), is one of the hurdles to SMEs' development.

As a result, SMEs are seen as an important tool in the development of jobs, poverty reduction, and economic growth in the majority of developing countries. SME's have grown in importance in the urban economy, notably in terms of job creation. Similarly, SMEs are the most common source of income in Ethiopia, and they contribute significantly to local economic development while also serving as a basic means of existence (Tegegne & Mulatu, 2009). Despite its enormous contribution to long-term economic development, however, its performance in many developing nations, like Ethiopia, continues to fall short of expectations (Arinaitwe, 2006). According to the 2018 World Bank Enterprise Survey, just 22% of Sub-Saharan African countries are more disadvantaged in getting external financing than the average of 43 percent of other developing economies, excluding Africa. Smaller businesses in emerging economies, such as Sub-Saharan Africa, are less likely to have access to finance than larger businesses (Beck, Demirguc-kunt, Laeven, & Maksimovic, 2006) (Ayyagari, Beck, & Demirguc-Kunt, 2007) (Thorsten, Asli, & Soledad, 2008).

Ethiopia's financial sector is undeveloped, and financial services penetration is low (Zins & Lawrent, 2016). In Ethiopia, medium and small enterprise growth plays a vital role in the country's Industrial Development Strategy (UNDP, 2019), and is thus regarded as a key tool for employment creation. Furthermore, Ethiopia's SME sector is seen as a tool for bringing about economic revolution by efficiently utilizing people's skills and talents, particularly women and

youth, without requiring high-level training, a large amount of cash, or advanced technology (Nega, Fredu, & Hussien, 2016). However, evidence from various empirical studies shows the opposite, indicating that Ethiopia's SMEs face numerous challenges that prevent them from rapidly growing ((Wolday & Gebrehiwot, 2004), (Baza & Rao, 2017)).

Small and medium-sized businesses (SMEs) have a substantial impact on the economic and socioeconomic operations of countries. In terms of economic growth and societal progress, SMEs can help traders take advantage of market possibilities and speed up the development of rural areas by providing them with the tools they need to do so. SMEs provide impoverished communities with financial security, allowing them to afford a better standard of living. As a result, the Ethiopian government is constantly reforming regulations to encourage the growth of SMEs.

## **2.4 Ethiopian SMEs' Financing Options**

### **Formal Financial Institutions**

Financial institutions that are legally established and involved in the mobilization of savings and provision of credit are considered formal sources. The National Bank of Ethiopia (NBE) regulates and supervises these entities. The National Bank of Ethiopia (NBE), commercial banks (both private and public), Development Bank of Ethiopia (DBE), credit and savings cooperatives, insurance companies (both public and private), and microfinance institutions (owned by regional governments, NGOs, associations, and individuals) are all part of the formal financial sector in Ethiopia.

### **Informal Financing Sources**

This comprises entities that are not under the control of the Ethiopian National Bank. Financing from family and friends, supplier credit, private money lenders, and semi-formal lending organizations like rotating savings (Equb) and credit associations are also included. These are the most powerful and long-lasting traditional institutions, serving the financial and social requirements of micro and small company owners, particularly women (Yared & Seneshaw, 2008).

Non-formal sources in Ethiopia, according to (Dejene, 2003), include relatives and friends, money lenders, neighbors, Iddir, Iqqub, and Mahaber. Friends and family (66 percent), moneylenders (14 percent), and Iddir (7 percent) are the most common sources of loans. To put it another way, the majority of rural credit comes from unofficial sources. Every year, the informal sector mobilizes resources equal to around ten percent of all bank deposits in Ethiopia. Rural Iddirs alone raised 3.5 times the entire capital of all Ethiopian microfinance institutions.

## **2.5 The Measurement of Financial Access**

Individuals and businesses can obtain financial services such as credit, insurance, and other risk management services through access to finance. It refers to a company's ability to obtain and use financial services that are both inexpensive and usable while also meeting its financial requirements (Martin & Daniel, 2013). Financial access, in particular, enables individuals and businesses to shift away from short-term decision making and toward inter-temporal resource allocation. This increases savings and removes the self-financing constraint, enhancing incentives for productive investments and the expansion and deepening of goods and services markets. Access has four key dimensions: physical access, affordability, appropriate features that meet the users' particular needs and appropriate terms that do not effectively exclude any category of potential user (Martin & Daniel, 2013).

There are two types of access measures: those based on the information of providers, such as banks and other service providers, and those based on the information of users, such as individuals, households, or businesses (Beck, Demirguc-kunt, & Honohan, Access to financial services: Measurement, impact, & policies, 2009). Access to finance can be assessed in terms of access to specific institutions, such as banks, insurance companies, or microfinance organizations, as well as the services that these institutions provide, such as payments, savings, and loans and credits. Another way would be to investigate the specific applications of financial products like debit cards, credit cards, life insurance, and home mortgages, among others (Martin & Daniel, 2013).

MSMEs confront a number of challenges, including a lack of access to capital, as well as a bad investment climate and infrastructure. In less-developed countries, where financial markets are less established, regulatory and legal frameworks are weak, informational asymmetries persists,

and risk management systems are less robust, the financing restriction is more severe. A well-developed financial sector helps in the mobilization and allocation of resources, as well as the management of risks, all of which contribute to private sector development. Finance contributes to economic growth and, as a result, job creation (IFC, 2013).

Studies have indicated that having access to finance is associated with better job growth rates at the firm level (Dinh, Dimitris, & Hoa, 2010). According to a recent IFC study (IFC, 2013), financing helps to employment development through four channels: (1) assists entrepreneurs in starting new businesses, (2) assists businesses in making greater investments, (3) provides businesses with liquidity, and (4) assists businesses in creating indirect jobs through supply and distribution chains.

Improving access implies expanding the range of financial services readily available to everyone at a reasonable cost. The use of financial services is easier to quantify since it can be observed, but just use is not always the same as access. As a result, accesses imply that their financial facilities are in short supply, whereas uses reflect both supply and demand in the market. The availability of financial institutions in the market is the means to access, whereas the use is whether the financial facilities are adequately accessible by the users. Source: (World Bank, 2008).

## **2.6 Determinants to access to bank finance**

This portion does a literature review in order to identify the independent variables that has been used in the empirical analysis. This review leads us to the formulation of a model for estimating the probability of access to bank finance.

### **Owner-manager's Gender**

The way female and male entrepreneurs finance their businesses vary considerably ((Verheu & Thurik, 2001); (Carter & Rosa, 1998)). According to the enterprise literature, the issue of variations in finance sources connected to gender among SMEs is more highlighted during the initial (start-up) stage. (Verheu & Thurik, 2001) found that, while men and women do not differ considerably in terms of the type of capital they use, women entrepreneurs appear to have less start-up capital.

According to (Mijid, 2009), in terms of bank financing, Female entrepreneurs had higher loan denial and lower loan application rates. According to (Badulescu, 2011) women face more credibility concerns when dealing with bankers. (Coleman, 2007) also found evidence of credit discrimination against women entrepreneurs, who were routinely charged higher interest rates and required to put up additional collateral in order to obtain loans.

### **Owner-manager's Age**

Entrepreneurs' personal financing preferences often appear to shift as they become older (Agarwa, Driscoll, Gabaix, & Labison, 2008). The effect of the owner-manager's age on the financial behavior of SMEs, according to (Romano, Tanewski, & Symirnios, 2001), can be seen in that, unlike younger entrepreneurs, older entrepreneurs are less likely to put additional financing into their businesses. This finding is consistent with (Van der wijst, 1989) prior findings, which revealed that older SMEs' owner-managers are more hesitant to accept external ownership in the firm.

(Vos, Yeh, Carter, & Tagg, 2007) used two data sets from the UK and the US to investigate SME financial behavior. The findings revealed that younger owner-managers are more likely to need bank overdrafts and loans than senior owner-managers, who are more reliant on retained profits. Similarly, (Ogubazghi & Muturi, 2014) found that the age of SMEs' owner-managers has a significant impact on their enterprises' access to bank loans. Other research (e.g., (Nguyen N. & Luu N.T.H., 2013); (Slavec & Pordan, 2012) found no indication that the age of SMEs' owner-managers has a substantial impact on their ability to take loan from banks.

Bankers' perceptions of different age groups can affect SMEs' access to bank loans. Bankers, for example, view senior owner-managers as non-innovative and non-dynamic, making them less appealing for loan approval. Younger owner-managers, on the other hand, are seen as inventive and high-performing. Furthermore, it may be claimed that elder entrepreneurs are wiser and more responsible than younger entrepreneurs who might be perceived as risky portfolios.

### **Owner-manager's Education**

The educational background of SMEs' owner-managers is often positively associated to the firm's use of leverage, which is used by institutional financiers as a proxy for human

capital((Slavec & Pordan, 2012); (Coleman, 2007)). (Watson, 2006) found that an owner-manager's education level is important in explaining the debt-to-asset ratio of SME. It was also discovered that the level of education of SMEs owner-managers is a major factor of their financing preferences, with less educated ones relying more on internal sources and more educated ones more likely to use external financing (Gebru, 2009).

Between 1976 and 1986, (Bates, 1990) investigated the impact of owner-manager personal characteristics on the longevity of SMEs across a large sample of SMEs in the United States. According to the findings, the level of education of entrepreneurs is a big factor of the quantity of bank loans granted to SMEs. Ahmed and Hamid used the amount of education of top managers as a measure of human capital quality and discovered a substantial positive link between educational level and the likelihood of obtaining bank financing (Ahmed & Hamid, 2011). They went on to say that having a higher level of education gives entrepreneurs more confidence when interacting with bankers while applying for loans.

Educated owner-managers are more likely to have better managerial abilities and be more prepared to handle the credit system's complex administrative procedures. University graduates have the least difficulties in getting bank loans than the non graduates, according to (Irwin & Scott, 2010). Similar conclusions were reached by (Byiers, Rand, Tarp, & Bentzen, 2010)and explained this by saying that educated owner-managers are more confident in their ability to overcome barriers to obtaining a bank loan and are more informed about bank credit services and their requirements.

### **Possession of Fixed Asset**

The ability to provide collateral is a major factor in the impact of asset structure on SMEs' access to finance. Because collateral is so important in easing SMEs' access to debt financing (Bougheas, Mizen, & Yalcin, 2006). Firms having a higher fixed asset proportion use more financial leverage (Palacín-Sánchez, Ramírez-Herrera, & Di Pietro, 2013). The rationale for this is that these businesses may borrow at lower interest rates because their loans are secured by these assets. In a similar line, (Calomiris & Hubbard, 1989) found that when a company is smaller, such as a SME, credit constraints are more severe. One of the main reasons for this is that smaller businesses have fewer assets to offer as collateral.

According to (Ono & Uesugi, 2009), the utilization of collateral has a favorable link with the strength of the borrower-lender lending relationship, resulting in better SME access to external funding, particularly bank credit. (Odit & Gobardhun, 2011) came at a same conclusion. They also discovered that SMEs with a lower percentage of tangible assets in their total assets are more likely to have difficulty obtaining outside financing, such as bank loans, due to their inability to provide sufficient collateral.

### **Industry Sector**

According to a number of studies, SMEs' financial decisions are influenced by industry sector-related characteristics, (Mackay and Phillips, 2005; Michaelas et al., 1999). In terms of financial demands and choices, companies in the services industry, for example, can differ from those in manufacturing or construction. (Michaelas, Chittenden, & Poutziouris, 1999) used a sample of 3500 SMEs from ten industries in the UK to investigate the various capital structure factors. They came to the conclusion that the impact of industry on short- and long-term debt varied substantially industry sector. (Hall, Hutchinson, & Michaelas, 2000) obtained similar results using the same data but a different approach.

(Abor, 2007) investigated the impact of industry classification on Ghanaian SMEs' access to finance. The survey found that wholesale and retail trade sectors use short-term bank loan more than manufacturing SMEs, whilst construction, hotel and hospitality, and mining industries appear to rely more on long-term bank credit. Due to the high level of risk associated with the agricultural sector, the results of another study by (Roslan & Karim, 2009) revealed that banks may be more inclined to grant credit facilities to SMEs in the services or services support sector than to SMEs in the agriculture sector.

According to (Byiers, Rand, Tarp, & Bentzen, 2010), the business sector of SMEs appears to be significant for obtaining loans. According to their findings, SMEs in the metal-mechanic and wood-furniture sectors have much lower bank loan access than those in the food processing industry. In comparison to the other two industries, banks place a lesser risk premium on the food processing business, according to their interpretation. Furthermore, (Silva & Carreira, 2010) suggested that because the main input is human capital rather than physical capital, it is more difficult for most SMEs in the services sector to obtain bank loans because no physical capital

can be used as collateral.

### **Firm Age**

Firm age can be presented as another major factor of access to bank funding as firms' sources of finance change over time. A company may, for example, begin as a family-owned corporation and rely on internal financing sources such as personal savings and family finances. As a result, it may be able to acquire payments from its suppliers through time.

