Journal of
Risk and Financial Management

MDPI

Article

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

Betgilu Oshora [1], Goshu Desalegn [2], Eva Gorgenyi-Hegyes [1], Maria Fekete-Farkas [3,*] and Zoltan Zeman [3]

[1] Doctoral School of Economics & Regional Science, Hungarian University of Agriculture and Life Sciences, Páter Károly u. 1, 2100 Gödöllő, Hungary; olle.betgilu.oshora@phd.uni-szie.hu (B.O.); gorgenyieva@gmail.com (E.G.-H.)
[2] Department of Accounting and Finance, Faculty of Business and Economics, Kotobe Metropolitan University, Addis Ababa P.O. Box 5563, Ethiopia; goshudasalegn@gmail.com
[3] Szent Istvan Campus Institute of Economic Sciences, Hungarian University of Agriculture and Life Sciences, Páter Károly u. 1, 2100 Gödöllő, Hungary; zeman.zoltan@uni-mate.hu
* Correspondence: farkasne.fekete.maria@uni-mate.hu

Abstract: The study examines the determinant factors that influence financial inclusion among small and medium enterprises (SMEs) in Ethiopia. The study uses an explanatory research design and a mixed research approach with both primary and secondary sources of data. 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 have a positive effect on the firm's access to finance. On the other hand, institutional framework factors, and the costs of borrowing negatively affect the firm's access to finance. This study suggests concerned bodies sustain rapid and inclusive economic growth and hence eradicate extreme poverty and hunger, the policymakers must build an efficient, strong, and well-functioning financial market system that provides affordable and sustainable financial service to SMEs.

Keywords: access to finance; collateral requirements; cost of borrowing; SMEs; financial inclusion; Ethiopia

Citation: Oshora, Betgilu, Goshu Desalegn, Eva Gorgenyi-Hegyes, Maria Fekete-Farkas, and Zoltan Zeman. 2021. Determinants of Financial Inclusion in Small and Medium Enterprises: Evidence from Ethiopia. *Journal of Risk and Financial Management* 14: 286. https://doi.org/10.3390/jrfm14070286

Academic Editor: Wolfgang Gerstlberger

Received: 25 April 2021
Accepted: 10 June 2021
Published: 23 June 2021

1. Introduction

While both in developed and developing countries financial risk has improved in the last few decades with the necessity of a stricter regulatory system (Lentner et al. 2020), underdeveloped countries still have to face the lack of fair access to finance. Improving and expanding access to financial services remains an important policy challenge in many countries, with much for governments to do. In recent decades, a rapidly growing literature across the globe continues to emphasize the positive significance of financial inclusion for inclusive economic growth and poverty reduction of the economy. Besides, financial inclusion was given significant attention from policymakers regarding the role it plays in creating a conducive environment for new firm entry, innovation, and growth mainly for the small firms who are primarily excluded from the formal financial institutions due to lack of collateral requirements. However, despite the importance of financial inclusion to the economy, the largest share of the global adult population (about 1.7 billion) does not yet have access to the financial account (Demirguc-Kunt et al. 2018). As a result, policymakers shifted their emphasis from financial development to financial inclusion to reach the unbanked and low-income society (Johnson and Arnold 2012). Different scholars across the world argue that access to finance enables low-income people to save and borrow and allows them to invest in SMEs to take advantage of economic opportunity (Demirguc-Kunt et al. 2014).

As part of the key components in the development of financial inclusion, access to finance is the predominant factor that influences the growth of small and medium

enterprises (Triki and Faye 2013; Ibor et al. 2017). However, in the context of Africa, the case is different from other continents since Africa has been lagging behind other continents to produce the availability of financial inclusion for small and medium enterprises. In Africa, less than one out of the four adults have access to an account at a formal financial institution (Triki and Faye 2013). However, the enlargement of 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. Financial inclusion is, therefore, necessary to ensure economic growth performance and it refers to all initiatives that make formal financial services available, accessible, and affordable to all segments of the population (Fabayo 2009). Similarly, the study by Popescu (2019) found that financial inclusion is an important engine of economic development by delivering very significant benefits to the poor and marginalized society.

Out of the total 1.7 billion unbanked adults, lack of money is found to be the main factor cited by two-thirds of the global adult population (Demirguc-Kunt et al. 2018). One of the emerging financial institutions that have a problem of financial inclusion is small and medium-sized enterprises. SMEs 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 Hussein 2016). Likewise, Swamy's (2010) finding reveals providing access to finance particularly for the poor is considered a prerequisite for poverty reduction, inclusive growth, and economic development. In line with the listed activities, they have played significant roles in the economic growth, development, and industrialization of developing countries in general. Furthermore, companies in underdeveloped countries can suffer from human capital voids (a prevalence of very low levels of skills among the population) which should be handled or overcome in order to improve performance (Wang and Cuervo-Cazurra 2016).

Therefore, improving SMEs' access to finance is significant and important in promoting firm performance and productivity in the country (World Bank 2014). In addition to this, despite the enormous importance of the SMEs sector to the national economy concerning job creation and the alleviation of 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, many studies have been conducted in Ethiopia. For instance, studies by Wolday and Gebrehiwot (2004); Ageba and Amha (2006); Ashenafi et al. (2013); Nega and Hussein (2016); Hadis and Ali (2018); and Abera et al. (2019) are some of the studies on SMEs in Ethiopia from different perspectives but fail to identify the main determinants of financial inclusion in SMEs. Hence, by considering the above research gap, this study focuses on assessing the determinants of financial inclusion in SMEs.

The general objective of this study is to investigate the determinant factors that affect the financial inclusion of small-medium enterprises in Ethiopia. Moreover, the study also offers a brief introspection to the current situation of companies in Ethiopia, primarily focusing on the operation of small and medium-sized enterprises. In doing so, the study delimited to small and medium enterprises found in Addis Ababa city admiration.

To this extent, this research is structured in the following order. Section 2 represents the systematic literature review where most relevant previous works are discussed with a special focus on determinants of financial inclusion. Section 3 presents the research methodology where the research framework and data collection procedures are discussed, followed by Section 4 which demonstrates the research findings and results of hypothesis testing. Finally, Section 5 concludes this study by highlighting its main contribution to its academic field and practical implications in the financial sector.

2. Literature Review

2.1. Theories on Source of Finance

2.1.1. 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 (Modigliani and Miller 1958). The theory is of the view that enterprises finance their businesses using internal funds, debt, and equity. According to (Frank and Goyal 2008) cited on Doku et al. (2016), 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 (Frank and Goyal 2008) cited in Doku et al. (2016).

2.1.2. Pecking Order Theory

Myers and Majluf (1984) proposed the Pecking order theory. 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 et al. (2016), 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 besides, 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 (Aabi 2014).

2.1.3. 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 (Frank and Goyal 2008) cited on Doku et al. (2016). This theory is not perfect because the debt-to-value ratio is not directly observable and 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.

