COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia)

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A Thesis submitted to The Department of Accounting and Finance College of Business and Economics presented in partial fulfillment of the requirement for the degree of Master of Science in Accounting and Finance.

June 2020

ADDIS ABABA, ETHIOPIA

Addis Ababa University

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Certification

This is to certify that the thesis prepared by Abaynesh Debebe, entitled as 'Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia); and submitted in partial fulfillment of the requirements for the degree of Master of Science degree in Accounting and Finance complies with the regulations of the University and meets the accepted standards concerning originality and quality.

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Statement of Declaration

I, Abaynesh Debebe, declared that this thesis entitled Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia), is my original work, prepared under the guidance of Tekalign Nega (PhD). All resources used in 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 institution to earn any degree.

Name: Abaynesh Debebe

Signature_____

Date_____

Acknowledgments

I would like to take this opportunity to acknowledge the help and encouragement of all who have supported and assisted me during this thesis work. Without their guidance and advice, I would have never been able to accomplish the work of this thesis.

First and foremost, I would like to thank God Almighty for giving me the strength, knowledge, ability, and opportunity to undertake this research study and to persevere and complete it satisfactorily. Without His blessings, this achievement would not have been possible.

I would like to thank my advisor Tekalign Nega (Ph.D) whose help, suggestions, invaluable guidance, and encouragement helped me throughout the dissertation process, this thesis would not have been possible and I would be grateful to the assistance he made.

I would like to thank all the participants who took part in the filling of the questionnaire a part of this research for their valuable time and kind assistance.

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Abstract

The study examines the determinant factors that influence financial inclusion in small and medium enterprises in Ethiopia. The study uses explanatory research design and mixed research approach with both primary and secondary source of data utilized. More specifically, the study adopts a multiple linear regression model. The finding of the study reveals that; supply side factors, demand side factors, market opportunity, and collateral requirements has a positive effect on the firms access to finance and statistically significant at 5%,5%,5%,and 1% significance level. On the other hand, institutional framework factors, and cost of borrowing has a negative effect on the firms access to finance and statically significant at 5% and 1% significance level. This study suggests that the rate of interest charged by financial institutions shall be considered for harmonization to make inclusiveness among small and medium enterprises access to finance. And financial institutions shall consider providing training for small and medium enterprises before issuing them credit access.

Keywords: Small and medium enterprises; Access to finance; collateral requirements; the cost of borrowing

Acronyms

ATF---------- Accesses to Finance and its availability

COLL---------- Collateral requirements

COB----------Cost of Borrowing

DS----------Demand-side factors

ECA----------Economic Commission for Africa

EEA----------Ethiopian Economic Association

FeMSEDA---------- Federal Micro and Small Enterprises Development Agency

GTP----------Growth and Transformation Plan

IFC----------International Financial Corporation

IF----------Institutional framework.

IPA----------Innovations for Poverty Action

MFIs----------Microfinance Institutions

MoFED---------- Ministry of finance and economic development

MSEs----------Micro and Small-sized Enterprises

MSMEs---------- Micro, Small and Medium-sized Enterprises

PASEDP----------Plan for Accelerated and Sustained Development to End Poverty

ReMSEDA---------- Regional Micro and Small Enterprises Development agency

SMEs---------- Small and Medium-sized Enterprises

SS----------Supply-side factors

WB----------World Bank

CHAPTER ONE

Introduction

1.1.Background of the study

One of the key components of inclusive development is financial inclusion, an area in which Africa has been lagging behind other continents. Less than one adult out of four in Africa has access to an account at a formal financial institution (Triki and Faye, 2013).

Broadening access to financial services will mobilize greater household savings, marshal capital for investment, expand the class of entrepreneurs, and enable more people to invest in themselves and their families (Triki and Faye, 2013).

Financial inclusion is, therefore, necessary to ensure economic growth performance. Financial inclusion refers to all initiatives that make formal financial services available, accessible, and affordable to all segments of the population.

This requires particular attention to specific portions of the population that have been historically excluded from the formal financial sector either because of their income level and volatility, gender, location, type of activity, or level of financial literacy.

In so doing, there is a need to harness the untapped potential of those individuals and businesses currently excluded from the formal financial sector or underserved and enable them to develop their capacity, strengthen their human and physical capital, engage in income-generating activities, and manage risks associated with their livelihoods.

Financial inclusion goes beyond improved access to credit to encompass enhanced access to savings and risk mitigation products, a well-functioning financial infrastructure that allows individuals and companies to engage more actively in the economy while protecting users' rights. And one of the emerging financial institutions that have a problem of financial inclusion is small and medium-sized enterprises.

Small and Medium-sized Enterprises (SMEs) have typically been supposed as the dynamic force for sustained economic growth and job creation in developing countries. They play a multifaceted role such as boosting competition, innovation, as well as the development of human capital and the creation of a financial system (Nega and Hussien, 2016). Additionally, they have played and continue to play significant roles in the economic growth, development, and industrialization of developing countries.

Accordingly, most developing countries have formulated and implemented a wide variety of SME development strategies to support the growth of the sector, thereby transforming economies and generating substantial employment opportunities (Small and Growing Businesses in Ethiopia, by ADA asbl and First Consult PLC, 2016).

The need for SMEs considers as a means of ensuring self-independent, job creation, import-substitution, effective and efficient utilization of local raw materials, and participation in the economic development (Ong, 2012).

SME sector is one of the principal driving forces for economic growth and job creation. This is particularly true for many low-income countries in Africa where SMEs and the informal sector represent over 90% of businesses, contribute to over 50% of GDP, and account for about 63% of employment (Ahmed, 2012).

Accordingly, most developing countries considered the enormous potentials of the SMEs sector, and the significance, contribution, and potential of the SMEs to job creation, poverty reduction, and economic growth. SMEs have become important urban economic activities particularly in providing urban employment. Similarly, in cities and towns of Ethiopia, SMEs are the predominant income-generating activities and thus they have a significant contribution to local economic development and used as the basic means of survival (Gebre-egiziabher & Demeke, 2004).

But, despite the acknowledgment of its immense contribution to sustainable economic development, its performance still falls below expectations in many developing countries including Ethiopia (Arinaitwe, 2006). This is because the sector in these developing countries has been hindered by several factors militating against its performance, and leading to an

increase in the rate of SME's failure. Therefore, this study intends to assess some of the factors that affect the financial inclusion of SMEs in Ethiopia.

1.2. Statement of the Problem

To gain a better understanding of firms' access to finance in Africa, data from the World Bank Enterprise Surveys (WBES, 2018), which cover more than 130,000 firms in 127 countries, is analyzed that; on average, the percentage of enterprises with a bank account (across all firm size groups) in Sub-Saharan African countries is comparable to or greater than the percentage of enterprises with a bank account in all other developing economies.

For instance, 83% of small-sized enterprises and 94% of medium-sized enterprises in Africa report having a bank account as compared to 87% of small-sized and 93% of medium-sized enterprises in other developing economies.

Yet, firms in Sub-Saharan Africa have notably limited access to external funding (WBES, 2018), the data from (WBES, 2018), show that on average, only 22% of enterprises have a loan or a line of credit. In comparison, the average of enterprises with a loan or a line of credit in other developing economies excluding Africa is 43%.

Like elsewhere, small firms in Sub-Saharan Africa are at a relative disadvantage in accessing external credit. With this regard, numerous studies have been discussed that SMEs are financially more constrained than larger firms in both developed and developing countries.

In developing economies including Sub-Saharan Africa, SMEs are typically more credit-constrained than large firms, severely affecting their possibilities to grow (Beck et al, 2005; Beck and Demirguc-Kunt, 2006; Beck et al., 2006; Ayyagari et al., 2008; Beck et al., 2008; Ayyagari et al, 2012). Calomiris and Hubbard (1990) noted that when the company is smaller, the restrictions on credit are greater. Furthermore, according to Beck et al., (2006) cited in El-Said et al., (2013), small firms consistently report more financing obstacles than medium and large enterprises.

In the context of Ethiopia, medium and small enterprise development holds a strategic place within Ethiopia's Industrial Development Strategy. All the more so as SMEs are the key instruments of job creation in urban centers, whilst job creation is the centerpiece of the country's development plan.

The role of SMEs as the principal job creators is not properly promoted. Because a lot of empirical studies show that; SMEs lack confidence, appropriate products, rigid policies, and requirements, as well as very high bank charges and interest rates in most financial institutions, are were the main influences for their failure to transact through the formal channels (Hassan, 2014).

Additionally; the SME sector in Ethiopia is taken as an instrument in bringing about economic transition by effectively using the skill and talent of the people particularly women and youth without demanding high-level training, much capital, and sophisticated technology (Nega and Hussien, 2016). However, evidence from different empirical studies shows the reverse (Wolday and Gebrehiwot, 2004).

Therefore, improving SMEs' access to finance is significantly important in promoting performance and firm productivity in the country (World Bank, 2015). In addition to this, despite the enormous importance of the SMEs sector to the national economy with regards to job creation and the alleviation of abject poverty, many of the SMEs are unable to realize their full potential due to the existence of different factors that inhibit their growth and performance (Wolday and Gebrehiwot, 2004).

One of the leading factors contributing to the unimpressive growth and performance of the enterprises in Ethiopia are limited access to finance and the financing gap to SMEs can be attributed to both the demand side and supply side (Wolday and Gebrehiwot, 2004). In this regard, a lot of studies were conducted in Ethiopia.

For example; (Nega and Hussien, 2016), (Abera et.al, 2019), (Negash and Kumera, 2016), (Ageba and Amha, 2006), (Hadis and Ali, 2018), (Seyoum et.al, 2016), (Ashenafi, 2012),

(Wolday and Gebrehiwot, 2004) and (Hassan, 2014) were conducted studies on SMEs in Ethiopia from different perspectives but fails to identify the main determinants that influence financial inclusion among SMEs in Ethiopia.

Hence, by considering the above research gap, this study focus on what is essentially the Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia) among SMEs (Evidence from Ethiopia), in addition to this, as far as a knowledge of a researcher no known study has been undertaken to examine the Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia) among SMEs in Ethiopia.

1.3.Research Questions

- What are the institutional framework factors that affect financial inclusion (access to finance) of SMEs in Ethiopia?
- What are the supply-side factors that affect the financial inclusion of SMEs in Ethiopia?
- What are the demand-side factors that affect the financial inclusion of SMEs in Ethiopia?
- Does a market opportunity affect the financial inclusion of SMEs in Ethiopia?
- Does cost borrowing affect the financial inclusion of SMEs in Ethiopia?
- Does collateral requirement affect the financial inclusion of SMEs in Ethiopia?

1.4. Research Objectives

1.4.1. General Objective of the study

The general objective of this study is to investigate the determinant factors that affect the financial inclusion of small-medium enterprises in Ethiopia.

1.4.2. Specific Objective of the study

In line with the above general objective of the study, the following specific objectives are set.

- To investigate the institutional frame work factors that affects the financial inclusion of small and medium enterprises in Ethiopia.
- To examine the supply-side factors that affects the financial inclusion of small and medium enterprises in Ethiopia.

- To examine the demand-side factors that affects the financial inclusion of small and medium enterprises in Ethiopia.
- To examine the effect of market opportunity on financial inclusion of small and medium enterprises in Ethiopia.
- To examine the effect of cost of borrowing on financial inclusion of small and medium enterprises in Ethiopia.
- To examine the effect of collateral requirement on financial inclusion of small and medium enterprises in Ethiopia.

1.5. Research Hypothesis

As mentioned in the above research objective, the main objective of this study is to investigate the determinant factors that affect the financial inclusion of small-medium enterprises in Ethiopia in general. In doing so, the main variables which are assumed to be the main determinant of financial inclusion are used. Furthermore, a hypothesis of the study stood on the theories related to the study area and past empirical studies.

The results from the literature review were used to establish expectations for the relationship between the different variables. Hence, the present study seeks to test the following hypotheses:

H1: Institutional framework factors have a negative and significant effect on financial inclusion.

H2: Supply-side factors have a positive and significant effect on financial inclusion.

H3: Demand-side factors have a positive and significant effect on financial inclusion.

H4: Market opportunity has a positive and significant effect on financial inclusion.