If a business has a well-established legal identity, company track record, and accounting processes, it may be able to acquire bank loans. Previous research (see (Aryeetey, 1994) and (North, Baldock, & Ekanem, 2010)) has discovered a link between firm age and bank financing. Being in business for a long time means that the company is more competitive and transparent in general, making the information needed by lenders to analyze and process applications more readily available. Furthermore, because they have not built adequate assets, young businesses are unlikely to meet the bank's collateral criteria.

Lenders find it difficult to examine credit applications filed by new businesses due to a lack of assets and information on financial records. Financing constraints were shown to be particularly harsh for start-ups and relatively young businesses in previous studies (three years old or less). According to (Aryeetey, 1994), who performed a survey of 133 firms in various industries in Ghana, just 10% of new businesses were able to secure bank loans, whereas medium-sized and older businesses were given credit three times more frequently than their smaller counterparts. According to (North, Baldock, & Ekanem, 2010), the primary reasons for younger businesses having difficulty obtaining financing include a lack of credit history, insufficient security, and poor business performance.

### **Firm Size**

Size is one of the variables that has traditionally been taken into account when making financial decisions and capital structure decisions. Firm size, for example, is employed as a proxy for both the optimal capital structure theory and the pecking order theory. Although there is no agreement among researchers on the criteria that should be used to quantify company size, the idea that firm size has an impact on SMEs' activities and expansion potential appears to be widely accepted.

However, employment size is the most commonly used in defining firm size.

The size of a company has a significant impact on its financial decisions. This influence can be seen clearly in the decision-making process when deciding whether to use one type of funding over another (Cassar, 2004). (El Kalak & Hudson, 2016) stated that banks and other financial institutions have eventually realized that when dealing with SMEs, different credit risk models should be utilized than when dealing with large corporations. This is because SMEs' relatively small size implies a high operational risk associated with their operations, and thus a higher risk of insolvency.

### **Lending procedures**

According to (Schmidt & Kropp, 1987), access is often determined by the sort of financial institution and its policies. What is displayed in the form of minimum loan amounts complicates application procedures and limits lending for specific purposes. Potential borrowers will not apply for credit if the repayment period, payment conditions, needed security, and provision of supplemental services do not meet the needs of the target group. If they also do, they will be denied access. As a key issue, the excessive level of security, paper work requirements, and red tape involved in applying for and obtaining bank financing. In terms of time, this was equally true for SMEs in most sectors regarding time taken to grant finance (Abdulaziz & Andrew, 2013).

## **2.7 Hypothesis of the Study**

The following hypotheses have been established based on a thorough literature review in order to identify determinants of access to bank finance in Small and Medium Enterprises.

***Hypothesis 1:*** Male operated SMEs have more access to finance than female operated SMEs.

***Hypothesis 2:*** SMEs run by older operator tend to have more access to finance than those run by younger ones.

***Hypothesis 3:*** SME operators with higher education have more access to finance than those with lower or no education.

***Hypothesis 4:*** SMEs which possess fixed asset are more likely to have access to finance than those which do not.

**Hypothesis 5:** *SMEs engaged in the manufacturing sector have more access to finance than SMEs engaged in the other sectors.*

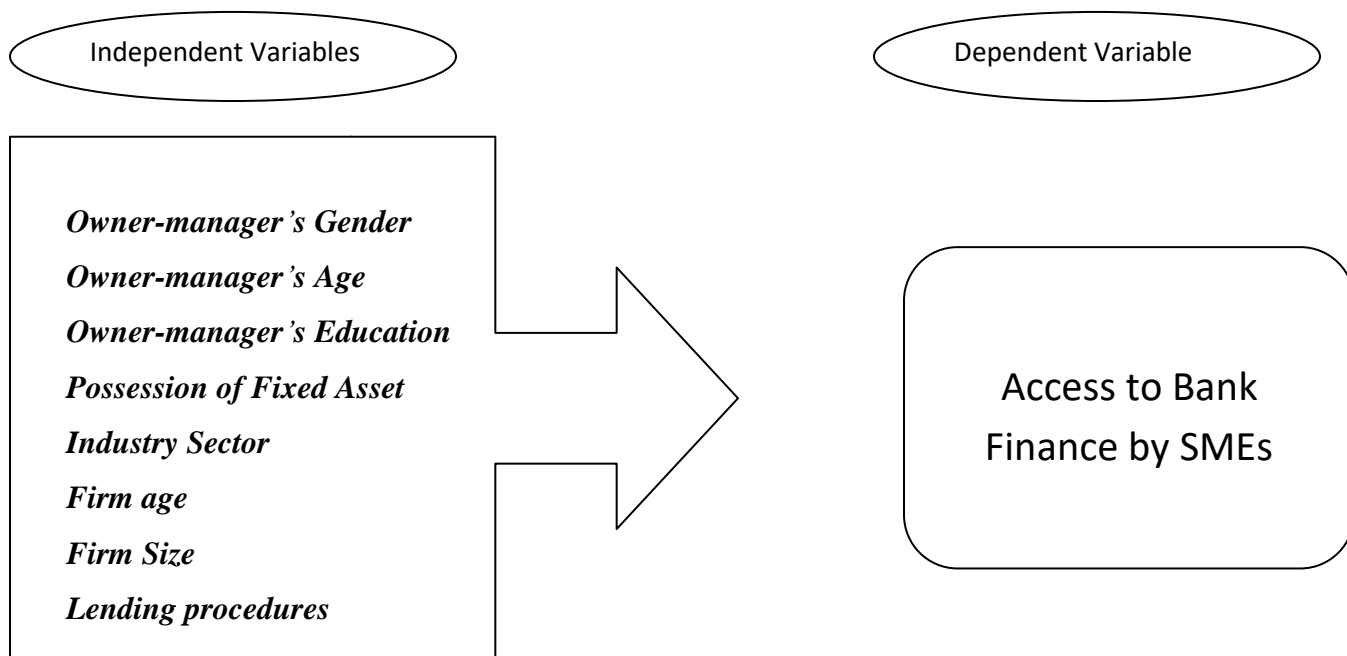
**Hypothesis 6:** *SMEs that are older have more access to finance than SMEs that are young.*

**Hypothesis 7:** *SMEs with larger employment size have more access to finance than those with smaller employment size.*

**Hypothesis 8:** *Lending procedures of financial institutions negatively affect SMEs' access to finance.*

## 2.8 Conceptual Framework

Based on the preceding explanations and review of literature about the financial constraints of SMEs in the study area, the following conceptual framework is built to correspond with the objectives. It conceptualizes the most important variables that are expected to affect SMEs' access to bank finance.

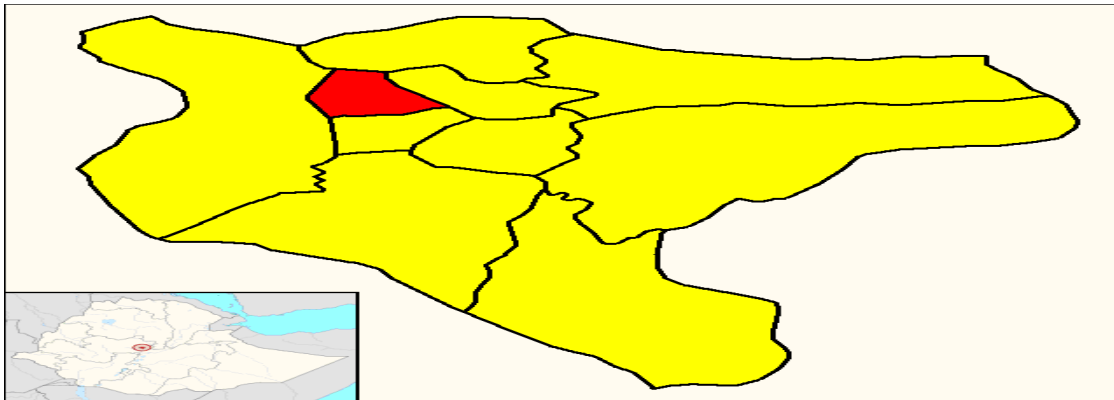


**Figure1: Conceptual framework of determinants of access to finance in SMEs**

## CHAPTER THREE: RESEARCH METHODS AND DATA COLLECTION

### 3.1 Site Selection and Description of the Study Area

The research site is in Addis Ababa, Addis Ketema city. This is one of the 11 sub cities that make up the capital. The district is at the city's northwestern outskirts, not far from the center. It is bordered on the north by Gullele, on the east by Arada, on the south by Lideta, and on the west by Kolfe Keranio sub cities. Mercato, Africa's largest open-air marketplace, is held there. According to the Addis Ababa city structure plan, Addis Ketema Sub city covers a total area of 7.41 km<sup>2</sup> (2.86 sq mi). In 2011, the sub city had a total population of 271,644 people, making it one of Addis Ababa's most densely populated sub cities.



**Figure2: Map of Addis Ketema sub-city**

### 3.2 Research Strategy and Design

#### 3.2.1 Research Strategy

Quantitative data was collected from primary and secondary data sources. Quantitative research design is used in conditions where there are preset instrument based questions, performance data, attitude data and observational data (Creswell, 1994).

#### 3.2.2 Research Design

A research design is a blueprint that lays out the methods and procedures for gathering and interpreting data. It guarantees that the study is relevant to the problem and that it employs valued methods (John, Khan, Robert, & David, 2007). This research employs both descriptive and explanatory research methods.

The most important objective of descriptive research is to describe the current state of circumstances. The purpose of this study was to characterize and critically evaluate the determinants of SMEs' access to finance in Addis Ketema sub-city. Furthermore, the study was explanatory in the sense that the link between variables was associated with the goal of explaining the combined influence of explanatory variables on financial access.

Furthermore, the research was cross-sectional in nature, meaning that all relevant data was gathered at a single point in time. The vastness of the study necessitates getting information from a cross-section of the population at a particular point in time, which is a feasible technique for conducting numerous descriptive studies (Janet, 2006).

### **3.3 Data Type and Source**

#### ***3.3.1 Data Type***

Quantitative research approach was used in this study. Quantitative method is an inquiry into a problem that can be measured with numbers and analyzed using statistical techniques (Gray, 2007).

#### **3.3.2 Data Sources**

Both primary and secondary sources of data collection were employed in the study.

##### ***i. Primary Sources***

We used well-designed, semi-structured questionnaire parts of which is adapted from (Selamawit Niguse, 2014) and owner/ managers of the SMEs completed them.

##### ***ii. Secondary Sources***

The secondary data was obtained from the internal report of Addis Ababa City Administration - Addis Ketema sub city Trade Bureau after formally approaching them for information meant for the study. Micro and Small Enterprises Development Agency of 2008 EC and Central Statistical Agency are also used to provide additional information where appropriate. Besides, published and/or unpublished government documents, reports and newsletters were reviewed to make the study fruitful.

### **3.4 Target Population and Sampling**

#### **3.4.1 Target Population**

According to our literature review, enterprises are categorized as micro, small, medium or large based on number of employees or their capital. As it is very difficult to adopt number of employees as a criterion putting in mind absence of reliable data, registered capital is taken as a sampling means. According to Addis Ketema sub city trade bureau there are about 3,432 SMEs with a registered capital of between Birr 100,000.00 and Birr 16,500,000 in the sub city.

#### **3.4.2 Sampling Design and Procedures**

##### **Sampling procedure**

The study employed a simple and stratified random sampling technique. Simple random sampling is a method of sampling that assures that every member of the population has an equal probability of being included in the sample. Sub samples are drawn inside different strata in stratified random sampling, and each stratum is more or less equal on some characteristics.

To obtain information from SMEs of various sizes, simple and stratified random sampling was used. This method is favored since it aids in the reduction of bias when interacting with the general public. With this strategy, the sampling frame can be arranged into generally homogeneous groups (strata) before picking elements for the sample. This step improves the chances of the final sample being representative of the stratified groups (Janet, 2006).

##### **Sample size**

The appropriate sample size for a study is determined by the nature of the population and the investigation's goal. Although there are no hard and fast standards, sample size is usually determined by the population being sampled (Catherine, 2009).

SMEs Addis Ketema subcity are 3432 in number (Addis Ketema Trade Bureau 2022). The sample size selected here is considered as representative of manufacturing, construction, Urban-Agriculture, service and trading sectors and it is large enough to allow for precision, confidence and generality of the research findings.

The following formula was used for the calculation of the sample size since it was relevant to

studies where a probability sampling method was used. Given the total population of the study, a simplified scientific formula provided by (Yemane T, 1967), i.e

$$n = \frac{N}{(1 + N(e)^2)}$$

In which e is the level of precision, i.e. e= 0.075 (0.075 level of significance).

$$\begin{aligned} n &= \frac{N}{(1 + N(e)^2)} \\ &= \frac{3,432}{(1 + 3432(0.075)^2)} \\ &= \mathbf{169} \end{aligned}$$

Accordingly, 169 respondents were selected randomly from 3432 SMEs. The 169 respondents will also be randomly selected based on their registered capital.