2.2. Definition of SMEs in Ethiopia

In 1997, Ethiopia 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 500,000 Birr ($30,000) or less. In this definition, the only base used is the total asset, unlike the international organization's definition base. In order to align the definition with at least a few countries and international organizations, the country has revised the definition of Micro and Small Enterprises in 2011 (Esubalew and Raghurama 2020) (Table 1). However, the newly established definition only focuses on Micro and Small Enterprises and it does not put any demarcation between Small and Medium, and Medium and Large Enterprises. According to the ministry of trade and industry development bureau (MOTI) the new Small & Micro Enterprises Development Strategy of Ethiopia (published 2011); the working definition of MSEs is based on capital and labor. The definition of medium enterprises is also based on capital and labor.

Table 1. SME classification in Ethiopia.

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

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

2.3. The Situation of Small and Medium-Sized Enterprises in Ethiopia

Small and Medium Enterprises (SMEs) play a major role in most economies, particularly in developing countries (OECD 2017). Oláh et al. (2019) also acknowledge and emphasized the role of small and medium enterprises in the whole economy. SMEs account for the majority of businesses. In emerging markets, most formal jobs are generated by SMEs, which create 7 out of 10 jobs. If we look at the situation of small and medium enterprises in Africa, we can see that this type of business provides the backbone of the continent since represents more than 90% of all enterprises and gives work to about 60% of all employees (Durst and Gerstlberger 2021). Despite SMEs in Africa significantly spurring economic growth due to the economic integration, there are numerous barriers that have to be faced by them—such as weaknesses in the infrastructure (Mallinguh and Zeman 2019).

However, access to finance is a key constraint to SME growth; it is the second most cited obstacle facing SMEs growing their businesses in emerging markets and developing countries (World Bank 2019). Moreover, SMEs can reduce income inequalities if they are enabled to provide good-quality jobs (Kamal-Chaoui 2017). The study conducted by Fowowe (2017) also argues that lack of access to credit has a significant negative effect on firm growth and the study also shows firms that are not credit-constrained experience faster growth than firms that are credit constrained. Another study by Dinh et al. (2010) on binding constraint on firms' growth in developing countries, at the firm level, reveals that having access to finance is correlated with higher job growth rates.

SMEs are closely linked with economic growth. For example, Beck et al. (2005a) in their research on SMEs, growth, and poverty found that cross-country evidence reveals that the relative size of the SME sector in a country and economic growth are positively related. Another study by Ayyagari et al. (2007) shows that formal SMEs contribute to 50 percent of GDP on average in high-income countries. Besides, there is evidence that SMEs are the major sources of employment in many economies (Beck et al. 2008a). The survival and protection of SMEs are found as a key for the development of the nation's economy, mainly in developing countries (Harith and Samujh 2020).

Moreover, a study by Ong and Ismail (2012) and Ahmad (2012) supports others' argument that SMEs play a crucial role in economic development, particularly in developing countries like Africa. For instance, Ahmad (2012) stated that SMEs and the informal sector (Iquib and Idir) represent over 90% of businesses, contribute to over 50% of GDP, and account for about 63% of employment (Ahmad 2012). Similarly, the ITC (2019) and World Bank (2019) report shows MSMEs (Micro, Small and Medium Enterprises) contribute an average of 60–70% of total employment worldwide and 50% of GDP, and on the other side, they are facing access to credit as the report revealed 40% of formal MSMEs in developing countries have an unmet financing need of $5.2 trillion every year. Globally, more than 200 million Micro, Small, and Medium Enterprises (MSMEs) exist without access to banking services (Ernst and Young 2017). Harith and Samujh (2020) also argue that access to credit is among the barriers to the development of SMEs.

Accordingly, in most developing countries SMEs are considered a significant tool in job creation, poverty reduction, and economic growth. SMEs have become important urban economic activities particularly in providing urban employment. Similarly, across Ethiopia, SMEs are the predominant income-generating activities and thus they have a significant contribution to local economic development and are used as the basic means

of survival (Egziabher and Demeke 2009). However, 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). The 2018 World Bank Enterprise Survey report reveals that on average only 22% of Sub-Saharan Africa are more disadvantaged in accessing external credit in comparison, with an average of 43% of other developing economies, excluding Africa. In developing economies including Sub-Saharan Africa, smaller firms are less likely to have access to credit than larger firms (Beck et al. 2005b, 2008b; Beck and Demirguc-Kunt 2006; Ayyagari et al. 2008, 2012).

Ethiopia's financial sector is shallow, and the penetration of financial services is poor (Zins and Weill 2016). In the context of Ethiopia, medium and small enterprise development holds a strategic place within Ethiopia's Industrial Development Strategy (UNDP 2019), and hence is considered as a key instrument of job creation. 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 Hussein 2016). However, evidence from different empirical studies shows the reverse result indicating SME sectors in Ethiopia are facing a lot of challenges that hinder them from growing rapidly (Wolday and Gebrehiwot 2004; Baza and Rao 2017).

2.3.1. Small and Medium Enterprises in Ethiopia

SMEs have a significant effect on the countries' operation both from economic and socioeconomic aspects. Economically, SMEs can enhance economic growth and accelerate socioeconomic progress by providing traders with the resources to exploit market opportunities and further accelerate the development of rural regions. Socioeconomically, SMEs benefit deprived communities with the financial stability to afford a better quality of life. Therefore, the Ethiopian government continuously creates reformed policies to promote SMEs development. According to the Federal Democratic Republic of Ethiopia (FDRE), the following three strategies were developedfor supporting SMEs:

- Strategy 1—Micro and Small Enterprises Development Strategy of Ethiopia (1997—2010): Agricultural Development Led Industrialization (ADLI) is a development strategy that aims to achieve initial industrialization through robust agricultural growth and close linkage between agriculture and industrial sector.
- Strategy 2—Micro and Small Enterprises Development Strategy, Provision Framework and Methods of Implementation (2011–2015): The success of ADLI in Strategy 1 will promote the full industrialization of agriculture.
- Strategy 3—Industrial Development Strategic Plan (2015–2025): If the first two are successful, the economic level of Ethiopia should reach middle-level income by 2025.

2.3.2. Starting SMEs and the Governing Laws

According to the Commercial Code of Traders and Businesses, a person is considered a trader if he/she is involved in purchasing, building, repairing, maintaining items (not by handicraftsmen), with an intent to resell for profit.

For a trader to start a small or micro business, he/she would first need to register in the commercial register, which is authorized and monitored by the MCI (Ministry of Commerce and Industry). The commercial register consists of two sub-registers; a local register kept at regional states and a central register kept within the DCCR (Department of the Central Commercial Register), a special division established by the MCI in Addis Ababa. The trader will present an application to either local or central registers within the first two months of starting a commercial business. If the trader fails to do so, it will be considered illegal and lead to penalization. The registers contain information such as: name, DOB, nationality, objects of trade, previous trade and registration information, trade name, address of the business, business plan. Once a business license is issued, MCI will carry out supervisions to monitor the success of the establishment. Suppose a business has

ceased operation, or the trader is considered incapable of carrying on the registered trade; MCI will submit a notification to the trader and cancel the business registration.

2.3.3. Challenges of the SMEs in Ethiopia's Economy, Finances, and Policies

Although the FDRE has made promising efforts, the business sector of Ethiopia faces challenges both internally and externally.

