

# ST.MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

# DETERMINANTS OF PROJECT FINANCING: EVIDENCE FROM SELECTED SMALL AND MEDIUM SIZE ENTERPRISES IN ADDIS ABABA

BY

## **DEREJE WOSSENIE ABUYE**

SGS/0062/2011B

**JANUARY 2020,** 

**ADDIS ABABA** 

# DETERMINANTS OF PROJECT FINANCING: EVIDENCE FROM SELECTED SMALL AND MEDIUM SIZE ENTERPRISES IN ADDIS ABABA

BY

## **DEREJE WOSSENIE ABUYE**

## SGS/0062/2011B

## ADVISOR: ABREHAM G. (Ass. Professor)

# A THESIS SUBMITTED TO ST.MARY'S UNIVERSITY, SCHOOL OF GRADUATE STUDIES IN PARTIAL FULFILEMENT OF THE REQUIREMENTS FOR THE AWARD OF THE DEGREE OF MASTERS OF BUSINESS ADMINISTRATION IN ACCOUNTING AND FINANCE

January, 2020

ADDISABABA

# ST.MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES

# SCHOOL OF BUSINESS

# DETERMINANTS OF PROJECT FINANCING: EVIDENCE FROM SELECTED SMALL AND MEDIUM SIZE ENTERPRISES IN ADDIS ABABA

BY

## **DEREJE WOSSENIE ABUYE**

SGS/0062/2011B

# APPROVED BY BOARD OF EXAMINERS

DEAN, GRADUATE STUDIES SIGNATURE
.....
ADVISOR SIGNATURE
.....
EXTERNAL EXAMINOR SIGNATURE
.....
I NTERNAL EXAMINOR SIGNATURE

## DECLARATION

I, the undersigned, declare that this is my original work, prepared under the guidance of Abraham Gebergiorgis. All sources of material used for the thesis have been duly acknowledged. I further confirm that the thesis has not been submitted either in part or in full to any other higher learning institutions for the purpose of earning any degree.

.....

.....

Name

Signature

St. Mary's University, Addis Ababa

January, 2020

# **ENDORSEMENT**

This thesis has been submitted to St. Mary's University School of Business for examination with my approval as a university advisor.

Abraham G. (Ass. Professor)

Abraham G

Advisor

Signature

St. Mary's University, Addis Ababa

January, 2020

.

# **DEDICATION**

I would like to dedicate my research project to my family, especially for 'mima' for their patience and support.

# ACKNOWLEDGMENT

I wish to acknowledge everyone who assisted in various ways towards completion of this thesis project. A lot of thank go to my advisor for giving me the required direction all the way until I was through .My fellow classmates who assisted me in various ways cannot be forgotten since their contribution had a positive impact. I can't also forget the entire central library staffs.

TABLE	OF	CONTENTS
-------	----	----------

Contents Page
DECLARATION i
ENDORSEMENTii
DEDICATION iii
ACKNOWLEDGMENTiv
TABLE OF CONTENTSv
LIST OF ACRONOMYS & ABREVATIONS viii
LIST OF TABLES ix
APPENDICEx
ABSTRACT xi
CHAPTER ONE1
1.INTRODUCTION1
1.1 Background of the Study1
1.2 Statement of the Problem2
1.3. Research Questions
1.4 Objective of the Study
1.4.1. General Objective
1.4.2 Specific Objectives
1.5 Significance of the Study
1.6 Scope of the Study4
1.7Limitation of the Study4
1.8 Organization of the Paper4
1.9 Operational definitions of terms4

CHAPTER TWO	6
2.REVIEW OF LITERATURES	6
2.1 Theoretical Literature	6
2.1.1 History of Project Financing	6
2.1.2 Project Financing of SMEs	7
2.1.3 Traditional Financing Instruments of SMEs	9
2.1.3.1 Equity Financing	9
2.1.3.2Debt Financing	
2.1.3.3 Trade Credit	
2.1.3.4 Nonbank Financial Institution debt	
2.1.4 Alternative Financing Instruments of SMEs	11
2.1.5 Challenges in Project financing of SMEs	13
2.1.6 Advantages and Disadvantages of Project Financing	14
2.2 Empirical Review	15
2.3 Ethiopian Context of SMEs	16
2.3.1 Economic Situation of Ethiopia	16
2.3.2 Financing of SMEs in Ethiopia	19
2.4 Empirical Review on study variables	21
2.4.1 Firm characteristics	21
2.4.2 Firm specific Characteristics	22
2.4.3 Industry specific characteristics	22
2.5 Conceptual Frameworks	23
2.6 Conclusion and Literature Gap	24
CHAPTER THREE	25
3. RESEARCH METHODOLOGY	25

3.1 Research Design	25
3.2 Sources of Data and Data Collection Techniques	25
3.2.1 Source of Data	25
3.2.2 Data Collection Techniques	26
3.3 Target Population and Sampling Methods	26
3.4 Method of Data Analysis and Presentation	29
3.4.1 Method of Data Analysis	29
3.5 Research quality issues	30
3.6 Ethical Consideration	30
3.7 Literature Driven Hypothesis	30
CHAPTER FOUR	33
DATA ANALYSIS, RESULTS AND DISCUSSION	33
4.1Response Rate	33
4.2 Empirical Result and Discussion	34
4.2.1 Descriptive Statistics of Variables	34
4.2.2 Model Assumptions and Data Properties	40
4.2.3 Binary Logistic Regression Result	42
CHAPTER FIVE	60
SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS	60
5.1 Summary of Major Findings	60
5.2 Conclusion	61
5.3 Recommendation	62
References	63
APPENDIX I Questionnaire	67

# LIST OF ACRONOMYS & ABREVATIONS

ADLI	Agricultural development led industry			
ETB	Ethiopian birr			
GDP	Gross domestic product			
GTP	Growth and transformation plan			
IPP	Independent power producers			
LC	Letter of credit			
NPV	Net present value			
MPP	Minimum package program			
MSME	Micro, small and medium enterprises			
PF	Project finance			
SMEs	Small and medium enterprises			

# LIST OF TABLES

Table 2.1: Source of initial capital of MSMEs
Table 3.1 Number of SMEs in each sub city of Addis Ababa
Table 3.2 Stratified sampling
Table 3.3 Summary of dependent and independent variables of the study
Table 4.1 Response rate
Table 4.2 Cross tabulation of access (ability) to project finance and business skill & leverage of enterprise
Table 4.3 Cross tabulation of access to project finance and cost of borrowing
Table 4.4 Cross tabulation of access to project finance and collateral requirements
Table 4.5 Cross tabulation of access to project finance and awareness of project financing opportunities
Table 4.6 Cross tabulation of access to project finance and past financing experience
Table 4.7 Cross tabulation of access to project finance and enterprise operation age
Table 4.7 Case processing summary40
Table 4.8 Homesr and Lemeshow Test41
Table 4.9 Model Summary
Table 4.10 Correlation matrix between independent variables
Table 4.11 Variables in the equation table
Table 4.12 comparison of test result with expectation

# APPENDICE

Appendix I: English version of survey questions

## ABSTRACT

At the global level, the key role played especially by small and medium sized enterprises in economic development and their contribution to economic diversification and employment opportunity is widely recognized, and so is the reality that these enterprises face financing constraints around the world, both in developed and developing markets. Therefore, it was not surprise that the Ethiopian government strategic focus is supporting of small and medium enterprises during all national growth and transformation plan. However in reality these enterprises suffer financial constraints for their respective projects. Thus, the purpose of this study was to explain determinates of project financing of small and medium enterprises in Addis Ababa administrative city. The study is design and employed the quantitative approach. Stratified sampling was used to select 174 small and medium enterprises in Addis Ababa. Binary logistic regression model was run using SPSS version 25. The major finding of the study shows that there exists significant but negative relation between project financing and collateral requirements. Cost of borrowing, enterprises business skill and leverage determine project financing. In contrary enterprises operational age, past financing experience did not affect project financing. Finally the study recommended further study area on public private partnership for project financing practice for small and medium enterprises in Ethiopia.

#### Key words: Project, Project finance, Small and Medium enterprises

## **CHAPTER ONE**

## 1. INTRODUCTION

This chapter introduce briefly about background of the study, statement of the problem, research questions, scope and limitations of the study, and significance of the study.

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

Modern urban industrial society in a very real sense emerged on the basis of the SMEs as the dominant form of production. The early industrialization process was sharply different from country to country and product to product, but for a very long time the dominant scale of enterprise, even for technically complex products, remained within the boundaries of the modern definition of SME (Kuznets, 1966). From a theoretical perspective, SMEs have several advantages over both state owned enterprises (hereafter, SOEs, and large privatized SOEs (hereafter, PSOEs). In SMEs the incentives for both managers and workers tend to be clearer and stronger than in larger organizations. Governance problems are less significant since in many cases the managers and owners are the same people. The small size of many of the SME firms allows owners easily to monitor the performance of the enterprises. The Ethiopian government has prepared a private sector development strategy to improve the productivity and modernization of the agricultural sector, and boost the technological sophistication and economic input of the industrial sector. It has also identified the development of micro, small and medium enterprises (here after, MSMEs) as a key industrial policy direction for creating employment opportunities for millions of Ethiopians (WB, 2015). Therefore, the SMEs development is the strategic focus of the industrial development during the Growth and Transformation Plan (GTP). The expansion of MSEs in urban area will also result in large scale job creation and thereby poverty reduction. The development of MSEs is also critical for strengthening sustainable rural-urban and urban-to-urban functional and economic linkages (GTP, 2010). At the international level, the key role played especially by small and medium sized enterprises in economic development and their contribution to economic diversification and employment is widely recognized, and so is the reality that these enterprises face financing constraints around the world, both in developed and developing markets (Ayyagari et al. 2007; Beck et al., 2005). In light of this, the researcher has made detailed study of the financing practice of SMEs by systematic selection of Addis Ababa's ten sub cities.

#### **1.2 Statement of the Problem**

The term "project finance" is used loosely by academics, bankers and journalists to describe a range of financing arrangements. Often bandied about in trade journals and industry conferences as a new financing technique, project finance is actually a Centuries-old financing method that predates corporate finance. However with the explosive growth in privately financed infrastructure projects in the developing world, the technique is enjoying renewed attention (Bruce Comer, 1996). Project financing techniques date back to at least 1299 A.D. when the English Crown financed the exploration and the development of the Devon silver mines by repaying the Florentine merchant bank, Frescobaldi, with output from the mines (Kensinger and Martin., 1993).

SMEs- have usually been perceived as the dynamic force of sustained economic growth and job creation in developing countries. They play multifaceted role such as boosting competition, innovation, as well as development of human capital and creation of financial system (Fekadu and Edris, 2016). The government of Ethiopia's GTP has placed more emphasis on easing access to finance for SMEs. Taking into consideration the government's effort to better serve the financial needs of SMEs and contribute to the well-being of our country, there exists a research gap that should have shown how these enterprises finance their projects.

As per the researcher knowledge, from the overall local researchers studied, only Mersha (2017) made a broader research on project financing practice on large private and public organizations. Other studies related to the topic selected are undertaken out of Addis Ababa Region. Beck and Cull (2014) made a World Bank Enterprise Survey data for SMEs from more than 100 countries to examine the impact of age, size, ownership structure and other variables on the likelihood of having a loan. They found that small- and medium-sized firms are less likely than large and young firms less likely than old to have a loan. They also found that firms with simple organizational forms, such as sole proprietorships, are less likely to have a loan than firms with more advanced organization structures. The researcher has not come across a research done solely on the selected research topic in Addis Ababa. This necessitates the importance of this research on the financing practices of small and medium enterprises in Addis Ababa Region.

Therefore, this study aims to investigate the project financing aspect of small and medium enterprises by in Addis Ababa.

#### **1.3. Research Questions**

Specifically, the research aims to answer the following question:-

- I. What are the common sources of project financing by SMEs?
- II. How SMEs project financing affected?
- III. What are determinants of project financing by SMEs?
- IV. How Small and Medium Enterprises (SMEs) are financing their projects in Addis Ababa Region?

#### 1.4 Objective of the Study

#### 1.4.1. General Objective

The main objective of this study is to examine project financing determinants of selected small and medium size enterprises (SMEs) in Addis Ababa.