### **3.5 Data Collection and Instruments**

#### **3.5.1 Quantitative Data Collection Instruments**

The main tool for collecting quantitative data was through semi structured questionnaire. The questionnaire was kept very simple to encourage meaningful participation by the respondents. The questions were kept as concise as possible with care taken to the actual wording and phrasing of the questions. The literature in the study was used as a guideline for the development of the questions in the questionnaire.

#### **3.5.2 Data Collection Procedures**

The researcher along with three data collectors disseminated the questionnaire to the respondents. Training was given to the data collectors for assisting the respondents in filling out the questionnaires. Explanation about the objectives of the study was done and after the required consent was obtained, the questionnaire was disseminated. Secondary data sources were also carefully examined and relevant information was extracted.

### **3.6 Data Processing and Analysis**

#### **3.6.1 Data Processing**

Data was computer-processed in this investigation. Data processing is divided into two stages: data cleaning and data reduction. The acquired raw data was modified during data clean-up to

find abnormalities, errors, and omissions in responses, as well as to ensure that the questions were answered accurately and evenly. We allocated codes to reduce replies to a small number of categories. Following that, data input or recording was undertaken, followed by the categorization or grouping of a huge amount of raw data into classes or groups based on common criteria. Finally, the raw data was summarized and displayed using tabulation for additional study.

### ***3.6.2 Data Analysis***

The Statistical Package for Social Science (SPSS) version 23 was used to analyze the data obtained from primary sources. Descriptive statistics (Frequency, percentage, mean and standard deviation) were taken from this tool. A binary logit model which best fits the analysis of determinant of access to credit by small and medium enterprises were employed.

#### **Specification of the Logit Model**

In this study binary logistic regression model was used to examine the relationship between the independent variables and dependent variable (SMEs access to credit).

The justification for using binary logistic regression model is its simplicity of calculation and that its probability lies between 0 and 1 (two categories). Moreover, its probability approaches zero at a slower rate as the value of explanatory variable gets smaller and smaller, and the probability approaches 1 at a slower and slower rate as the value of the explanatory variable gets larger and larger (Gujarati, 2004).

But when the dependent variable is categorical, OLS regression technique produces parameter estimates that are inefficient and heteroscedastic error structure. As a result, testing hypothesis and construction of confidence interval becomes inaccurate and misleading (Gujarati, 2004).

Therefore, to alleviate these problems and come up with relevant output the non-linear specification model will select i.e, the cumulative distribution function (CDFs) are commonly chosen to represent the 0-1 response model that are the logit and probit models. The logit model assumes cumulative probability distribution function whereas the probit model is associated with the cumulative normal distribution (Gujarati, 2004). The logit and the probit model yield similar

parameter estimates, but the cumulative logistic regression model is preferred because of its comparative mathematical simplicity and more meaningful interpretation of odds ratio (Gujarati, 2004).

(Hosmer & Lemeshew, 1989) pointed out that the logistic distribution (logit) has got advantage over the others in the analysis of dichotomous outcome variable in that it is extremely flexible and easily used model from mathematical point of view and results in a meaningful interpretation. Hence, the logistic regression model has been selected for this study.

Logistic regression model was used to determine factors that influence access to credit by SMEs from banks. Logistic regression is useful for this kind of situation where prediction of the presence or absence of an outcome based on values of a set of predictor variables is needed. In addition, it is suited to models where the dependent variable is dichotomous.

According to (Gujarati, 2004), the cumulative logistic probability distribution model for this study is econometrically specified as follows:

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

Where  $P_i$  is the probability that an individual has accessed credit given  $X_i$ ,  $X_i$  represents the  $i^{\text{th}}$  explanatory variables  $\alpha$  &  $\beta_i$  are regression parameters to be estimated.  $e$  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 ratio of the probability that SMEs would have access to credit ( $P_i$ ) to the probability that SMEs would not have access to credit ( $1 - P_i$ ). That is,

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

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

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

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

$$Z_i = \alpha + \sum_{i=1}^m \beta_i X_i + U_i \quad (4)$$

The dichotomous response variable  $Y = 0$  or  $1$  with  $Y=1$  denotes the occurrence of the event of interest while  $Y=0$  denotes otherwise. The dummy variables, also known as indicators and bound variables, characterize dichotomous responses. In this study, since only two options are available, namely “access to credit” or “no access to credit” a binary model was set up to define  $Y=1$  for situation where SMEs accessed credit and  $Y=0$  for situations where SMEs did not access credit from either formal sources. The logistic regression in this study can therefore be specified as:

$$Y_i = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + U_i$$

$X_1$  denotes gender of owner-manager;

$X_2$  denotes age of owner-manager;

$X_3$  denotes educational level of owner-manager;

$X_4$  denotes possession of fixed Assets;

$X_5$  denotes the age of the enterprise;

$X_6$  denotes firm Size;

$X_7$  denotes business sector;

$X_8$  denotes lending procedures;

### **3.7 Definition of Variables**

#### ***3.7.1 Dependent variable***

The dependent variable for the logit analysis is of dichotomous nature representing small SMEs access to credit.  $Y=1$  for situation where SMEs accessed credit and  $Y=0$  for situations where SMEs did not access credit from formal credit sources.

### ***3.7.2 Independent/Explanatory variables of the study***

Review of literatures on determinants of access to finance of SMEs and past research findings were used to establish independent variables working of this study. In other words, among a number of factors, which have been related to SMEs' access to finance, in this study, the following entrepreneurial, firm level and institutional characteristics were hypothesized to explain the dependent variable.

**Owner-manager's Gender (X1):** Gender of the operator of SMEs. Males are more likely to access credit than females.

**Owner-manager's Age (X2):** Is a measure of age (in years) of the operator. Older operators are more likely to access credit banks than younger ones.

**Owner-manager's Educational level (X3):** Educational status of the SME operator. Owner-manager who have reached a higher level of education are more likely to access credit from banks than operators of lower educational level.

**Possession of fixed Assets (X4):** Possession of tangible fixed asset that could serve as collateral. SMEs who have fixed asset are more likely to access credit from banks than those who do not.

**Age of the enterprise (X5):** Age of the enterprise measured in number of years in which the SME has been operating. Older SMEs are more likely to access credit banks than younger ones.

**Business sector (X6):** The sector in which the SME is engaged in. SMEs in the manufacturing sector are more likely to access credit banks than SMEs in other sectors.

**Firm Size (X7):** Firm Size of SMEs in terms of number of employees including family members. SMEs with larger employment size are more likely to access credit from banks than SMEs with smaller employment size.

**Lending procedures (X8):** Attitude of SME operators towards lending procedure of banks and how it discourages loan application. SME operators with a negative attitude towards lending procedure will be discouraged from loan application and are less likely to access credit from banks.

Table 3.1: Name, Type, code and value of variables

Name	Type	Code	Value
<i>SMEs' access to credit</i>	Dummy	ACCESS	Y=1ifAccesstocredit,0ifNoaccess
<i>Owner-Manager's Gender</i>	Dummy	GEN_OM	1ifSMEoperatorisfemale,0ifmale
<i>Owner-Manager's Age</i>	Categorical	AGE_OM	1if18-30,2if31-40,3if41-50,4if>50
<i>Owner-Manager's Educational level</i>	Categorical	EDU_OM	1ifNoformaleducation,2ifprimaryschool,3ifsecondary school,4ifTVET/College and above
<i>Possession of fixed asset</i>	Dummy	FIX_ASSET	1ifthereisfixedasset,0 otherwise
<i>SME age</i>	Continuous	AGE_FM	SME age in number of years
<i>SME employment size</i>	Categorical	SIZE_FM	1if 6-20employees,2if21-40,3if41-80,5if>80
<i>Sector</i>	Categorical	SECTOR	1ifmanufacturing,2construction,3urban agriculture,4service,5trade
<i>Lending procedure</i>	Dummy	LEND_PR	1ifyes,0otherwise

## CHAPTER FOUR: DATA ANALYSIS AND DISCUSSION

### 4.1 Descriptive Statistical Analysis

The main objective of this study was to assess the determinants of access to finance in SMES in Addis Ketema sub-city. In order to achieve the objective questionnaires were distributed to a sample of 169 SMEs and 169 questionnaires were filled properly, with all of the questionnaires returned. SMEs' access to credit is affected by owner-manager, firm level and institutional characteristics. This section provides descriptive analysis of the major source of initial and startup finance and difference between SMEs who had access to credit (Access) and SMEs which did not have access to credit (No access) with respect to explanatory variable which were hypothesized to affect SMEs' access to credit from banks.

#### 4.1.1 Source of Finance

One of the objectives of this study was identifying the source of initial and working capital finance for SMEs in Addis Ketema sub-city. Availability of finance influences the viability and success of SMEs since it determines the capacity of an enterprise in choice of technology, access to markets, and access to essential resources, etc. Yet, securing capital for business start-up or business operation is one of the major obstacles of every entrepreneur, particularly those in the SME sector.

Table 4.1.1.1: The major source of Initial/Startup Finance

PARTICULARS	Responses		Percent of Cases
	N	Percent	
BANK	6	2.0%	3.6%
STARTUP CAPITAL MICROFINANCE	12	4.1%	7.1%
OWN SAVING	82	27.9%	48.5%
FRIENDS/FAMILY	119	40.5%	70.4%
EQUUB	75	25.5%	44.4%
Total	294	100.0%	174.0%

Source: Own survey data 2022

As indicated in the above table, the major finance as a source of startup capital came from friends/family 40.5%, ahead of own savings 27.9% & Equub 25.5% that stood second & third respectively from sample SMEs that were surveyed. Banks & MFI contribute only for 6.1%

where 2% from banks & 4.1% from MFIs.

Table 4.1.1.2: The major source of Working-Capital

PARTICULARS		Responses		Percent of Cases
		N	Percent	
WORKING-CAPITAL	BANK	57	16.8%	33.7%
	MICROFINANCE	23	6.8%	13.6%
	MONEY LENDERS	11	3.2%	6.5%
	OWN SAVING	150	44.2%	88.8%
	FRIENDS/FAMILY	28	8.3%	16.6%
	EQUB	70	20.6%	41.4%
Total		339	100.0%	200.6%

Source: Own survey data 2022

The highest percentage of working capital came again from informal financial sources represented by own saving 44.2% followed by “equb” 20.6%. Banks represented by banks and microfinance were sources of working capital finance for 16.8 percent and 6.8 percent of sample SMEs surveyed.

In Ethiopia, formal finance has not yet superseded informal finance largely because the current working practices of formal financial intermediaries are not adapted to providing service in small packets at a cost that makes them affordable to the poor (Haftu, Tsehay, Teklu, & Tasew, 2009). Accordingly, for the largest percentage of sample SMEs surveyed in Addis Ketema sub-city, their source of initial and startup finance was own savings. The major sources of loan or credit on the other hand are friends and family, “Equb” & banks & MFIs in their order. This indicates that the major source of credit for SMEs during startup & working capital were informal financial sources (friends/family and “equb”). Banks, represented by microfinance & banks served as a source of initial or startup finance for only small percent of SMEs surveyed. This implies that informal financial sources serve as the major source of finance for SMEs. This confirms the assertion by ( Yared & Seneshaw, 2008); (Admasu, 2012.)), that informal financial sources serve as the major source of finance for SMEs in Ethiopia.

#### 4.1.2 Owner-manager’s Demographic Characteristics

Owner-manager’s characteristics make a difference to the firm’s ability and likelihood of

accessing external finance (Cassar, 2004). Owner-manager's characteristics considered in this study were Age, Gender and Educational level.

#### **4.1.2.1 Owner-manager's Age and Access to Credit**

Age is an important factor and it is often found that the personal financing preferences of entrepreneurs appear to change according to age (Abdulaziz & Andrew, 2013). Table 4.1.2.1 shows a cross tabulation of entrepreneurs age and access to credit from banks. The average age of respondents was 37 years, with minimum and maximum ages of 21 and 68 years respectively. The largest percentages of respondents were in the age group of 31-40 63 (37%) followed by age group of 21-30 (33%). Age group of >51 on the other hand constitutes the least out of respondents. Comparing each age group with respect to credit access and no access, respondents within the age group of >50 had the highest percentage to access credit from banks. Respondents within the age group of 21-30 on the other hand the lowest percentage of those who were able to access credit from banks. According to the survey result 70% of the respondents were below the age of 40 which means most of the SMEs entrepreneurs were young peoples and only 17% access to credit from banks.

Owners or managers with older age are more likely to access credit from banks than those with younger age. This implies that the personal financing preferences of owners or managers appear to change according to age and the age of the entrepreneur is a significant determinant of the risk of borrowing. In line with this other researchers also argue that as the age of the owner or manager increases, so does his business experience, practical, wisdom and his income generating capacity. In addition, due to capability of the older entrepreneurs to accumulate assets which are used as collaterals, banks perceive them as credit worthy. As a result, they are more likely to access credit from banks than the younger counterpart. This result is consistent with previous study of (Anthony & Frank, 2013) but contrary to the study of (Sebopetji & Belete, 2009).