Internal challenges:

- Management: The lack of professional training and capacity building of SMEs owners in production and management resulted in businesses remaining stagnant. Most SMEs are primary income generators; therefore, owners involve themselves in all aspects of the business. Some traders run multiple establishments but lack full-time commitment for each one, resulting in slow business development.
- Education: Most traders enter the business sector with self-taught experience. A study conducted by ADA reported the youth were more successful in running a business as compared to older generations as a result of certifications in higher education. Ethiopians educated by foreign countries in business and management are more responsive to futuristic equipment and methodologies compared to traders who are accustomed to traditional methods of manufacturing. The government makes notable exceptions to involve them in the business sector.
- Finances: Since SMEs are the primary income generator of traders, the profits are invested in resolving personal affairs rather than the business. This creates low finances to manage, acquire resources, and cover insurance expenses.
- Information: The unavailability of updated information technology disadvantages SMEs by not linking their objects of trade with customer demands and current trends of marketing and distribution.

External challenges

- Gender Inequality: Especially in rural regions, women are not given the same opportunities to start SMEs. According to ADA, women in SMEs are more successful in creating and maintaining businesses. They earn more income and become the primary breadwinner in their household.
- Finances: MFIs provide outstanding loans to women in an attempt to increase the women force in SMEs by using cash-flow-based loan appraisal methods. However, traders prefer to obtain their finances from family loans, iquub, or personal savings as an alternative to MFI. To borrow money from MFI, traders will need to present the required amount in collateral possessions. Excessive collateral requirements and restrictive MFI policies such as demanding clients save 15% to 20% of the loan amount over six months are significant obstacles to acquiring start-up capital from MFIs. Only 9% of the entrepreneurs studied started with a loan from an MFI plus their savings.

2.4. Factors of Financial Inclusion and Its Impact on the Competitiveness of SMEs

The phenomenon of financial inclusion can be traced back to the end of the 20th century when it was also addressed not only academically but also at a political level as a new economic and social phenomenon. Kabakova and Plaksenkov (2018) examined the ecosystem components of financial inclusion in their study, besides, summarized its main characteristics—based on definitions by related literature—as the following: uniform availability of financial service, regular usage, good quality of financial services, and potential for increased welfare. Despite the fact that financial inclusion policies and political actions do not have a long history, many empirical and semantic types of research emphasize its importance and highlight its microeconomic and macroeconomic effects on economic development. Besides, several institutions—such as central banks—have a social, economic, legal, and ethical responsibility towards economic growth (also via fair access to financial services) (Lentner et al. 2017).

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 2020). According to the IMF (2017), SME financial inclusion has a benefit on economic growth, job creation, the effectiveness of the macroeconomic policy, and macro-financial stability. Thus, financial inclusion opens 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 2020).

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 Alshardan et al. (2016) as cited in (Hall 1992), 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 as a case study in Ethiopia. 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.

Fitane (2020) conducted a study on factors affecting the sustainability of SMEs: 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 SMEs. The study result 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 study implication is that improving financial and work-related problems is critical in guaranteeing the survival of SMEs.

Furthermore, OECD (2020) examined the potential factors of financial exclusion among youth people and the role of digitization in it. Also, digitization leads to many changes and innovative financial technologies in the financial market (Bilan et al. 2019).

Mogaka and Languitone (2016), in their study conducted in Maputo central business district, Mozambique reveals the structure of the financial sector, awareness of funding, collateral requirements, and access to finance by SMEs. The survey conducted by ITC on SME competitiveness in Ghana indicates that insufficient electricity, transport, water, access to finance, access to ICT, and advertising are the determinant factors affecting the competitiveness of SMEs (ITC 2016). Based on the literature sources the following determinants of financial inclusion were observed as can be seen in Table 2.

Table 2. Determinants of financial inclusion.

No	Factors/Determinants	Sources
1	Institutional factors	Ajide (2017); Wolday and Gebrehiwot (2004)
2	Supply side factors	Adil and Jalil (2020); Sanderson et al. (2018); Sethi and Sethy (2019); Ambarkhane et al. (2016)
3	Demand-side factors	Dev (2006); Yangdol and Sarma (2019); Ghatak (2013); Kumar et al. (2019); Sethi and Sethy (2019); Wolday and Gebrehiwot (2004)
4	Market opportunity	Bose et al. (2017); Delis et al. (2014); Aregbeshola (2016); Wolday and Gebrehiwot (2004)
5	Cost of borrowing	Dabla-Norris et al. (2015); Karpowicz (2014)
6	Collateral requirements	Karpowicz (2014); Aduda and Kalunda (2012); Mamman et al. (2019)

Source: Authors' own work.

2.5. Research Framework and Hypotheses

As a result of the empirical review and theoretical assumptions, the researchers have developed the following schematic representation of the conceptual framework as can be seen in Figure 1.

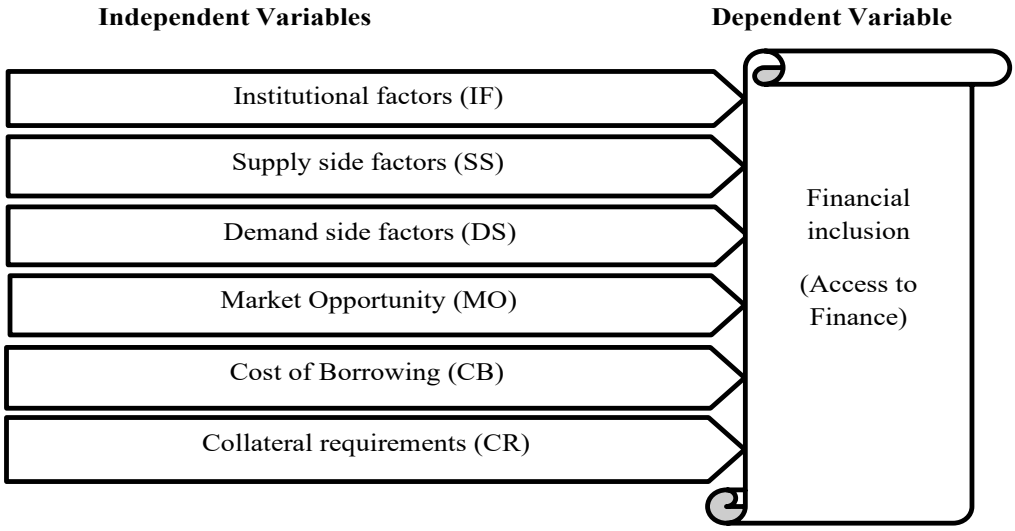


Figure 1. Research framework. Source: Authors' own work.

Through the systematic literature review, the formulated factors of financial inclusion are examined by seminal works presented in Table 2.

Based on these literature discussions as above, this study formulates the following hypotheses for testing:

Hypothesis 1 (H1). *Institutional framework factors have a negative and significant effect on financial inclusion.*

Hypothesis 2 (H2). *Supply-side factors have a positive and significant effect on financial inclusion.*

Hypothesis 3 (H3). *Demand-side factors have a positive and significant effect on financial inclusion.*

Hypothesis 4 (H4). *Market opportunity has a positive and significant effect on financial inclusion.*

Hypothesis 5 (H5). *Cost of borrowing has a negative and significant effect on financial inclusion.*

Hypothesis 6 (H6). *Collateral requirement has a negative and significant effect on financial inclusion.*

3. Materials and Methods

In this study, the researchers used a mixed research approach which includes both qualitative and quantitative research approaches. Furthermore, this study used an explanatory research design to identify determinant factors that influence financial inclusion among SMEs in Ethiopia.