#### **1.4.2 Specific Objectives**

- 1. To assess the common sources of project Finance by SMEs
- 2. To examine the firm specific factors that affect project financing by SMEs
- 3. To investigate the industry specific determinants of project financing by SMEs

#### **1.5** Significance of the Study

Mainly this study will help examine the practical experience of financing modalities implemented by Small and Medium Enterprises, as this research was also explanatory it will guide the individual owners of SMEs through the practical knowledge of how overall SMEs finance their projects, and in turn help them equip with the financing practice from the experiences of other same Enterprises. Secondly, it will be an input for City Government of Addis Ababa, Job Creation and Enterprises Development Bureau to plan their activities in regards with SMEs of Addis Ababa and learn the demand side of project financing. Thirdly, this study is significant in helping policy makers in crafting appropriate policy by relating with the outcome of this study. Fourthly, the study will be an input to other researches in understanding how small and Medium Enterprises in Addis Ababa finance their projects. Lastly, it will be a practical knowledge for the researcher, apart from theoretical knowledge learnt in a class room.

#### **1.6 Scope of the Study**

The study was restricted to the business enterprises with regard on determinants of project financing (demand side) operating in Addis Ababa which are called SMEs. The population for the study majorly limited to Addis Ababa this is mainly because of enormous presence of SMEs in Addis Ababa. And also, binary logistic regression model and stratified sampling was employed.

## 1.7Limitation of the Study

This study also has its own limitation regarding geography of observation employed under the study and source of data used. The study has geographical limitation because it was focused on SMEs in Addis Ababa. In addition to that, initially the study was designed to incorporate secondary sources of data including financial statements of SMEs but it was impossible to obtain those data. For that reason, it is another limitation for the study. In general, the previous limitations in any case didn't reduce significantly the outcome of the study.

#### **1.8 Organization of the Paper**

The rest section of the paper organized as follows: The second chapter presents the theoretical, empirical, Ethiopian context literature related to the study, while chapter three provides research methodology considerations of the study, including discussions around the conceptual framework, the approaches used for the sampling procedures and the data collection procedures used and data analysis techniques. Chapter four outlines data presentation, analysis and interpretation. Chapter five concludes and suggests some recommendations and drawn policy implications based on the study's findings.

#### **1.9 Operational definitions of terms**

It is necessary to have definitions of terms and concepts used in this survey for better clarity and understanding. Hence clarifications and definitions of selected terms and concepts as used in this research with brief looks in to their equivalent usages in the policies and legal documents in the country are given.

#### According to the recent regulation, regulation No. 373/2016:

**Enterprise:** an undertaken engaged in production and or distribution of goods and services for commercial benefits, beyond subsistence consumption at the house hold level.an enterprise might be owned and operated by a single house hold or by several house hold jointly partnership basis or by any institutional body.

**Small enterprise**: an enterprise with 6-30 employees and total asset 100,001 to 1,500,000 ETB for industrial sector and 50,001-500,000 ETB for service sector.

**Medium enterprise**: an enterprise with 31-100 employees and total asset 1,500,001 to 20,000,000 ETB for industrial sector

# CHAPTER TWO2. REVIEW OF LITERATURES

This section is divided in three sets of studies. It first considers selected theoretical studies linking project finance and small and medium Enterprises. It is followed by a discussion of empirical studies.

#### **2.1 Theoretical Literature**

#### **2.1.1 History of Project Financing**

Project finance is the structured financing of a specific economic entity - the SPV, or special purpose vehicle, also known as the project company - created by sponsors using equity or mezzanine debt and for which the lender considers cash flows as being the primary source of loan reimbursement, whereas assets represent only collateral (Gatti, 2013). It has been said that project finance is a technique that was already common during the Roman Empire. It was used to finance imports and exports of goods moving to and from Roman colonies. Modern project finance dates back to the development of railroads in America from 1840 to 1870. In the 1930s, the technique was used to finance oil field exploration and later well drilling in Texas and Oklahoma. Funding was provided on the basis of the ability of producers to repay principal and interest through revenues from the sale of crude oil, often with long-term supply contracts serving as counter guarantees. In the 1970s, project finance spread to Europe, again in the petroleum sector. It became the financing method used for extracting crude off the English coast. In the same decade, power production regulations were passed in the United States (PURPA - the Public Utility Regulatory Policy Act of 1978). In doing so, Congress promoted energy production from alternative sources and required utilities to buy all electric output from qualified producers (IPPs, or independent power producers). From that point on, project finance began to see even wider application in the construction of power plants for traditional as well as alternative or renewable sources (Gatti, 2013).

The term Project Finance was particularly developed by bankers to refer to a particular method of mobilizing corporate finance. Projects that use this technique are highly leveraged and financed by lenders with limited recourse to the sponsor(s). Broadly, lenders finance a large corporate undertaking through one of two different ways: (a) a traditional loan backed by the full

faith and credit of corporate balance sheet; or (b) a limited recourse loan. Under the former, the lending decision is based on the prospects of the project to be built and also the general credit standing of the corporate borrower, i.e., its sponsor(s). Even if the project is not generating as much cash flow as originally anticipated, the lenders can expect to get paid if the cash flows from the various other commercial activities of the corporate entity remain robust (Fouzul, Khan, Robert &Parra, 2003).

#### 2.1.2 Project Financing of SMEs

Since these pioneering theoretical developments, a number of scholars have examined the particular nature of SMEs to examine how their innate characteristics may influence their ability to obtain credit (and the cost thereof). This has also led to theoretical development concerning the capital structure of small firms which we will outline below: namely the growth cycle theory and the pecking order hypothesis. Essentially, a number of critical factors are theorised to hinder the ability of SMEs to obtain credit from their preferred funding source. Small firms are different from big firms and these features have significant ramifications for their ability to obtain finance. Plus, there are important differences between SMEs and this heterogeneity affects the ability to raise finance. Prior literature suggests that SMEs find it both difficult and expensive to rise outside capital from banks and other investors (Berger and Udell, 1998). Informational opacity is a key feature of start-ups and SMEs (Berger and Udell, 1998; Cassar, 2004). Small firms do not have audited financial statements or publicly visible contracts with staff and suppliers (Carpenter and Peterson, 2002). As such, small firms are less able to convey creditworthiness and growth to potential investors (Berger and Udell, 1998). Furthermore, most SMEs lack sufficient collateral to offset inherent informational asymmetries as a consequence, SMEs are unable to access traditional forms of finance such as bank loans and instead may seek alternatives (Robb and Robinson, 2014).

SMEs struggle to have access to finance at favourable terms of credit in spite of the recent increase in the number of banks and micro financers in the country (Alemahehu, 2006). In fact, the economic significance of the SME sector is often debated among policy makers. Some argue that although SMEs can expand very fast, most of them are vulnerable to challenges related to basic infrastructure and high technology, macroeconomic policy, good governance, the

availability of resources, etc, and that they run a sizeable risk of failure 4 within the first three years of their existence (Dunne & Hughes, 1994; Dunne et al., 1989; Little, 1987).

Berger and Udell (1998) introduce the "financial growth cycle" theory to explain small business financing decisions. They contend that the needs and options for financing change as firms grow and evolve. Under the financial growth cycle, the founders of new firms seek insider finance from family and friends before and at inception. Insider finance is often required at the very early stage of a firm's development when entrepreneurs are "still developing the product or business concept and when the firm's assets are mostly intangibles" (Berger and Udell, 1998: p.22). As firms grow, they gain access to intermediated debt finance from banks and finance companies, or equity finance from business angels and venture capitalists. This theoretical model helps explain why small firms encounter credit constraints and the interconnectedness between different sources of finance. So what does existing theory tell us about funding preferences within firms? SMEs can finance growth in a variety of different ways but the fundamental decision for many is whether or not to relinquish ownership of part of their business to external investors and to minimize intrusion into the firm (Hamilton and Fox, 1998). Under the "pecking order thesis" of fundraising, many entrepreneurs are opposed to relinquishing control of their business to external investors and, wherever possible, resist equity dilution (Carter and Van Auken, 2005). Therefore, firms have a pecking order of preferences in terms of finance which begins with the use of internal funds generated by retained earnings; then recourse to debt finance from banks; and then, as the least preferable option, equity finance which dilutes the ownership of a business. However, this model fails to adequately explain the manner in which SMEs obtain and utilize insider finance during the early stages of development. This is important because many entrepreneurs may not have sufficient levels of insider finance to help launch and grow their business. Internal sources of finance are sometimes limited and can constrain firm growth (Dermirguc-Kunt, 2006). Eventually firms are likely to use external sources of finance as a complement to existing internal sources to fund growth (Rostamkalaei and Freel, 2016). The model also downplays the alternative financing strategies used to fund expansion. Due to the innate heterogeneity across borrowers, financing by SMEs is not standardised (Udell, 2015).

#### 2.1.3 Traditional Financing Instruments of SMEs

To date the term financing instrument has been open to a degree of interpretative flexibility as is often the case with industrial policies more generally (Pack and Saggi, 2006). Financial instruments are public policy instruments such as subsidized loans, credit guarantees and equity finance schemes designed to overcome market failures experienced by small and medium-sized enterprises to promote productive investments. Some of the traditional financing instruments are described as follows:-

#### **2.1.3.1 Equity Financing**

Equity capital can be raised either internally or externally. Internal equity is funds obtained from the current owner–manager(s), family, and friends or from the retained earnings within the firm. External equity, however, is capital acquired from external channels other than the existing partners and their relatives. "...equity capital is that capital invested in the firm without a specific repayment date, where the supplier of the equity capital is effectively investing in the business" (Ou & Haynes, 2006, p. 156). As mentioned above, equity financing is preferred over debt as a mode of financing for new and young SMEs as they undergo a typical cash shortage and are generally unable to secure loans with collateral during the founding phase. The advantages of equity financing in this regard are twofold. First, unlike debt, equity offers long-term financing with minimum cash outflow in the form of interest. Second, equity capital helps enhance the new/young firm's creditability by indicating that the firm has the approval of sophisticated financial professionals (Ou & Haynes, 2006). Equity financing could be in two forms:

#### **1. Venture Capital**

Venture capital is that form of financing in which funds are raised from investors and redeployed by investing in high-risk informational opaque firms which for the most part are young or start-up firms (Potter & Porto, 2007). Not only do venture capitalists provide an alternative source of funding for SMEs, they also help resolving many informational problems plaguing SMEs. Hence, by helping increasing the financial flexibility of SMEs, they offer them the chance of sourcing finance from other financial channels, such as banks and insurance

companies. However, the supply of venture capital appears to be relatively inflexible, at least in the short-term, as it requires years of experience to develop the necessary skills (Kortum & Lerner, 2000).

#### 2. Business Angels

Angels are highly-selective wealthy individuals with long business experience who invest directly in high growth SMEs with which they have had no previous relationship. This form of investment is usually based on an equity contract, typically common stock. Though angels by definition are individuals, they sometimes coordinate their investment in small investment groups (Madill, Haines, & Riding, 2005). As a source of financing, business angels have two main limitations. First, few angels are prepared to inject additional money into a firm to enable it to grow and be a real competitor in its market. Second, most angel investors do not have neither the skills nor the interest in investing in a firm after it has access to other external sources of finance, including public equity markets (Wall, 2007).

#### 2.1.3.2Debt Financing

It is well known that capital structure decisions, in SMEs as in large firms, relate to the use of either equity or debt or both. However, Berger and Udell (1998) believe that in the case of SMEs, this is partly incorrect because information opacity is more severe in SMEs. Issuing additional equity to satisfy the firm's financial needs would then lead to a dilution in ownership and control. Therefore, in order to keep full ownership and control of their businesses, SMEs owner–managers may prefer to seek debt financing rather than external equity.

#### 2.1.3.3 Trade Credit

One of the most important sources of external financing for SMEs is trade credit. For instance, Berger and Udell (2006) estimated that one-third of the total debt of SMEs in the US in 1998 was represented by trade credit. The role of trade credit as a source of raising financing for SMEs is even more important in countries with less developed banking and financial systems where asymmetric information problems are more pronounced. Some researchers (e.g. Wilson & Summers, 2002) argue that trade credit can be a costly financing source for SMEs if the buyer delays the payment beyond the specified date in the agreement. Nevertheless, Berger and Udell (2006) believe that in spite of some drawbacks, trade credit remains a crucial financing source for most SMEs, especially the young. They further explained that trade credit has the ability to

provide the desired cushion during credit crunches, contractions of monetary policy or other shocks that may make other funding suppliers unwilling to provide financing to SMEs.