Table4.1.2.1: Owner Manager’s age and access to credit from banks

PARTICULARS	NO ACCESS		ACCESS		Total		
	No.	%	No.	%	No.	%	
21-30	44	80%	11	20%	55	33%	
31-40	45	71%	18	29%	63	37%	
41-50	19	61%	12	39%	31	18%	
OWNER- MANAGER'S AGE	>51	9	45%	11	55%	20	12%
Total	117	69%	52	31%	169	100%	
Mean			37				
St.Deviation			10.391				
Minimum			21				
Maximum			68				

Source: Own survey data 2022

#### 4.1.2.2 Entrepreneur’s Gender and Access to Credit

The influence of gender on access to credit was of interest in this study. The way female and male entrepreneurs finance their businesses vary considerably ((Verheu & Thurik, 2001); (Carter & Rosa, 1998)). According to the enterprise literature, the issue of variations in finance sources connected to gender among SMEs is more highlighted during the initial (start-up) stage. (Verheu & Thurik, 2001) found that, while men and women do not differ considerably in terms of the type of capital they use, women entrepreneurs appear to have less start-up capital.

The finding in this study reveals that with regard to gender, the sample was composed of 57% male and 43% female entrepreneurs (Table 4.1.2.2). The percentage of male entrepreneurs within no access and access to credit is 62 percent and 38 percent respectively. The percentage of female entrepreneurs within no access and access to credit on the other hand is 79 percent and 21percents respectively.

When comparing the percentage of individuals having access to credit among male entrepreneurs (38%) and female entrepreneurs (21%), it becomes clear that there is substantial difference in the number of males and females with access to credit from banks. This implies that banks set a fine line difference in lending to SME operators by gender and males are in a better positions accessing credit from banks.

Table 4.1.2.2 Cross tabulation of demographic characteristics and access to credit

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
OWNER-MANAGER'S	FEMALE	57	79%	15	21%	72	43%
GENEDER	MALE	60	62%	37	38%	97	57%
Total		117	69%	52	31%	169	100%

Source: Own survey data 2022

#### 4.1.2.3 Owner-Manager's Educational Level and Access to Credit

A scholar such as Kimuyu and Omit (2000) argues that, as the level of education of entrepreneur increases, the chances to secure credit increases as well. A scholar argue that, as the level of education increases, the ability to prepare and maintain financial records increases and hence increases chances to secure credit. Level of education was also a variable of interest to the researcher. According to the survey result; all of the respondents were literate of which 19 percent had reached primary school, 42 percent secondary school and 39 percent TVET/College and above (Table 4.1.2.3). With respect to access to credit, 11 percent of those who have reached primary school, 20 percent of those within secondary school and 32 percent of those within TVET/College & above had access to credit. It implies that, those with higher level of education had more access to credit from banks than those with lower levels or no formal education.

Table 4.1.2.3 Educational level and access to credit from banks

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
OWNER-MANAGERS	PRIMARY SCHOOL	21	66%	11	34%	32	19%
EDUCATION	SECONDARY SCHOOL	51	72%	20	28%	71	42%
	TVET/COLLEGE AND ABOVE	45	68%	21	32%	66	39%
Total		117	69%	52	31%	169	100%

Source: Own survey data 2022

#### 4.1.3 Firm Level Characteristics

##### 4.1.3.1 Possession of Fixed Asset and Access to Credit

With respect to possession of fixed asset, 108 (64%) of sample SMEs surveyed had fixed asset in possession (Table 4.1.31.1). The rest 61(36%) of SMEs did not have a fixed asset. Among SMEs who had fixed asset, 37(34%) were able to access credit from banks while the rest 71(66%) did

not. On the other hand, among SMEs which did not have fixed asset 15(25%) were able to access finance while the rest 46(75%) did not. This implies with significant number of SMEs with fixed asset being unable to access credit from banks where as SMEs in good numbers were able to access credit without possession of fixed asset, this shows possession of fixed asset does not influence the probability of access to credit from banks.

Table4.1.3.1: Possession of fixed asset and status of access to credit

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
POSSESSION OF FIXED ASSET BY FIRM	NO FIXED ASSET	46	75%	15	25%	61	36%
	OWNS FIXED ASSET	71	66%	37	34%	108	64%
Total		117	69%	52	31%	169	100%

Source: Own survey data 2022

#### 4.1.3.2 Firm Age and Access to Credit

Firm age in this study indicates the operating period of the enterprise in number of years. Table 4.5 indicates that the age of SMEs with no access to finance and those with access to finance. Accordingly 59% of those with greater than the age of ten years, 9% of ages between 6 & 10 years and 29% of below 6 years of age had accessed bank finance. There is no substantial pattern that depicts SMEs with access and no access to credit as age increase or decrease.

Table4.1.3.2: Age of SMEs and access to credit

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
FIRM	1-5	63	71%	26	29%	89	53%
	6-10	39	91%	4	9%	43	53%
	>10	15	41%	22	59%	37	22%
	Total	117	69%	52	31%	169	100%
AGE	Mean			7.033			
	St.Dev.			5.0906			
	Minimum			1			
	Maximum			22			

Source: Own survey data 2022

#### 4.1.3.3 Employment Size and Access to Credit

According to the survey, most of the SMEs (55%) have 6-20 employees. Similarly 23% had 20-40 employees, 14% 40-80 employees and 7% >80 employees (Table 4.1.3.3). We have 10 missed out values from respondents. Coming to access to credit 55% of SMEs with >80 employees, 43% of those with 40-80 employees, 32% of those with 20-40 employees and 16% of those 6-20 employees had access to credit. This indicates that SMEs with large number of employees (size) had better access to credit than SMEs with smaller number of employees (size). We can therefore say that employment size of SMEs affects the probability of access to credit from banks.

Table 4.1.3.3 Employment size of SMEs and status of access to credit

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
OWNER-MANAGERS EDUCATION	6-20 EMPLOYEES	65	74%	23	26%	88	55%
	20-40 EMPLOYEES	25	68%	12	32%	37	23%
	40-80 EMPLOYEES	13	57%	10	43%	23	14%
	80-100 EMPLOYEES	5	45%	6	55%	11	7%
Total		108	68%	51	32%	159	100%

Source: Own survey data 2022

#### 4.1.3.4 Business Sector and Access to Credit

The sector in which SMEs are engaged in was also hypothesized to affect access to credit. As indicated in Table 4.1.3.4, most of the SMEs surveyed (46%) are involved in the trade sector and zero for urban agriculture. With respect to access to credit banks, SMEs within the manufacturing sector have the highest percentage of access to credit (71%). The remaining sectors had very close percentages, construction (29%), trade (28%) and service sector with (27%) in accessing bank finance. No respondent has engaged in urban agriculture making sense, putting in mind Addis Ketema is one of the most densely populated sub city of the capital Addis Ababa. This indicates that SMEs involved in manufacturing sector comparably had more probability of access to credit from banks than other sectors. SMEs engaged in service & trade sector on the other hand had comparably less probability of access to credit from banks than other sectors.

Table4.1.3.4: Sector of SMEs and status of access to credit

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
SECTOR OF THE FIRM	MANUFACTURING	4	29%	10	71%	14	9%
	CONSTRUCTION	20	71%	8	29%	28	18%
	SERVICE	32	73%	12	27%	44	28%
	TRADE	52	72%	20	28%	72	46%
Total		108	68%	52	33%	158	100%

*Source: Own survey data 2022*

#### 4.1.4 Institutional Characteristics, Application for Loan and Access to Credit

##### 4.1.4.1 Application for Loan and Access to Credit

With respect to loan application and access to credit, only 114 (67%) of the total SMEs surveyed applied for loan from banks (Table 4.1.4.1). The rest 33% did not apply for loan and their reasons have been discussed latter. Of those who applied for loan from banks, only 52 (46%) were successful in obtaining loan. This indicates even if most of the SMEs did apply for loan from banks more than half of them were rejected.

Table4.1.4.1.1: Application for loan and access to credit from banks

PARTICULARS		NO ACCESS		ACCESS		Total	
		No.	%	No.	%	No.	%
APPLICATION FOR CREDIT	YES	62	54%	52	46%	114	67%
	NO	55	100%	0	0%	55	33%
Total		117	69%	52	31%	169	100%

*Source: Own survey data 2022*

Finance is the driving factor of improvement process for SMEs helping them to set up and expand their operations, build up new products and invests in new staff or production facilities (World Bank, 2008). Growth, access to new technology, access to markets and essential resources are mainly dependent on access to finance.

As mentioned above, out of the total firms in our study, 114 of them applied and 55 did not apply due to different reasons. According to Table 4.1.4.2, a handful of them (25.2%) did not apply not to risk their collateral in case they failed to repay, 23.3% because of the incomprehensible lending procedure of financial institutions, 14.6% just fear of repaying back

the loan. This indicates that SMEs did not apply for loan not because the loan was not needed but because of their attitude towards the collaterals they possess and hectic lending procedures adopted by the institution.

Table 4.1.4.1.2: Reason SMEs did not apply for loan from banks

PARTICULARS		Responses		Percent of Cases
		N	Percent	
REASON FOR NOT APPLYING FOR LOAN	HIGH INTEREST RATE	12	11.7%	21.8%
	NOT TO RISK COLLATERAL	26	25.2%	47.3%
	DIFFICULT LENDING PROCEDURE	24	23.3%	43.6%
	INFLEXIBLE REPAYMENT PERIOD	9	8.7%	16.4%
	FEAR OF REPAYING BACK	15	14.6%	27.3%
	LOAN NOT NEEDED	9	8.7%	16.4%
	FAVORITISM, TIMELINESS,	8	7.8%	14.5%
Total		103	100.0%	187.3%

Source: Own survey data 2022

On the other hand Table 4.1.4.3 summarizes reasons for those applied for loan but their loan application rejected. The main reason why their loan application was declined is because of lack of collateral which constitutes 37.6% of the responses and sector bias in the second place amounting 18.8%. This implies financial institutions besides the collateral requirements discriminates the business sector the SMEs engaged. It is almost 9% of the respondents undecided just by selecting others option, this is partly due to the financial institutions absence of a culture of communicating to loan applicants why their application is rejected.

Table 4.1.4.1.3: Reasons for rejection of loan application by banks

PARTICULARS		Responses		Percent of Cases
		N	Percent	
REASON FOR LOAN APPLICATION REJECTED	LACK OF COLLATERAL	32	37.6%	62.7%
	LACK OF FINANCIAL STATEMENT	11	12.9%	21.6%
	POOR LOAN REPAYMENT HISTORY	8	9.4%	15.7%
	SECTOR BIAS	16	18.8%	31.4%
	RISKY VENTURE	10	11.8%	19.6%
	OTHER	8	9.4%	15.7%
Total		85	100.0%	166.7%

Source: Own survey data 2022

#### 4.1.4.2 Institutional characteristics and Access to Credit

The main institutional characteristic considered in this study is attitudes towards lending procedure. It is related to lending policies of financial institutions, their service provision and its effect on SMEs' access to credit. Literature dictates SMEs' attitude towards the lending policy and service provision by banks will affect their probability of access to credit since those with negative attitude will be discouraged from loan application and access to credit. Table 4.1.4.2 summarizes the major factors that discourage loan application by SMEs to banks. Among them, lending procedure constitutes nearly 51.1% of the responses and collateral requirement 48.9%. Financial institution's on and off loan advancement inclination (due to liquidity position and governing body's intervention) have contributed SMEs to develop this attitude and ultimately affecting their decision to apply for bank loan or not. A collateral requirement discourages SMEs from applying for loan as it is unaffordable entailing a sacrifice of large amount of capital to own them. The loan repayment period and mode of repayment has an impact as most of the financial institutions arrange the modality based on their portfolio than the need of the borrowers.

Table 4.1.4.2 Respondents attitude towards factors that affect access to credit

Particulars		Responses		Percent of Cases
		N	Percent	
ATTITUDES TOWARDS INSTITUTIONAL VARIABLE	COLLATERAL REQUIREMENTS	116	48.9%	70.7%
	BANK'S LENDING PROCEDURE	121	51.1%	73.8%
Total		237	100.0%	144.5%

Source: Own survey data 2022

## 4.2 Model Output

### 4.2.1 Multicollinearity diagnosis

Both the continuous and discrete explanatory variables were tested for the presence of a multicollinearity problem before running the logistic regression model. When at least one of the independent variables is a linear combination of the others, a problem of multi-

collinearity occurs. Because of the presence of multi-collinearity, the calculated regression coefficients may have the erroneous sign and smaller t-ratios, leading to incorrect conclusions. The Variance Inflation Factor (VIF) was employed to test for multi-collinearity in this investigation.

According to (Gujarati, 2004), VIF can be defined as:  $VIF(x_i) = 1/1 - R_i^2$

Where,  $R_i^2$  is the square of multiple correlation coefficients that results when one explanatory variable ( $X_i$ ) is regressed against all other explanatory variables. The more VIF ( $X_i$ ) is greater, the more "troublesome" or collinear the variable  $X_i$  is. There is a multi-collinearity problem if the VIF of a variable is more than 10. There is no value greater than 10 in this study (Appendix 1), hence there is no multi-collinearity problem in the final model development.