H5: The cost of borrowing has a negative and significant effect on financial inclusion.

H6: Collateral requirement has a negative and significant effect on financial inclusion

1.6. Significance of the study

This study will be useful in the determination of factors that affect the financial inclusion of small and medium enterprises in Ethiopia.

It will provide knowledge that can help Policymakers in Ethiopia, to appreciate the significance of small and medium enterprises while coming up with policies that may deliberately influence the small and medium enterprises.

Contribution to existing literature: Besides, scholars and researchers will find this study useful if they wish to use the findings as a basis for current and further research on the subject. Moreover, academic researchers dedicated to studying small and medium enterprises in the country will benefit from this empirical study focused on the determinant factors that affect the financial inclusion of small and medium enterprises in Ethiopia.

1.6. Scope of the study

This study is conducted to investigate the determinant factors for the financial inclusion of small and medium enterprises in Ethiopia. Since it is difficult to include all small and medium enterprises found in Ethiopia, This study is conducted at Addis Ababa city administration, to identify the determining factors that affect financial inclusion for SMEs. There are so many failed small and medium enterprises that are found in Ethiopia but it is difficult to get their full information to include them in the study. Therefore, the researcher delimits this study to Addis Ababa city administration. The reason for selecting Addis Ababa city administration is that; AA is the capital city of the country and the number of small and medium enterprises is formed and operating in this city. In doing so, all small and medium enterprises found in Addis Ababa city administration are included in the study in line with current operating financial institutions.

1.7. Limitation of the study

Based on the complexity of the study, the researcher faced the following limitation in conducting the study, among them:

- At the time of data collection, some design respondents were not elongate the data on the time provided to them.
- There was the unwillingness of some part of respondents to give information about small and medium enterprises are expected.
- There was a problem related to secondary data collection, and finally, the issue of COVID-19 was very serious and affects the researcher in data collection because most of the respondents were unwilling to respond to the questionnaire. But the researcher has

overcomes the problem by avoiding personal contact to conduct the questionaries and using different applications like a telegram, email, and what up to collect the questionnaires'.

1.8. Organization of the Paper

The remaining part of this study is organized as follows. The next section (chapter two) presents an overview of the theoretical and empirical kinds of literature conducted on small and medium enterprises all over the world.

Chapter three provides the research design and method of data collection of the study; Chapter four discusses the data analysis and interpretation of the study, based on collected data on the issue of the study area. Finally, the last chapter (five) consists of summaries of major findings, conclusions, and recommendations for possible solutions to the problem.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2. INTRODUCTION

This chapter focuses on explaining the concept of financial inclusion and small and medium enterprise, in line with their definition, different theories of the small and medium enterprises are going to be summarized. In addition to this, a detailed review of empirical studies on small and medium enterprises with the definition of financial inclusion is discussed. It is helpful to provide the reader with relevant theories and previous studies related to the study area.

2.1. Theoretical Literature Review

2.1.1. Definitions of Small and Medium Enterprises

There is no universally agreed definition for small and medium enterprises. The term SME covers a wide range of definitions and measures, varying from country to country and varying between the sources reporting SME definitions. Some of the commonly used yardsticks are the number of employees, total net assets, sales and investment level, number of annual working hours, annual turnover, annual balance sheet or production volume, and independence of the company (Harjula, 2008) cited Fitane (2018). Therefore, there is no single SME definition uniformly accepted around the world.

2.1.2. Definition of SMEs in Ethiopia

In 1997, Ethiopia has defined Micro Enterprises as enterprises with a total asset of less than 20,000 Birr ($1200) and Small Enterprises as Enterprises with a total asset of Birr 500,000 ($30,000) or less. In this definition, the only base used is the total asset, unlike the international organization's definition base. To align the definition with at least some countries and international organizations, the country has revised the definition of Micro and Small Enterprises in 2011 (Esubalew and Raghurama, 2017). But the newly established definition only focuses on Micro and Small Enterprises it does not put any demarcation between Small and Medium; and Medium and Large Enterprises. According to the ministry of trade and industry development bureau (MOTI) the new Small & Micro Enterprises Development Strategy of Ethiopia (published 2011), the working definition of MSEs is based on capital and Labor. The same as

micro and small enterprises the definition of medium enterprises also defined based on capital and labor.

Table 2.1: SMEs definition of Ethiopia

Sr. no	Enterprise-level	Sector	Hired labor	Capital
1	Small	Industry	6-30	100,0001-1.500,000 ETB
		Service	6-30	50,001-500,000ETB
2	Medium	Industry	31-100	501,000-750,000ETB
		Service	31-100	501,000-750,000ETB

Source: Fitane (2018).

2.2. Defining of Access to Finance

Generally speaking, financial inclusion, or broad access to financial services, is defined as an absence of price and non-price barriers in the use of financial services. Improving access, then, means improving the degree to which financial services are available to all at a fair price. It is easier to measure the use of financial services since data of users can be observed, but the use is not always the same as access. Access essentially refers to the supply of services, whereas use is determined by demand as well as supply (Ganbold, 2008).

Assessment of Access to Finance and Its Availability for SMEs in Addis Ababa Conferring to Wikipedia Access to finance is the ability of individuals or enterprises to obtain financial services, including credit, deposit, payment, insurance, and other risk management services. Those who involuntarily have no or only limited access to financial services is referred to as the unbanked or underbanked, respectively. Access to finance can be broadly defined as access to financial products (e.g. deposits and loans) and services (e.g. insurance and equity products) at a reasonable cost. Given the widely recognized link between access to finance, growth, income smoothing, and poverty reduction, many countries have adopted the goal of universal financial access (Narain, 2009).

2.3. Benefits from Increasing SME Financial Inclusion

This section illustrates the nature and magnitude of potential macro-financial benefits from greater SME financial inclusion. According to IMF (2017), SME financial inclusion has a benefit on economic growth, job creation, the effectiveness of the macroeconomic policy, and macro-financial stability.

2.3.1. Economic Growth

According to IMF (2017) closing the SME financial inclusion gap concerning the emerging market and developing economies would help increase annual economic growth in some MENAP and CCA countries by up to 1 percent. The data collected on this issue suggests that closing the SME financial inclusion gap vis-à-vis the emerging market and developing economies could increase growth by an average of 0.3 percentage points annually. Estimates of gains in employment and labor productivity growth based on firm-level data and combined with growth accounting calculations indicate potentially higher GDP growth gains (about 1 percentage point).

2.3.2. Job Creation

SMEs have a key role in driving employment, especially in developing economies. SMEs are the largest contributor to employment across all country income groups. They are also large contributors to employment growth (Kumar 2017).

2.3.3. Macroeconomic Policy Effectiveness

Greater SME financial inclusion is associated with more effective fiscal policy, including through better tax collection. Monetary policy transmission and price stability also appear to be enhanced in countries with higher SME financial inclusion (Faccio, 2006).

As more SMEs have access to formal lending, the role of the interest rate in the economy may increase, improving monetary transmission and allowing monetary authorities to better ensure price stability. The impulse response of the output gap to a nominal interest rate shock indeed tends to be stronger in countries with high SME financial inclusion. Similarly, central banks' aversion to inflation (measured by the ratio of the variance of the output gap and inflation) increases with SME financial inclusion.

2.3.4. Financial Stability

Greater financial inclusion can support financial stability provided strong risk management and financial supervision are in place. Greater extension of credit to SMEs can contribute to financial stability because it allows banks to better diversify their credit portfolios and risk exposure. However, SME credit is a relatively risky asset class, and if it grows rapidly may lead to a buildup of unsound credit exposure. Managing this policy trade-off requires proper institutional safeguards, including sound financial supervisory frameworks, to ensure strong credit discipline and risk management standards (Kumar, 2017).

2.3.5. Economic Competition

Increased market competition and diversification could play a key role in promoting SME productivity and financial inclusion in MENAP and CCA countries. Among key features of an economy that promote a favorable environment for SME investment and financial inclusion are adequate infrastructure, economic diversification, and competition within and across sectors. Conversely, economies with large informal sectors tend to face tighter constraints on SME access to formal financial services. The analysis of the study suggests that compared to other regions, competition is a particularly important factor in MENAP and CCA countries, where significant economic activity is often concentrated in the public sector or a limited number of large firms, which is likely to lead to barriers to entry and lower SME productivity.

2.3.6. Institutional Aspects

Although the macro-financial factors listed earlier are prerequisites, institutional factors are also essential for SME financial inclusion. Examination of a broad range of related variables shows that several plays a significant role in facilitating or constraining SME access to credit and productive potential.

2.3.7. Governance

Strong governance and stable institutions generally support SME access to formal financial services. Non-transparent systems tend to benefit large firms that are better connected than SMEs. Faccio (2006) finds that large firms tend to be more politically connected in countries with poor institutional quality (that is, with a weak voice and accountability rules and significant corruption) and as a result benefit from greater access to bank financing.

In addition to crowding out smaller firms, this may also pose risks to financial stability due to lower risk management standards.

2.3.8. Financial Regulation and Supervision

Sound financial regulatory and supervisory frameworks help enhance SME financial inclusion. As noted, such frameworks are critical to monitor and address potential emerging risks and to support financial deepening and inclusion programs. The IMF (2018) analysis confirms that financial supervisory capacity effectively contributes to SME financial inclusion.

2.3.9. Credit Information

Credit information is a key factor for SME access to formal financing, including through reduced collateral requirements and borrowing costs. Improved quality and availability of credit information can lead to large benefits in terms of financial inclusion, as well as employment and growth, particularly for SMEs. In countries where collateral requirements are very high better credit information could help relax such constraints and unlock SME access to financing.

2.3.10. Business Environment

Legal and institutional frameworks related to property rights, contract enforcement, and insolvency regimes are key requirements for SME financial inclusion. Constraints on contract enforcement and property rights and registration, as well as high business start-up costs and ineffective insolvency regimes, are negatively correlated with SME financial inclusion. Indeed, modern cadasters and strong property rights allow for greater alienability of assets, which can be transferred, sold, and collateralized more easily, facilitating access to finance. Together with higher tax rates for SMEs, shortcomings in these areas motivate SMEs to remain in the informal sector, thereby limiting their access to credit.

2.4. Sources of Finance for SMEs

In reality, there are quite a few potential sources of finance for SMEs. However, many of them have practical problems that may limit their usefulness. Among different sources here are some of the major sources of finance for SME as initial sources or additional capital needed to conduct business.

2.4.1. Bank Finance

Banks may be willing to provide an overdraft of some sort and may be willing to lend in the long term where that lending can be secured on major assets such as land and buildings. However, raising medium-term finance to fund operations is often more difficult for SMEs as banks are traditionally rather conservative. Furthermore, banks will often require personal guarantees from the owner-manager of the SME, which means the owner-manager has to risk his wealth to fund the company.

2.4.2. Crowd Funding

Crowdfunding involves funding a venture by raising finance from a large number of people (the crowd) and is very often achieved over the internet. Crowdfunding has grown rapidly and in 2013 it has been estimated that over US$5bn was raised worldwide through crowdfunding. There are now more than 500 crowdfunding platforms on the internet and over 400 crowds funding campaigns are launched every day. Finance provided by crowdfunding may be invested in the debt or the equity of the ventures seeking finance. Some crowdfunding is done on a 'keep it all' basis where any funds raised are kept by the recipient, whereas some are done on an 'all or nothing basis' where the recipient only receives the funds if the total required to fund the particular project is raised within a given time frame (Nesta 2012).

The crowdfunding platform takes a fee, which is often a percentage of the amount raised. Crowdfunding has the potential to be very beneficial to SMEs. It allows them to contact and appeal directly to investors, who may be willing to take the risk involved in funding the new technologies and innovations, which SMEs are often so good at producing. Among the sources listed by scholars above only a few sources are available in our country. It may need research on how these funds or sources be workable on our working environment to help SMEs in there need.

However, this shows that there is an untapped market for the source of formal finance which will reduce the constraint of accessing finance (William, 2016). Crowdfunding facilitates the raising of capital for a variety of purposes, using numerous variations of the model. Below is a typology of how the operators in the market can potentially be segregated.