#### 2.1.3.4 Nonbank Financial Institution debt

Nonbank debt offers a channel for SMEs to rise funding in both developing and developed nations. Atieno (2001) investigated and assessed the role of such institutions in facilitating the access to credit by SMEs in rural Kenya. He attributed the dominance position of these institutions as funding providers to SMEs to the fact that their procedures for loan applications are shorter than those of commercial banks. He adds another advantage makes this financing source favourable to SMEs which is longer loan maturity periods.

#### 2.1.3 Alternative Financing Instruments of SMEs

Traditional debt finance generates moderate returns for lenders and is therefore appropriate for low-to-moderate risk profiles. It typically sustains the ordinary activity and shortterm needs of SMEs, generally characterised by stable cash flow, modest growth, tested business models, and access to collateral or guarantees. At the one end of the risk/return spectrum are financing instruments that sustain the short and medium-to-long term financing needs of SMEs, but that rely on different mechanisms than traditional debt.

This is the case of *asset-based finance*, such as *asset-based lending*, *factoring* and *leasing*, whereby a firm obtains cash, based not on its own credit standing, but on the value that a particular asset generates in the course of its business. The close relationship between the liquidation value of an asset and the amount borrowed, as well as the broad range of assets that can be used to access lending, are the key factors that distinguish asset-based lending from traditional secured or collateralised lending, in which the loan amount and conditions also depend on the overall assessment of the firm's credit worthiness. Furthermore, asset-based lending for revolving funds; as advances are paid off, the borrower can secure additional funds backed by other assets.

*Trade credit* is also an important source of finance for many SMEs and start-ups, which can substitute or supplement short-term bank lending. This mainly consists of the extension of traditional credit instruments and credit-mitigation tools, such as loans and guarantees, to sustain

import and export activities. Guarantees can take the form of letters of credit (L/C), which represent a bank obligation to pay, thereby reducing an export's payment risk on an importer/buyer. Alternative forms of debt also exist, which can be considered "innovative" in the context of SME financing because they have had until now limited applicability to the SME sector.

These alternative debt instruments include also *corporate bonds*, *securitised debt* and *covered bonds*, in which investors in the capital markets, rather than banks, provide the financing for SMEs. While corporate bonds are direct instruments of debt finance for SMEs, securitisation and covered bonds represent "indirect" tools for supporting SME debt financing, in that the product issued to the firm is a loan. In particular, securitisation of SME debt allows banks to transfer their credit risk to the capital markets, as SME loans are sold to a specialised company, which creates a new security backed by the payments of SMEs. In this way, banks achieve capital relief and free up capacity for new loans to SMEs. Over the last decade, securitised debt has grown rapidly, although the financial crisis hit this market severely. On the other hand, few SMEs have succeeded in issuing corporate bonds, because of difficulties that small privately held companies have in meeting investor protection regulations and the high relative cost of bond issuance for small companies (OECD, 2013b). At the other end of the risk/return spectrum are financing instruments that enable an investor to accept more risk in exchange for a higher return, and are expected to produce a better alignment of the interests of certain kinds of SMEs and the providers of finance.

*Hybrid instruments*, such as mezzanine finance, form a bridge between traditional straight debt and pure equity. *Seed and early stage finance* addresses the high risk-return segment of the business financing spectrum, boosting firm creation and development, whereas other equity-related instruments, such as *private equity* and *specialised platforms for SME public listing*, can provide financial resources for growth-oriented SMEs. In the SME financing of new instruments, such as *crowd funding* or *peer-to-peer lending*. These have grown rapidly in some countries and have attracted increasing attention by policy makers and regulators, also with a view to address concerns about transparency, investors' risk awareness and consumer protection (OECD, 2015).

#### **2.1.4 Challenges in Project financing of SMEs**

Specific challenges limit traditional bank lending to SMEs. These are largely related to the greater difficulties that lenders encounter in assessing and monitoring SMEs relative to large firms (OECD, 2006, 2013b).

First, *asymmetric information* is a more serious problem in SMEs than in larger firms. SMEs often do not produce audited financial statements that yield credible financial information and have no obligation to make public disclosure of their financial reports, although they are generally obliged to produce them and make them available to relevant authorities upon request. Furthermore, in smaller enterprises, the line of demarcation between the finances of the owner(s) and those of the business is usually blurred. Unlike established public companies, which are expected to observe standards of corporate governance with clearly defined roles for shareholders, managers and stakeholders, SMEs tend to reflect the idiosyncrasies of their owners and their informal relationships with stakeholders. Hence, the entrepreneur has better access than the financier to information concerning the operation of the business and has considerable leeway in sharing such information with outsiders. The implications of asymmetries in information are made more severe by the large heterogeneity in the SME sector. SMEs are characterised by wider variance of profitability and growth than larger enterprises, and exhibit greater year-to-year volatility in earnings (OECD, 2006).

Second, *the principal/agent problem*, which is inherent in all financing operations, is particularly acute in the case of SMEs. Once financing is received, the entrepreneur may use funds in ways other than those for which it was intended. An entrepreneur might undertake excessively risky projects since all of the "upside" of the project belongs to the entrepreneur while a banker would prefer a less risky operation, even if profitability is less than under the riskier alternative. A large firm wishing to undertake a comparatively risky activity could select a different technique with appropriate formulas for sharing risk and reward, such as equity issuance, but the range of choice available to small firms is usually narrower (OECD, 2013b).

Financial institutions have developed several methods to mitigate the incidence of these challenges in SME lending. The main objective is to alter the risk-sharing mechanism in order to align incentives between lender and borrower.

#### 2.1.5 Advantages and Disadvantages of Project Financing

Brealey (1996) argue that PF creates value by resolving agency problems and improving risk management. Esty (2003, 2004a, 2004b) takes a more general view of the problem and presents four primary reasons for using PF. Firstly, PF can be used to mitigate costly agency conflicts - agency cost motivation - inside project companies and among capital providers. PF highly levered capital structures play an important disciplinary role, because they prevent managers from wasting free cash flow, and deter related parties from trying to appropriate it. Secondly, this type of transaction allows companies with little spare debt capacity to avoid the opportunity cost of underinvestment in positive NPV projects - debt overhang motivation. According to Nevitt and Fabozzi (2001), Gatti (2008), and Fabozzi et al. (2006), the off-balance sheet treatment of the funding raised by the SPV is crucial for sponsors, since it only has limited impact on sponsors' creditworthiness, and does not impact sponsors' ability to access additional financing in the future. Thirdly, PF improves risk management – risk management motivation. The nonrecourse nature of project debt protects the sponsoring firm from risk contamination. Additionally, PF creates value by improving risk management inside the project. Risks are allocated with the goals of reducing cost and ensuring proper benefits. PF can also help to reduce underinvestment due to asymmetric information problems – asymmetric information motivation. The separation of projects from the sponsoring firm or firms facilitates initial credit decisions and it is relatively easy to convey information that would be more difficult in a corporate financing framework, in which the joint evaluation of the project and existing assets can be more problematic.

Despite the referred advantages, it is possible to identify in the extant literature (e.g., Esty, 2004a, b; Fabozzi et al., 2006; Gatti, 2008; Bonetti et al., 2010) the following main problems related to the use of PF: (*i*) complexity in terms of designing the transaction and writing the required documentation; (*ii*) higher costs of borrowing when compared to conventional financing; and (*iii*) the negotiation of the financing and operating agreements is time-consuming. As pointed out by Esty (2004a), a PF transaction is expensive to set up, it takes a long time to execute, and it is highly restrictive once in place. Similarly, Gatti (2008) confirms that the principal drawback of PF is that structuring such a deal is more costly than the corporate financing option. Although these are counter-intuitive features of project finance when compared to corporate financing, Esty (2004b) and Bonetti et al. (2010) state that in practice, the additional

costs are more than compensated for by the advantages that arise from the reduction in the net financing costs associated with large capital investments, off-balance sheet financing, and appropriate risk allocation

#### **2.2 Empirical Review**

Yeha (2016) based on the study result, the researcher forwarded recommendations in order to increase SMMEs access to finance, it requires more effort from the Small and Medium Manufacturing Enterprises side to overcome their drawbacks. This includes specific ownermanager personal characteristics such as: extending the highest educational level of owner managers and strengthening their relationship with bank. SMMEs can strengthen their relationship with bank starting from the easiest one, making payments and receipts using checking accounts up to the difficult one creating long term relationship with credit provides. While the detail of how to strengthen and create relationship with fund providers needs further research.

As Eshetu and Mammo (2009) indicated, 79% of SMEs in Ethiopia stated that, getting credit finance from formal financial institutions is a key problem. It is obvious that inadequate access to credit limits the expansion of firms, choice of technology, hiring suitable premises and the employment of skilled personnel. This hinders the potential to adequately meet the needs of consumers. Access to credit on favourable terms is essential for initiating new business ventures, fulfilling working capital requirements, as well as for expanding existing businesses. In this regard, the formal financial institutions are reluctant to avail credit facilities to the sector. Formal financial institutions such as commercial banks are reluctant to lend small amounts of money to small businesses because the cost of administering the loan exceeds the benefits accrued to them.

Pretorius and Shaw (2004) observed that accessibility to external finance is essential to solve shortage of SMEs cash flows. Financing is required for SMEs to set up and enlarge their business operations, new product development, research and development, human resource development and acquiring of up-to-date production equipment and technology. Most of SMEs rely on internal finance since they cannot afford external finance easily; only prioritized source becomes internal finance but still internal finance is inadequate for SMEs' development and profitability. SME's failure to access debt financing results in an inadequate capital structure.

Abor and Biekpe (2007) found that the Ghanaian firms involved in agricultural or manufacturing sector have higher capital and asset structures than those operating in wholesale and retail sectors. Subsequently these assets can be used as potential collateral values for banks and encourage them to issue bank loans. However, the firms using rentable assets or having low assets structures, as is the case with service businesses, are subject to low financial access due to scarcity of collateral values.

#### 2.3 Ethiopian Context of SMEs

#### 2.3.1 Economic Situation of Ethiopia

Since the mid-1970s, Ethiopia has experienced two major political power shifts and subsequent economic reforms in the economy. The first occurred in 1975, when the Derg (a group of military officers led by Colonel Mengistu Hailemariam) overthrew the imperial regime of Emperor Hailesilassie I, and implemented a communist-inspired and centrally controlled socialist economic policy. The second, a more market-based economic policy reform took place in the early 1990s with the fall of the Derg regime through the violent transfer of power to the Ethiopian People's Revolutionary Democratic Front (EPRDF) (Mammo, 2008; Geda and Degefe, 2002).

The last decade of the imperial regime of Emperor Hailesilassie I (1965-1974) was characterized by a liberal system or a market based economic policy. The regime promoted a relatively greater involvement of the private sector and international investors to bring capital and skills into Ethiopia, and participate in the local economy (Kebede, 2002). As a result, direct foreign investment activities were implemented in sectors such as large commercial farming, manufacturing, education, banking, insurance, transportation and textiles. The share of foreign capital in manufacturing industries during this time amounted to about 41% of the total paid-up capital. According to (Keller, 1998) and (Bekele, 1995) based on the data from the Central Statistical Agency of Ethiopia (CSA) indicate that the economy achieved sustained economic growth between 1965 and 1974, where real GDP grew by an average of 4.4% per annum while per capita income grew at a rate of 1.5%. The agricultural production increased at an average annual rate of 2.1% between 1965 and 1973, and these outcomes were much better than those achieved between 1975 and 1991, a period in which agricultural production increased at an

average annual rate of 0.6%. According to (Geda and Degefe, 2002), during the early 1970s for example, Ethiopia's economy not only grew fast, but also diversified into areas such as manufacturing and services. For instance, the share of the agricultural sector to GDP steadily declined from nearly 70% in 1960 to about 50% in 1974. During this period, even if the economy was being transformed structurally, while output rose and the economy was diversified, the development of the agricultural sector was retarded by a number of factors: First, there was a tenancy and land reform problems; Second, agriculture sector received relatively less amount (less than 2%) of government's budget allocation; Third, the sector characterized by lack of technological development; and fourth, small scale agribusiness firms received relatively little attention in terms of policy and support compared to large enterprises (John, 1979). The policy selectively supported large enterprises as they were perceived more important in terms of GDP growth, employment generation and productivity contribution to the economy.