#### ***4.2.2 Determinants of SMEs' Access to Formal Sources of Credit***

The binary logit model was used to identify the major determinants of SMEs' access to formal sources of finance. In the logit model analysis, we emphasize on considering the combined effect of variables between SMEs' that are formal credit users and non-users in the study area. The emphasis therefore, is on analyzing the variables together. By considering the variables simultaneously, we are able to incorporate important information about their relationship.

Logistic regression assumes that  $P(Y=1)$  is the probability of the event occurring. The dependent variable was therefore coded accordingly. The result of the binary regression variable i.e the probability of being  $P(Y=1)$ . The variables that were found to be significant at 5 percent or less have been indicated with (\*) and (\*\*).

Owner-Manager's age, possession of fixed asset and lending procedure were found to be significant in determining SMEs access to banks. On the other hand, owner-manager's gender and educational level, SMEs age, size and sector happened to be insignificant in determining the probability of SMEs access to credit from banks. Below is a summary of the results of the logistic regression model.

Table4.2.2: Result of Logistic regression estimation

VARIABLES	B	Wald	Sig.	Exp(B)
<b>OWNER-MANAGER'S AGE (REFERENCE &gt;51)</b>				
18-30		6.208	.102	
31-40	-2.199	4.506	.034**	.111
41-50	-.740	.788	.375	.477
>51				
<b>OWNER-MANAGER'S GENDER</b>	.579	1.191	.275	1.784
<b>OWNER-MANAGERS EDUCATION (REFERENCE TVET COLLEGE AND ABOVE)</b>				
PRIMARY SCHOOL		3.000	.223	
SECONDARY SCHOOL	-1.257	2.200	.138	.285
TVET/COLLEDGE AND ABOVE	.124	.053	.818	1.132
<b>FIRM AGE (REFERENCE &gt;10 YEARS)</b>				
0-5		.697	.706	
5-10	.166	.061	.804	1.181
>10	-.311	.229	.632	.733
<b>FIRM SIZE IN NUMBER OF EMPLOYEES (REFERENCE &gt; 80 EMPLOYEES)</b>				
6-20 EMPLOYEES		.679	.878	
20-40 EMPLOYEES	-.374	.084	.772	.688
40-80 EMPLOYEES	-.566	.261	.610	.568
80-100 EMPLOYEES	.099	.008	.929	1.104
<b>SECTOR OF THE FIRM (REFERENCE TRADE SECTOR)</b>				
SECTOR		4.299	.231	
MANUFACTURING	.651	.432	.511	1.918
CONSTRUCTION	-1.238	1.996	.158	.290
SERVICE	-.609	.892	.345	.544
<b>POSESION OF FIXED ASSET LENDING PROCEDURE</b>				
	2.641	15.626	.000*	14.028
	-1.171	4.486	.034**	.310

Source: Own survey data 2022

\*Indicates 1 percent level of significance, \*\*Indicates 5 percent level of significance

### **4.2.3 Interpretation of the Result of the Model**

#### **Owner-Manager's Age**

At a 5% level of significance, the variable Owner-Manager's Age has a positive and statistically significant effect on SMEs' access to financing from banks. Using the age of a 51-year-old and above entrepreneur as a benchmark, we can observe that the odds ratio for entrepreneurs between the ages of 31 and 40 is 0.111. This means those entrepreneurs aged 31 to 40 are 88.9% less likely than those aged 51 and more to obtain financing from banks. Therefore the hypothesis that “*SMEs run by older operator tend to have more access to finance than those run by younger ones.*” is accepted. This finding is in line with a prior study by (Anthony & Frank, 2013), although it contradicts (Sebopetji & Belete, 2009).

As an entrepreneur's age grows, so does his business expertise, practical understanding, and ability to generate income (Swain, 2001). Furthermore, financial institutions view older entrepreneurs as creditworthy due to their ability to acquire assets that can be used as collateral. As a result, they are more likely to obtain credit from banks than younger entrepreneurs.

#### **Possession of Fixed Asset**

Possession of fixed asset was hypothesized to have significant effect on access to credit from banks with positive perception about possession of fixed asset thought to affect decision of the lenders to give credit to SME operators and owner-managers. So, the variable possession of fixed asset has a positive and statistically significant relationship with SMEs' access to credit from banks at 1% level of significance. With an odds ratio of 14.028, SME operators who possess fixed asset 14.028 times more likely to access credit from banks than those who do not. Therefore the hypothesis that “*SMEs which possess fixed asset are more likely to have access to finance than those which do not*” is accepted.

Besides, according to the survey among SMEs who owned fixed asset, two-third of them were able to access credit. This implies that possession of fixed asset does significantly affect the probability of access to credit from banks. The possession of fixed assets gives the SMEs the liberty of pledging them as collateral to back their loan requests and show them in their financial statements which most of banks happy to see. Banks see possession of a fixed asset not just as

insurance, but also as proof of the borrower's commitment to repay. This backs up (Porter & Yergin, 2006) claiming that when it comes to lending to SMEs, banks have a defensive lending policy that requires substantial collateral.

### **Lending procedure**

The variable lending procedure has a negative and statistically significant relationship with SMEs' access to credit from banks at 5% level of significance. With an odds ratio of 0.31, SME operators who have a negative attitude about lending procedure are 69% less likely to access credit from banks than those who do not. Therefore the hypothesis that “*lending procedure of financial institutions negatively affects SMEs' access to finance*” is accepted. This result is consistent with a study by (Green, 2003).

To get formal loans entrepreneurs are expected to pass through different processes, which are time-taking, what is displayed inform of prescribed minimum loan amounts, complicate application procedures and give restrictions on credit for specific purposes, cumbersome and sometimes difficult to understand. Rather they prefer to take loan from the informal credit institutions for the sake of ease even if it charges higher interest rates. (Schmidt & Kropp, 1987) pointed out that in most cases the access problem especially among banks, is often created because lending policies. When terms of payment, required security and the provision of supplementary services do not fit the needs of the target group, potential borrowers will not apply for credit even where it exists and when they do, they will be denied access (Schmidt & Kropp, 1987).

Table4.2.3: Summary of Hypothesis tests

Sr.	Hypothesis	Result	Sig. Level
1	Male operated SMEs have more access to finance than female operated SMEs.	Not Supported	0.275
2	SMEs run by older operator tend to have more access to finance than those run by younger ones.	Supported	.034
3	SME operators with higher education have more access to finance than those with lower or no education.	Not Supported	0.818

4	SMEs which possess fixed asset are more likely to have access to finance than those which do not.	Supported	0.00
5	SMEs engaged in the manufacturing sector have more access to finance than SMEs engaged in the other sectors.	Not Supported	0.231
6	SMEs that are older have more access to finance than SMEs that are young.	Not Supported	0.706
7	SMEs with larger employment size have more access to finance than those with smaller employment size.	Not Supported	0.878
8	Lending procedures of financial institutions negatively affect SMEs' access to finance.	Supported	0.034

## **CHAPTER FIVE: SUMMARY, CONCLUSION AND RECOMMENDATION**

### **5.1 Summary**

The aim of this study was to investigate determinants of access to bank finance for SMEs in Addis Ketema sub city. Stratified random sampling was used in order to select 169 sample SMEs. Primary data was then collected from SME operators and owner managers by using structured questionnaire. Both descriptive and binary logistic regression was then used to analyze data that generated through cross sectional study design.

The study was focused on variables owner-manager's age, gender, and educational level, firm's age, size, sector and possession of fixed asset and the financial institution's lending procedure vis-à-vis its effect on access to finance from financial institutions (banks).

According to descriptive statistics results, the most common source of startup capital was friends/family 40.5%, followed by individual savings 27.3% and Equib 25.5%, which came in second and third, respectively. Banks, such as banks and MFIs, provide only 6.1%, with banks accounting for 2% and MFIs accounting for 4.1%. The biggest percentage of working capital came again from informal financial sources, with private savings accounting for 44.2 % and "equib" accounting for 20.6 %. Working capital finance was obtained from banks such as banks and microfinance for 16.8% and 6.8% of the sample SMEs, respectively. This means that in the Addis Ketema sub-city, informal financial sources are still the primary source of funding for SMEs.

Although much of the sample SME were males (57%) there was a difference between the percentage of male entrepreneurs with access to credit (38%) and the percentage of female entrepreneurs with access to credit (21%). This implies that that gender does have an effect on SMEs' access to credit from banks but the significance is very limited. The same thing applies to age of the entrepreneur. The mean age of respondents was 37 years, with minimum and maximum ages of 21 and 68 years respectively. There was a direct relationship between access to bank loan and owner manager's age, results from our sample data reveals as the age of respondents increase access to credit from banks also increased.

Other descriptive analysis also reveals percentage of access to credit is 34%, 28% and 32% for

those who have completed primary school, secondary school and TVET/College and above respectively. This indicates SME owner-manager who have reached TVET/College and above had no significant differences in accessing bank loan than those reached primary and secondary schools.

According to the survey, most of the SMEs (55%) have 6-20 employees. Similarly 23% had 20-40 employees, 14% 40-80 employees and 7% >80 employees. Coming to access to credit 55% of SMEs with >80 employees, 43% of those with 40-80 employees, 32% of those with 20-40 employees and 16% of those 6-20 employees had access to credit. This indicates that SMEs with large number of employees (size) had better access to credit than SMEs with smaller number of employees (size).

SMEs within the manufacturing sector have the highest percentage of access to credit (71%). The remaining sectors had very close percentages, construction (29%), trade (28%) and service sector with (27%) in accessing bank finance. This indicates that SMEs involved in manufacturing sector comparably had more probability of access to credit from banks than other sectors. No respondent reported in urban agriculture, making sense putting in mind Addis Ketema is one of the most densely populated sub cities of the capital Addis Ababa.

The major factors that discourage loan application by SMEs from banks also addressed in the study. Among them, lending procedure constitutes nearly 32% of the responses, collateral requirement 30.3% loan repayment schedule amounting 25.5% and lending interest rate just at 14.2% of the responses. The on-and-off loan advancement inclination of financial institutions (due to liquidity status and governing body interference) has contributed to SMEs developing negative attitude towards bank's lending procedure, ultimately influencing their decision to apply for a bank loan or not.

On the other hand reasons for those applied for loan but their loan application rejected also studied. The main reason why their loan application was declined is because of lack of collateral which constitutes 37.6% of the responses and sector bias in the second place amounting 18.8%. This implies financial institutions besides the collateral requirements discriminates the business sector the SMEs engaged. It is almost 9% of the respondents undecided just by selecting others

option, this is partly due to the financial institutions absence of a culture of communicating to loan applicants why their application is rejected.

The results of the binary logistics model indicate that Owner-Manager's Age variable has a positive and statistically significant relationship with SMEs' access to credit from banks at 5% level of significance using the age of 51-year-old and above entrepreneurs as a benchmark. We can observe that the odds ratio for entrepreneurs between the ages of 31 and 40 is 0.111. This means those entrepreneurs aged 31 to 40 are 88.9% less likely than those aged 51 and more to obtain financing from banks. Therefore the hypothesis that "*SMEs run by older operator tend to have more access to finance than those run by younger ones.*" is accepted.

The variable lending procedure also has a negative and statistically significant relationship with SMEs' access to credit from banks at 5% level of significance. With an odds ratio of 0.31, SME operators who have a negative attitude about lending procedure are 69% less likely to access credit from banks than those who do not. Therefore the hypothesis that "*lending procedure of financial institutions negatively affects SMEs' access to finance*" is accepted.

The results of the binary logistics model also indicated that the variable possession of fixed asset has a positive and statistically significant relationship with SMEs' access to credit from banks at 1% level of significance. With an odds ratio of 14.028, SME operators who possess fixed asset 14.028 times more likely to access credit from banks than those who do not. Therefore the hypothesis that "*SMEs which possess fixed asset are more likely to have access to finance than those which do not*" is accepted. In addition, according to the survey among SMEs who owned fixed asset two-third of them were be able to access the credit.

The regression analysis from our model also uncovers owner-manager's gender and educational level; firm's age, size and sector had no statistically significant effects on the probability to access bank finance at 5% level of significance.

## **5.2 Conclusion**

Access to finance is a significant barrier for SMEs, not only when starting a business but also when it is already up and running. As a result, it is critical to identify the major determinants of access to finance especially from banks.

Taking the findings, the study concludes that the major source of startup finance for SMEs is friends/family, own savings, Equib, MFI and banks in their order. The source of finance for working capital on the other hand is own saving, Equib and banks again in their order. The major source of finance both for startup and working capital is from informal financial sources.

Owner-Manager's age, possession of fixed asset and perceptions about lending procedure had statistically significant effects on access to credit from banks. In contrast owner-manager's gender and educational level; firm's age, size and sector had no statistically significant effects on the probability to access to bank finance by SMEs.