Crowdfunding platforms can connect cash-starved creative entrepreneurs with audiences looking to fund creative projects because they are passionate about their 'substance', rather than seeking to generate a financial return from them, as well as with investors offering capital on better terms than traditional sources of finance for the sector, such as banks or publishers. Kickstarter, the most successful creative crowdfunding platform, has already generated pledges above $230 million and funded over 23,000 creative projects (Nesta 2012).

2.4.3. Supply Chain Financing

In supply chain financing (SCF) the finance follows the value as it moves through the supply chain. SCF is relatively new and is different from traditional working capital financing methods, such as factoring or offering settlement discounts, because it promotes collaboration between buyers and sellers in the supply chain. (William, 2016**)**

Supply chain finance can be defined (EBA 2013) as the use of financial instruments, practices, and technologies for optimizing the management of the working capital and liquidity tied up in supply chain processes for collaborating business partners. The development of advanced technologies to track and control events in the physical supply chain creates opportunities to automate the initiation of SCF interventions (Enrico, 2015).

2.4.4. Informal Financial Source

Informal finance is a broad concept that encompasses the wide range of financial activities and services that take place beyond the scope of a country's formalized financial institutions and lie outside financial sector regulations.

The popular view of informal finance is of powerful moneylenders who exploit the poor through usurious interest and unfair seizure of collateral. Informal finance is both extensive and diverse. The informal sector accounts for most of the financial services provided to the non-corporate sector. In addition to family and friends, who provide a large percentage of the loans, informal finance consists of professional money lenders, pawnbrokers, tradespeople, and associations of acquaintances (Meghana et al 2008).

2.4.5. The Venture Capitalist

A venture capitalist company is very often a subsidiary of a company that has significant cash holdings that they need to invest. The venture capitalist subsidiary is a high-risk, potentially high-return part of their investment portfolio. (William, 2016**)**

Venture Capital refers to the provision of capital for growth and expansion to companies with underdeveloped or developing products and revenues at an early stage in their corporate lifecycle. It also refers to the provision of development capital to mature companies at a later stage in their corporate life cycle. Typically, investee companies are unquoted, small to medium-sized enterprises. (Regina et.al 2015)

2.4.6. Factoring and Invoice Discounting

Both of these sources of finance effectively let a company raise finance against the security of their outstanding receivables. Again, this finance is only short-term and is often more expensive than an overdraft. However, one of the features of these sources of finance is that, as an SME grows, their outstanding receivables will grow and so the amount they can borrow from their factor or invoice discounting will also grow. Hence, factoring and invoice discounting are two of the very limited number of finance sources which grow automatically as the business grows (William, 2016**)**

2.4.7. The Business Angel

A business angel is a wealthy individual willing to take the risk of investing in SMEs. One limitation is that these individuals are not common and are very often quite particular about what they are prepared to invest in. Once a business angel is interested they can become very useful to the SME, as they will often have great business acumen themselves and are likely to have many useful contacts.

2.5. Assumption or Theories on Source of Finance

Theories are formulated to explain, predict, and understand phenomena and, in many cases, to challenge and extend existing knowledge within the limits of critical bounding assumptions. The theoretical framework is the structure that can hold or support a theory of a research study.

Here are some of the assumptions which can hold or support a theory of research which is gathered from a book of Access to Finance and Development: Theory and Measurement.

2.5.1. **Irrelevance Theorem of Capital Structure**

Several theories attempt to answer the following question. How do owners and managers of enterprises make financing decisions? Modigliani and Miller in 1958 proposed an irrelevance theorem of capital structure in an attempt to answer the above question. The theory is of the view that enterprises finance their businesses using internal funds, debt, and equity.

According to Goya & Frank (2005), when it becomes necessary to use debt and equity, the theory proposes that the debt-equity ratio is determined in a manner that divides cash flows among the different investors. This theory is relevant because it recognizes that business people first consider internal sources to external sources to finance their operations. This characteristic is also common to owners of the business in Ethiopia especially in the private business enterprise (Goya & Frank (2005*).*

2.5.2. Pecking Order Theory

Stewart and Nicolas (1984) proposed the Pecking order theory (Swinnen, Voordeckers &Vandemaele, n. d.). This theory is hinged on asymmetric information and the existence of transaction costs. Pecking order theory assumes that enterprises follow a financing hierarchy and that source of finance is either internal or external. In this case, according to Botta (2014), priority is given to internal funds over external funds. The theory stipulates that enterprises seek external funding only when internal resources are depleted. It follows then that external funds need to be necessary, safer, and without control restrictions for the enterprise.

This theory applies to SMEs in Ethiopia because it touches on collateral and that business owners in Ethiopia did not have a property or other asset that a borrower offers as a way for a lender to secure the loan. Therefore they usually prefer other sources. It is mainly argued that the more a company has a policy of financial innovation, the more it is likely to use venture capital and to place part of its capital on the financial market. Innovation is understood not only in technology but also at the managerial level (Meryem Aabi, 2014).

2.5.3. Trade-Off Theory

Trade-off theory on the other hand attempts to explain the use of debt financing. According to this proposition, owners of enterprises evaluate the various costs and benefits associated with alternative debt plans. It assumes that an internal solution is preferred so that the marginal cost and benefits are balanced. According to the theory, an enterprise sets a target debt-to-value ratio and then gradually moves towards it. This target tries to balance debt tax advantages against costs associated with bankruptcy (Goyal & Frank, 2005).

This theory is not perfect because the debt-to-value ratio is not directly observable and that taxation is more complex than assumed by the theory. Besides, it assumes that bankruptcy costs are deadweight costs and that transaction cost takes a specific form.

2.6. Factors influence access to financial inclusion

2.6.1. Collateral Requirements (COLL)

Collateral refers to the extent to which assets are committed by borrowers to a lender as security for debt payment (Gitman, 2003). The security assets should be used to recover the principal in case of default. SMEs in particular provide security in the form of properties (houses, the businesses, the car, and anything that could bring back the principal) in case of default on loans (Garrett, 2009). Security for loans must be capable of being sold under the normal conditions of the market, at fair market value, and also with reasonable promptness. However, in most banks, to finance SMEs and to accept loan proposals, the collateral must be 100 % or more, equal to the amount of credit extension or finance product (Mullei and Bokea, 2000).

Moral hazard issues can be reduced by collateral requirements by increasing and adding a potential cost to borrowers when those are not making their best effort.

Sometimes the borrowers extract the funds provided by the lenders for their own personal and private use. Therefore, the collateral requirements when in place can reduce negative consequences that can arise due to improper utilization of the funds by SMEs. Most SMEs are denied and discriminated by the lenders in providing financing. This is because of high risk and for not having adequate resources to provide as collateral (Kihimbo et al. 2012).

According to Innovations for Poverty Action Banks traditionally require that clients provide collateral such as land or real estate to secure their loans. However, many creditworthy SMEs do not have the type of collateral required by commercial lenders and therefore have trouble accessing finance. This means collateral is needed more when SMEs wants to process loan or finance.

2.6.2. Cost of borrowing (CBR)

The cost of borrowing is the amount of money paid in interest on a loan or other debt. In other words, it is what one must spend to receive money as a loan and it measured by interest rate. Interest rates as a cost of the loan have a significant effect on a company's growth plans. They not only affect loan payments, but they also have an impact on enterprise funding (Ogolla, 2013). High-interest rates reduce business earnings which ultimately hinders the business capacity to grow. High-interest rates also affect a business's cash flow in that one has to set aside more money to repay the loans. This in turn reduces its disposable income hence affecting the ability to pay its other creditors (Ndungu, 2016).

Anthony et al (2013) who studied determinants of credit rationing to the private sector in Ghana found out that interest rate hurts credit allocation. Higher interest rate discourages micro and small enterprises to deepen their financial access

2.6.3. Firm Characteristics (FM)

Firm characteristics affect SMEs' ability to access external finance. The size and age of the firm, having business skills, and the ability to compile financial records and accounts were identified as important variables under this category. Firm size is one of the most important variables in the literature related to access to credit. This was true for both developed as well as developing countries. As this research is focused on small and medium-sized firms, it does not seem logical to consider size and age as a determinant of access to finance.

However, even among the small and medium-sized enterprises' category, there is still a large variation in the size of the firms.

Numerous studies have discussed that small and medium-sized enterprises are financially more constrained than large firms (Carpenter and Petersen, 2002). Firstly, small firms are faced with information opacity such as the inability to provide financial information.

When the firm is small, most of the time it is owned and operated by the entrepreneur himself and there is no such legal requirement to regularly report financial information and many firms do not maintain audited financial accounts. Second, smaller firms have fewer assets to offer as collateral. To reduce the anticipated risk and moral hazard associated with lending, the banks use collateral as one of the instruments. Berger and Udell (1998) found smaller and younger firms are more likely to face a higher cost of financing and at the same time they are required to offer collateral.

Thirdly, there is a high risk involved because small firms have a high failure rate compared to large firms. For example, Schiffer and Weder (2001) sampled firms across several countries and found that there was a negative relationship between the size of a business and the risk it might pose for a lender. Firm size is a key variable in the analysis of financial restrictions (Beck et al., 2005).

Thus, in general, large and small firms do not have equal opportunities in accessing external sources of finance. So, while the presence of both large and small firms is important for market competition and, hence, for economic growth, to ensure industrial dynamics, firms must have access to financial markets

The firms that are typically most severely affected by the financial market imperfections are small firms, as their internal information can be rather opaque or, at least, not as public as it is in the case of their larger counterparts. Small firms seeking small loans face higher transaction costs and higher risk premiums since they are more opaque and have less collateral to offer (Beck et al. 2006). Similar results have been found by Beck et al. (2005, and Schiffer and Weder (2001). Schiffer and Weder (2001) confirm that small firms have to confront higher barriers to their financing and growth.

Oliveira and Fortunato (2006) find that small firms face greater financial constraints and that these harm their growth. Medium-sized firms face greater financial constraints than large firms. Small firms cannot exploit economies of scale in the same way as large firms can. These authors claim that since young companies have not accumulated sufficient cash flow and are unable to rely on bank financing, they have to depend on the original equity investment of their owners.

Firms' sources of finance change over time. For instance, a firm may start as a family-owned business, by using its internal financing sources such as personal savings and family finance. Subsequently, it will then grow to obtain funds from its suppliers.

When it has well established a good business track record, developed accounting systems, and established a legal identity, it may be able to obtain loans from banks. Therefore, it is worth investigating the firm age. The stage of growth at which the SME is at can have a great impact on its accessibility to finance.

The studies conducted in the past have found that the financing constraints are particularly severe in startup enterprises and relatively young firms (three years old or less). For example, Aryeetey et al (1994) surveyed 133 firms, of which 76 had less than 10 workers, in various industries in Ghana in the early 1990s. They found that only 10 percent of startup firms in Ghana could obtain bank loans but older firms are provided with credit three times more often than their smaller counterparts. A similar survey was conducted by Levy (1993) in Sri Lanka and Tanzania and reported that 80 percent of firms with 16 or more workers and with 6 or more years in operation can access bank loans, compared to the success rate of around 55 percent in the case of smaller firms with 6-15 employees of similar age, and less than 10 percent for firms with 5 or fewer workers, regardless of age.

Bass & Schrooten (2005) concluded that the lack of reliable information leads to comparably high-interest rates even if a long term relationship between borrower and bank exists. In a situation like this, having audited financial statements play a major role. Audited financial statements are very useful in accessing credit from financial institutions because they present a picture of the financial performance of a firm. Often, banks require audited financial statements before granting credit. This study attempted to determine how variation in the perception of this factor may influence an individual's intention, personal information including financial information to accesses finance

2.6.4. Funding Opportunities

The flow of information in the financial market is crucial for both SMEs and financial providers (Falkena et al. 2001). For SMEs to identify the potential supplier of financial services, they require enough information.

The financial institutions require information to enable them to evaluate the potential risks associated with the SMEs that apply for bank financing and also to access the location where the same SMEs will be operating and its market segments (Othieno, 2010). Information is concerned with awareness of funding opportunities by SMEs. Besides, information asymmetry is that

relevant information is not available and known to all players in the financial market (Agostino, 2008). Information asymmetries are concerned with the two players in the financial market. In this case, the borrowers know more about their business cases and the bankers may not know more about it on one hand. On the other hand, it entails the lack of timely, accurate, quality, quantity, and complete information regarding the ability of the applicants to repay the loan and to access financial products from the banking institutions (Bazibu, 2005).