In fact, as in many other developing countries, in Ethiopia too, interest in exploiting the full potential synergy of SMEs and commitment for promoting the sector using policy as an instrument was kept at bare minimum. As a result government's effort to introduce programs that aims to improve agricultural productivity, which includes Minimum Package Program (MPP), Chilalo Agricultural Development Unit (CADU), and Extension and Project Implementation Department (EPID) does not bring the desired level of progress in the sector. None the less the sector grows at an average annual rate of 2.1%, albeit below the population growth rate 2.6% between 1965 and 1973. Derg regime replaced the relatively liberal economic policies of the imperial era with a centralized policy that discouraged free market economy and large private investment. Restructuring the economy through socialist development ideology and realizing sustained economic growth were the main objectives of the Derg regime (Ageba and Amha, 2004). In view of to realize sustained economic growth through public ownership of resources, the state nationalized domestic and international private medium and large enterprises, financial institutions such as private banks and insurance companies, and rural and urban land fell under the ownership of the state. Small farmers were forced to join farming cooperatives that were obliged to sell farm product to the government at discounted selling prices (Kassahun, 2002). During the Derg era, the Ethiopian economy became one of the most heavily regulated in terms of policy. The government used restrictive policies such as introducing a policy of price controls, quota restriction of certain sectors of the economy, excessive tariff, strict licensing, limitation on foreign exchange, and the imposition of cumbersome legal requirements on the private sector. The state planned means of production, production targets and allocates resources. Production of large scale goods was almost entirely state owned. As a result, there was little room for private sector development. This ultimately resulted in a sharp decline in agricultural output as well as other sectors of the economy, including died out of the direct foreign and private investment into local economy (Rahmato, 2004; Kassahun, 2002; Geda and Degefe 2002). During this period (1974-1990), the economy failed to realize macroeconomic stability. GDP declined by 5% in real terms, inflation soared by nearly 23%, the trade balance deteriorated, unemployment remained high. According to Geda and Degefe (2002) growth rate decelerated to 2.3% (the per capita income declined by 0.2% per annum). In the late 1980s, average GDP growth remained very low at less than 2%, while population increased at an average annual rate of 2.6%. According to Kassahun (2002), despite the economic reform, the overall structure of the Ethiopian economy remained more or less the same throughout the period. For instance, in 1974, when the Derg regime came to power, agriculture accounted for about 52.5% of real GDP, industry for 11.5%, and the services sector for 36%. In 1974, 85% of the population depended on agriculture for livelihood. Besides policies and regulations which were openly aimed at curtailing the private sector development and participation in the local economy there were other factors that contributed for the poor performances of the economy. These include: the unstable political climate; lack of good governance, the dislocation of the rural community caused by resettlement and villagization, and the overall low level of technology and inputs. The Ethiopian People's Revolutionary Democratic Party (EPRDF) came to power in May 1991 through violently overthrowing of the Derg regime. The EPRDF focused on reorienting the economy through market reforms and structural adjustment, backed up by the IMF and the World Bank. According to Dercon (2002), the first set of reform measures included the reduction of the state's role in economic activity, liberalization of foreign exchange markets, the reduction of tariffs, the relaxation of quota constraints, simplification of licensing procedures, liberalization of foreign exchange control, removal of restrictions on international and domestic trade, opening up of financial markets, abolishment of compulsory cooperative memberships and grain delivery, privatization of a few state owned enterprises, and improvement in investment policies. The government has also promoted the widely publicized Agricultural Development Led Industrialization (ADLI) policy since 1994 for the purpose of stimulating growth by increasing

productivity in the agricultural sector as well as sustained industrialization in the country. However it has so far failed to realize its intended goals including the reduction of extreme poverty and food security in the country (Geda, Shimeles & Weeks, 2003). Strong forward and backward linkages between agriculture and other sectors of the economy in supply of raw materials and, in turn, facilitate market for the output goods and services.

In this regard, promotion of thriving MSME sector in the economy is critically important for off-farm employment opportunity, income and value addition to agricultural products, and for providing goods and services for sector. Hence the MSME and the agricultural sectors have to be viewed as complementary to each other with respect to facilitating overall economic growth and the structural transformation of the economy. However, in Ethiopia until recently to a large extent, developing off-farm activities to support the growth of the agricultural sector via forward and backward linkages has been overlooked. Several developed nations have had to diversify their economies in order to reduce the relative share of the agricultural sector in the overall GDP. In most cases, the share of agriculture was replaced by the industry and services sectors. Figure 1 below shows that contrary to the situation in Sub-Saharan Africa, the Ethiopian economy relies quite heavily on a poorly modernized or traditional agricultural sector, and that other sectors play a minimal role in the Ethiopian economy.

The term "SME" typically encompasses a broad spectrum of definitions across countries and regions. Many countries and international organizations set their own guidelines for defining SMEs, often based on the number of employees, sales, or assets. SMEs account for a significant share of employment and GDP around the world. There is evidence that, in developing economies, SMEs could contribute more to economic development than they currently do (World Bank, 2015).

#### 2.3.2 Financing of SMEs in Ethiopia

SMEs in Ethiopia, like in most developing countries are confronted with the same challenge of accessing financing in their bid to expand. Mainstream financial institutions are not willing to provide loans to the sector rather large amount of money is given to large scale firms. Eshetu and Mammo (2009, 15) states that, "commercial banks are reluctant to lend small amount

of money to small business because the cost of administering the loan exceed the benefit accrued to them." This shows that banks are not inclined to develop an innovative and systematic approach that minimizes risk and administrative cost to serve the sector. As a result the traditional approach used by banks and financial institution does not enable them overcome the risk and transaction cost of lending to SMEs (ECA 2001, 12).

The monetary policy of the government does not compel banks to extend their loans to SMEs. Etsegenet (2000) shows that about 76% of SMEs obtain their start-up and expansion capital from informal financial sources such as, own saving, money lenders, relatives and friends. The table bellow shows the principal sources of capital for MSMEs based on selected 500 small businesses and enterprise in Ethiopia. As indicated large portion of capital around 41% is come from own saving and friends and relatives are the second largest financial sources for MSMEs which amount 18% respectively. However, as it can be seen from the table the formal financial sector which can be used as a primary source of finance have a low pecking order in terms of contribution. Banks and micro finances contribute only 8% and 9.2% which is lower than friends. This force SMEs to rely on informal financial sources for SMEs.

Source	Micro		Small		Medium	Medium Total (	
Banks		1.9		14.	36.7		8
			8				
Microfinance		17		7.4	3.3		9.2
Iqqub Schemes (Social Capital)				12.	3.3		
	13.2		1			11.8	
Friends and/or Relatives				19.	26.7		18
	11.3		2				
Own Saving				42.	23.3		41
Ŭ	40.6		9				
Donation		5.7		3.0	16.7		4.8
Money Lenders				6.9	3.3		7.2
-	10.4						
Total					6.0	1009	%
	21.2		72.8				

Source: Eshetu and Mammo, (2009)

From the above tables it can be understood that for financial sectors to finance projects of SME's are not well developed. The lack of alternative financial source and access; increase the difficulty of obtaining credit facility for SMEs. This implies that due to weak competition and undeveloped financial market SMEs facing serious problem lacking source and access of capital for start-up and expansion projects.

#### 2.4 Empirical Review on study variables

For the sake of this study only, empirical evidences from local and other country experience have been discussed by grouping in to three major factors as; firm characteristics, firm specific challenge, industry specific characteristics.

#### **2.4.1 Firm characteristics**

Firm charatertics can be described in different terms which are built in element of a firm. SMEs project financing ability surely determined by enterprises characteristics like their operation time length in the business, and SMEs business skill that can give them competitive advantage, their relation with different stake holders who have finical resources. Therefore this study considered this firm characteristics by developing two variables based on literatures, as described below.

**Business skill and leverage:** In Fetene (2010) findings Ethiopian small businesses are lagging behind every other sector. Their growth is sluggish, marketability of their product is limited because of quality, competition, lack of market (deficient in place to market their product), the access that they have for input was limited and expensive in put price and their access as well as use of finance is extremely limited.

It is empirically proofed that networking decides access to credit particularly in developing countries whose financial system is under developed. Empirical evidence reveal that the more and frequently firm contact bank officials, the firm's ability to access to bank and Abdwahab (2014) in Libya indicates that the probability of loan approval is speed up if the relationship with banks is tight.

**Firm operational age**: Gabriel (2011), in his study conducted Westland division, Kenya finds that the size and age of the firm, financial characteristics and the business skills that the entrepreneur has; were found to have an influence in accessing finance.

#### **2.4.2 Firm specific Characteristics**

As empirical literatures show firms or enterprises their own specific characterics potentially determine their project financing ability. Therefore, in this study, the researcher selected two variables which can influence SMEs access to project financing.

Awareness of financing opportunities: Hezron and Hilario (2016) on their study conducted in Maputo central business district, Mozambique, there is a relationship between the structure of the financial sector and access to finance by SMEs; there is a relationship between awareness of funding and access to finance by SMEs; there is a relationship between collateral requirements and access to finance by SMEs; and there is a relationship between small business support and access to finance by SMEs.

**Past financing experience:** Other factors also come into play when considering the possibility of extending credit to a customer, such as the financial standing of the borrower. Under a dispensation characterized by coarse accounting procedures that provides little to no relevant information about financial standing becomes a disincentive for lending. Banks would have to resort to the so- called relationship-based lending process, which may be substituted for demands for huge collaterals. On the question of capacity, it is apparent that both lenders in this case banks and borrowers from the SME sector are battling the same challenge, to the extent that banks are not able to establish the definitive terms of credit worthiness within the domestic market. According to their study, the natural inclinations for banks to enter the SME market albeit some reluctance is to push all the attendant risks into higher than average interest rates for borrowers.

#### 2.4.3 Industry specific characteristics

To get any finance support in any modalities, assessing and living with industry specific requirements is a must, and it is universal truth. The same is true for SMEs project financing ability in Ethiopia specifically in Addis Ababa case, for this study. For this study the researcher took two specific requirements by the industry which determines SMEs project financing ability.

**Cost of borrowing:** On the other study conducted by Selamawit, et.al (2014) concludes that the major source of startup finance and also working capital is own savings. The major source of credit for startup on the other hand is family and friends followed by microfinance and

'Equb'. major source of credit for working capital is also informal financial institutions. Age of the entrepreneur, educational level of the entrepreneur, possession of fixed asset, employment size of MSEs, perceptions about lending procedure and loan repayment period had statistically significant effects on access to credit from formal financial institutions.

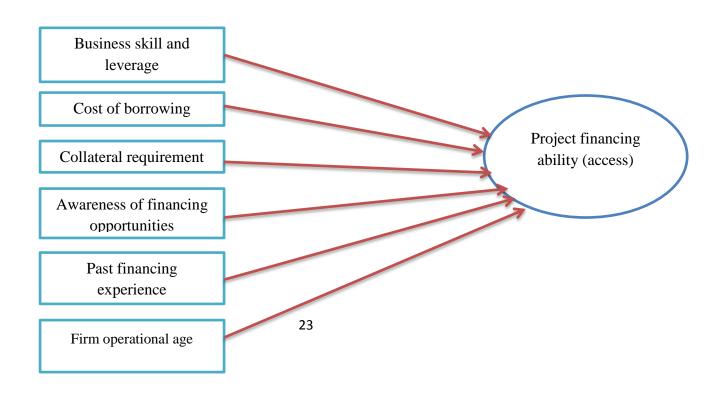
**Collateral requirement: In** Jane Anne Wangui, et.al (2014) study revealed that the key challenges hindering micro and small enterprises in Kangemi Harambee Market in Nairobi City Kenya from accessing credit facilities to be high cost of repayment, strict collateral requirements, unwillingness of people to act as guarantors, high credit facilities' processing fees and short repayment period.

## **2.5 Conceptual Frameworks**

The conceptual framework of this study shows the focus on the factors determining access to project finance by SMEs. The variables in the conceptual framework are tested as hypotheses to establish the relationships between variables.

The independent variables of this study include the firm's business skill and leverage, collateral requirements, cost of borrowing, and awareness of financing opportunities, past financing experience, firm operational age and the dependent variable is the ability (access) to project finance by SMEs. Therefore based on the previous discussion, the conceptual framework of this study is presented below in figure 2.1

## **Figure 2.1 Conceptual Framework**



## **2.6 Conclusion and Literature Gap**

A research gap is defined as a topic or area for which missing or insufficient information limits the ability to reach a conclusion for a question. A research need is defined as a gap that limits the ability of decision-makers (policy-makers, practitioners) from making decisions.