## **5.3 Recommendation**

Despite the importance of the small and medium enterprises (SMEs) sector to the Ethiopian economy in terms of job creation and poverty alleviation, the sector is suffering financial issues that have limited its ability to play a role in the economy. SMEs' access to capital is influenced by a number of factors. Recognizing their diversity and developing policies and support programs to address these issues is critical. It is therefore critical to have a thorough understanding of these determinants in order to meet the financial needs of SMEs and to assist them in prospering and achieving their goals of job creation and poverty reduction. It will also assist the government and non-governmental groups in developing policies and strategies to address the financial needs of small and medium businesses. The following recommendations have been made based on the findings and conclusions reached.

### **Financial, Governmental and Non-Governmental Institutions and SMEs**

The entrepreneur's age has a substantial impact on SME credit access from banks. As a result, it is important to encourage young SME operators to participate in the credit market and compensate for their lack of expertise and collateral backings through appropriate training and

the implementation of affirmative action.

One of the findings of this study is that perception towards certain lending procedure of financial institutions affect decision of SME owner managers to apply for loan. Hence, it is clear that assessing creditworthiness exclusively from a financial point of view is not suitable in the case of SMEs and banks should devote sufficient time to attempting to determine qualitative factors such as characteristics of the borrowers at the time of processing loan applications. The regulating body (NBE), in collaboration with financial institutions, should design a viable, transparent, accessible, and easy-to-understand lending procedure for SMEs to comprehend.

This study also discovered that possession of fixed asset increases the probability of getting access to bank finance. Policy makers should look at trust characteristics in the bank- owner-manager relationship in an effort to promote access to bank finance for SMEs and their impact on credit decisions. This could be a great tool for banks to embrace a merit-based relationship lending approach, which could mitigate the problem of SMEs' lack of collateral.

### **Future Researchers**

While this paper has provided some insight into the factors that influence SMEs' access to bank financing, it does have some limitations. The conclusions in this research are based on self-reporting by owner-manager. Certain limitations emerge as a result, such as a positive response bias. It is recommended that data from other sources, such as interviews with bank lending officials and case studies, be used to further investigate the relationships assessed in this study. In terms of data analysis, the current study used logistic regression analysis to predict SMEs' probability to access to bank finance. Despite the fact that the method used for testing the hypotheses is technically sound, it may not be the only way in which to better test the model.

## References

- Abagissa, J. (2020). *The Assessment of Micro and Small Enterprises Performance and Challenges in Addis Ababa, Ethiopia*.
- Abdulaziz, M. A., & Andrew, C. (2013). Small and Medium-Sized Enterprises Financing: A Review of Literature. *International Journal of Business and Management; Vol. 8, No. 14*.
- Abera, Gadisa, Ali, M., & Girma, H. (2019). Firm Growth and Its Determinants of Micro and Small Scale Manufacturing Enterprises in Selected Towns of Jimma Zone. *Horn of African Journal of Business and Economics (HAJBE) 2*, 397–447.
- Abera, Gadisa, Mohammedsani Ali, and Haile Girma. (2019). Firm Growth and Its Determinants of Micro and Small Scale Manufacturing Enterprises in Selected Towns of Jimma Zone. *Horn of African Journal of Business and Economics (HAJBE) 2*, 397–447.
- Abor, J. (2007). Industry Classification and the Capital Structure of Ghanaian SMEs. *Studies in Economics and Finance, 24(3)*, 207-219 [CrossRef].
- Admasu, A. .. (2012.). *Factors Affecting the Performance of Micro and Small Enterprises in Arada and Lideta Sub-Cities, Addis Ababa*. Ethiopia: A Thesis submitted to the school of graduate studies Addis Ababa University in partial fulfillment of the requirements for Master of Business Administration degree Addis Ababa University.
- Agarwa, I. S., Driscoll, J., Gabaix, X., & Labison, D. (2008). *The Age of Reason: Financial Decisions over the Lifecycle*. Paper presented at the American Law & Economics Association Annual Meeting.
- Ahmed, H., & Hamid, N. (2011). Financing Constraints: Determinants and Implications for Firm Growth in Pakistan. *Lahore Journal of Economics, 16*, 317-346[CrossRef].
- Altman, E., & Sabato, G. (2005). Effects of the New Basel Capital Accord on Bank Capital Requirements for SMEs. *Journal of Financial Services Research, 28(1)*, 15-42.
- Altman, E.I., & S. G. (2005). Effects of the New Basel Capital Accord on Bank Capital Requirements for SMEs. *Journal of Financial Services Research, 28(1)* , 15-42.
- Anthony, K. A., & Frank, G. (2013). Determinants of credit rationing to the private sector in Ghana. *African Journal of Business Management. Vol. 7(38)*, 3864-3874.
- Arinaitwe, J. K. (2006). Factors constraining the growth and survival of small scale businesses. A developing countries analysis. *Journal of American Academy of Business 8*, 167-78.
- Aryeetey, E. (1994). *Financial Integration and Development in Sub-Saharan Africa: A Study of Informal Finance in Ghana*. London: Overseas Development Institute Working Paper 78 [CrossRef].
- Ashenafi, Yacob, H. T., & Mulugeta, Y. (2013). Impact of sheep and goats ectoparasites on the tanning industry in Tigray Region, Ethiopia. *Ethiopian Veterinary Journal 17*, 63–76. [CrossRef].

- Ayyagari, M., Beck, T., & Demirguc-Kunt, A. (2007). Small and medium enterprises across the globe. *Small Business Economics* 29, 415–34. [CrossRef].
- Badulescu, A. (2011). Start-up Financing Sources: Does Gender Matter? Some Evidence for EU and Romania. *Annals of the University of Oradea: Economic Science, Romania*, 1, 207-213[CrossRef].
- Bates, T. (1990). Entrepreneur Human Capital Inputs and Small Business Longevity. Bates, T. (1990). Entrepreneur Human Capital Inputs and Small Business Longevity. *The Review of Economics and Statistics*, 72(4), 551-559[CrossRef].
- Baza, A. U., & Rao, K. S. (2017). Financial Inclusion in Ethiopia. *International Journal of Economics and Finance* 9, 191–201. [CrossRef].
- Beck, T., Demirguc-kunt, A., & Honohan, P. (2009). Access to financial services: Measurement, impact, & policies. *World Bank Research Observer*, 24(1), 119-145[CrossRef].
- Beck, T., Demirguc-kunt, A., Laeven, L., & Maksimovic, V. (2006). The determinants of financing obstacles. *Journal of International Money and Finance*, 25, 932-952 [Cross Ref].
- Bekele, K. (2021, June). Assessment of Factors Influencing the Financial Performance of Micro and Small Enterprises in Hawassa- A Case Study of Addis Ketema Sub City, Ethiopia.
- Betiglu, O., Goshu, D., Eva, G.-F., & Zoltan, Z. (2021). Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. *Journal of Risk and Financial*.
- Bougheas, S., Mizen, P., & Yalcin, C. (2006). Access to External Finance: Theory and Evidence on the Impact of Monetary Policy and Firm-Specific Characteristics,. *Journal of Banking & Finance*, 30(1), 199-227 [CrossRef].
- Byiers, B., Rand, J., Tarp, F., & Bentzen, J. (2010). Credit Demand in Mozambican Manufacturing. *Journal of International Development*, 22(1), 37-55 [CrossRef].
- Calomiris, C. W., & Hubbard, R. (1989). Price Flexibility, Credit Availability and Economic Fluctuations: Evidence from the United States 1894-1909. *The Quarterly Journal of Economics*, 104(3), 429-452 [CrossRef].
- Carter, S., & Rosa, P. (1998). The Financing of Male and Female Owned Businesses. *Entrepreneurship & Regional Development*, 10(3), 225-242[CrossRef].
- Cassar, G. (2004). The Financing of Business Start-ups. *Journal of Business Venturing*, 19(2), 261-283 [CrossRef].
- Catherine, D. (2009). *Introduction to research methods: A practical guide for any one undertaking a research project, fourth edition*,. United Kingdom, Books Ltd. [CrossRef].
- Coleman, S. (2007). The Role of Human and Financial Capital in the Profitability and Growth of Women-Owned Small Firms. *Journal of Small Business Management*, 45(3), 303-319.
- Creswell, J. W. (1994). *Research Design: Qualitative & Quantitative Approaches*.

- Creswell, J. W. (1994). *Research Design: Qualitative & Quantitative Approaches*. [CrossRef].
- Curran, J., & Blackburn, R. (2001). *Researching the Small Enterprise*. SAGE publications.
- Dejene, A. (2003). *Informal financial institutions: the economic importance of Iddir, Iqub, and loans, technological progress in Ethiopian agriculture. Proceedings of the national workshop on technological progress in Ethiopian Agriculture*. AAU, Economics department, faculty of business and economics, Addis Ababa, Ethiopia.
- Dinh, H., Dimitris, M., & Hoa, N. (2010). *The Binding Constraint on Firms' Growth in Developing Countries. Policy Research Working Paper 5485*. Durham University. Durham, United Kingdom: World Bank, Washington, DC.
- Durst, Susanne, & Gertstberger, W. (2021). Financing Responsible Small- and Medium-Sized Enterprises: An International Overview of Policies and Support Programmes. *Journal of Risk and Financial Management* 14: 10, [CrossRef].
- E., S. (2005). Access to Bank Credit in Sub-Saharan Africa: Key Issues and Reform Strategies. IMF Working WP/05(166):3-22. *IMF Working WP/05(166)*, 3-22 [CrossRef].
- El Kalak, I., & Hudson, R. (2016). The Effect of Size on the Failure Probabilities of SMEs: An Empirical Study on the US Market Using Discrete Hazard Model. 43. *International Review of Financial Analysis*, 135-145.
- Elmansori, E., & Arthur, L. (2014). Obstacles to Innovation Faced by Small and Medium Enterprises (SMEs) in Libya. *International Journal of Innovation and Knowledge Management in Middle East & North Africa*. 3(2), 201-214.
- Eltaweel, M., & Brown, R. (2013). *The Impact of Lack Financial Services on the Growth of Libyan Small Businesses*. Dubai: Paper presented at the 4th International Conference on Humanities, Geography and Economics.
- Ernst and Young. (2017). *Innovation in Financial Inclusion*. 20. Retrieved December 12, 2021, from <https://www.ey.com/Publication/vwLUAssets/EY-innovation-in-financial-inclusion/%24FILE/EY-innovation-in-financial-inclusion.pdf>
- Esubalew, A. A., & Raghurama, A. (2020). The mediating effect of entrepreneurs' competency on the relationship between Bank finance and performance of micro, small, and medium enterprises (MSMEs). *European Research on Management and Business Economics* 26, 87–95. [CrossRef].
- Fatoki O., & Asah F. (2011). The Impact of Firm and Entrepreneurial Characteristics on Access to Debt Finance by SMEs in King Williams' Town, South Africa. *International Journal of Business and Management*, 6(8), 170-179.
- FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA. (2020). *Ethiopia 2030: The Pathway to Prosperity Ten Years Perspective Development Plan (2021-2030)*. FEDERAL DEMOCRATIC REPUBLIC OF ETHIOPIA.
- Fetene, Z. (2010). Access to Finance and Its Challenge for Small Business Enterprises: Case of Addis Ababa City Study conducted in partial fulfillment of the MSc in accounting and finance.

- Gebrehiwot, A., & Amha, W. (2006). Micro and Small Enterprises (MSEs) finance in Ethiopia: Empirical evidence. *Eastern Africa Social Science Research Review* 22: . [CrossRef], 63–86.
- Gebru, G. H. (2009). Financing Preferences of Micro and Small Enterprise Owners in Tigray: Does POH Hold? . *Journal of Small Business and Enterprise Development*, 16(2), 322-334 [CrossRef].
- Gedam, M. (2010). *The role of acsi in addressing financial needs of women clients engaged in micro and small enterprises: the case of Bahr Dar branch master's thesis submitted to the school of graduate studies of Addis Ababa University*. Addis Ababa, Ethiopia: Unpublished Masters Thesis.
- Ghimire, G. A., & Galliar, D. (1996). *Total Quality Management in SMEs*. 83-106: Omega, 24(1).
- Gray, P. (2007). *The research imagination. An introduction to qualitative and quantitative research methods*. New York: Cambridge University Press.
- Green, A. (2003). *Credit Guarantee Schemes for Small Enterprises: An Effective Instrument to Promote Private Sector-Led Growth? SME Technical Working Paper No. 10*. Vienna: UNIDO.
- Gujarati, D. N. (2004). *Basic Econometrics. 4th edition*. . New York: McGraw-Hill Book Company [CrossRef].
- Haftu, Tsehay, Teklu, & Tasew. (2009). *Financial Needs of Micro and Small Enterprise (MSE) Operator in Ethiopia. Occasional Paper No, 24, Association of Ethiopian microfinance Institution*. Addis Ababa, Ethiopia.
- Hall, G. C., Hutchinson, P., & Michaelas, N. (2000). Industry Effects on the Determinants of Unquoted SMEs' Capital Structure. *International Journal of the Economics of Business*, 7(3), 297-312[CrossRef].
- Haron, H., Said, S., & Ismail. (2013). Factors influencing Small Medium Enterprises (SMES) in obtaining Loan. *International Journal of Business and Social Science*, 11-12.
- Harvie, C., & Lee, B. (2002). *The Role of SMEs in National Economies in East Asia (Vol. 2)*. Edward Elgar Publishing.
- Hosmer, D., & Lemeshew, S. (1989). *Applied Logistic Regression*. New York: A Wiley-Inter science Publication [CossRef].
- I. D., & S. J. (2006). *Barriers Faced by SMEs in Raising Finance from Banks. Paper presented at the 29th National Conference*. Cardiff, UK [CrossRef]: Institute for Small Business & Entrepreneurship.
- IFC. (2013). *Closing the Credit Gap for Formal and Informal Micro, Small, and Medium Enterprises*. Washington, D.C.: International Finance Corporation.
- Irwin, D., & Scott, J. (2010). Barriers Faced by SMEs in Raising Bank Finance. *International Journal of Entrepreneurial Behaviour & Research*, 16 (3), 245-259 [CrossRef].
- ITC. (2019). *SME Competitiveness Outlook 2019: Big Money for Small Business Financing the Sustainable Development Goals*. Geneva: ITC.
- Janet, M. R. (2006). *Essentials of Research Methods. A Guide to Social Science Research*. USA: Blackwell Publishing.