A study by Agostino (2008), conducted in the agricultural sector, pointed out that the failure of the current African market is because of the number of the current agricultural credit problems. These problems are associated with the imperfection of the information in the risk presences. The failures of the market mostly occur because it is costly to screen credit applicants. Therefore, availability of finance or having the awareness of the fund opportunities has a huge contribution in accesses to finance

2.7. Experience of Other Countries on SMEs Developments.

For the sake of evaluating the development of SME in Ethiopia, it is important to make some reference to the contemporary economy. In the following section, the experience of Taiwan, Korea, and Japan will be critically evaluated in ways that will highlight their peculiar cases.

According to Hagos (2012), the SME sector in Taiwan has been very phenomenal in the economic development of the country. The study highlights that the government of Taiwan formulates and implements several policies and special programs to create a first-class environment for the growth and development of SMEs.

According to the author in 1997; the government of Taiwan established incubator centers to enhance the startups and development of new products, and new technology of SMEs. Concerning the financing mechanism of SMEs; the author highlights that; the government and private banks should lend a certain percentage of their total loan to SMEs. Besides, SMEs also have a loan facility from different sources. The government set up the "SMEs Development Fund, which has also established many SMEs Development Corporations. Besides ensuring credit facility to SMEs, the corporations also assist with domestic and intentional technology collaboration, market and product development, and management consulting services. The policy to finance SMEs in Taiwan is implemented through the "Three Support Policy" mechanism which implies that the government supports the bank, the bank support business enterprises, and business enterprise support employees. Corresponding to Taiwan, SMEs play a vital role in the

economic development of South Korea. To implement various policies and special programs the government established strong coordination and network between all public and private organizations which support the SME sector.

The three most important players are the Small and Medium Industry Bureau (SMIB), which responsible for harmonization and take action for the implementation of policies. The Korean Federation of Small Business (KFSB) is in authority to create coordination among rural and urban SMEs, make available government-backed endowments, loans, and exemption of tax.

Korean SMEs begin the business with lower capital in contrast to Japanese. But in Korea, the monetary policy requires banks to provide a credit facility of a certain percentage from their total loans (Joo Park 2001 P.851) cited on Hagos (2016).

The government used a mandatory credit extension system to enforce private and state-owned banks to provide a certain percentage of their loans to SMEs. Additionally, in Japan, the priority was given to the SMEs sector because they believe that the restructuring and development of the industry will not be achieved without developing the small business sector. The government ensures enabling the business environment through various appropriate policies and support programs. The government of Japan ratifies a low called “Creative Business Promotional Law (CBPL)” in 1995 to provide appropriate support and assistant for SME's effort in innovation, R&D, subcontracting, and market activities, and encourage new entrants into the business. Honjo and Harada (2006) cited on Hagos (2012) noted that the newly enacted law addresses all support services for SMEs such as support for innovation, technology, and marketing as well as response to the financial problem by ensuring loans and guarantees. Moreover, the regulation provides a fiscal incentive that includes subsidies and tax breaks. This is to show that the government involves encouraging entrants to the business until market activities to accelerate the development of the sector. To respond to the financial need of SMEs, Japan established a strong financial support mechanism through local banks and credit cooperatives to finance the sector with no collateral program of People Finance Corporation, Joo Park (2001). This shows that the financial policies address the primary problem of SMEs to obtain credits for the formal financial sector which is collateral.

2.8. Empirical Reviews

Financial inclusion can reduce moral hazard and adverse selection problems, both of which tend to align returns to assets with the initial stock of assets available for individuals in a generation (Nanziri and Wamalwa, 2017). Thus, financial inclusion opens up investment opportunities irrespective of parental wealth. Moreover, on one hand, financial inclusion enables households to invest in human capital. On the other hand, firms accessing finance improve productivity by not only investing in physical but also employing highly skilled individuals. Since high skills attract higher wages; highly skilled individuals can only be engaged in firms that are skill-intensive and highly efficient (Banerjee and Newman, 1993) cited (Nanziri and Wamalwa, 2017).

A study conducted by (Hall, 1992) suggests two primary causes for the failure of small and medium business enterprises in the world. These failures are classified as a lack of appropriate management skills and inadequate capital (both at start-up and continuingly). Additionally, the study conducted by Goodwin et al. (2000) indicated that the level of employment in any country can influence financial inclusion. The finding of the study reveals that; payment of wages and salaries through automated cash transfers is seen to influence financial inclusion in the United Kingdom. Other studies have also shown that payment of social security benefits, pensions, and other cash transfers through the cash system significantly promotes financial exclusion.

Abera et.al, (2019) conducted a study on Contributions of Micro, Small and Medium Enterprises (MSMEs) to Income Generation, Employment, and GDP: Case Study Ethiopia. The objective of the study was to review the conditions of MSMEs, their contribution to employment creation, income generation, and poverty alleviation, contributions to the local, regional and national GDP, stimulating entrepreneurial climate and the challenges and opportunities in the design, implementations, marketing opportunities, linkages, financial sources, dynamics, survival, and policy landscape. The study was conducted through primary and secondary data through a survey, focus group discussions, and document reviews. Additionally, a qualitative and quantitative research approach was used to analyze the collected data using various statistical programs. The finding of the study reveals that lack of credit, weak market linkage, insufficient training, weak human resources development schemes, dependency on government and spoon-

feeding mentality, oscillations in government policies, price variations, weak links and poor market and product development strategies were the main obstacles for the development of SMEs.

Nega and Hussien (2016) conducted a study on Small and Medium Enterprise Access to Finance in Ethiopia: Synthesis of Demand and Supply. The objective of the study was to analyze in-depth the demand and supply issues relating to Small and Medium Enterprises (SMEs) access to finance in Ethiopia. The study used primary data which is collected from 519 business firms drawn from the major towns in Ethiopia. And the finding of the study reveals that; banks and MFIs engagement in financing SMEs in Ethiopia is limited. The demand side findings and analysis revealed that access to finance is significantly influenced by the age of the firm, firm's previous engagement with banks, the experience of the manager, and whether firms are managed by the owner (owner-manager) or not.

Fitane (2018) conducted a study on Factors Affecting Sustainability of Small and Medium-Scale Enterprises: the Case of Addis Ababa, Ethiopia. The general purpose of the study was to identify the major internal & external factors that influence the sustainability of small and medium scale enterprises. The study used survey-based approach with Primary and secondary data were used for this study. The target population was manufacturing construction, trade and service existing and closed small and medium Government organized enterprises in Addis Ababa, Ethiopia the finding of the study reveals that; the most important internal factors that determine SMEs sustainability is work-related factor and marketing, financial and political-legal factors are major external factors that affecting SMEs sustainability. The major implication of the study is that improving financial and work-related problems is critical in guaranteeing the survival of SMEs.

Agebe and Amha (2005) conducted a study on Micro and Small Enterprises (MSE) Development in Ethiopia: Strategy, Regulatory Changes, and Remaining Constraints. The objective of the study was to examine the current business environment for the SME sector. The study used the primary source of data to collect data. The finding of the study reveals that there have been attempts by the government to liberalize and improve the policy, regulatory, and institutional support environment for SMEs. Additionally, there was the divergence between stated policies &

directives and the outcome on the ground. Capital shortage, inadequate business premise, inadequate/uncertain market, and high taxes remain major constraints to expand SMEs.

Seyoum (2016) conducted a study on Growth of Micro and Small Enterprises in Addis Ababa City Administration: A Study on Selected Micro and Small Enterprise in Bole Sub City. The main objective of this study was to investigate the factors that affect the growth of Micro and Small Enterprises (MSEs) in Addis Ababa City. The study used Primary data, through a structured questionnaire, which was collected through random samples from 165 Micro and Small Enterprises (MSEs). The finding of the study reveals that; Micro and Small Enterprises (MSEs) whose owners attained training, started the business with the high initial investment, engaged on the service sector, and established in non-cooperative form have better growth than those whose owners/operators did not attend training, who started with the low initial investment, those engaged on the production sector, and those working in cooperatives respectively.

Hadis and Ali (2018) conducted a study on Micro and Small Enterprises in Ethiopia; Linkages and Implications: Evidence from Kombolcha Town. The objective of the study was to examine the status of formal institutional linkages and their implications on SME's performance in Ethiopia, particularly in Kombolcha town. The study was employed mixed (quantitative and qualitative) research design and explanatory sequential analytic approaches. Using primary and secondary data. The finding of the study reveals that; locally produced raw materials are in a dearth of quality and affordability in the area. Despite having a favorable institutional linkage with TVET institutions in access to training and business improvement tools; technology transfer, credit access, and market link for their produces are currently encountered with challenges from administrative sides and lack of appropriate policy concerns. Credits accesses as a backbone of MSEs have been highly affected by collateralizing issues and entrepreneurs failures to organize under micro-enterprise as a mandatory procedure. Unlike formal linkages, informal linkages have a significant role to play in access to the market.

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.

Negash and Kumera (2016) conducted a study on Barriers to Growth of Medium and Small Enterprises in Developing Country: Case Study Ethiopia. The main objective of this study was to determine the barriers to the growth of small and medium enterprises in Ethiopia. The study used cross-sectional, descriptive, and inferential designs in line with both primary and secondary data. The finding of the study reveals that; strong competition in the markets, high level of interest rates on loans, poor infrastructure, speed of debt payment by customers, unavailability of an appropriate property, state of the country's economy, low market demand for firms' products/service, pricing of competitor products, in the availability of raw materials, the attitude of banks and low availability of finance from lenders were rated as high barriers for small and medium business growth. While, especially strong competition in the markets, a high level of interest rates on loans, and poor infrastructure were the highest barriers for small and medium business growth in a developing country.

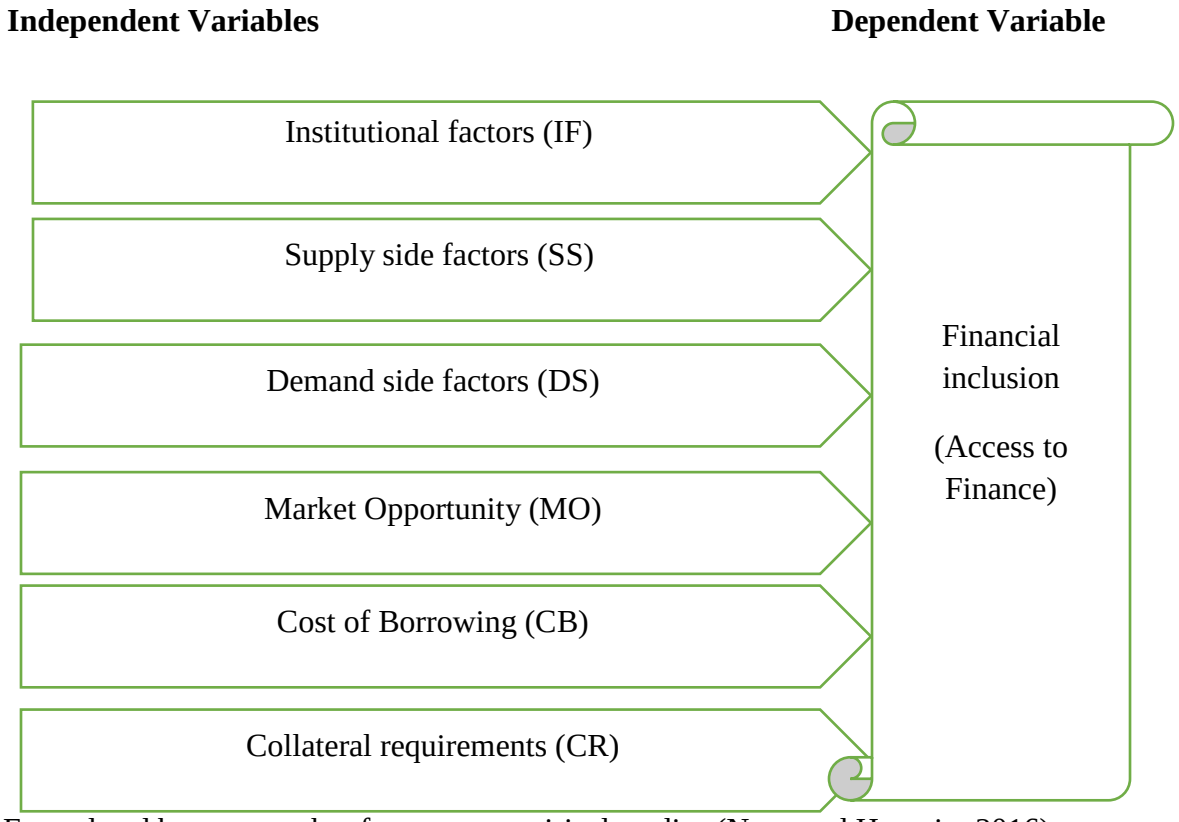
2.9. Conclusion and Knowledge Gap

From the empirical analysis of literature reviewed by the researcher, it is possible to conclude that; generally different studies were conducted on a different perspective concerning small and medium enterprises. But a review of the literature from developed and emerging economies indicates that there are several demands, supply, and regulatory factors that influence financial inclusion in an economy. At a macro level, financial inclusion can be affected by a country's level of development, gross domestic product per capita, income inequalities, adult literacy, and urbanization. A review of the current levels in Ethiopia provides certainty to the claim those barriers to financial inclusion are consistent among developed and developing countries. The studies conducted by different scholars in Ethiopia. For example; (Abera et.al, 2019), (Nega and Hussien, 2016), (Fitane, 2018), (Agebe and Amha, 2005), (Seyoum, 2016), (Hadis and Ali, 2018), and (Negash and Kumera, 2016) shows different implication about Small and Medium enterprises but failed to identify the main Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia) among SMEs in Ethiopia.