The researcher found on studies conducted in Ethiopia uses different related factors as a measure. None of these studies conducted in Ethiopia checked this six factor; Firm business skill and leverage, Cost of borrowing, Collateral requirements and Awareness of Financing Opportunity, past financing experience, firm operational age with project financing ability(access) by SMEs. In addition some of these empirical studies also recommended future studies to be made on this area of the study.

As it can be understand from the review the Lending institutions or financial source providers do not pay attention to make financial sources available for the SMEs. Further there is a lack of credit facilities agencies that are well suited for the all crucial SMEs' sectors.

As can be understand from the literatures there is still a problem that needed to be addressed in accessing project finance for SMEs in Ethiopia. With an objective of providing information on the above, this study made an attempt to identify factors that determining access (ability) to project finance by (SMEs) in Addis Ababa.

## **CHAPTER THREE**

# **3. RESEARCH METHODOLOGY**

## **3.1 Research Design**

Research design is the arrangement of conditions for collection, analysis and interpretation of data in a manner to combine relevance to the research purpose with economy in procedure (Kothari, 2004). This study was employed explanatory research design. Explanatory research was conducted in order to assist us by finding the problem that was not studied before in-depth. It helped us in understanding the problem more efficiently rather than giving some conclusive evidence.

The study was explanatory, in that the relationship between variables is correlated with an aim of explaining the integrated influence of explanatory variables on access to project finance. In addition, the study used cross sectional (one time) data.

## **3.2 Sources of Data and Data Collection Techniques**

### 3.2.1 Source of Data

For the purpose of accomplishing the objectives of this study, primary sources of data was used. An advantage of using primary data is that researchers are collecting information for the specific purposes of their study (Kothari,2004). In essence, the questions the researchers ask are tailored to elicit the data that will help them with their study. Researchers collect the data themselves, using surveys, interviews and direct observations.

The primary data was gathered from owners (managers), of SMEs located in the study area via distributing questionnaire for the selected owners (managers). Questionnaires provide a relatively cheap, quick and efficient way of obtaining large amounts of information from a large sample of people (Kothari,2004). Data can be collected relatively quickly because the researcher would not need to be present when the questionnaires were completed. Questionnaires can be an effective means of measuring the behaviour, attitudes, preferences, opinions and, intentions of relatively large numbers of subjects more cheaply and quickly than other methods. The questions are standardized. All respondents are asked exactly the same questions in the same order. This means a questionnaire can be replicated easily to check for reliability.

## **3.2.2 Data Collection Techniques**

Primary data was collected by using structured questionnaire. The questionnaires was designed in a manner which was appropriate to achieve the objectives of the study comprising open ended and close ended questions. The research questioner was administrated to 174 SMEs owner-managers. To enhance the response rate, the questionnaires were delivered by hand to the enterprises randomly approached and convinced to participate on this study. The participants of the study filled up most of the questionnaire by themselves but when necessary the data collector gave assistance by elaborating and explaining idea of the question.

The questionnaire used likert scale to identify influencing factors of project financing. The likerte scale ranges from strongly disagrees to strongly agree (5-strongly agree, 4-agree-, 3neutral, 2-disagree, 1-strongly disagree) so as to not limit the response to some limited ranges.

The questioner translated from English to Amharic language to utilize who cannot clearly understand English language so that respondents easily answered.

## **3.3 Target Population and Sampling Methods**

In selecting sample, three factors determine the size of an adequate sample includes: nature of population, types of sampling design and degree of precision desired (Salant and DIIIman, 1994). Using a sample that is too large is a waste of resources while using a sample that is to small means getting results that are likely to be lacking in validity. In light of this, to select adequate sample size, the following procedures were employed.

First the population was defined as the business operators in the SMEs sector spread across Addis Ababa. Second Based on City Government of Addis Ababa, Job Creation and Enterprises Development Bureau there is 1,528 SME's in Addis Ababa. The population in terms of Sub-city is presented in the Table 3.1 below:-

S.No	Sub-city	Number of SMEs per Sub-
		city/Addis Ababa
1	Yeka	147
2	Nifas-Silk Lafto Sub-city	248
3	Lideta Sub-City	36
4	Kolfe Sub-city	184
5	Kirkos Sub-citye	69
6	Gulele Sub-city	234
7	Bole –Sub-city	86
8	Akaki Sub-city	207
9	Addis-Ketema Sub-city	161
10	Arada Sub-city	156
	Total	1,528

Table 3.1 Number of SMEs in each sub city of Addis Ababa

# Source: Data collected from City Government of Addis Ababa, Job Creation and Enterprises Development Bureau, 2020

The researcher used a combination of both which is their capital category and based on the definition given for SMEs in the research population of SMEs was selected. The researcher assume failure and success value of 0.5, 95 per cent confident interval (Z2=1.96), and tolerable error was set at 7 percent and determine a sample size as 174 Enterprises using scientific formula based on Kothari (2004) as follows;

n = 
$$\underline{Z^2 * p * q * N}$$
.  
[e<sup>2</sup>\*(N-1)] + [Z<sup>2</sup> \* p \* q]

Where: N = size of population;

n = size of the sample;

p = sample proportion of successes;

q = 1 - p;

Z = standard variant for given confidence level (as per normal curve area table);

e = acceptable error (the precision).

$$n = (1.96)2 * (0.5) * (0.5) * (1,528) .$$

$$[(0.07)2 * (1,528-1)] + [(1.96)2 (0.5) * (0.5)]$$

$$= 174$$

The researcher used a probabilistic sampling technique which was useful to explain, predict and generalize to the whole population. The technique of sampling used in this study was a stratified sampling with systematic sampling under each stratum. Stratified random sampling is one common method that is used by researchers because it enables them to obtain a sample population that best represents the entire population being studied, making sure that each subgroup of interest is represented (Kothari,2004). Using this technique the researcher first determined the representative sample. Next to that, the total population stratified as SMEs as per the regulation and proportionate method was applied to facilitate sample size from each stratum.

S. No	Sub-city	Number of SMEs per Sub-city/Addis Ababa	%age	
1	Yeka	147	9.62	15
2	Nifas-Silk Lafto Sub-city	248	16.23	28
3	Lideta Sub-City	36	2.36	3
4	Kolfe Sub-city	184	12.04	21
5	Kirkos Sub-city	69	4.52	9
6	Gulele Sub-city	234	15.31	26
7	Bole – Sub-city	86	5.63	10
8	Akaki Sub-city	207	13.55	24
9	Addis-Ketema Sub-city	161	10.54	19
10	Arada Sub-city	156	10.21	17
	Total	1,528		174

Table 3.2 Stratified sampling
-------------------------------

## **3.4 Method of Data Analysis and Presentation**

## **3.4.1 Method of Data Analysis**

Both regression and descriptive statistics methods of data analysis were employed. Quantitative data were analysed using descriptive statistics such as frequency distribution and percentage. A binary logistic model which best fits the analysis for determinant of project financing ability by SMEs was employed.

The researcher prefers the logistic regression model because the probabilities are bound between zero and one whereas linear probability estimated probability values can lie outside the normal probability of zero and one range which is taken as a major weakness for the model. Moreover, logistic regression model best fits if there is anon liner relationship between the probabilities and the explanatory variables and for analysis purpose of dichotomous outcome variable meaning two out comes like occur and not occur employed (Sabine & Brain, 2004).

This study was intended to analyse and investigate the collected data to determine which of the explanatory variables are predictive of ability (access) to project finance. The dependant variable is a dummy, which takes value of zero or one depending on whether or not SMEs access to project finance. However the independent variables were both continuous and discrete.

Therefor the binary logit regression model in this study helps to identify major determinants of access to project financing by SMEs.

There were six independent variables (Firm business skill and leverage, Cost of Borrowing, Collateral Requirement, Awareness of Financing Opportunity, Past Financing Practice and firm operational age) and the dependent variable is project financing ability (access). The Model is as follows:-

 $ProjFin = \alpha + \beta 1FirAge + \beta 2SkLv + \beta 3Cost + \beta 4Coll + \beta 5Awer + \beta 6PastF + ui....EQ2.$ 

Where: ProjFin = Project Finance ability (access) by an Enterprise

 $\alpha = constant$ 

FirAge = Firm operational Age

SkLv = Firm business Skill & Leverage

Cost = Cost of Borrowing

Coll = Collateral Requirements held when applying for finance

Awer = Awareness of financing opportunity and

PastF = Past Financing practice

Ui =Residual values, which are any variables that may affect the dependent variable but not incorporated in this model.

## **3.5 Research quality issues**

Before data entry into a computer a serious of pre-test was conducted the data scanning and scrutiny techniques were employed from available questionnaires examine and validate the survey instruments as to ensure content validity and reliability.

### Validity

To ensure validity of the study the triangulation technique by questionnaire done through piloting of the data collection instruments used to collect data. The instrument design such a way that measure attitudes and opinions of respondents towards project financing by SMEs.

#### Reliability

Data reliability is a key to successful and meaningful study. While to test the reliability of the Likert scale used in this study, reliability analysis was done using Cronbach's Alpha as the measure.

## **3.6 Ethical Consideration**

All the research participants including in the study were appropriately informed about the purpose of the research and their willingness and consent is secured before the start of distributing questionnaire. Regarding the right to privacy of the respondents, the study was maintained confidentiality of the identity of each participant. In all cases, names were kept confidential thus collective names 'respondents' sex was used.

## **3.7 Literature Driven Hypothesis**

With the help of appropriate empirical data on the independent variables and the dependent variable of the study the following hypotheses will developed and tested using multiple regression analysis technique. These hypotheses will help to address the research

question of the objective; the researcher indicated as; determinants that affect project financing by Small and Medium Enterprises.

## **Research hypothesis (Ha1):**

# Firm business skill and leverage has positive and significant effect on Project financing

In general, the characteristics of SMEs affect their financial decisions and behaviour and ultimately the firm's performance and growth.

## **Research hypothesis (Ha2):**

## Collateral requirements has positive and significant effect on Project financing

Collateral – security in the form of assets – is a way for banks to recover money in the event of default. Without adequate collateral, banks have limited or no ways to protect their loaned assets. SMEs' lack of collateral is another dissuasive factor for financial institutions. Bougheas et al. (2006) pointed out that the requirement of collateral is a crucial aspect for SMEs to succeed in accessing external financing from lenders.

## **Research hypothesis (Ha3):**

# Awareness of financial opportunities has positive and significant effect on Project financing

Hezron and Hilario (2016), on their study conducted in Maputo central business district, Mozambique; there is a relationship between awareness of funding.

## **Research hypothesis (Ha4):**

## Cost of financing has negative and significant effect on Project financing

One consideration should be the cost of the financing, the lower the financing cost is, and the bigger the profit would it be. Due to different cost of capital of project financing methods, the enterprise or project company needs to take consideration into the cost & benefit ratio for each project financing method before they initiate the project.

## **Research hypothesis (Ha5):**

## Past financing practice has positive and significant effect on Project financing

Poor previous experiences or other reasons often referred to as "reputational effects" discourage SMEs borrowers to apply for bank loans. For example, some borrowers may be discouraged from applying for external finance due to a first refusal, their ethnicity, sex (being

female entrepreneur) and bureaucracies (Deakins et al., 2010). (Briozzo and Vigier 2009, p. 37) state that; "As the firm and its owner grow older, information asymmetries decrease, granting easier access to debt (a supply-side effect), while the owner's risk aversion and personal costs of bankruptcy increase with age, and thus he or she desires to use less leverage (demand side effect)".

## **Research hypothesis (Ha6):**

## Enterprise operational age has positive and significant effect on Project financing

Gabriel (2011), in his study conducted Westland division; Kenya finds that the size and age of the firm has influence on access for finance.