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. Due to 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 of stratified sampling which involves dividing the population into homogeneous sub-groups called strata based on the geographical location of SMEs and then selects

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 Authors are 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

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 the Topman formula as presented below (Dillon 1993).

$$n = z^2pq/e^2$$

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,

$$n = (1.96)^2 \times 0.5 \times 0.5/(0.05)^2 = 384.16 = 384$$

3.1. Model Specification and Description of Variables

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

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

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

3.2. Model Equation of the Study

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

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

whereas; β0 is the intercept and βi (i = 1, 2, 3, 4, 5, 6.) represents the coefficient for each of the independent variables (all measured by proxy questions ranked by Likert scale).

ATF = 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
c = is the constant term of the regression.

To make an analysis both primary and secondary data were used. Primary data were collected through questionnaires. The survey was collected between September and November 2020. The questionnaire had several questions with close-ended types of questions that are relevant to the subject of the study and measured by using 5-point Likert scale format, in such ways that the respondent could fill it easily (questionnaire can be found in Appendix A). The data collected through the questionnaire distributed to respondents were analyzed and discussed through different statistic tools such as descriptive statements, frequency distribution. SPSS 20 software was used to analyze the data.

Finally, the authors also used a secondary source of data which was obtained through review and selected materials such as organization records to know requirements for starting a business, policies, regulations, and procedures in doing the business, and related literature reviews to learn overall SME activity in Ethiopia.

4. Results and Discussion

In the following Section 4.1, we provide descriptive analyses on the general status of financial inclusion and the status of the use of digital financial services by Micro, Small, and Medium Enterprises (MSMEs) in the case of Ethiopia. Thereafter, econometrics analysis detailed is presented in Section 4.2.

4.1. Descriptive Analysis

To achieve the objective of the study; the researchers have used a probabilistic two-stage stratified sampling method and judgmental sampling to select a sample of respondents from the total population. Therefore, the data collected through a questionnaire distributed to respondents were analyzed and discussed. The researchers have distributed 384 questionnaires to respondents but only 319 questionnaires were returned and the rest of the respondents did not return the questionnaire.

As will be discussed in the following subsections of the chapter, the study targeted SMEs and financial institutions as the populations of the study. The questionnaire was prepared and distributed to the respondents; each variable was represented by proxy questions; the independent variables selected for the study are the following: collateral requirements cost of borrowing, market opportunity, regulatory framework, demand-side factors, and supply-side factors. The data collected were analyzed through **Statistical Package for the Social Sciences (SPSS)** version 20 introduced by Norman H. Nie, Dale H. Bent, and C. Hadlai Hull of 1975. On the other hand, to identify the factors that influence financial inclusion among SMEs, some financial institutions were included in the target population of the study. Based on this fact that the researchers have distributed 20 questionnaires to the respondents of which 17 were returned and the remaining three questionnaires were not returned. So, generally, the distributed questionnaires were 404 in total, and of this 335 were returned from both types of respondents. Nevertheless, 16 papers were filled as incomplete and the researchers have been forced to exclude them. Finally, the data considered as filled and returned were 319. In this chapter of the study, the researchers discussed the data collected from both the target population based on different tools. To identify the relationship between dependent and independent variables the researchers used correlation analysis (Table 3).

Table 3. Descriptive Statistics.

	N	Minimum	Maximum	Mean	Std. Deviation
ATF	319	2.00	4.00	2.9937	0.49522
COLL	319	3.00	5.00	3.9248	0.52063
MO	319	3.00	5.00	3.9373	0.47167
COB	319	3.00	5.00	3.6050	0.50230
IF	319	3.00	5.00	3.5643	0.50914
DS	319	3.00	4.00	3.6270	0.48437
SS	319	3.00	4.00	3.1567	0.36413
Valid N (listwise)	319				

Source: Authors' own calculation based on SPSS 20 result.

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. 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. In the following section, the details of all variables are going to be discussed. 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. In line with Best (1977) criteria the firms' access to finance scores the mean value of average. The standard deviation of the variable implies 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. 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. 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 scored a mean value of 3.6050 and 3.9248, respectively, with the standard deviation of 0.52063 and 0.50230, respectively. As discussed before the standard deviation of each variable implies how much each observation deviates from its mean value.

4.2. Econometric Analysis

In this study, multiple regression analysis was carried out to obtain 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). Detailed results of Heteroscedasticity test, DW test and Multicollinearity test can be found in Appendices B–D.

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

R2 is simply an estimate of how much the variation of dependent variable profitability (ATC) is explained by IFW, SS, DS, COB, MO, and COLL in the population. Whereas, adjusted R2 (also known as penalized R2) is a modification to R2 often made taking into account the loss of degrees of freedom associated with adding extra variables (Brooks 2008). In this case, as revealed in Table 1 above. The R2 and adjusted R2 have a value of 67.6 and 67 percent, respectively. This implies that 67.6% of the variation in access to finance (ATC) is explained by the combined explanatory variables (institutional framework, supply-side factors, demand-side factors, cost of borrowing, market opportunity, and collateral requirements), and the adjusted R2 is 67%, after taking in to account the loss of a degree of freedom by adding one or more independent variables, indicates that the model is strongly fit to estimate the small and medium enterprises access to finance. Therefore, standing

from the adjusted R2 value of 67% of the model, it is possible to infer that on average 67% of dependent variable (ATC) variation is explained by this model-independent variable and the remaining 33% of the variation in access to finance may be explained by other explanatory variables which are not included in the model (Table 4).

Table 4. Results of model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.822 [a]	0.676	0.670	0.07094	1.847

[a]. Predictors: (Constant), IFW, SS, DS, COB, MO, COLL; Source: Authors' own processing.

As is shown above in Table 5, the p-value of the F-statistic indicates the overall significance level of the model used in the study or whether all variables are jointly significant or not. In F-statistic the null hypothesis is that the independent variables (IFW, SS, DS, COB, MO, and COLL) do not have a joint effect on the dependent variable, access to finance (ATC). If the p-value of F-statistic is greater than 0.05 (i.e., test is insignificant), means we failed to reject the null hypothesis, otherwise we reject the null hypothesis or the test is significant. In this case, as depicted in Table 5, the F-statistic of 108.6 with the *p*-value of 0.0000 is even significant at 1%. Thus, we reject the null hypothesis at a 1% significance level. Thus, we can conclude that all independent variables included in this study model have a joint effect on SMEs' access to finance (ATC).

Table 5. Result of Anova table.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.279	6	0.546	108.594	0.000 [b]
	Residual	1.570	312	0.005		
	Total	4.849	318			

[b]. Predictors: (Constant), IFW, SS, DS, COB, MO, COLL; Source: Authors' own processing.

The model equation is

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

The result of regression out reveals 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 relationship with access to finance and statically significant (Table 6). 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 the increase in the statements stated in the institutional framework factors into 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 SMEs' access to finance will decrease. The finding of this variable is consistent with the study established by (Hall 1992).