- John, A., Khan, H. T., R. R., & David, W. (2007). *Research Methods for Graduate Business & Social Science Students*. California.
- Kamal-Chaoui, & Lamia. (2017). Unlocking the Potential of SMEs for the SDGs. Retrieved November 20, 2021, from <https://oecd-development-matters.org/2017/04/03/unlocking-the-potential-of-smes-for-the-sdgs/#fn2>
- Kotey, B., & Sorensen, A. (2014). Barriers to Small Business Innovation in Rural Australia. *Australasian Journal of Regional Studies*, 20(3), 405-429.
- Lapar, M., & Graham, D. (1988). "Credit Rationing Under a Deregulated Financial System" Working Paper Series No. 88 – 19. [Crossref].
- Le, N. T., & Nguyen, T. V. (2009). The Impact of Networking on Bank Financing: The Case of Small and Medium-Sized Enterprises in Vietnam. *Entrepreneurship Theory and Practice*, 33(4), 867-887.
- Macan, B. C. (2010). *Resourcing small and medium sized enterprise*. Berlin: Heidelberg: Springer-Verlag.
- Mallinguh, Edmund, & Zoltán, Z. (2019). A Comparative Analysis of Start-Ups Within Eastern Africa Economic Block. *Polish Journal of Management Studies* 19, 273–84. [CrossRef].
- Martin, M. M., & Daniel, K. (2013). *Does Firm Profile Influence Financial Access Among Small And Medium Enterprises In Kenya?* 714-723 [CrossRef]: *Asian Economic and Financial Review*.3(6).
- Michaelas, N., Chittenden, F., & Poutziouris, P. (1999). , Chittenden, F., & Poutziouris, P. (1999). Financial Policy and Capital Structure Choice in U.K. SMEs: Empirical Evidence from Company Panel Data. *Small Business Economics*, 12(2), 113-130 [CrossRef].
- Mijid, N. (2009). *Gender, Race, and Credit Rationing of Small Businesses: Empirical Evidence from the 2003 Survey of Small Business Finances..* . PhD Thesis. The United states: Colorado State University.
- Nega, Fredu, & Hussien, E. (2016). Small and Medium Enterprise Access to Finance in Ethiopia: Synthesis of Demand and Supply. Addis Ababa. *The Horn Economic and Social Policy Institute*.
- Nguyen N., & Luu N.T.H. (2013). Determinants of Financing Pattern and Access to Formal-Informal Credit: The Case of Small and Medium Sized Enterprises in Viet Nam. ,. *Journal of management research*, 5(2), 240-259 [CrossRef].
- North, D., Baldock, R., & Ekanem, I. (2010). Is there a Debt Finance Gap Relating to Scottish SMEs? A Demand-Side Perspective. *Venture Capital*, 12(3), 173-192 [CrossRef].
- Odit, M. P., & Gobardhun, Y. (2011). The Determinants of Financial Leverage of SME's in Mauritius. *The International Business & Economics Research Journal* , 10(3), 113 [CrossRef].
- OECD. (2000). *Small and Medium Enterprise Outlook*. The Organisation for Economic Co-operation and Development. Paris: OECD Publications.

- OECD. (2004). *Promoting Entrepreneurship and Innovative SMEs in a Global Economy.*, Istanbul, Turkey. The Organization of Economic Co-operation and Development. Istanbul: Executive Summary of the 2nd OECD conference of ministers responsible for small and medium-sized enterprises (SMEs).
- OECD. (2008). *Rural Policy Reviews: Scotland UK- Assessment and Recommendations.* The Organization of Economic Co-operation and Development. Paris: OECD Publications.
- OECD. (2008). *Rural Policy Reviews: Scotland UK- Assessment and Recommendations.* The Organisation for Economic Co-operation and Development. Paris: OECD Publications.
- OECD. (2013). *SME and Entrepreneurship Financing: The Role of Credit Guarantee Schemes and Mutual Guarantee Societies in Supporting Finance for Small and Medium-Sized Enterprises.* . The Organisation for Economic Co-operation and Development. OECD Publishing.
- OECD. (2017, June 7-8). Enhancing the Contributions of SMEs in a Global and Digitalised Economy. *Paper Presented at Meeting of the OECD Council at Ministerial Level.* Retrieved December 22, 2021, from <https://www.oecd.org/industry/C-MIN-2017-8-EN.pdf>
- Ogollah, K., & Mira, G. (2013). Challenges facing accessibility of credit facilities among young women owned enterprises in Nairobi Central Business District Kenya. *International Journal of Social Sciences and Entrepreneurship*, 1(7), 377-396.
- Ogubazghi, S. K., & Muturi, W. (2014). The Effect of Age and Educational Level of Owner/Managers on SMMEs' Access to Bank Loan in Eritrea: Evidence from Asmara City. . *American Journal of Industrial and Business Management*, 4(11), 632-643 [CrossRef].
- Oláh, Judit, Kovács, S., Virglerova, Z., Kovacova, M., Lakner, Z., & Popp, J. (2019). Analysis and Comparison of Economic and Financial Risk Sources in SMEs of the Visegrad Group and Serbia. *Sustainability* 11:1853. , [CrossRef].
- Ong, J. W., & Hishamuddin, B. I. (2012). Competitive advantage and firm performance: Evidence from small and medium enterprises. : . *International Journal of Business and Globalisation* 9, 195–206. [CrossRef].
- Ono, A., & Uesugi, I. (2009). Role of Collateral and Personal Guarantees in Relationship Lending: Evidence from Japan's SME Loan Market. *Journal of Money, Credit and Banking*, 41(5), 935-960 [CrossRef].
- Palacín-Sánchez, M. J., Ramírez-Herrera, L. M., & Di Pietro, F. (2013). Capital Structure of SMEs in Spanish Regions. *Small Business Economics*, 41(2), 503-519 [crossRef].
- Porter, M., & Yergin, D. (2006). *National Economic Strategy: An Assessment of the Competitiveness of Libya.* Tripoli: The general planning council of Libya.
- Qureshi, J., & Herani, G. (2011). The Role of Small and Medium-Size Enterprises (SMEs) in the Socio-Economic Stability of Karachi. *Journal of Management & Social Sciences*, 4(2), 30-44.

- Roman, A. (2011). SMEs' Sector Access to Finance: An Overview. *Annals of Faculty of Economics , University of Iasi Romania, 1(1)*, 431-437.
- Romano, C. A., Tanewski, G., & Symirnios, K. (2001). *Capital Structure Decision Making: A Model for Family Business. .*, 285-310[CrossRef]: *Journal of Business Venturing, 16(3)*.
- Roslan, A. H., & Karim, M. (2009). Determinants of Microcredit Repayment in Malaysia: The Case of Agrobank. *Humanity & Social Sciences Journal, 4(1)*, 45-52 [CrossRef].
- Ruane., J. M. (2006). *Essentials of Research Methods. A Guide to Social Science Research*.
- Sacerdoti, E. (2005). Access to Bank Credit in Sub-Saharan Africa: Key Issues and Reform Strategies. *IMF Working WP/05(166)*, 3-22 [CrossRef].
- Samir, H., & Samujh, R. H. (2020). Small Family Businesses: Innovation, Risk and Value. *Journal of Risk and Financial Management 13*, 240. [CrossRef].
- Schmidt, R., & Kropp, E. (1987). Rural finance guiding principles. *GTZ, Eschborn*, [CrossRef].
- Sebopetji, T., & Belete, A. (2009). An Application of Probit Analysis to Factors Affecting Small-Scale Farmers' Decision to take Credit: a Case Study of Greater Letabo Local Municipality in South Africa. *African Journal of Agricultural Research. 4(8)*, 718-723.
- Sesib, H., & Ali, H. (2018). Micro and Small Enterprises in Ethiopia; Linkages and Implications: Evidence from Kombolcha Town. *Journal of Political Science and Development 6*, 16-26. Retrieved from Micro and Small Enterprises in Ethiopia; Linkages and Implications: Evidence from Kombolcha Town. *Journal of Political Science and Development 6*: 16–26. Available online:: <https://www.academicresearchjournals.org/IJPSD/PDF/>
- Selamawit Niguse, K. (2014). Determinants of Micro and Small Enterprises' Access to Finance. *Developing Country Studies*.
- Silva, F., & Carreira, C. (2010). *Financial Constraints: Are There Differences Between Manufacturing and Services?Faculty of Economics. Working Paper No. 16*. Portuga: University of Coimbra [CrossRef].
- Slavec, A., & Pordan, I. (2012). The Influence of Entrepreneur's Characteristics on Small Manufacturing Firm Debt Financing. *Journal for East European Management Studies, 17(1)*, 104-130 [CrossRef].
- Tegege, G.-E., & Mulatu, D. (2009). *Micro Enterprises in Smalltowns, Amhara Region, Ethiopia: Nature And Performance*. Addis Ababa: Institute for Development Research.
- Tewodros Amene, B. (2017). Factors affecting access to finance for micro and small enterprises: the case of West Hararghe Zone, Ethiopia". *International Journal of Current Research, 9, (11)*, 61886-61893.

- Thorsten, B., Asli, D.-k., & Soledad, M. P. (2008). *Bank Financing for SMEs around the World: Drivers, Obstacles, Business Models, and Lending Practices. Policy Research Working Paper 4785*. Washington, DC: The World Bank [CrossRef].
- UNDP. (2019). Understanding African Experiences in Formulating and Implementing Plans for Emergence. A case study of Growing Manufacturing Industry in Ethiopia. Retrieved December 8, 2021, from <https://annualreport.undp.org/assets/UNDP-Annual-Report-2019-en.pdf>
- Van der wijst, D. (1989). *Financial Structure in Small Business: Theory, Tests and Applications (Vol. 320)*. Berlin: Springer [CrossRef].
- Verheij, I. I., & Thurik, R. (2001). Start-up Capital: "Does Gender Matter?". *Small Business Economics*, 16(4), 329-346 [CrossRef].
- Vogel, R. (1988). Rural finance market performance: Implications of low delinquency rates. *American Journal of Agricultural Economics* 63(1), 58-65 [CrossRef].
- Vos, E., Yeh, A., Carter, S., & Tagg, S. (2007). The Happy Story of Small Business Financing. *Journal of Banking & Finance*, 31(9), 2648-2672 [CrossRef].
- Wanjiku, C. (2016). *Factors Affecting Credit Access Among Small and Medium Enterprises in Muranga's County*. Nairobi: University of Nairobi.
- Watson, J. (2006). External Funding and Firm Growth: Comparing Female- and Male-Controlled SMEs. *Venture Capital*, 8(1), 33-49 [CrossRef].
- Wolday, A., & Gebrehiwot, A. (2004). *MSEs Development in Ethiopia: Survey Report*. Addis Ababa: EDRI. World Bank. 2014. *Doing Business 2015: Going Beyond Efficiency: Comparing Business Regulations for Domestic Firms in 189 Economies A World Bank Group Flagship Report, 12th ed*. Washington DC [CrossRef]: World Bank Publications.
- Wolday, A., & Gebrehiwot, A. (2006). Micro and Small Enterprise Finance in Ethiopia. *Eastern Africa Social science Research Review*. Vol.22. No.1.
- World Bank. (2008). *Finance for all? Policies and Pitfalls in expanding access* . Washington, DC: World Bank.
- World Bank. (2014). *Doing Business 2015: Going Beyond Efficiency: Comparing Business Regulations for Domestic Firms in 189 Economies* . Washington DC: World Bank Publications.
- WORLD BANK. (2015). *SME FINANCE IN ETHIOPIA: ADDRESSING THE MISSING MIDDLE CHALLENGE*.
- World Bank. (2019). *Small and Medium Enterprise Finance*. Retrieved January 14, 2022, from <http://www.worldbank.org/en/topic/smefinance>

- World Bank. (2019). Small and Medium Enterprise Finance. Available online: (accessed on 4 January 2020). Retrieved December 12, 2021, from <http://www.worldbank.org/en/topic/smefinance>
- Yared, F., & Seneshaw, A. (2008). *Entrepreneurial Financing in Ethiopia. Microfinance Development Review, Vol.8, No.1.*, Assosation of Ethiopian Microfinance Institution.
- Yemane T. (1967). *Statistics, an introductory analysis. 2nd edition.* New York: Harper and Row [CrossRef].
- Yesseleva, M. (2012). Small and medium-Sized Enterprises: Data Sources in Australia. *Global Journal of Business Research, 6(2)*, 83-92.
- Zins, A., & Lawrent, W. (2016). The determinants of financial inclusion in Africa. *Review of Development Finance 6*, [CrossRef].