		Expected relation with project
Variables	Measurement	financing
Dependent variable		
project financing ability	dichotomous value	
Independent variable		
business skill and		
leverage	five point likert scale	positive & significant
cost of borrowing	five point likert scale	positive & significant
collateral requirement	five point likert scale	negative & significant
awareness of financing		
opportunities	five point likert scale	positive & significant
past financing		
experience	five point likert scale	positive & significant
firm operational age	five point likert scale	positive & significant

Table 3.3 Summary of dependent and independent variables of the study

## **CHAPTER FOUR**

# DATA ANALYSIS, RESULTS AND DISCUSSION

This chapter of the study is dedicated to present, analyze and interpret survey data using primary data sources collected from owner-manager of small and medium enterprises operating in Addis Ababa. Hence it is organized in to two major sub sections. The first sub section explains the descriptive statistics. The next sub section present empirical evidences and discussion of findings. Under the second sub section, three sub topics are discussed including: little descriptive analysis of explanatory variables compared with dependent variables for ability (access) to project finance; summary of model fit assumption; and the output of binary logistic regression method which focuses more on influence level of each explanatory variable on the predicted variable.

## **4.1Response Rate**

Louis, Lawrence, & Keith (2005) organized and planned survey should obtain at least a 40 per cent response rate and with the judicious use of different reminders, a 70 percent to 80 percent response level should be possible. Table 4.1 shows that the total questionnaire distributed for study participant were 174 of which all of questionnaires are returned.

Respondent	Number of	questioner Number of questionnaire	Response
	distributed	returned	rate
SMEs	174	174	100%
Owner-Manager			

Table 4.1 Response rate

## Source: survey data (2020)

As a responses rate is 100 percent. Therefore, based on the returned questionnaire the study can perform generalization and conclusion.

## **4.2 Empirical Result and Discussion**

Before discussing regression results it is better to perform a descriptive analysis of each predictor and its relation with the outcome variable. Result from this initial analysis provides much insight in to potentially viable models for the data. Therefore; the presentation, empirical result and discussion are presented in to three sub sections. Primarily descriptive statistics of variable are discussed, next model fit assumptions presented and finally outputs of binary logistic results are discussed.

## **4.2.1 Descriptive Statistics of Variables**

In this section, descriptive statistics for the dependent variable access to project finance and explanatory variables including business skill and leverage, cost of borrowing, collateral requirements, awareness of financing opportunities, past financing practice and age of enterprises involved in the regression model are presented. The data was analyzed using cross tabulation table among ability (access) to project finance and explanatory variable. Therefore, each explanatory variable is cross referenced with those enterprises having project finance ability and those enterprises no project finance access (ability).

Table4.2	Cross	tabulation	of	access	(ability)	to	project	finance	and	business	skill	&
leverage of	f enterp	orise										

Having business skills will influence project financing							
		Neutral	Agree	Strongly Disagree	Total		
Project Financing	There is no access to project financing	0	0	16	16		
	There is access to project financing	11	15	132	158		
	Total	11	15	148	174		

Source: Survey Data (2020)

**Business skill and leverage**: as far as access to project finance is concerned enterprises business skill and leverage have its own impact on firms in obtaining project finance. To assess this issue the study participants were asked to rank business skill and leverage influence on project financing ability and respond as; strongly disagree (85.1%), agree (8.5), neutral (6.3%). As presented in the cross tabulation Table 4.2, from those participants answering as 'strongly dis agree, which is the highest response, are enterprises with ability (access) to project finance is not determined by enterprises business skill and leverage.

Similarly, from those participants answering as 'agree and neutral', which is covers only 15 percent are enterprises with access to project finance are determined by enterprises business skill and leverage (level of influentially). The preceding two analysis shows that majority of enterprises believes that access to project financing doesn't depend on firms business skill and leverage.

Small and medium businesses are usually charged higher interest rate by banks than large firms							
		Neutral	Agree	Strongly Disagree	Total		
Project Financing	There is no access to project financing	5	3	9	17		
	There is access to project financing	9	70	78	158		
	Total	14	73	87	174		

Table 4.3 Cross tabulation of access to project finance and cost of borrowing

### Source: Survey Data (2020)

**Cost of borrowing**: as far as access to project finance is concerned cost of borrowing which is interest value requested by creditors, have its own impact on firms in obtaining project finance. To assess this issue the study participants were asked to rank cost of borrowing influence on project financing and respond as; strongly disagree (49.7%), agree (42.2), neutral

(8%). As presented in the cross tabulation Table 4.3, from those participants answering as 'strongly dis agree, which is the half response, are enterprises with access to project finance is not determined by enterprises cost of borrowing.

Similarly, from those participants answering as 'agree and neutral', which is covers 51 percent, are enterprises with access to project finance are determined by cost of borrowing requested by financial institutions. The preceding two analysis shows that half of enterprises believe that access to project financing do depend on cost of borrowing.

**Collateral requirements**: in respect to project finance collateral requirement by financial institutions has its own effect on obtaining of project finance for small and medium enterprises in Addis Ababa. To assess this issue the study participants were asked to rank collateral requirements agreement level of its influence on ability (access) to project financing and respond as; strongly agree (64%), agree (13.7), neutral (22.2%). As presented in the cross tabulation Table 4.4, from those participants answering as 'strongly agree, which is the highest response, are enterprises with access to project finance is determined by collateral requirements.

	Collateral is a mandatory requirement in Project financing						
		Neutral	Agree	Strongly agree	Total		
Project Financing	There is no access to project financing	3	0	14	17		
	There is access to project financing	36	24	97	158		
	Total	39	24	111	174		

 Table 4.4 Cross tabulation of access to project finance and collateral requirements

**Source: Survey Data (2020)** 

Similarly, from those participants answering as 'agree and neutral', which is covers 26 percent are enterprises with access to project finance is also determined by enterprises collateral value .The preceding two analysis shows that almost all small and medium enterprises participated in the research agree that collateral requirements by financial institutions determine project financing ability.

There is available information on who is offering credit facilities							
		Neutral	Agree	Strongly Disagree	Total		
Project Financing	There is no	3	5	9	17		
	access to project						
	financing						
	There is access	38	32	87	157		
	to project						
	financing						
	Total	41	37	96	174		

Table 4.5 Cross tabulation of access to project finance and awareness of project financing opportunities

Awareness of having project financing opportunities: enterprises awareness of having project financing opportunities has its own impact on access to project finance for SMEs. To assess this issue the study participants were asked to rank awareness of financially opportunities and project financing tie by agreement level and respond as; strongly disagree (55.17%), agree (21.2), neutral (23.56%). As presented in the cross tabulation Table 4.5, from those participants answering as 'strongly dis agree, which is more than half of the response, are enterprises with access(ability) to project finance is did not determined by awareness of project financing opportunities.

Source: Survey Data (2020)

Besides, from those participants answering as 'agree and neutral', which is covers 45 percent, are enterprises with access to project finance is also significantly determined by enterprises awareness of project financing opportunities. The preceding two analysis shows that half of small and medium enterprises participated in the research agree that awareness of financial opportunities by enterprises did not determined obtaining of project financing an almost half the remaining respondents think that enterprises awareness determine project financing accessibility.

Past financing history gives direct access to current financing opportunity							
		Neutral	Agree	Strongly Disagree	Total		
	There is no	3	0	14	17		
	access to project						
	financing						
Project Financing							
	There is access	15	26	114	155		
	to project						
	financing						
	Total	18	26	129	173		

Table 4.6 Cross tabulation of access to project finance and past financing experience

Source: Survey Data (2020)

**Past project financing practice:** enterprises past experiences of project financing have its own impact on obtaining project finance for SMEs. To assess this issue the study participants were asked to rank past financing practice influence and project financing by agreement level and respond as; strongly disagree (73.7%), agree (14.85), neutral (10.28%). As presented in the cross tabulation Table 4.6, from those participants answering as 'strongly dis agree, which is majority of the response, are enterprises with access to project finance is did not determined by enterprises past project financial practice.

Besides, from those participants answering as 'agree and neutral', which is covers 26 percent, are enterprises with access to project finance are also determined by enterprises past financial practice. The preceding two analysis shows that majority of small and medium enterprises participated in the research disagree on determinants of past project financing practice of enterprises on current access (ability) to project financing.

The age of the firm affects its ability to project financing						
		Neutral	Agree	Strongly Disagree	Total	
Project Financing	There is no access to project financing	0	0	17	16	
	There is access to project financing	8	30	120	158	
	Total	8	30	137	174	

Table 4.7 Cross tabulation of access to project finance and enterprise operation age

**Source: Survey Data (2020)** 

**Enterprise Age**: in respect to enterprises age of operation in the business has its own role in obtaining project finance in Addis Ababa. To assess this issue the study participants were asked to rank effect of firm age in relation with ability (access) to project financing and respond as; strongly disagree (78.28%), agree (17.14), neutral (4.54%). As presented in the cross tabulation Table 4.7, from those participants answering as 'strongly dis agree, which is majority of the response, are enterprises with access to project finance is did not determined by enterprises operational age.

Besides, from those participants answering as 'agree and neutral', which is covers 21.5 percent, are enterprises with access to project finance are also determined by enterprises age. The

preceding two analysis shows that majority of small and medium enterprises participated in the research disagree on determinants of enterprises age on current access project financing.

## **4.2.2 Model Assumptions and Data Properties**

The following diagnostic tests were carried out to insure that the data fit and the basic assumption of binary Logistic Regression Methods are presented or cheeked. Logistic regression does not assume a linear relationship between the dependent and independent variables. The dependent variable must be a dichotomy (2 categories). The independent variables need not be interval, nor normally distributed, nor linearly related, nor of equal variance within each group. The categories (groups) must be mutually exclusive and exhaustive; a case can only be in group and every case must be a member of one of the groups. Larger samples are needed than for linear regression because maximum likelihood coefficients are large sample estimates. 30 cases per predicator are fair and recommended (Sabine & Brian, 2004 as cited by Jibrel).

Regarding the dependent variable, as expressed previously, it is a dichotomous variable with two categories. The study takes access(ability) to project financing as a dependent variable with dummy if the response is yes as 1,0 otherwise. Therefore, it fulfills the first assumption.

**Case Processing Summary:** is a summary which shows the total number of cases observed, missing cases and cases include in analysis. Case processing summary is presented in the following table.

		Ν	Percent
	Unweight Cases		
	Included in Analysis	171	98.7
Selected Cases	Missing Cases	3	1.7
	Total	174	100.0
Unselected	Cases	0	0
Total		174	100.0

## Table 4.7 Case processing summary

Source: SPSS out Put (2020)

Table 4.7 shows that a total number of cases observed are 174 and of which 172 included in analysis while 2 cases selected as missing cases.

**Hosmer and Lemeshow Goodness of Fit Test:** is the reliable test of model fit available in SPSS. (Julie, 2007) indicated that poor fit is indicated by a significant value less than 0.05. So, to support a model the value must be greater than 0.05

Table 4.8 Homesr	and Lemeshow Test
------------------	-------------------

Ste	Chi- square	df	Sig.
p			
1	7.701	7	.036

**Source: SPSS out Put (2020)** 

As presented on Table 4.8 the chi-square value for the Hosmer-Lemeshaw Test is 7.701 with a significant level of 0.0360. This value is less than 0.05, therefore indicating support for the model.

**Model summary:** gives us another piece of information about the usefulness of the model. The Cox and snell R square and the Negelkerke R square value provide an indication of the amount of variation is the dependent variable explained by the model (from a minimum value of zero to maximum of approximately 1) Julie, 2007)

		Model Summary	
Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	22.693	.170	.321

## Table 4.9 Model Summary

## Source: SPSS out Put (2020)

From Table 4.9, the two values of Cox and Snell R square and the Negelkerke R square are 0.170 and 0.321, suggesting that between 17 percent and 32.1 percent of the variability is explained by the set of variables.

**Multicolinearity:** before proceeding to the maximum likelihood regression the correlation matrix of the dependent and independent variable was checked and presented in the following table.

	Skill and leverage	Borrowing cost	Collateral requirement	Awaren ess of financin g opportu nities	Past financing experien ce	Firm age
Skill and leverage	1					
Borrowing cost	.175	1				
Collateral requirement	094	.196	1			
Awareness of financing opportunities	.424	.198	066	1		
Past financing experience	.374	.063	014	.462	1	
Firma age	.686	.156	.156	.280	.300	11

### Table 4.10 Correlation matrix between independent variables

#### Source: SPSS out Put (2020)

As presented in the above Table 4.10 the maximum correlation coefficient is 0.688 and the minimum is -0.094. Therefore, there is no multicollinearity between the independent variables, so all they are included in the regression models.