Table 6. Result of coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	*t*	Sig.
	B	Std. Error	Beta		
(Constant)	9.956	0.075		132.923	0.000
IF	−0.058	0.011	−0.202	−5.251	0.000
SS	0.139	0.011	0.468	12.631	0.000
DS	0.113	0.012	0.361	9.703	0.000
MO	0.050	0.016	0.118	3.109	0.002
COB	−0.031	0.007	−0.170	−4.445	0.000
COLL	0.034	0.004	0.283	7.726	0.000

Source: Authors' own processing.

The variable supply-side factors (which are 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) have a positive relationship with access to finance and are statistically significant. The result of regression analysis implies that a 1 unit increase in supply-side factors causes the firms to access 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 SMEs, the firm's access to finance could also increase. The finding of this variable is consistent with the study established by (Nega and Hussein 2016).

The variable demand-side factors (which are 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 of proper new technology) have a positive relationship with the firms access to finance and are statistically 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 5% significance level. The implication of a positive relationship between the firm's access to finance and demand-side factors are that increases in the statements stated on demand-side factors (SMEs) cause an increase in firms' access to finance. The finding of this variable is consistent with the study established by (Nega and Hussein 2016).

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 relationship with the firms access to finance and statistically significant. The result of regression out implies that a 1 unit increase in the firm's (SMEs) market opportunity results in an increase in the firm's access to finance by 0.050 units and is statistically significance at a 5% significance level. The positive relationship between the firms' access to finance and market opportunity implies that; if SMEs get more market opportunity to perform their business activities in the market; the financial institutions tend to facilitate the credit access to SMEs than normal circumstance.

On the other hand, 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 relationship with the firms' access to finance and is statistically significant. The coefficient on the regression analysis of this variable implies that; 1 unit increase in cost borrowing causes the firms' 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' (SMEs) access to finance declines automatically.

Moreover, the relationship between collateral requirements (which is measured by; if collateral affects access to finance, problems in accessing loans than big firms, and mandatory requirement of collateral) and access to finance is positive and statistically 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 is statistically significant at a 1% significance level. The implication behind this is that; if the firm's (SMEs)

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 (SMEs) collateral requirement decreases the firm's access to finance also decreases because the two variables move in the same direction.

5. Conclusions

The main aim of this study is to examine the determinant factors that influence the financial inclusion among SMEs in the case of Ethiopia and the result of regression analysis indicates that supply-side and collateral requirement factors have a positive effect on access to finance and statistically significant at a 1 percent significance level. Similarly, the demand side and market opportunity factors have a positive effect on the firms' access to finance and statically significant at the 5 percent significance level. On the other hand, the institutional framework and cost of borrowing have a negative effect on access to finance and statistically significant at a 1 percent significance level.

Hence, 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.

Therefore, to sustain a rapid and inclusive economic growth and hence eradicate extreme poverty and hunger, the policymakers must build an efficient, strong, and well-functioning financial market system that provides affordable and sustainable financial services to SMEs. Moreover, all stakeholders need to pay attention to support the development of microfinance institutions (the main external source of finance for SMEs) and mobilize the consumer's use of mobile banking to promote financial inclusion.

Despite this study provides a better and broader understanding of financial inclusion, in addition, it offers a brief introspection into the current situation and importance of SMEs, and it also has several limitations. Since the study primarily focuses on the determinants of financial inclusion in Ethiopia, the empirical study is based on the results derived from this country. Nevertheless, the validity of conclusions need not be restricted only to Ethiopia, since theoretical and empirical results have relevance also in an international environment, especially in other underdeveloped countries.

Author Contributions: Conceptualization, B.O., G.D. and M.F.-F.; methodology, B.O., G.D., E.G.-H.; software, B.O., G.D.; validation, B.O., G.D. and Z.Z.; formal analysis, B.O., G.D.; investigation, B.O., G.D.; resources, B.O., G.D., E.G.-H.; data duration, B.O., G.D., E.G.-H.; writing—original draft preparation, G.D., B.O.; writing—review and editing, E.G.-H., M.F.-F.; visualization,. E.G.-H.; supervision, M.F.-F., Z.Z.; project administration, B.O., E.G.-H.; funding acquisition, Z.Z. All authors have read and agreed to the published version of the manuscript.

Funding: Hungarian University of Agriculture and Life Sciences.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: The data can be available based on the request@goshudasalegn@gmail.com.

Conflicts of Interest: The authors declare no conflict of interest.

Abbreviations

Variables	Descriptions
Access to finance	Measured by proxy questions ranked by Likert scale
Institutional framework	Measured by proxy questions ranked by Likert scale
Supply-side factors	Measured by proxy questions ranked by Likert scale
Demand-side factors	Measured by proxy questions ranked by Likert scale
Market opportunity	Measured by proxy questions ranked by Likert scale
Cost of borrowing	Measured by proxy questions ranked by Likert scale
Collateral requirements	Measured by proxy questions ranked by Likert scale

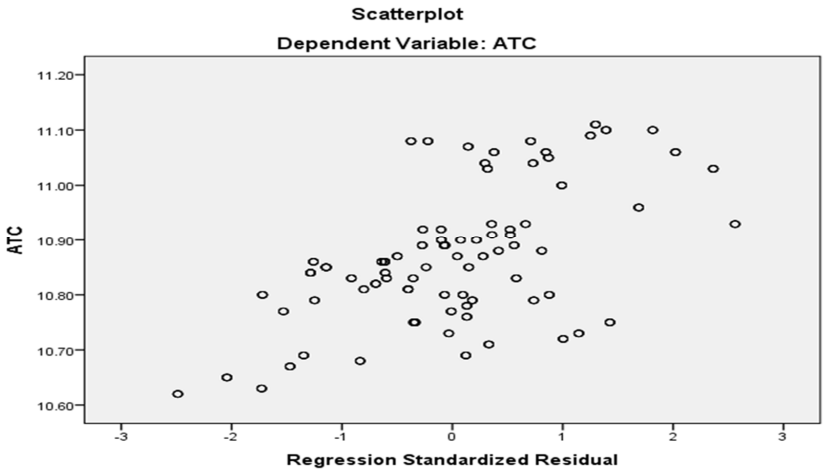
Appendix A Questionnaire

Please indicate your opinion as per the level of disagreement or agreement with an outline statement using 1 to 5 scale guideline. (1. Strongly disagree), (2. Disagree), (3. Neutral), (4. Agree), (5. Strongly agree).