2.10. Conceptual Framework

As a result of the empirical review and theoretical assumptions; the study has developed the following schematic representation of the conceptual framework. In doing so, the data for determining the factors that influence the financial inclusion of SMEs was chosen according to the characteristics that they create more impact in the small and medium enterprises.

Figure 2.1: a conceptual framework of the study



Formulated by a researcher from past empirical studies (Nega and Hussein, 2016)

CHAPTER THREE

Research Methodology

3. Introduction

This chapter provides the reader with an overview of the methodological considerations and assumptions underlying the research process. It describes the methods and procedures that the researcher used to achieve the research objectives. The chapter covers the research approach used in the study, research design, target population, sample size, source of data and data collection, and finally how the data is analyzed.

3.1. Research Approach

In this study, the researcher used a mixed research approach; which includes both qualitative and quantitative research approaches. The use of this method is helpful to ensure that the data collected will effectively be interpreted and analyzed using the descriptive statements.

According to Creswell (2003), there are three types of research approach which are familiar to social science studies, namely qualitative, quantitative, and mixed approach. Qualitative approach used mostly when the researcher needs to develop a complex, holistic picture, analyzes words, reports, detailed view of informants, and conducts the study in a natural setting and involves studies that do not attempt to quantify their results through statistical summary or analysis (Creswell, 2009). The rational reason for the adoption of a quantitative approach includes: to develop knowledge of cause and effect thinking, reduction to specific variables and hypotheses and questions, use of measurement and observation, and the test of theories, employee strategies of inquiry such as experiments and surveys (Creswell, 2009).

The quantitative approach uses surveys of cross-sectional or longitudinal using self-administered semi-structured questionnaires with the intent of generalizing from a sample to a population. So well designed and implemented quantitative research approach has the advantage of generalizing to a wider population from the sample. The mixed research approach is a means to collect both qualitative and quantitative data and analyses together to answer the research questions. In other words, it involves the collecting and “mixing” or integration of both quantitative and qualitative data in a study.

3.2. Research Design

Research design presents the method and procedures which are used in gathering information required to answer the research questions. This study used an explanatory research design to identify determinant factors that influence financial inclusion among SMEs in Ethiopia. Explanatory research seeks to explain the phenomena being studied (Kothari, 2004).

3.3.Target Population

According to Kombo and Tromp (2009) population is a group of individuals, objects, or items from which samples will be taken for measurement or it is an entire group of persons or elements that have at least one thing in common. The target population of the study includes all existing SMEs in Addis Ababa, Ethiopia. Furthermore, Ethiopian commercial banks and microfinance institutions are included in the target population of the study.

3.4.Sampling Techniques

Because the sampling frame for this research is unknown, then the probabilistic two-stage stratified sampling method is ideal when it is impossible or impractical to complete a list of elements composing the population. Thus the sampling technique for this study was probability sampling particularly two stages stratified sampling which involves dividing the population into homogeneous sub-groups called strata based on the geographical location of SMEs and then select samples from each sub-group using simple random or systematic procedures to ensure that an adequate number of samples were selected from the different sub-groups. Hence the different small and medium enterprises operating in Addis Ababa form the stratum and the list of each SMEs is used as a primary sampling unit for each stratum (PSU's), an owner or employee in each SMEs also served as a secondary sampling unit (SSU's).

The reason behind the selection of probabilistic two stages stratified sampling technique is that it gives each element in the population an equal probability of getting into the sample, and all the choices are independent of one another. Determining sample size is very complex as it depends on other factors such as margins for errors, degree of certainty, and statistical technique.

The sample size is therefore directly proportional to the desired confidence level of the estimates (z) and to the variability of the phenomenon being investigated, and it is inversely proportional to the error that the researcher is willing to accept (Corbetta, 2003). When the size of the population is large and previous researches are unavailable to determine the variability of an estimate over all possible samples, thus the sample size is calculated for the favorable case p= q= 0.5 (Corbetta, 2003). Accordingly, this study used the recommendation by Corbetta (2003) in determining the standard deviation, 95% confidence interval, and a 5% sampling error in calculating the sample size. Thus the sample size for this study was determined with the use of Topman formula as presented below (Dillon, 1993).

$$n = \frac{z^2 pq}{e^2}$$

n = required sample size

z = degree of confidence (i.e. 1.96)

p = probability of positive response (0.5)

q = probability of negative response (0.5)

e = tolerable error (0.05)

Therefore, $n = \frac{(1.96)^2 * 0.5 * 0.5}{(0.05)^2} = 384.16 = 384$

which is a representative sample size as Kamakodi and Khan (2008), Hafeezer and Saima (2008), Mokhlis (2008), and Rao (2010). Therefore 384 samples of small and medium enterprises were equally allocated for 384 SMEs sample to give an equal representation of each SMEs considered in the study. Convenience sample selection of the respondents was made through distributing the questionnaires to available employees and customers of the selected SMEs.

On the other hand, judgmental sampling was used to collect the information from the financial institutions because judgmental consider things like a representative, adequacy, homogeneity of the sample. The financial institutions selected are namely, (Commercial Bank of Ethiopia, Awash Bank, Development Bank of Ethiopia, Wegagen Bank, and Bank of Abyssinia) while the

selected Microfinance institutions are (Addis Ababa, Amahara, Oromia, Awch, and Gasha) microfinance institutions. Both Microfinance institutions and Banks are selected based on the experience they have in the market, which means the capital they provided and the year of establishment.

In this study, small and medium enterprises are considered as a demand-side of finance, and financial institutions are considered as the supply side of the finance. Based on this fact, from each financial institution, two respondents are considered to fill the questionnaire. The respondents are selected purposively by a researcher based on the knowledge they have in the study area. The respondents are namely (manager and loan officer of each financial institution). Generally, 20 respondents are considered from the supply side. The sample of respondents considered in this study from both institutions is 404 respondents.

3.5. Source of Data and Data Used

To make an analysis the researcher was used both primary and secondary data. The primary data was collected through questionnaires and direct observation. The questionnaires had several questions with close-ended types of questions that are relevant to the subject of the study in such ways that the respondent fills easily. Finally, the researcher used a secondary source of data which was obtained through review and selected materials such as organization records, and related literature reviews.

3.6.Method of Data Analysis

The data collected through the questionnaire distributed to respondents are analyzed and discussed through different tools like descriptive statements, frequency distribution, and SPSS 20 was used to analyze the data.

3.7.Model specification and Description of Variables

To examine the determinant factors that influence financial inclusion of SMEs, there is an estimated equation where access to finance is reflected as a function of the following variables

$$ATF = f\ (IF, SS, DD, MO, COB, COLL) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \quad (1)$$

ATF = Accesses to financial inclusion or access to finance

IF = Institutional framework factors

SS = Supply-side factors

DS = Demand-side factors

MO = Market opportunity

COB = cost of borrowing

CLL = Collateral requirements

3.8. Model equation of the study

The above equation number (1) can be rewritten in the following econometric model with its functional forms.

$$ATFt = \beta 0 + \beta 1IFt + \beta 2SSt + \beta 3DSt + \beta 4\,MO\,t + \beta 5\,COBt + \beta 6\,COLLt + c \ldots\ldots\ldots\ldots\ldots\ldots (2)$$

Whereas; β_0 is the intercept and β_i (i=1, 2, 3, 4, 5, 6.) represents the coefficient for each of the independent variables.

ATF = Access to finance (measured by proxy questions ranked by Likert scale).

IF = Institutional framework factors (measured by questions ranked by Likert scale)

SS = Supply-side factors (measured by proxy questions ranked by Likert scale).

DS= Demand-side factors (measured by proxy questions ranked by Likert scale).

MO = Market opportunity (measured by proxy questions ranked by Likert scale)

COB = cost of borrowing (measured by proxy questions ranked by Likert scale).

CLL = Collateral requirements (measured by proxy questions ranked by Likert scale).

C = is the constant term of the regression.

3.9. Reliability test

Reliability refers to the consistency of the measurements of variables (Hair, et al., 2010). Moreover, Rovai, et. al., (2014) recommended that Cronbach's alpha is a very important tool for measuring internal consistency and assess the reliability of the variables. Hence, George and Mallery (2003) mentioned that Cronbach's alpha coefficients have ranged from 0.5 to 0.90. A test is considered reliable if the same results are gotten repeatedly.

The closer the Cronbach‟s alpha is to 1, the higher the internal consistency reliability of the research instrument. Furthermore, Hinton et al. (2004) have suggested four cut-off points for reliability as follow:

Table 3.1: Cronbach's alpha value

Cronbach's Alpha	**Results**
Above 0.9	Excellent reliability
0.70-0.90	High reliability
0.50-0.70	Moderate reliability
Below 0.50	Low reliability

Therefore, as per the discussion above the researcher used Cronbach's alpha to evaluate the internal consistency of variables designed to collect the respondents' views concerning the research topics. The reliability of the data was tested by taking 10 percent of the total respondents. The items (variables) are both dependent and independent variables. From the result of reliability data it possible to conclude that the questions included in the questionnaire have internal consistency.

Table 3.2: Reliability Statistics

Cronbach's Alpha	N of Items
.902	42

Source: SPSS output

Table 3.3: Summary of the Expected sign of Variables used in regression

Variables	Abbreviation	Descriptions	Expected signs
Access to finance	ATC	Measured by proxy questions ranked by Likert scale	
Institutional framework factors	IF	Measured by proxy questions ranked by Likert scale	-
Supply-side factors	SS	Measured by proxy questions ranked by Likert scale	+
Demand-side factors	DS	Measured by proxy questions ranked by Likert scale	+
Market opportunity	MO	Measured by proxy questions ranked by Likert scale	+
Cost of borrowing	COB	Measured by proxy questions ranked by Likert scale	-
Collateral requirements	CLL	Measured by proxy questions ranked by Likert scale	-

Source: Compiled by the researcher based on earlier studies

CHAPTER FOUR

Data Analysis and Interpretation

4. Introduction

In the preceding chapters, important literature that gives understanding about the topic was reviewed and used to identify the knowledge gap in the area of the study. In line with reviewed literature; the research problem, research objectives, research hypotheses & the research design used for this study were also discussed. This chapter deals with the descriptive statistics of the data collected, correlation analysis, normality tests, and other important assumptions that are discussed to see if the model is viable.