## 4.2.3 Binary Logistic Regression Result

In this subtopic the study investigate the level of relationship and magnitude of explanatory variables over predicated variable based on the logistic regression model output. Therefore, finally the finding determines which of the explanatory variable are predictive of access to project finance. The variable in the equation table gives information about the contribution or importance of each of a models predicator variable. The test that is used here is known as the Wald test, and the value of the statistics for each predictor in the column labeled Wald. Value less than 0.05 in the sig. column are the variables that contribute significantly to the predictive ability of the model (Julie, 2007 as cited by Jebril). The variable in the equation table is presented below

Variables in the Equation							
		В	S.E.	Wald	df	Sig.	Exp(B)
	Business skill & leverage	0.119	0.256	0.218	1	0	1.127
	Borrowing cost	-0.049	0.131	0.139	1	0.001	0.952
	Collateral requirements	-0.163	0.23	0.504	1	0.003	0.849
Step 1 <sup>a</sup>	Awareness of financing opp.	0.063	0.202	0.097	1	0.000	1.065
	Past financing experience	-0.283	0.167	2.859	1	0.000	0.754
	Enterprise operational age	-0.115	0.171	0.449	1	0.503	0.891
	Constant	0.541	1.226	0.195	1	0.659	1.719
a. Variable(s) entered on step 1: Business skill & leverage, Borrowing cost, Collateral requirements, Awareness of financing opp., Past financing experience, Enterprise operational							

<b>Table 4.11</b>	Variables	in the	equation table
-------------------	-----------	--------	----------------

Source: SPSS out Put (2020)

age

**Business Skill and leverage:** output presented on Table 4.11 shows that there is positive relationship between enterprise business skill & leverage and the likelihood of obtaining project finance. Assuming other variables constant, the Wald's tests for extra business skill in the enterprise shows positive ( $x^2 = .218$ , p < 0.05) effect on access (ability) to project finance. Looking on 95 percent confidence intervals for the odd ratio, the result indicate that the odd

(Exp (B)) of access to project finance were 1.127 times higher for every skill and leverage increase in the firm.

In result, the regression output implies that the probability of getting project finance is determined by firm skill and leverage of small and Medium Scale Enterprises. As a result, there is enough evidence to retain the proposed hypothesis and it is statistically positive in the case of Addis Ababa. Skill and leverage is a determinant factor which likely steps up enterprises project financing ability.

The result is in consistent with empirical studies by Yeha (2016), Nguyen&luu (2013) which give great emphasis for relationship with bank as a factor to obtain finance.

**Cost of borrowing:** as far as firm's relation with financer is concerned, the presented output on Table 4.11 shows that there is a negative relationship between cost of borrowing and the likelihood of obtaining project finance. Assuming other variables constant, the Wald's tests for decrease in cost of borrowing shows ( $x^2 = .139$ . p > 0.001) effect on access to project finance. Looking on 95 percent confidence intervals for the odd ratio, the result indicate that the odd (Exp (B)) of access to project finance were 0.952 times higher for every unit decrease of borrowing cost.

Therefore, the chance of obtaining finance is increased as cost of borrowing decrease. As a result, there is enough evidence to retain the proposed hypothesis and cost of borrowing plays positive role in obtaining formal project finance in the case of Addis Ababa.

**Collateral requirements:** the presented output on Table 4.11 shows that there is negative and significant relationship between collateral value and the likelihood of obtaining project finance. Assuming other variables constant, the Wald's tests for decrease shows ( $x^2 = .504$ . p > 0.001) effect on access (ability) to project finance. Looking on 95percent confidence intervals for the odd ratio, the result indicate that the odd (Exp (B)) of access (ability) to project finance were .849 times higher for every decrease of collateral requirements.

Furthermore, the likelihood of obtaining project finance is increased as collateral requirement value decreased. As a result, there is enough evidence to retain the proposed

hypothesis and collateral requirements plays positive role in obtaining formal project finance in the case of Addis Ababa.

Awareness of project financing opportunities: it has a statistically significant positive effect on SMEs (ability) access to project financing. The Wald's test is evidence for significant effect ( $x^2 = .097$ , p < 0.05) on access to project finance and based on 95 percent confidence intervals for the odd ratio, the odd (Exp(B)) of access to project finance is 1.065 times higher for an improvement in awareness of project financing options. In other words, the implication here is enterprises with higher level of awareness have more chance to have access to project finance than those with low awareness level.

Thus it has enough evidence to hold hypothesis and awareness of project financing opportunity plays a positive role in accessing project finance.

**Past financing experience:** has a statistically significant negative effect on SMEs access to project finance. The Wald's test is evidence for significant effect ( $x^2 = 2.859$ , p > 0.05) on access to project finance and based on 95 percent confidence intervals for the odd ratio, the odd (Exp(B)) of access to project finance is .754 times lower for an improvement in past of project financing options. In other words, the implication here is enterprises with past financing experience will have less probability to have access to project finance than those with less financing experience.

Therefore, there is no enough evidence to retain the proposed hypothesis and it is statistically negatively related and it is not significant in the case of Addis Ababa.

**Enterprises operational age:** assuming other variable constant, the Wald's test for an increase in enterprise age shows insignificant ( $x^2 = 0.449$ , p > 0.005) effect on access to project finance. Looking on 95 percent confidence intervals for the odd ratio, the result indicate that the odd (Exp (B)) of access to project finance were 0.891 times lower for an increase in firms age but not significant. The result in this study shows that, there is a negative and insignificant correlation between ages of the firm and obtaining project finance.

Thus, there is no enough evidence to retain the proposed hypothesis and it is statistically negatively related and it is not significant in the case of Addis Ababa.

This result is similar with previous study (Yeha, 2016). This study say that the chance of obtaining loan is not significant in all categories of firm age.

	Expectation			
	relationship with		Statistical	Hypothesis
Variables	project financing	Actual	significance	status
Business skill and				
leverage	positive & significant	positive	significant	reject
Cost of borrowing	negative & significant	negative	significant	reject
Collateral				
requirement	positive & significant	positive	significant	reject
Awareness of				
financing				
opportunities	positive & significant	positive	significant	reject
Past financing				
experience	positive & significant	negative	insignificant	Fail to reject
Firm operational age	positive & significant	negative	insignificant	Fail to reject

 Table 4.12 comparison of test result with expectation

# **CHAPTER FIVE**

## SUMMARY, CONCLUSIONS, AND RECOMMENDATIONS

This chapter is the last part of the thesis.in this chapter the major findings are summarized confusions are drawn base on the finding and recommendations are forwarded. The first part present summary of major finding of the study which is directly taken from the data analysis result, the second section present conclusion about the study objectives. Finally, the last section presents the recommendation part of the study.

## 5.1 Summary of Major Findings

The main object of this research was to found out factors which determine project finance ability for small and medium enterprises in Addis Ababa. Therefore major finding of this study summarized as follow.

Regarding enterprises business skill and leverage provides, the survey indicated that majority enterprises with business skill and leverage have slightly advantage over firms with low business skill and leverage in respect to ability to project financing.

Past project financing experience did not determine project financing as per the survey.

Regarding firm age, the study finding indicated that, there is no significant relationship between age of the enterprises and obtaining project finance. Whatever, there is no enough evidence to retain the proposed hypothesis and it is statistically not significant in the case of Addis Ababa.

Cost of borrowing had found that its value determine ability to project finance based on the research finds it has strong negative influence on project financing in Addis Ababa. In result, there is enough evidence to retain in the proposed hypothesis and it is statistically negatively significant in the case of Addis Ababa.

The likelihood of obtaining project finance is not statistically significant due to awareness of enterprises towards financing opportunities. As a result, there is no enough evidence to retain the proposed hypothesis and it is statistically positively related but it is not significant in the case of Addis Ababa.

Concerning high value of collateral, are more likely to have access to project finance than those with low collateral value. Therefore, there is enough evidence to accept the proposed hypothesis and value of collateral determine ability to project finance in the case of Addis Ababa.

## **5.2 Conclusion**

The main purpose this study was to explain what factors determine ability (access) to project finance for small and medium enterprises in Addis Ababa Administrative City. As presented briefly in the literature review access to project finance is crucial for small and medium scale enterprises including growth, expansion and acquiring of different operating assets. Similarly the result in this study support this idea that small and medium scale enterprises need additional source of project finance.

The first major finding of the study indicates that the firm's ability to project finance is explained by awareness of financing opportunities. When enterprises aware, the chance of obtaining project finance is slightly higher. Second major finding of the study indicated that, SMEs likelihood of obtaining project finance is slightly determined by the firm's skill and leverage. Those SMEs who improve their skill and leverage with project financer could obtain project finance easily. The other major finding of the study indicates that the firm's access to project finance is explained by borrowing cost. When there is lower borrowing cost, the likelihood of obtaining project finance is higher. The last but not least major finding of the study indicate that, SMEs likelihood of obtaining project finance is significantly determined by the firm's collateral value. Those SMEs who have high valued collateral easily could get project finance.

On the other hand, past financing experience, and firms age did not contribute significantly to the model. So, there is no enough evidence in Addis Ababa.

## **5.3 Recommendation**

Based on the study result, the researcher would like to forward the following recommendations.

- 1. In order to increase SMEs project financing opportunities, it requires more effort from the small and medium enterprises side to overcome their drawbacks. This includes improving awareness in respect to project financing and general related information's.
- 2. Small and medium enterprise shall diversify their business skill by taking different trainings and workshops. In other word they need to be competitive and shall focus on interest of the economy. In addition expanding their leverage by boosting their marketing strategies, which helps them to be influential and known by as many as possible especially by those who have financial abilities.
- 3. Saving their money and reinvesting on fixed assets will help those to increase their collateral value in result it eases accessibility of project finance.
- 4. Educating them in respect to borrowing cost that can assist them their financial management or bookkeeping.
- 5. Since their operational age does much to project financing they shall upgrade their company, like expanding their business.
- 6. Government also can play a significant role in terms of easing monetary policy in respect to reducing borrowing interest rate for small and medium enterprises. Besides the government can encourage investors by simplifying entry requirements towards capital project financing.
- Creating a hub that can easily connect concerned institutions and SMEs whom are in in need.

## **Further research suggestion**

This research focused on small and medium enterprises in Addis Ababa city administration project financing ability determinant factors. Besides to the above recommendation's further studies should conducted on public private partnership practice in Ethiopia for small and medium enterprises capital project financing.

## References

- Abor, J., Biekpe, N., 2007. How do we explain the capital structure of SMEs in Sub-Saharan Africa? Evidence from Ghana. *Journal of Economics Studies*, 36(1): 83-97.
- Alemayehu, H. (2006). Ethiopia: Commercial Banks' Excess Liquidity up 165%. *The Daily Monitor*, March 23,2006. http://allafrica.com/stories/200603230638.html [18/04/2006 13:00PM]
- Atieno, R. (2001). Formal and Informal Institutions' Lending Policies and Access to Credit by Small-Scale Enterprises in Kenya: An Empirical Assessment. Nairobi, Kenya: African Economic Research Consortium.
- Bonetti, V., S. Caselli, and S. Gatti. (2010). Offtaking agreements and how they impact the cost of funding for project finance deals: A clinical case study of the Quezon Power Ltd Co. *Review of Financial Economics*, *19*, 60-71.
- Bougheas S, Mizen P, Yalcin C (2006). Access to external finance: Theory and evidence on the impact of monetary policy and firmspecific characteristics. Journal of Banking and Finance 30(1):199-227
- Berger, A. N., & Udell, G. F. (1998). The Economics of Small Business Finance: The Roles of Private Equity and Debt Markets in the Financial Growth Cycle. *Journal of Banking and Finance*, 22, 613-673. <u>http://dx.doi.org/10.1016/S0378-4266(98)00038-7</u>
- Berger, A. N., & Udell, G. F. (2006). A More Complete Conceptual Framework for SME Finance. *Journal of Banking and Finance, 30*(11), 2945-2966. <u>http://dx.doi.org/10.1016/j.jbankfin.2006.05.008</u>
- Brealey, R., I. Cooper, and M. Habib. (1996). Using project finance to fund infrastructure investments, *Journal of Applied Corporate Finance*, 9, 25-38.

Bruce C. (1996). Project Finance Teaching Note, FNCE 208/731

Deakins, D., Whittamb, G., Wyper, J., 2010. SMEs' access to bank finance in Scotland: An analysis of bank manager decision making. *Venture Capital*, 12(3): 193-209.