Questions	1	2	3	4	5
Accesses to finance	•	•	•	•	•
Financial institutions are reluctant to provide long term finance to SMEs	•	•	•	•	•
SMEs has adequate bookkeeping records which have made it easy to access credit	•	•	•	•	•
The age of the firm affects its ability to access funds	•	•	•	•	•
SMEs Lacks access to finance based on their business size	•	•	•	•	•
Collateral requirements	•	•	•	•	•
Lack of collateral effects to finance	•	•	•	•	•
Small and medium firms have problems in accessing loans than big firms	•	•	•	•	•
Not having Types of collateral required makes difficult to access finance	•	•	•	•	•
collateral is a mandatory requirement in accessing finance	•	•	•	•	•
SMEs very worried about collateral in accessing finance	•	•	•	•	•
Opportunity to Market	•	•	•	•	•
Lacksof available market information for SMEs	•	•	•	•	•
Lack of creating awareness about the product/promotion	•	•	•	•	•
SMEs Lacks connection with successful and other business	•	•	•	•	•
SMEs Lacks adaption for changing environment	•	•	•	•	•
SMEs Lacks skills to handle new technology	•	•	•	•	•
SMEs located in urban are successful in access to debt financing compared to those located in rural areas.	•	•	•	•	•
Cost of borrowing	•	•	•	•	•
Firms that do not generate profit have challenges accessing credit	•	•	•	•	•
SMEs consider loans from banks or other financial institutions as expensive	•	•	•	•	•
Credit hurts business performance and growth magnificent	•	•	•	•	•
high bank service charges for the unsustainability of SMEs	•	•	•	•	•
Lack of reputation and contact in the banking market make it hard to borrow money from the banks	•	•	•	•	•
Institutional framework	•	•	•	•	•
Audited financial statements are needed before loan is approved The credit processing takes a long period to finalize	•	•	•	•	•
Lack of accessible information on government regulations that are relevant to your business	•	•	•	•	•
Lack of enough training given by banks to SMEs	•	•	•	•	•
Lack of government support	•	•	•	•	•
There is Political intervention	•	•	•	•	•
The minimum deposits required by the financial institutions are the factor that influences Banks for SMEs	•	•	•	•	•
Demand-side	•	•	•	•	•
Lack of availability of funds from Banks when it's required	•	•	•	•	•
SMEs only received a loan from a bank where personal contacts existed	•	•	•	•	•
Accesses to finance	•	•	•	•	•
Credit enables SMEs to meet their expansion plan	•	•	•	•	•
Banks are unwilling to lend to SMEs	•	•	•	•	•
Poor customer handling system	•	•	•	•	•
SMEs has Shortage of working capital	•	•	•	•	•
SMEs Lacks appropriate machinery and equipment	•	•	•	•	•
SMEs Unable to select proper new technology	•	•	•	•	•
Supply-side	•	•	•	•	•

Questions	1	2	3	4	5
SMEs Lacks strategic business planning	●	●	●	●	●
SMEs Lacks a clear mission and vision	●	●	●	●	●
SMEs are dealing with Insufficient availability of raw material	●	●	●	●	●
SMEs Lacks motivation	●	●	●	●	●
Absence of initiative to assess one's strength	●	●	●	●	●
SMEs Lacks tolerance to work hard	●	●	●	●	●
Poor selection of business partner among SMEs	●	●	●	●	●
Poor management skill among SMEs	●	●	●	●	●

Appendix B. The Result of the Heteroscedasticity Test



Appendix C. The Result of DW Test

Table A1. Model Summary [b].

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	0.822 [a]	0.676	0.670	0.07094	1.847

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

Appendix D. Result of Multicollinearity Test

Table A2. Correlations.

		COLL	SS	DS	MO	COB	IFW
COLL	Pearson Correlation	1	0.242 **	0.260 **	0.142 *	0.230 **	−0.187 **
	Sig. (2-tailed)		0.000	0.000	0.011	0.000	0.001
	N	319	319	319	319	319	319
SS	Pearson Correlation	0.242 **	1	0.221 **	−0.015	−0.354 **	−0.026
	Sig. (2-tailed)	0.000		0.000	0.785	0.000	0.639
	N	319	319	319	319	319	319
DS	Pearson Correlation	0.260 **	0.221 **	1	0.345 **	−0.200 **	0.098
	Sig. (2-tailed)	0.000	0.000		0.000	0.000	0.081
	N	319	319	319	319	319	319
MO	Pearson Correlation	0.142 *	−0.015	0.345 **	1	0.092	0.395 **
	Sig. (2-tailed)	0.011	0.785	0.000		0.101	0.000
	N	319	319	319	319	319	319
COB	Pearson Correlation	0.230 **	−0.354 **	−0.200 **	0.092	1	0.038
	Sig. (2-tailed)	0.000	0.000	0.000	0.101		0.494
	N	319	319	319	319	319	319
IFW	Pearson Correlation	−0.187 **	−0.026	0.098	0.395 **	0.038	1
	Sig. (2-tailed)	0.001	0.639	0.081	0.000	0.494	
	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).

References

Aabi, Meryem. 2014. The Pecking Order Theory and sme s Financing: Insight into the Mediterranean Area and a Study in the Moroccan Context. *International Journal of Euro-Mediterranean Studies* 7: 189–206.

Abera, Gadisa, Mohammedsani Ali, and Haile Girma. 2019. Firm Growth and Its Determinants of Micro and Small Scale Manufacturing Enterprises in Selected Towns of Jimma Zone. *Horn of African Journal of Business and Economics (HAJBE)* 2: 397–447.

Adil, Fareeha, and Abdul Jalil. 2020. Determining the Financial Inclusion Output of Banking Sector of Pakistan—Supply-Side Analysis. *Economies* 8: 42. [CrossRef]

Aduda, Josiah, and Elizabeth Kalunda. 2012. Financial Inclusion and Financial Sector Stability with Reference to Kenya: A Review of Literature. *Journal of Applied Finance & Banking* 2: 95–120.

Ageba, Gebrehiwot, and Wolday Amha. 2006. Micro and Small Enterprises (MSEs) finance in Ethiopia: Empirical evidence. *Eastern Africa Social Science Research Review* 22: 63–86. [CrossRef]

Ahmad, Kamilah. 2012. The Use of Management Accounting Practices in Malaysian SMEs. University of Exeter. Available online: https://ore.exeter.ac.uk/repository/handle/10036/3758/ (accessed on 9 May 2012).

Ajide, Kazeem B. 2017. Determinants of financial inclusion in Sub-Saharan Africa countries: Does institutional infrastructure matter? *CBN Journal of Applied Statisctics* 8: 69–89.

Alshardan, Amal, Robert Goodwin, and Giselle Rampersad. 2016. A Benefits Assessment Model of Information Systems for Small Organizations in Developing Countries. *Computer and Information Science* 9: 1–20. [CrossRef]

Ambarkhane, Dilip, Ardhendu Shekhar Singh, and Bhama Venkataramani. 2016. Measuring Financial Inclusion of Indian States. *International Journal of Rural Management* 12: 72–100. [CrossRef]

Aregbeshola, Rafiu Adewale. 2016. The Role of Local Financial Market on Economic Growth—A Sample of Three African Economic Groupings. *African Journal of Economic and Management Studies* 7: 225–40. [CrossRef]

Arinaitwe, J. K. 2006. Factors constraining the growth and survival of small scale businesses. A developing countries analysis. *Journal of American Academy of Business* 8: 167–78.

Ashenafi, Hagos, Hailu Tolossa Yacob, and Yebegaeshet Mulugeta. 2013. Impact of sheep and goats ectoparasites on the tanning industry in Tigray Region, Ethiopia. *Ethiopian Veterinary Journal* 17: 63–76. [CrossRef]

Ayyagari, Meghana, Thorsten Beck, and Asli Demirguc-Kunt. 2007. Small and medium enterprises across the globe. *Small Business Economics* 29: 415–34. [CrossRef]

Ayyagari, Meghana, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2008. How important are financing constraints? The role of finance in the business environment. *The World Bank Economic Review* 22: 483–516. [CrossRef]

Ayyagari, Meghana, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2012. *Financing of Firms in Developing Countries: Lessons from Research*. Washington, DC: The World Bank.