4.1. Descriptive analysis of the study

To achieve the objective of the study; the researcher was used probabilistic two-stage stratified sampling method and judgmental sampling; to select a sample of respondents from the total population, So that the data collected through a questionnaire distributed to respondents were analyzed and discussed. The researcher has distributed 384 questionnaires to respondents but only 318 questionnaires were returned and the rest of the respondents did not return the questionnaire. As it can be discussed in the following subsections of the chapter; the study was targeted SMEs and financial institutions as a target population of the study. The questionnaire was prepared and distributed to the respondents; each variable was represented by proxy questions; the independent variable selected for the study was collateral requirements, cost of borrowing, market opportunity, regulatory framework, demand-side factors, and supply-side factors. The data collected were analyzed through SPSS version 20. On the other hand, to identify the factors that influence financial inclusion among SMEs some financial institutions are were included in the target population of the study. Based on this fact the researcher has distributed 20 questionnaires to the respondents. From the distributed questionnaires 17 of them are returned and the remaining 3 questionnaires were not returned. So, generally, the distributed questionnaires are 404 in number and of this 335 were returned from both respondents. But unfortunately, 16 papers are filled as incomplete and the researcher has forced to exclude them from the respondents. Finally, the data considered as filled and returned are 319. In this chapter

of the study, the researcher has discussed the data collected from both the target population based on different tools. To identify the relationship between dependent and independent variables the researcher has used correlation analysis.

4.1.1. Response Rate

The study distributed a total of 384 (100%) questionnaires for SMEs and 318 (82.8%) questionnaires were filled and returned from the SME side but 12 of them are not properly filled and ignored by a researcher. On the other hand, 20 questionnaires were distributed to financial institutions (Banks and Microfinance institutions), and 17 of them are returned (85%) and 4 of them are not properly filled the questionnaire. So, the analysis of the study was made based on 319 (306 + 13) successfully responded questionnaires and done in line with the research questions and objectives.

Table 4.1: Commutative of Respondent's response rate.

Response from SMEs				Response from Financial Institutions				Properly unfilled
Distributed		Collected		Distributed		Collected		12 respondents from SMEs
In No	In Per	In No	In Per	In No	In Per	In No	In Per	4 respondents from financial institutions
384	100%	318	82.8%	20	100%	17	85%	

Source: Researcher own computation

4.2. Demographic characteristics of the respondents

In the following subsection, the respondent's demographic characteristics like gender, age, and educational level were discussed using the frequency distribution table.

4.2.1. Gender, age, and educational level Distribution of the Respondents

Gender and age demographic characteristics of the respondents to be analyzed their gender and age distribution. Accordingly, the researcher gathered and presented the demographic characteristics of the respondents covering their gender and age distribution in the following table.

Table 4.2: sample given over gender distribution

Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	99	31.0	31.0	31.0
	Male	220	69.0	69.0	100.0
	Total	319	100.0	100.0	

Source: researcher own computation

As can be seen in the above gender distribution table, the majority of the respondents who participated in the study were male respondents. And this can be evidenced from the above respondent response rate table distribution. The data collected implies that; 220 (69%) of respondents were male respondents and 99 (31%) of respondents are female respondents. From this the researcher can conclude that; the majority of respondents who participated in this study are dominated by male genders.

Table 4.3: sample given over age distribution

AGE

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25	19	6.0	6.0	6.0
	26-30	113	35.4	35.4	41.4
	31-40	169	53.0	53.0	94.4
	41-60	18	5.6	5.6	100.0
	Total	319	100.0	100.0	

Source: researcher own computation

The data collected on the age of respondents are described in the above age distribution table of the respondents. As can be seen in the above table, the majority of the respondents participated in the study area in the age bracket of 31-40 years. And the second-largest respondents are between the 26-30 age brackets. The third-largest respondents were between the age brackets of 18-25 and finally, the respondents between the age brackets of 41-60 were the least participated respondents. From this, the researcher concludes that the majority of the respondents who participated in the study have an age of greater than 26 and less than 40.

Table 4.4: sample given over educational level

EDU

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Secondary Education	9	2.8	2.8	2.8
	Diploma	45	14.1	14.1	16.9
	BA Degree	175	54.9	54.9	71.8
	Masters	79	24.8	24.8	96.6
	PhD and Above	11	3.4	3.4	100.0
	Total	319	100.0	100.0	

Source: researcher own computation

Concerning the educational level of the respondents, as can be seen in the above table; the majority of the respondents are a holder of BA degree, and this can be evidenced from the above table since 175 (54.9%) of respondents responded as saying they were the holder of BA degree. The second-largest respondent of the study was those holders of Masters since in their study and this can be confirmed by 79 (24.9%) of respondents. The third-largest respondents of the study are those employees the holder of diploma (14.1%) and the least number of respondents are those respondents' holders of secondary education (2.8%). From this, the researcher concludes that the majority of the respondents have an educational level of greater than BA degree (69.7%) and thus improves the reliability of the study because of the more the educational level the capability of understanding things and answer properly.

Table 4.5: sample given over gender distribution

MS

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Service	12	3.9	3.9	3.9
	Construction	14	4.6	4.6	8.5
	Merchandise	48	15.7	15.7	24.2
	Manufacturing	226	73.9	73.9	98.0
	Minning	4	1.3	1.3	99.3
	Others	2	.7	.7	100.0
	Total	306	100.0	100.0	

The main activity of the enterprise on which the study was conducted was consisting of Mining, merchandising, Manufacturing which composes of (Metalwork industry, woodwork industry, molding, soap and detergent, machinery, and others), service, Agricultural products, and construction companies. The data collected to identify the main activity of the enterprises implies that; the majority of small and medium enterprises participated in this study are from manufacturing business (73.9%). And this can be evidenced from the above table respondents' response rate. The second-largest respondents are from merchandising business (15.7%). The third-largest respondents are from the construction business (4.6%). In line with the data collected According to the Investment office of Addis Ababa summary of Domestic Investment based on their Capital More which is then 500, 000 Birr 44% are engaged in the manufacturing sector from the total sector. Among the activities, the line share of respondents goes to the manufacturing sector which is 74% and the least is mining (1.3%). This shows that most SMEs engaged in manufacturing activities which were pretty good represented in the sample size of this study.

4.3. Descriptive statistics

The distribution of the data set or dependent and independent variables used in the study are explained by descriptive statistics. The summary of descriptive statistics is presented to determine the minimum, maximum, mean, and standard deviation for the dependent variable (access to finance) and independent variables (Institutional framework factors, Supply-side factors, Demand-side factors, Market opportunity, Cost of borrowing, and collateral requirements). The following table summarized the descriptive statistics of the variables with 319 observations.

Table 4.6: Summary of Descriptive statistics

Descriptive Statistics based on the response from

	N	Minimum	Maximum	Mean	Std. Deviation
ATF	319	2.00	4.00	2.9937	.49522
COLL	319	3.00	5.00	3.9248	.52063
MO	319	3.00	5.00	3.9373	.47167
COB	319	3.00	5.00	3.6050	.50230
IF	319	3.00	5.00	3.5643	.50914
DS	319	3.00	4.00	3.6270	.48437
SS	319	3.00	4.00	3.1567	.36413
Valid N (listwise)	319				

Source: SPSS 20 output

According to Best (1977), the mean value of the score from 1-1.80 is lowest, from 1.81- 2.61 is lower, from 2.62-3.41 is average/moderate, from 3.42-4.21 is good/high, and 4.22-5 is considered very good; Besides, the decision rules used in the analysis was average mean less than 3 was considered as low, the average mean equal to 3 was considered as medium and average mean greater than 3 was considered as high (Best and khan1995). In the following section, the details of all variables are going to discuss.

The mean distribution of the dependent variable access to finance (ATF) of the study is 2.9937 which is less than 3 with standard deviation statistics of 0.49522. Inline best (1977) criteria the firms' access to finance scores the mean value of average. The standard deviation of the variable implies that how much each observation deviates from its mean value.

The first independent variable considered in this study was institutional framework factors. The mean value of this variable is 3.5643 with a standard deviation of 0.50914. On the other hand, supply-side factors that influence the firms to access finance scored a mean value of 3.1567 and a standard deviation of 0.36413 respectively.

The demand-side factors are another variable that is considered in this study in the part of the independent variable. The descriptive statistics of the variables imply that the demand side factor has a mean value of 3.627 and a standard deviation of 0.48437 respectively. On the other hand,

the variable market opportunity has scored the mean value of 3.9373 with a standard deviation of 0.47167.

Finally, the cost of borrowing and collateral requirements has scored a mean value of 3.6050 and 3.9248 respectively with the standard deviation of 0.52063 and 0.50230. As discussed before the standard deviation of each variable implies how much each observation has deviated from its mean value.

4.4. Multiple regression analysis

The study employed multiple regression models in the form of linear regression analysis and used cross-sectional data from small and medium enterprises and banks. The researcher undertook the diagnostic tests for the assumption of the classical linear regression model (CLRM) before directly going to the multiple linear regression models.

4.4.1. Results for the test of classical linear regression model (CLRM) assumptions

A diagnostic test is made to make sure that the classical linear regression model assumption violated or not. In this study, an attempt is made to test Heteroscedastic, Autocorrelation, normality, and Multi-collinearity the result of which are presented and discussed as follows.

4.4.1.1. *Test for no heteroscedasticity (homoscedasticity) {var (ut) = σ2 <∞}*

One of the important assumptions of the classical linear regression model is Heteroscedasticity. As noted by brooks (2008) Heteroscedasticity assumption state that the disturbances appearing in the population regression function are homoscedasticity; that is, they all have the same variance. The variance of each disturbance term ui, conditional on the chosen values of the explanatory variables, is some constant number equal to σ2. This is the assumption of Heteroscedasticity, or equal (homo) spread (scedasticity), that is, equal variance (Gujarati, 2004). If the error term ui do not have constant variance it's said to be there is a Heteroscedasticity problem.

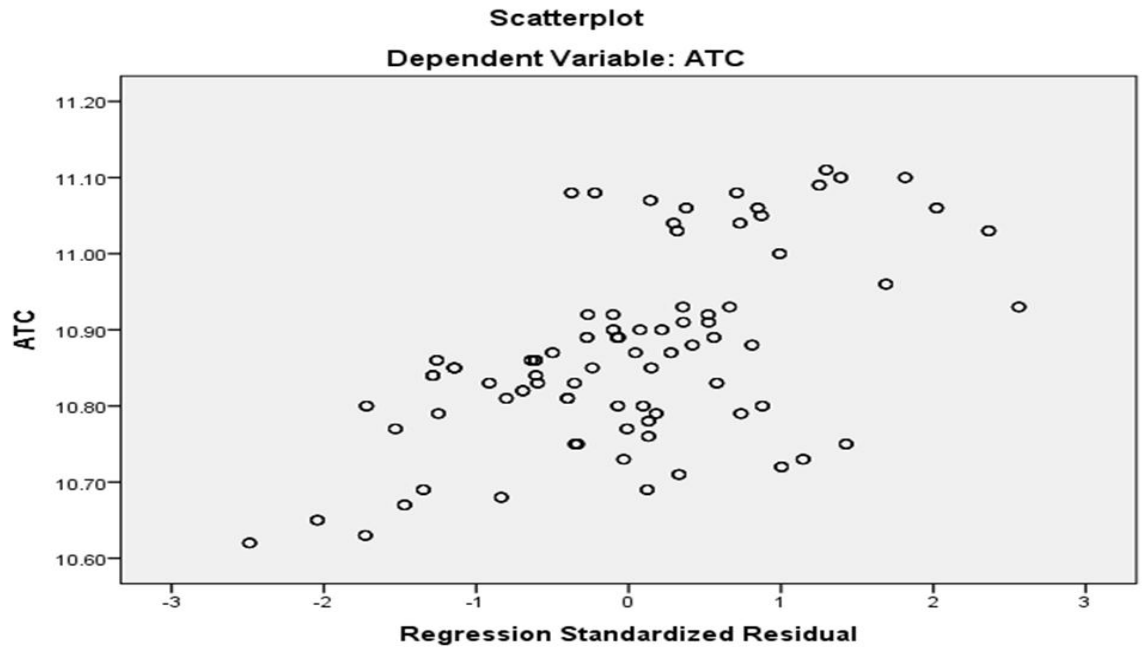
Heteroscedasticity makes our parameter estimates no longer BLUE – they are still unbiased, but no longer have minimum variance. Unfortunately, SPSS does not have a built-in procedure to test for heteroscedasticity. The test can be done by writing some codes. Despite not having a built-in procedure to test for heteroscedasticity, we can plot standardized residuals (ZRESID) against the standardized predicted values (ZPRED). If there is no heteroscedasticity, the plot

should look random. If it usees a pattern, such as a funnel shape or a curve, this indicates heteroscedasticity.