## Appendix I

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	-.405	.375		-1.080	.282		
	OWNER-MANAGER'S AGE	.127	.054	.262	2.345	.020	.472	2.120
	OWNER-MANAGER'S GENDER	.164	.076	.172	2.156	.033	.926	1.080
	OWNER-MANAGERS EDUCATION	.059	.061	.092	.957	.340	.638	1.568
	FIRM AGE	-.026	.057	-.045	-.451	.653	.585	1.710
	FIRM SIZE IN NUMBER OF EMPLOYEES	-.035	.069	-.071	-.509	.612	.300	3.332
	SECTOR OF THE FIRM	-.002	.035	-.005	-.045	.964	.520	1.923
	POSESION OF FIXED ASSET	.328	.092	.319	3.568	.000	.740	1.351
	BANK'S LENDING PROCEDURE	-.169	.088	-.162	-1.917	.057	.830	1.204

## Appendix II

### መግቢያ

ውድ የጥናቱ ተሳታፊዎች፡-

እኔ በአዲስ አበባ ዩኒቨርሲቲ የቢዝነስ አስተዳደር የድህረ ምረቃ ተመራቂ ተማሪ ስሆን፤ በአሁኑ ሰዓት የመመረቂያ ፅሁፌን በማዘጋጀት ላይ እገኛለሁ። የጥናቱ ርዕስም “በአዲስ ከተማ ክፍለ ከተማ የሚገኙ የአነስተኛና መካከለኛ የንግድ ተቋማት ከባንክ ብድር አቅርቦት ጋር በተያያዘ ያሉባቸውን ተግዳሮቶችን” ይመለከታል። እርስዎም በዚህ ጥናት እንዲሳተፉ ተመርጠዋል። እርስዎ የሚሰጡትን ትክክለኛውን መረጃ ለጥናቱ ውጤታማነት በጣም አስፈላጊ መሆኑን በመገንዘብ መጠይቁን በጥንቃቄ እንዲሞሉ እጠይቃለሁ። ተሳትፎዎ በእርስዎ በጎ ፈቃደኝነት ላይ የተመሰረተ ነው። በመጨረሻም የሚሰጡት መረጃ ሚስጥራዊነቱ የተጠበቀና ለዚህ ጥናት ዓላማ ብቻ እንደሚውል አረጋግጣለሁ። የማንኛውም መልስ ሰጪ ማንነት በማንኛውም መልኩ የማይታተምና የማይሰራጩ ይሆናል። ሁሉም መረጃዎች በትምህርታዊ ዓላማ ብቻ ይውላሉ። ጊዜዎን ሰውተው ስለሚያደርጉልኝ ትብብር በቅድሚያ አመሰግናለሁ።

**ማሳሰቢያ፡-** በመጠይቁ ላይ ስም መፀፍ አያስፈልግም።

- መልስዎን በሰጥኑ ውስጥ የእርማት ምልክት (✓) ያስቀምጡ።



ሀ. ጨምሯል

ለ. ቀንሷል

**ክፍል ሶስት:- የፋይናንስ ምንጭ እና ከአበዳሪ ተቋማት ጋር የተያያዙ ጉዳዮች**

3.1. የንግድ ተቋሙ /ድርጅቱ ሲመሰረት ዋነኛ የገንዘብ ምንጭ የት ነበረ? (ከአንድ በላይ ምርጫ መምረጥ ይቻላል)

ሀ. ባንክ  ለ. ማይክሮ ፋይናንስ  ሐ. የገንዘብ /አራጣ አበደሪዎች   
መ. ከግል ቁጠባ  ሠ. ዳደኛ/ቤተሰብ  ረ. እቁብ  ሰ. ሌላ \_\_\_\_\_

3.2. የንግድ ተቋሙ ለመንቀሳቀሻ የሚጠቀሙበት ገንዘብ ምንጭ ከየት ነው?

ሀ. ባንክ  ለ. ማይክሮ ፋይናንስ  ሐ. የገንዘብ/አራጣ አበዳሪዎች   
መ. ከግል ቁጠባ  ሠ. ዳደኛ/ቤተሰብ  ረ. እቁብ  ሰ. ሌላ \_\_\_\_\_

3.3. ባለፉት ሶስት አመታት ውስጥ ከባንኮች ብድር ጠይቀው ያውቃሉ? (መልሶ አይደለም ከሆነ ወደ 3.6 ይሂዱ)

ሀ. አዎ  ለ. አይደለም

3.4. ባለፉት ሶስት አመታት ውስጥ ከመደበኛ የፋይናንስ ተቋማት ብድር ወስደው ያውቃሉ?

ሀ. አዎ  ለ. አይደለም  (መልሶ አይደለም ከሆነ ወደ 3.6 ይሂዱ)

3.5. የፋይናንስ ተቋሙ የብድር ጥያቄውን ለምን ውድቅ አደረገብዎት?

<b>ባንክ</b>
ሀ. ማስያዣ ስለሌለኝ <input type="checkbox"/>
ለ. አጥጋቢ የፋይናንስ ስቴትመንት (የሂሳብ መግለጫ) ስለሌለኝ <input type="checkbox"/>
ሐ. ከዚህ በፊት የተበደርኩትን ብድር ላይ ጥሩ የአከፋፈል ታሪክ ስለሌለኝ <input type="checkbox"/>
መ. በተሰማራሁበት የስራ መስክ ምክንያት <input type="checkbox"/>
ሠ. የአደጋ ስጋት ያለበት ቢዝነስ ስለሆነ <input type="checkbox"/>
ረ. ሌላ

3.6. የንግድ ተቋሙ ከአበዳሪ የፋይናንስ ተቋማት ብድር ለምን አልጠየቀም? (ከአንድ በላይ ምርጫ መምረጥ ይቻላል)

<b>የንግድ ተቋሙ ከመጠነኛ የፋይናንስ ተቋማት ብድር ያልጠየቀበት ምክንያት?</b>	<b>አዎ</b>	<b>አይደለም</b>
ሀ. የቢዝነስ ተቋሙ ቋሚ ንብረቶችን እንደማስያዣ መጠቀም ስላልፈለገ		
ለ. የወለድ ምጣኔ ከፍተኛ ስለሆነ		
ሐ. የፋይናንስ ድርጅቱ የብድር አሰጣጥ ሂደት ውስብስብ እና ከባድ		

ስለሆነ		
መ. የፋይናንስ ተቋሙ በቂና የሚመች የብድር መክፈያ ጊዜ ስለሌለው		
ሠ. ብድሩ ያለመመለስ ስጋት ስለገባን		
ረ. ብድር ስላለፈለግን		
ሰ. ሌላ _____		

3.7. የቢዝነስ ተቋሙ የብድር ጥያቄ አቅርቦ ቢሆን ኖሮ አበዳሪ የፋይናንስ ተቋሙ ብድር ይሰጠን ነበር ብለው ያስባሉ?

ሀ. አዎ                       ለ. አይደለም

3.8. ከሚከተሉት የትኛው/ኞቹ ብድር በመጠየቅ ውሳኔዎ ላይ ተጽእኖ የሚሳድሩ እና በአበደሪ ባንኮች እንዲሻሻሉ የሚፈልጉዎቸው ጉዳዮች ናቸው? (ከአንድ በላይ መምረጥ ይቻላል)

ብድር በመጠየቅ ውሳኔዎ ላይ ተጽኖ የሚሳድሩ ጉዳዮች	አዎ	አይደለም
ሀ. ቋሚ ንብረት እንደማስያዣ መጠየቅ		
ለ. የወለድ ምጣኔ		
ሐ. ብድር የመመለሻ ጊዜና የአከፋፈል ሁኔታ (ወርሃዊ፣ አመታዊ...)		
መ. የብድር አሰጣጥ ስርዓት		
ሠ. ሌላ		

**Addis Ababa University Faculty  
of Business and Economics**

**Master of Business Administration Program**

---

Dear respondent,

I am a graduate student of Master of Business Administration in Addis Ababa University. Currently, I am undertaking a research entitled '*Determinants of Access to Bank Finance in Small & Medium Enterprises in Addis Ketema sub-city*'. You are one of the respondents selected to participate on this study. Please assist me in giving correct and complete information to present a representative finding on the current status of '*Determinants of Access to Bank Finance in Small & Medium Enterprises in Addis Ketema sub-city*'. Your participation is entirely voluntary and the questionnaire is completely anonymous. Finally, I confirm you that the information that you share me will be kept confidential and only used for the academic purpose. No individual's responses will be identified as such and the identity of persons responding will not be published or released to anyone. All information will be used for academic purposes only. Thank you in advance for your kind cooperation and dedicating your time.

**Medhane Kidane**

**Instructions**

- No need of writing your name
- Indicate your answers with a check mark (√) in the appropriate block or column.

## 1. Entrepreneur characteristics:

1.1 Age\_\_\_\_\_

1.2 Gender

A. Female  B. Male

1.3 What is the highest level of education completed by the owner/operator? \_\_\_\_\_

A. No formal education  B. Primary school  C. Secondary school  D. TVET/College and above

## 2. Firm characteristics

2.2 What is the age of your firm? \_\_\_\_\_

2.3 How many employees do you have at this time?

A. 6-20  B. 20-40  C. 40-80  D. 80-100

2.4 In which sector is the firm involved?

A. Manufacturing  B. Construction  C. Urban-Agriculture  D. Service  E. Trading

2.5 The premises you are currently working in is?

A. Own  B. Rented  C. Family (rented)  D. Family (free)  E. Other \_\_\_\_\_

2.6 Does the firm have any fixed asset (House, Land, Vehicle etc)?

A. Yes  B. No

2.7 If 2.5 is yes what type of fixed asset does the firm possess?

A. House  B. Land  C. Vehicle  D. \_\_\_\_\_

2.8 Comparing the amount of fixed asset possessed by the firm at the time of establishment and now, the amount of fixed asset has:

A. Increased  B. Decreased

## 3. Source of finance and Institutional Characteristics

3.1 What is your major source of your initial finance? (Multiple answers is possible)

A. Banks  B. MFI  C. Money lenders  D. Own savings  E. Friends/family  F. Equip  G. Other \_\_\_\_\_

3.2 What is your major source of working capital?

A. Banks  B. MFI  C. Money lenders  D. Own savings  E. Friends/family  F. Equip  G. Other \_\_\_\_\_

3.3 Did you apply for loan from banks within the last 3 years?

A. Yes  B. No  (if No, skip to question 3.7)

3.4 Did you receive any loans from banks within the last 3 years?

A. Yes  B. No  (if No, skip to Q 3.6)

### 3.5 Why did the formal institution reject your loan application?

<b>Bank</b>
1. Lack of collateral <input type="checkbox"/>
2. Lack of sound financial statement <input type="checkbox"/>
3. Poor repayment history <input type="checkbox"/>
4. Sector bias <input type="checkbox"/>
5. Risky venture <input type="checkbox"/>
6. Others _____

### 3.6 Why the firm did not apply for loan? (Multiple answers is possible)

<b>The reason the firm did not apply for loan from formal financial institutions</b>	<b>Yes</b>	<b>No</b>
1. The firm did not want to risk its collateral (house, any asset)		
2. The interest rate is high		
3. The lending procedure of the institution is difficult (too much paper work)		
4. The institution has inflexible repayment period		
5. Fear of repayment the loan		
6. The loan was not needed		
7. Other _____		

### 3.7 If the firm did apply, would the formal financial institution have accepted the application?

A. Yes  B. No

### 3.8 Which of the aspect would you like to be improved by financial institutions so that the firm will apply for loan? (Multiple answers is possible)

<b>Aspects you would like financial institutions to improve so that the firm could apply for loan</b>	<b>Yes</b>	<b>No</b>
1. Collateral requirements <input type="checkbox"/>		
2. Interest rate <input type="checkbox"/>		
3. Duration of the loan and Repayment systems (Daily, monthly, annually...) <input type="checkbox"/>		
5. Lending procedure <input type="checkbox"/>		
6. Other _____		