Dercon, S. (2000). Growth and poverty in Ethiopia in the 1999's: an economic perspective.

Centre for the study of Africa Economics: Oxford University Press. Esty, Benjamin. (2003). *The Economic Motivations for Using Project Finance*. Boston: Harvard Business School publishing.

- Deresse Mersha Lakew (2017), Project Financing, Implementation and Control Practice; A case Study on Selected Business Organizations in Ethiopia. Global Journal of Management and Business Research (C) Volume XVII Issue I version I. Publisher: Global Journals Inc, (USA)
- Ed V. Andy JYY, Sara C, Stephen T. (2007). The happy story of small business financing.J. Bank. Financee. 31:2648-2672
- Esty, Benjamin. (2004a). Modern Project Finance A Casebook. John Wiley & Sons, Inc.
- Esty, Benjamin. (2004b). Why Study Large Projects? An Introduction to Research on Project Finance. *European Financial Management*, 10, 213-224.
- Finnerty J D (1996), *Project Financing: Asset-based Financial Engineering*, New York, NY, John Wiley & Sons, Inc.
- Esty B & A Sesia Jr (2005), *An Overview of Project Finance-2004 Update*, Harvard Business School Case #205-065.
- Eshetu, B. and M. Mammo. 2009. Promoting Micro, Small and Medium Enterprises (MSMEs) for Sustainable Rural Livelihood. Working paper no. 11, Aalborg University. Development, Innovation and International Political Economy Research (DIIPER) series. http://vbn.aau.dk/files/17023673/DIIPER\_wp\_11.pdf
- Etsegenet A. 2000. The Survival and Growth of Micro Enterprises in Ethiopia: The Case of Two Peasant Association in Baso Worena Wereda, North Shoa. Thesis, Addis Ababa University, Ethiopia.
- Gatti, Stefano. (2008). Project Finance in Theory and Practice Designing, Structuring, and Financing Private and Public Projects. Academic Press Advanced Finance Series.
- Geda, A., Shimeles, A. & Weeks, J. (2003). Growth, Poverty and Inequality in Ethiopia:
- Hoffman S L (2001), the Law and Business of International Project Finance, 2nd Ed, New York, Transnational Publishers, Inc. & the Hague, The Netherlands, Kluwer Law International.

- Kasahun, R. (2002). Structural adjustment and Macroeconomic Reforming Ethiopia. Dissertation. University of California, Riverside.
- Kortum, S., & Lerner, J. (2000). Assessing the Contribution of Venture Capital to Innovation. *The RAND Journal of Economics*, *31*(4), 674-692. <u>http://dx.doi.org/10.2307/2696354</u>

Kuznets, Simon S. (1966) Modern Economic Growth, New Haven, Yale University Press.

Mammo, M. (2008). Network of Ethiopian Scholars (NES). Commentary No.17.

Nevitt, P., and F. Fabozzi. (2000). Project Financing. London: Euromoney, 7th Edition.

- Fabozzi, F., H. Davis, and M. Choudhry. (2006). Introduction to Structured Finance. Wiley Finance. OECD (2015), New approaches to SME and entrepreneurship financing: Broadening the range of instruments, OECD, Istambul, Turkay.
- Ou, C., & Haynes, G. W. (2006). Acquisition of Additional Equity Capital by Small Firms Findings from the National Survey of Small Business Finances. Small Business Economics, 27(2), 157-168. <u>http://dx.doi.org/10.1007/s11187-006-0009-8</u>
- Madill, J., Haines, G., & Riding, A. (2005). The Role of Angels in Technology SMEs: A Link to Venture Capital. Venture Capital - An International Journal of Entrepreneurial Finance, 7(2), 107-129. http://dx.doi.org/10.1080/1369106042000316341
- Mead DC (1994). The contribution of small enterprises to employment growth in Southern and Eastern Africa. World Development 22(12):1881-1894.
- Pack, H. and K. Saggi (2006), "Is there a case for industrial policy? A critical survey", World Bank Research Observer, Vol.21/2, pp.267-296, https://elibrary.worldbank.org/doi/abs/10.1093/wbro/lkl001.

- Pacelle M, M Scchroeder & J Emshwiller (2001), "Enron ha One-year Restructuring Target", *The Wall Street Journal*, Dec 13, A3.
- Potter, J., & Porto, A. (2007). Promoting Entrepreneurship in South East Europe: Policies and Tools. OECD Papers, 6(12), 1. <u>http://dx.doi.org/10.1787/oecd\_papers-v6-art39-en</u>
- Pretorius M, Shaw G (2004). Business plan in bank-decision making when financing new ventures in South Africa. South African Journal of Economics and Management Science 7(2):221-242.
- Reid, G. C. (1996). Mature Micro-Firms and Their Experience of Funding Shortages. Small Business Economics 8(1), 27-37. <u>http://dx.doi.org/10.1007/Bf00391973</u>
- Schäfer, D., Werwatz, A., & Zimmermann, V. (2004). The Determinants of Debt and Private Equity Financing: The Case of Young, Innovative SMEs from Germany. *Industry and Innovation*, 11(3), 225-248. <u>http://dx.doi.org/10.1080/1366271042000265393</u>
- Tage, C. Tracy, P. & John A. (2007). *Small Business Financial Management. Kent*, Indiana, Wiley Publishing.
- Wall, L. D. (2007). On Investing in the Equity of Small Firms. Journal of Small Business Management, 45(1), 89-93. <u>http://dx.doi.org/10.1111/j.1540-627X.2007.00200.x</u>
- Which way for Pro-Poor Growth. *Journal of Eastern and Southern African Social Science Revie*, 8(3): 12-19.
- Wilson, N., & summers, B. (2002). Trade Credit Terms Offered by Small Firms: Survey Evidence and Empirical Analysis. *Journal of Business Finance and Accounting*, 29(3-4), 317-351.http://dx.doi.org/10.1111/1468-5957.00434

## APPENDIX I

## Questionnaire

## St. MARY'S UNIVERSITY

# GRADUATE STUDIES DEPARTMENT OF ACCOUNTING AND FINANCE

## **SURVEY QUESTIONNAIRE Dear Participants**

The name of the researcher is DEREJE WOSSENIE ABUYE, who is currently MBA student in department of Accounting and Finance at St. MARY'S UNIVERSITY. The aim of this project is to assess "DETERMINANTS Of PROJECT FINANCING EVIDENCE FROM SELECTED SMALL AND MEDIUM SIZE ENTERPRISES IN ADDIS ABABA" The information collected from this survey questionnaire will be used to build a better means of entrepreneurs in finding financial sources for their business. The researcher do believe that the outcome of the research will be helpful in providing short term as well as long term solution for the challenges that these enterprises are facing.

The participation in this survey is totally voluntary. The investigator respectfully requests your kind cooperation in answering the whole question as frankly as possible, regardless of whether or not you have requested financial sources. Your response is anonymously and strict confidentiality will be maintained. Your participation in this survey is greatly appreciated.

For further information, please contact the researcher using the following address: Tel. (mobile): +251-940-507082

E-mail:dereccd@gmail.com

Part I - General Information of the Respondent
About You
1. Gender: Female 🔲 Male 🥅
2. Occupation: Employee/manager  Owner/manager  share holder
General information on the business
3. What is the main activity of your company?
Mining
Construction Materials
Manufacturing
Construction Materials Manufacturing Wholesale or retail trade Agricultural
Agricultural
Textile
Real estate
Hotel and tourism
Other services

4. How many employees does your company currently employ in full time or part time at all locations or branches of your firm?

From 1 employee to 10 employees	
From 11 employee to 50 employees	
From 51 employees to 250 employees	
More than 250 employees	

5. Where your business capital does falls currently?	
Less than birr 500,000 Between 500,000 to 1,000,000	
Between 1,000,001 to 5,000,000 Between 5,000,001 to 10,000,0	000
Above 10,000,000 birr	
6. How long the business in the market?	
(Duration of business existence) More than 10 years between 5 and 10	
between 2 and 5 years Less than 2 years	
7. What is currently the most pressing problem your firm is facing?	
Financing of the firm	
8. With respect to the financing structure of your firm, did you use intern	al funds
and/or external financing during the past?	
Yes I used needed but not have accesses Instrument is n	ot applicable
9. If you used the above source of financing can you indicate the type of financing can you will be able to be abl	nancing
among the following ways of financing?	
<ul> <li>Internal financing</li> </ul>	
<ul> <li>Grants or subsidized bank loan (Involving Support from Public Sources)</li> </ul>	
Bank overdraft, credit line or credit cards overdraft	
<ul> <li>Bank loan (excluding overdraft)</li> </ul>	
Trade credit	
<ul> <li>Other loan (e.g. from a related company or shareholders)</li> </ul>	
<ul> <li>Leasing or hire-purchase or factoring</li> </ul>	

Debt securities issued
Subordinated loans, participation loans or similar financing instruments
> E q u i t y issuance or external equity investors
≻ Oth <u>er</u>
10. For each of the above ways of financing, could you please indicate whether you
applied for them over the past 6 months?
Yes No Instrument is not applicable to my firm
11. If your answer is yes for the above question could you please indicate the financing
you receive and requested?
Requested and got everything
Requested but only got part of it
Requested but refused because some reason
Requested but was rejected
12. If your answer is no for the above question could you please indicate the reason?
13. For each ways of financing, what would you say about their availability?
Increased Stable Deteriorated Not used any finance
Financing received
14. What is the size of the last loan, of any kind, that your firm has obtained in the last two
years?
Up to birr 500,000
Between 1.000,001 to 5,000,000 Between 5,000,001 to 10,000,000
Above 10,000,000 birr 🛛 We did not take a loan

15. Who provided you this last loan? (You can tick more than one option)	
≻ Bank	
Private individual – family or friend	
<ul> <li>Microfinance institutions</li> </ul>	
Other sources (e.g., government-related sources)	
16. For what purpose did you use this last loan for?	
<ul> <li>For working capital</li> </ul>	
For purchase of Land/ buildings or Equipment/vehicles	
<ul> <li>For importing material</li> </ul>	
> For Promotion	
<ul> <li>For Staff salary and training</li> </ul>	
<ul><li>For expansion of branch</li></ul>	
> Other.	

17. What do you see as the most important limiting factor for not having Project financing? Put your rank also in the box provided

≻	Insufficient collateral or guarantee	
≻	Interest rates or price too high	
$\blacktriangleright$	Government rules and regulation	
$\blacktriangleright$	Fear of inability to repay	
≻	The Process is too difficult	
	Financing not available at all	
	Lack of transparency of loan conditions	
	Limited understanding of projects/needs	
≻	Other	

## Part –III Project financing of SMEs Perception

Please indicate your level of Agreement on the following statements by ticking the appropriate number using the key given below. Circle a number from 1 to 5 that represents your extent of agreement, where 1= Strongly Disagree (SD), 2= Disagree (D), 3= Neutral (N), 4= Agree (A) and 5 = Strongly Agree (SA).

In Project Financing firm ability affected by	SD	D	Ν	Α	SA
Firm characteristics					
1. The age of the firm affects its ability to project financing	1	2	3	4	5
2. Having business skills will influence business	1	2	3	4	5
performance and hence project financing					
3. Ability to compile financial records and accounts affects	1	2	3	4	5
its ability to have project financing					
Cost of borrowing					
4. Small businesses are usually charged higher interest	1	2	3	4	5
rate by banks than large firms					
5. Lack of reputation and contact in the banking market	1	2	3	4	5
make it hard to borrow money from the banks					
6. Lack of information and knowledge in method or ways	1	2	3	4	5
of financing makes to borrow hard.					
Collateral requirements					
7. Not having Types of collateral required makes difficult	1	2	3	4	5
to have project financing					
8. Collateral is a mandatory requirement in Project	1	2	3	4	5
financing					
9. SMEs very worried about collateral in Project financing	1	2	3	4	5
Awareness of having Financing Opportunity (Availability of Fina	ance)	•		1	
10. There is available information on who is offering credit	1	2	3	4	5
facilities					
11. There are ways of financing for SME	1	2	3	4	5
12. Past experience in obtaining financing successfully	1	2	3	4	5
13. All ways of financing are available in our country					
14. Prevailing ways of financing are accessible to all	1	2	3	4	5

15. Give any comment or suggestion on how to improve the project financing for SMEs \_\_\_\_\_