A curve shape, in particular, could indicate some non-linearity in the relation that you failed to take into account. The following figure shows the result of the heteroscedasticity of the model. The following hypothesis is set for the heteroscedasticity test.

H0: There is no Heteroscedasticity problem in the model.

H1: There is a Heteroscedasticity problem in the model.



Source: SPSS 20 output

Figure 4.1; the result of Heteroscedasticity test

As we can observe from the above figure 4.1; the plot the residuals have a random pattern, which signifies that there is no sign of heteroscedasticity. So, the null hypothesis of no heteroscedasticity should not reject.

4.4.1.2.Test for assumption of no autocorrelation {cov(ui,uj) = 0 for i ≠ j}

The diagnostic test for the CLRM assumption of no autocorrelation was tested by this study. According to Gujarati, (2004), the assumption of no autocorrelation between the disturbances assumes that given any two X values, Xi and Xj (i≠j), the correlation between any two ui and

uj(i≠j), is zero.

According to Chris Brooks (2008), it is assumed that the errors are uncorrelated with one another. If the errors are not uncorrelated with one another, it would be stated that they are 'auto correlated' or that they are 'serially correlated.

This assumption was tested by the Durbin Watson (DW) test of autocorrelation. Durbin--Watson (DW) is a test for the first-order autocorrelation-- i.e. it tests for a relationship between an error and its immediate previous value. The hypothesis of the test formulated as follows.

H0: There is no autocorrelation problem in the model

H1: There is autocorrelation in the model.

Table 4.7: the result of the DW test

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.822[a]	.676	.670	.07094	1.847

a. Predictors: (Constant), IF, SS, DS, COB, MO, COLL
b. Dependent Variable: ATC

The DW test statistic value for the model was 1.847 for a total observation of 319 responders with 6 independent variables. Thus the decision value for the test implies that there is no autocorrelation problem in the model. According to Brooks (2008) if the DW test lies between 1.5 and 2.5 there is no issue of autocorrelation in the model. So, the null hypothesis of no autocorrelation is accepted because there is no evidence of autocorrelation in the study.

4.4.1.3.Test for the presence of multi-collinearity in the model

The other CLRM assumption tested in this study was the multicollinearity assumption. According to Brooks (2008), the absence of multicollinearity assumption says that the explanatory variables are not correlated with one another. If there is no relationship between the explanatory variables, they would be said to be orthogonal to one another. If the explanatory variables were orthogonal to one another, adding or removing a variable from a regression equation would not cause the values of the coefficients on the other variables to change. A small

degree of association between explanatory variables will almost always occur but will not cause too much loss of precision.

However, a problem occurs when the explanatory variables are very highly correlated with each other, and this problem is known as multicollinearity. Perfect multicollinearity occurs when there is an exact relationship between two or more variables. In this case, it is not possible to estimate all of the coefficients in the model. Perfect multicollinearity will usually be observed only when the same explanatory variable is inadvertently used twice in a regression. According to Gujarati, (2004) multicollinearity refers to the existence of more than one exact linear relationship, and according to the author, the assumption of no multicollinearity says that there are no perfect linear relationships among the explanatory variables. The correlation matrix is very helpful to check any existence of strong correlations between the independent variables. The variables which have this strong relationship might be assumed as not explaining the model with the other correlated variable. This means that; the two correlated variables cannot explain together the model and in this case, one of the variables (the one that is considered as insignificant for the study) must be eliminated from the model. In doing so, analyzing the multicollinearity issues that, the model can have is important. If the existence of a high correlation between any two independent variables in the model is confirmed; the problem of multicollinearity arises, and this makes significant variables insignificant by increasing its standard error. So, here under the issue of multicollinearity is performed through a correlation matrix.

Table 4.8: Result of multicollinearity test

Correlations

		COLL	SS	DS	MO	COB	IFW
COLL	Pearson Correlation	1	.242**	.260**	.142*	.230**	-.187**
	Sig. (2-tailed)		.000	.000	.011	.000	.001
	N	319	319	319	319	319	319
SS	Pearson Correlation	.242**	1	.221**	-.015	-.354**	-.026
	Sig. (2-tailed)	.000		.000	.785	.000	.639
	N	319	319	319	319	319	319
DS	Pearson Correlation	.260**	.221**	1	.345**	-.200**	.098
	Sig. (2-tailed)	.000	.000		.000	.000	.081

	N	319	319	319	319	319	319
MO	Pearson Correlation	.142*	-.015	.345**	1	.092	.395**
	Sig. (2-tailed)	.011	.785	.000		.101	.000
	N	319	319	319	319	319	319
COB	Pearson Correlation	.230**	-.354**	-.200**	.092	1	.038
	Sig. (2-tailed)	.000	.000	.000	.101		.494
	N	319	319	319	319	319	319
IFW	Pearson Correlation	-.187**	-.026	.098	.395**	.038	1
	Sig. (2-tailed)	.001	.639	.081	.000	.494	
	N	319	319	319	319	319	319

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: SPSS 20 output

Based on the result of the correlation matrix, which is shown in the above table 4.8; it is better to discuss the issue of multicollinearity by taking the benchmarks of Cooper & Schindler (2009); which suggests that, a correlation above 0.8 should be considered as a problem of multicollinearity. So, as it can be seen from the above table correlation matrix, there is no worry of multicollinearity issue in this model; since the highest correlation is -0.639 which is found between auditors supply-side factors and institutional framework factors.

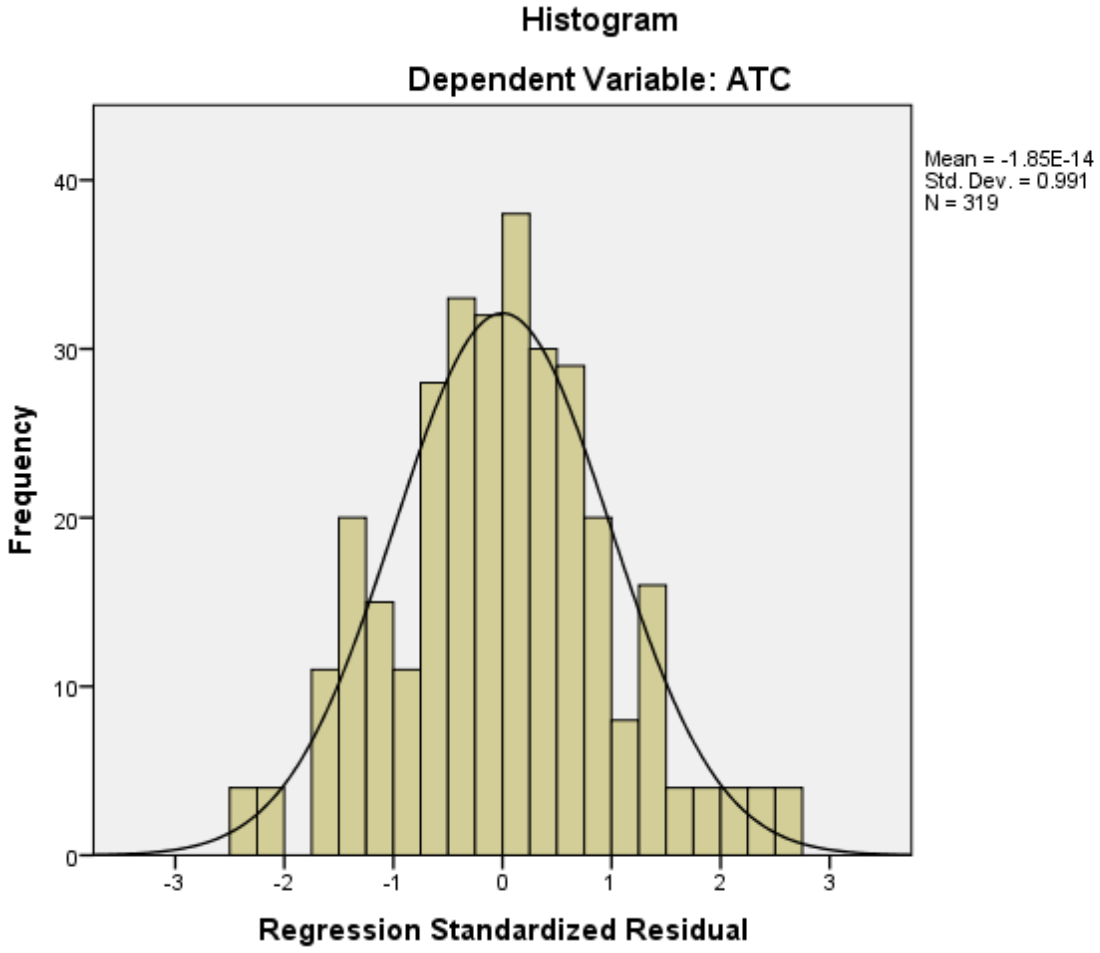
4.4.1.4.Test for normality

The last diagnostic test for the CLRM assumption of normality assumption was tested by this study.

The assumption says that disturbances are normally distributed. Frequency distributions come in many different shapes and sizes. It is quite important, therefore, to have some general descriptions for common types of distributions. In an ideal world, our data would be distributed symmetrically around the center of all scores. As such, if we drew a vertical line through the center of the distribution then it should look the same on both sides. This is known as normal distribution and is characterized by the bell-shaped curve. This shape implies that the majority of scores lie around the center of the distribution (so the largest bars on the histogram are all around

the central value). The following figure shows the result of the normality test concerning the data conducted.

Figure 4.3: The result of the normality test



4.5. Multiple regression output and its discussion

In this study, multiple regression analysis was carried out to get the predictive value of the variables considered. This was made to determine the linear combination of the constructs. The dependent variable of the study is access to finance (ATC) and independent variables are collateral requirements (COLL), market opportunity (MO), cost of borrowing (COB), institutional framework factors (IFF), demand-side factors (DS), and supply-side factors (SS).

$$ATCt = \beta 0 + \beta 1IFt + \beta 2SSt + \beta 3DSt + \beta 4\,MOt + \beta 5\,COBt + \beta 6\,COLLt + c$$

Table 4.9: Result of Model summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.822[a]	.676	.670	.07094	1.847

a. Predictors: (Constant), IFW, SS, DS, COB, MO, COLL

b. Dependent Variable: ATC

Table 4.10: Result of Anova table

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.279	6	.546	108.594	.000[b]
	Residual	1.570	312	.005		
	Total	4.849	318			

a. Dependent Variable: ATC

b. Predictors: (Constant), IFW, SS, DS, COB, MO, COLL

The regression model output was presented in table 4.11 below and it shows the coefficients, standard errors, t-values, and p-values for explanatory variables. The overall summary of the model is presented in the above table 4.10 which implies the R-squared, adjusted R-squared, and standard error of the estimates. The ANOVA result table shows F-statistics and probability (F-statistics) for the regression. The R-squared and Adjusted R-squared statistics of the model were 67.6% and 67% respectively.

The explanatory power of independent variables such as collateral requirements, market opportunity, cost of borrowing, institutional framework, demand-side factors, and supply-side factors on the change in the dependent variable (access to finance) was explained 67.6%. The result of Adjusted R-squared shows that change on the dependent variable (ATF) was explained by 67.6% by the independent variables employed in the study. Therefore, 33.4 % of the change in the dependent variable (ATF) was explained by other factors that are not included in the model.

The null hypothesis of F-statistic (the overall test of significance) which says the Adjusted R-squared is equal to zero was rejected at a 1% significance level. F-value of 0.0000 shows strong statistical significance which enhanced the reliability and validity of the model.