Banerjee, Abhijit V., and Andrew F. Newman. 1993. Occupational choice and the process of development. *Journal of Political Economy* 101: 274–98. [CrossRef]

Baza, Andualem Ufo, and K. Sambasiva Rao. 2017. Financial Inclusion in Ethiopia. *International Journal of Economics and Finance* 9: 191–201. [CrossRef]

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine. 2005a. SMEs, growth, and poverty: Cross-country evidence. *Journal of Economic Growth* 10: 199–229. [CrossRef]

Beck, Thorsten, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2005b. Financial and legal constraints to growth: Does firm size matter? *The Journal of Finance* 60: 137–77. [CrossRef]

Beck, Thorsten, Asli Demirguc-Kunt, and Maria Soledad Martinez Peria. 2008a. *Bank Financing for SMEs around the World: Drivers, Obstacles, Business Models, and Lending Practices*. Policy Research Working Paper 4785. Washington, DC: The World Bank. [CrossRef]

Beck, Thorsten, and Asli Demirguc-Kunt. 2006. Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance* 30: 2931–943.

Beck, Thorsten, Asli Demirgüç-Kunt, and Vojislav Maksimovic. 2008b. Financing patterns around the world: Are small firms different? *Journal of Financial Economics* 89: 467–87. [CrossRef]

Best, Joel. 1977. The introductory sociology survey. *Teaching Sociology*, 271–76. [CrossRef]

Bilan, Yuriy, Pavlo Rubanov, Tetiana A. Vasylieva, and Serhiy Lyeonov. 2019. The Influence of Industry 4.0 on Financial Services: Determinants of Alternative Finance Development. *Polish Journal of Management Studies* 19: 70–93. [CrossRef]

Bose, Sudipta, Amitav Saha, Habib Zaman Khan, and Shajul Islam. 2017. Non-financial disclosure and market-based firm performance: The initiation of financial inclusion. *Journal of Contemporary Accounting & Economics* 13: 263–81.

Botta, Alberto, Antoine Godin, and Marco Missaglia. 2016. Finance, foreign (direct) investment and dutch disease: The case of Colombia. *Economia Politica* 33: 265–89. [CrossRef]

Brooks, Chris. 2008. *RATS Handbook to Accompany Introductory Econometrics for Finance*. Cambridge Books. Available online: ideas.repec.org (accessed on 17 June 2021).

Corbetta, Piergiorgio. 2003. The qualitative interview. In *Social Research: Theory. Methods and Techniques*. London: SAGE Publications, Ltd., pp. 264–86.

Dabla-Norris, Ms Era, Yan Ji, Robert Townsend, and Ms Filiz Unsal. 2015. *Identifying Constraints to Financial Inclusion and Their Impact on GDP and Inequality: A Structural Framework for Policy*. International Monetary Fund: IMF, pp. 15–22.

Delis, Manthos D., Iftekhar Hasan, and Pantelis Kazakis. 2014. Bank Regulations and Income Inequality: Empirical Evidence. *Review of Finance* 18: 1811–46. [CrossRef]
Demirguc-Kunt, Asli, Leora Klapper, and Douglas Randall. 2014. Islamic Finance a2017nd Financial Inclusion: Measuring Use of and Demand for Formal Financial Services among Muslim Adults. *Review of Middle East Economics and Finance* 10. [CrossRef]
Demirguc-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar, and Jake Hess. 2018. *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution*. Washington, DC: World Bank. [CrossRef]
Dev, S. M. 2006. Financial inclusions: Issues and challenges. *Economic and Political Weekly*, 4310–13.
Dillon, John, ed. 1993. *Alcinous: The Handbook of Platonism*. Oxford: Oxford University Press.
Dinh, H. T., D. A. Mavridis, and H. B. Nguyen. 2010. *The Binding Constraint on the Growth of Firms in Developing Countries*. Policy Research Working Paper 5485. Washington, DC: World Bank. [CrossRef]
Doku, Isaac, Elvis Adjei, Harrison Adjimah, and John Akuma. 2016. Determinants of capital structure of listed oil marketing companies in Ghana. *American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS)* 18: 171–81.
Durst, Susanne, and Wolfgang Gerstlberger. 2021. Financing Responsible Small- and Medium-Sized Enterprises: An International Overview of Policies and Support Programmes. *Journal of Risk and Financial Management* 14: 10. [CrossRef]
Egziabher, Tegegne Gebre, and Mulat Demeke. 2009. *Micro Enterprises in Smalltowns, Amhara Region, Ethiopia: Nature And Performance*. Addis Ababa: Institute for Development Research.
Ernst and Young. 2017. Innovation in Financial Inclusion. 20. Available online: https://www.ey.com/Publication/vwLUAssets/EY-innovation-in-financial-inclusion/%24FILE/EY-innovation-in-financial-inclusion.pdf (accessed on 20 December 2020).
Esubalew, Amare Abawa, and A. Raghurama. 2020. The mediating effect of entrepreneurs' competency on the relationship between Bank finance and performance of micro, small, and medium enterprises (MSMEs). *European Research on Management and Business Economics* 26: 87–95. [CrossRef]
Fabayo, Joseph Ademola. 2009. Small and Medium Enterprises Development Strategy: A Critical Option for Sustainable Long–Term Economic Development in Nigeria. Paper presented at the First Annual International Conference on: Effective Management of Small and Medium Scale Enterprises for Sustainable Economic Development held at Abraham Adesanya Polytechnic, Ogun State, Nigeria, 2 June 2013; pp. 25–27.
Fitane, G. 2020. Factors Affecting Business Performance of Smalland Medium Size Enterprise in Ethiopia. Doctoral dissertation, Addis Ababa University, Addis Ababa, Ethiopia.
Fowowe, Babajide. 2017. Access to finance and firm performance: Evidence from African countries. *Review of Development Finance* 7: 6–17. [CrossRef]
Frank, Murray Z., and Vidhan K. Goyal. 2008. Trade-Off and Pecking Order Theories of Debt. In *Handbook of Empirical Corporate Finance*. Elsevier: pp. 135–202. Available online: https://www.sciencedirect.com/science/article/pii/B9780444532657500044 (accessed on 8 September 2009). [CrossRef]
Ghatak. 2013. Demand Side Factors Affecting Financial Inclusion. *The International Journal's—Research Journal of Social Science and Management* 3: 176–85.
Hadis, Sebsib, and H. Ali. 2018. Micro and Small Enterprises in Ethiopia; Linkages and Implications: Evidence from Kombolcha Town. *Journal of Political Science and Development* 6: 16–26. Available online: https://www.academicresearchjournals.org/IJPSD/PDF/2018/February/Hadis%20and%20Ali.pdf (accessed on 17 June 2021).
Hall, Colin Michael. 1992. The globalization of small and medium enterprises: Implications for Australian business and policy. Paper presented at SEAANZ and Institute of Industrial Economics National Small Business Conference, Sydney, Australia, January 17; pp. 31–51.
Harith, Samir, and Ruth Helen Samujh. 2020. Small Family Businesses: Innovation, Risk and Value. *Journal of Risk and Financial Management* 13: 240. [CrossRef]
Ibor, Bassey Ina, Amenawo Ikpa Offiong, and Enyeokpon Samuel Mendie. 2017. Financial Inclusion And Performance Of Micro, Small And Medium Scale Enterprises In Nigeria. *International Journal of Research* 5: 104–22. [CrossRef]
IMF. 2017. *Article IV Consultation–Press Release (No. 17/386). and Staff Report*. IMF Country Report. Available online: imf.org/en/Countries/ETH (accessed on 17 June 2021).
ITC. 2016. *SME Competitiveness in Ghana Alliances for Action in Ghana*. Geneva: ITC, Available online: https://www.intracen.org/uploadedFiles/intracenorg/Content/Publications/SME%20competitiveness%20in%20Ghana%202016_final_AGI%20low-res.pdf (accessed on 17 June 2021).
ITC. 2019. *SME Competitiveness Outlook 2019: Big Money for Small Business Financing the Sustainable Development Goals*. Geneva: ITC, Available online: http://www.intracen.org (accessed on 21 January 2021).
Johnson, Susan, and Steven Arnold. 2012. Inclusive Financial Markets: Is Transformation Under Way in Kenya? *Development Policy Review* 30: 719–48. [CrossRef]
Kabakova, Oksana, and Evgeny Plaksenkov. 2018. Analysis of factors affecting financial inclusion: Ecosystem view. *Journal of Business Research* 89: 198–205. [CrossRef]
Kamal-Chaoui, Lamia. 2017. Unlocking the Potential of SMEs for the SDGs. Available online: https://oecd-development-matters.org/2017/04/03/unlocking-the-potential-of-smes-for-the-sdgs/#fn2 (accessed on 3 January 2021).
Karpowicz, Ms Izabela. 2014. *Financial Inclusion, Growth and Inequality: A Model Application to Colombia*. IMF: pp. 14–166. Available online: https://www.imf.org (accessed on 17 June 2021).