Table 4.11: Result of coefficients

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	9.956	.075		132.923	.000
	IF	-.058	.011	-.202	-5.251	.000
	SS	.139	.011	.468	12.631	.000
	DS	.113	.012	.361	9.703	.000
	MO	.050	.016	.118	3.109	.002
	COB	-.031	.007	-.170	-4.445	.000
	COLL	.034	.004	.283	7.726	.000

a. Dependent Variable: ATC

The model equation is

$$\boldsymbol{ATC = 9.956 - 0.058(IFF) + 0.139(SS) + 0.113(DS) + 0.050(MO) - 0.031(COB) + 0.034(COLL)}$$

The result of regression out reveals that the variable institutional framework factors have a negative relationship with access to finance and statically significant. The coefficient on the variable shows that; 1 unit increase in institutional framework factors causes the access to finance to decrease by 0.058 units and statically significant at a 5 % significance level. The implication of their relationship implies that as an increase in the statements stated in institutional framework factors a decrease in the firm's access to finance. The conclusion drawn from this variable implies that; when the financial institution increases the institutional framework factors the small and medium enterprise's access to finance will decrease. The finding of this variable is consistent with the study established by (Hall, 1992).

The variable supply-side factors have a positive relationship with access to finance and statically significant. The result of regression analysis implies that; 1 unit increase in supply-side factors causes the firms' access to finance to increase by 0.139 units and statically significant at a 5% significance level.

The implication of the positive relationship between variables shows that whenever financial institutions increase the availability of credit to small and medium enterprises, the firm's access to finance could also increase. The finding of this variable is consistent with the study established by (Nega and Hussien, 2016).

The variable demand-side factors have a positive relationship with the firms' access to finance and statically significant. The result of regression analysis implies that 1 unit increases in the demand side factors cause increases in 0.113 unit access to finance and statically significant at a 5% significance level. The implication of a positive relationship between the firm's access to finance and demand-side factors is that; increase in the statements stated on demand-side factors (small and medium enterprises) causes an increase in firms to access finance. The finding of this variable is consistent with the study established by (Nega and Hussien, 2016).

Additionally, the variable market opportunity has a positive relationship with the firms' access to finance and statically significant. The result of regression out implies that 1 unit increase in the firm's (small and medium enterprises) market opportunity results in an increase in the firm's access to finance by 0.050 units at a 5% significance level.

The positive relationship between the firm's access to finance and market opportunity implies that; if small and medium enterprises get more market opportunity to perform their business activities in the market; the financial institutions tend to facilitate the credit access to small and medium enterprises than normal circumstance.

On the other hand, the variable cost of borrowing has a negative relationship with the firms' access to finance and statically significant. The coefficient on the regression analysis of this variable implies that; 1 unit increase in cost borrowing causes the firm's access to finance to decrease by 0.031 units and statically significant at a 1% significance level. This implies that; once the financial institutions tend to increase the cost of borrowing by 1 unit; the firms (small and medium enterprises) access to finance decline automatically.

The last variable of the study is collateral requirements; as it is shown in the above regression analysis table. The relationship between collateral requirements and access to finance is positive and statically significant.

The result of regression output implies that; 1 unit increase in collateral requirement causes the firm's access to finance to increase to 0.034 units and statically significant at a 1% significance level. The implication behind this is that; if the firms (small and medium enterprises) ability to provide collateral increases; the firm's access to finance increases too.

On the other hand, the relationship between collateral requirements and access to finance can be interpreted as; when the firms (small and medium enterprises) collateral requirement decreases the firm's access to finance also decreases because the two variables move in the same direction.

Table 4.12: Summary of Expected sign and actual result of Variables used in regression

Independent Variables	**Expected sign effect**	**Actual effect**	**Hypothesis status**
Institutional framework	negative and significant	Negative and significant	Do not reject
Supply-side factors	Positive and significant	Positive and significant	Do not reject
Demand-side factor	Positive and significant	Positive and significant	Do not reject
Market opportunity	Positive and significant	Positive and significant	Do not reject
Cost of borrowing	Negative and significant	Negative and significant	Do not reject
Collateral requirements	Negative and significant	Positive and significant	Reject

Source: Compiled by research from a finding of the study.

CHAPTER FIVE

SUMMARY OF MEASURE FINDING, CONCLUSION AND RECOMMENDATION

5. INTRODUCTION

This chapter is the last chapter of this study; which sum up the whole thesis in a comprehensive manner. Accordingly, in the first part of this chapter, an overview of the thesis and its major findings are presented and finally, the chapter ends up with recommendations for policy implications.

5.1. Summary and Conclusion

This study is conducted to examine the determinant factors that influence the financial inclusion of small and medium enterprises (Evidence from Ethiopia, taking as a sample of Addis Ababa city administration). In doing so, some variables measured as factors to the financial inclusion (which was measured by the firms' access to finance) were included. The study was conducted through primary and secondary data conducted from SMEs and sampled financial institutions.

The study adopted an explanatory research design and mixed research approach. To estimate the extent of the effects of each variable, several tests were needed to be done. Firstly, a multicollinearity test was checked through a correlation matrix; to see, if there was an issue between variables. Then, other tests (such as the autocorrelation, normality, and heteroscedasticity tests), were confirmed that a model is feasible.

To analyze the descriptive statistics, the researcher used the mean, maximum, minimum, and standard deviation of all variables. Further, the researcher discussed regression analysis to determine the effect of independent variables on the dependent variable. Therefore, in line with the specific objective of the study the researcher reached the following conclusion.

The finding of the study reveals that financial inclusion (access to finance) is positively correlated with the variables included in the study except two of the variables. Subsequently, the following sections discuss the finding of each variable.

The result of regression analysis indicates that; the variable institutional framework factors (which is measured by, the necessity of audited financial statements, the credit processing period,

accessible information on government regulations, training, government support, political intervention, and finally deposit requirements) have a negative effect on access to finance and statistically significant at 1 percent significance level.

On the other hand; supply-side factors (which is measured by; strategic business planning, clear mission and vision, availability of raw material, motivation, tolerance to work hard, selection of business partner, and management skill) has a positive effect on access to finance and statistically significant at 1 percent significance level.

The variable demand-side factor (which is measured by; availability of funds from banks, expansion plan, willingness of banks, customer handling system, availability working capital, availability of appropriate machinery and equipment, and selection proper new technology) has a positive effect on the firms access to finance and statically significant at 5% significance level.

Additionally, the variable market opportunity (which is measured by; availability of market information, awareness about the product/promotion, connection with successful and other business adaption for changing environment, and skills to handle new technology) has a positive effect on the firms access to finance and statically significant at 5% significance level.

The variable collateral requirements (which is measured by; if collateral affects access to finance, problems in accessing loans than big firms, and mandatory requirement of collateral) have a positive effect on the firms' access to finance and statically significant at 1% significance level. However, the variable cost of borrowing (which is measured by challenges of profit in accessing credit, expensiveness of credit, business performance, and growth magnificent, and bank service charges) has a negative effect on the firms' access to finance and statically significant at 1% significance level.

Based on the study finding it is possible to conclude that factors like collateral requirements, market opportunity, cost of borrowing, institutional framework, demand-side factors, and supply-side factors have a high impact on determining the firm's access to finance.

5.2. Recommendations

Based on the finding of the study the following points are forwarded as a recommendation of the study.

The rate of interest charged by financial institutions shall be considered for harmonization to make inclusiveness among small and medium enterprises access to finance.

Financial institutions shall consider providing training for small and medium enterprises before issuing them credit access.

The government and concerned bodies shall consider exerting much effort towards providing training, seminar, workshop, and coordinating the resources to work on providing technical and management training for SME owners on how to run a successful small business.

The issue of collateral shall be considered and concerned bodies shall find a way for harmonization to improve the small and medium enterprises' access to finance.

Small and medium enterprises shall keep book records of the organization since it is vitally important for protecting the organization's assets, and for managing and reporting on its financial activities.

Small and medium enterprises shall consider seriously the selection of business partners among small and medium enterprises.

5.3. Further research study

In this study, the researcher has tried to determine the determinants factors that influence the firm's access to finance. In doing so, the study only delimited to Addis Ababa city administration and the researcher highly recommends other researchers to conduct an additional study on the country level or by taking other regional states as a share of evidence to see if the factors that influence the firms access to finance affect similarly or differently.

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APPENDIX

QUESTIONNAIRE

ADDIS ABABA UNIVERSITY

COLLEGE OF BUSINESS AND ECONOMICS

DEPARTMENT OF ACCOUNTING AND FINANCE

Dear respondent,

I am a graduate student in the Department of Accounting and Finance, Addis Ababa University. The purpose of this questionnaire is to collect information on **— *Determinants of Financial Inclusion in Small and Medium Enterprises (Evidence from Ethiopia) among SMEs (Evidence from Ethiopia).***

” The information that you share with me will be kept confidential and only used for academic purposes and cannot affect you in any case. So, your genuine, honest, and timely response is vital for the accomplishment of this study on time. Therefore, I kindly ask you to give your response to each item/question carefully.

Instruction

 No need of writing your name.

 For multiple-choice questions indicate (√) sign in the appropriate block.

 For Likert scale type statements mark (√) sign only once for the given variables depending on your level of agreement.

Part-I: Demographic Characteristics of Respondents

1. Gender: A. Female B. Men

2. Age: A. 18-25 B. 26-30 C. 31-40 D. 41-60 E. > 60

3. Educational qualification: A. No formal education B. Primary C. High School D. Diploma E. Degree F. MA/MSc G. PhD

4. The main activity of the enterprise? A. Manufacturing B. Construction C. Trade D. Agriculture E. service F. mining and quarrying G. others, specify _____

5. Current Status of the enterprise? A. existing B. closed

Part-II: Please indicate your opinion regarding the following statements (1.Strongly Disagree (SD), 2.Disagree (D), 3.Neutral (N), 4. Agree (A), 5. Strongly Agree (SA)).

No	**Please indicate your opinion as per the level of disagreement or agreement with an outline statement using 1 to 5 scale guideline. Your assessment shall be based on the firm's characteristics on SMEs.**	Strongly **5**	Agree **4**	Neutral **3**	Disagree **2**	Strongly **1**
	Accesses to finance					
1	Financial institutions are reluctant to provide long term finance to SMEs					
2	SMEs has adequate bookkeeping records which have made it easy to access credit					
3	The age of the firm affects its ability to access funds					
4	SMEs Lacks access to finance based on their business size					
	Collateral requirements					
5	Lack of collateral effects to finance					
6	Small and medium firms have problems in accessing loans than big firms					
7	Not having Types of collateral required makes difficult to access finance					
8	Collateral is a mandatory requirement in accessing finance					
9	SMEs very worried about collateral in accessing finance					
	Opportunity to Market					
10	Lacks of available market information for SMEs					
11	Lack of creating awareness about the product/promotion					
12	SMEs Lacks connection with successful and other business					
13	SMEs Lacks adaption for changing environment					
14	SMEs Lacks skills to handle new technology					
15	SMEs located in urban are successful in access to debt financing compared to those located in rural areas.					

	Cost of borrowing					
16	Firms that do not generate profit have challenges accessing credit					
17	SMEs consider loans from banks or other financial institutions as expensive					
18	Credit hurts business performance and growth magnificent					
19	High bank service charges for the unsustainability of SMEs					
20	Lack of reputation and contact in the banking market make it hard to borrow money from the banks					
	Institutional framework					
21	Audited financial statements are needed before loan is approved The credit processing takes a long period to finalize					
22	Lack of accessible information on government regulations that are relevant to your business					
23	Lack of enough training given by banks to SMEs					
24	Lack of government support					
25	There is Political intervention					
26	The minimum deposits required by the financial institutions are the factor that influences Banks for SMEs					
	Demand-side					
27	Lack of availability of funds from Banks when it's required					
28	SMEs only received a loan from a bank where personal contacts existed					
29	Credit enables SMEs to meet their expansion plan					
30	Banks are unwilling to lend to SMEs					
31	Poor customer handling system					

32	SMEs has Shortage of working capital					
33	SMEs Lacks appropriate machinery and equipment					
34	SMEs Unable to select proper new technology					
	Supply-side					
35	SMEs Lacks strategic business planning					
36	SMEs Lacks a clear mission and vision					
37	SMEs are dealing with Insufficient availability of raw material					
38	SMEs Lacks motivation					
39	Absence of initiative to assess one's strength					
40	SMEs Lacks tolerance to work hard					
41	Poor selection of business partner among SMEs					
42	Poor management skill among SMEs					