Kumar, Abhishek, Rama Pal, and Rupayan Pal. 2019. Usage of formal financial services in India: Demand barriers or supply constraints? *Economic Modelling* 80: 244–59. [CrossRef]
Lentner, Csaba, Krisztina Szegedi, and Tibor Tatay. 2017. Social Responsibility in the Operation of Central Banks. *Financial and Economic Review* 16: 64–85. [CrossRef]
Lentner, Csaba, Laszlo Vasa, and Szilard Hegedus. 2020. The Assessment of Financial Risks of Municipally Owned Public Utility Companies in Hungary Between 2009 and 2018. *Montenegrin Journal of Economics* 16: 29–41. [CrossRef]
Mallinguh, Edmund, and Zoltán Zeman. 2019. A Comparative Analysis of Start-Ups Within Eastern Africa Economic Block. *Polish Journal of Management Studies* 19: 273–84. [CrossRef]
Mamman, Aminu, Justice Bawole, Motolani Agbebi, and Abdul-Razak Alhassan. 2019. SME policy formulation and implementation in Africa: Unpacking assumptions as opportunity for research direction. *Journal of Business Research* 97: 304–15. [CrossRef]
Modigliani, Franco, and Merton H. Miller. 1958. The cost of capital, corporation finance and the theory of investment. *The American Economic Review* 48: 261–97.
Mogaka, Hezron, and Hilario Languitone. 2016. Factors influencing access to finance by SMEs in Mozambique: Case of SMEs in Maputo central business district. *Journal of Innovation and Entrepreneurship* 5: 1–16.
Myers, Stewart C., and Nicholas S. Majluf. 1984. Corporate financing and investment decisions when firms have information that investors do not have. *Journal of Financial Economics* 13: 187–221. [CrossRef]
Nanziri, Lwanga Elizabeth. 2020. Women, Inclusive Finance and the Quality of Life: Evidence from Zambia. In *Women and Sustainable Human Development*. Cham: Palgrave Macmillan, pp. 285–303.
Nega, Fredu, and Edris Hussein. 2016. *Small and Medium Enterprise Access to Finance in Ethiopia: Synthesis of Demand and Supply*. Addis Ababa: The Horn Economic and Social Policy Institute.
OECD. 2017. Enhancing the Contributions of SMEs in a Global and Digitalised Economy. Paper Presented at Meeting of the OECD Councilat Ministerial Level, Paris, France, June 7–8; Available online: https://www.oecd.org/industry/C-MIN-2017-8-EN.pdf (accessed on 22 June 2021).
OECD. 2020. *Advancing the Digital Financial Inclusion of Youth*. Paris: OECD Publishing.
Oláh, Judit, Sándor Kovács, Zuzana Virglerova, Zoltán Lakner, Maria Kovacova, and József Popp. 2019. Analysis and Comparison of Economic and Financial Risk Sources in SMEs of the Visegrad Group and Serbia. *Sustainability* 11: 1853. [CrossRef]
Ong, Jeen Wei, and Hishamuddin Bin Ismail. 2012. Competitive advantage and firm performance: Evidence from small and medium enterprises. *International Journal of Business and Globalisation* 9: 195–206. [CrossRef]
Popescu, Andrei-Dragoş. 2019. Empowering Financial Inclusion through Financial Literacy. *IOSR Journal of Business and Management* 6: 198–215. [CrossRef]
Sanderson, Abel, Learnmore Mutandwa, and Pierre Le Roux. 2018. A Review of Determinants of Financial Inclusion. *International Journal of Economics and Financial Issues* 8: 1–8.
Sethi, Dinabandhu, and Susanta Kumar Sethy. 2019. Financial inclusion matters for economic growth in India: Some evidence from cointegration analysis. *International Journal of Social Economics* 46: 132–51. [CrossRef]
Swamy, Vighneswara. 2010. Bank-based Financial Intermediation for Financial Inclusion and Inclusive Growth and inclusive growth. Volume 5, Issue 4. Available at SSRN 2126834. Available online: https://ssrn.com/abstract=2126834 (accessed on 8 August 2012). [CrossRef]
Triki, Thouraya, and Issa Faye. 2013. *Financial inclusion in Africa*. Tunis: African Development Bank.
UNDP. 2019. Understanding African Experiences in Formulating and Implementing Plans for Emergence. A case study of Growing Manfacturing Industry in Ethiopia. Available online: https://annualreport.undp.org/assets/UNDP-Annual-Report-2019-en.pdf (accessed on 17 June 2021).
Wang, Stephanie L., and Alvaro Cuervo-Cazurra. 2016. Overcoming Human Capital Voids in Underdeveloped Countries. *Global Strategy Journal* 7: 36–57. [CrossRef]
Wolday, Amha, and Ageba Gebrehiwot. 2004. *MSEs Development in Ethiopia: Survey Report*. Addis Ababa: EDRI.
World Bank. 2014. *Doing Business 2015: Going Beyond Efficiency: Comparing Business Regulations for Domestic Firms in 189 Economies: A World Bank Group Flagship Report*, 12th ed. Washington DC: World Bank Publications. [CrossRef]
World Bank. 2019. Small and Medium Enterprise Finance. Available online: http://www.worldbank.org/en/topic/smefinance (accessed on 4 January 2020).
Yangdol, Rigzin, and Mandira Sarma. 2019. Demand-side Factors for Financial Inclusion: A Cross-country Empirical Analysis. *International Studies* 56: 163–85. [CrossRef]
Zins, Alexandra, and Laurent Weill. 2016. The determinants of financial inclusion in Africa. *Review of Development Finance* 6. [CrossRef]