



Addis Ababa University  
አዲስ አበባ ዩኒቨርሲቲ

SEEK WISDOM, ELEVATE YOUR INTELLECT AND SERVE HUMANITY!



**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT**  
**OF ACCOUNTING AND FINANCE**

Determinants of Lease Financing propensity by manufacturing Small and Medium  
Enterprises: Evidence from Ethiopia

**By**

**Alemu Ayalew**

**Advisor: Abebaw Kassie (PhD)**

**A research thesis submitted to graduate studies of college of Business and Economics  
Addis Ababa University for the partial fulfillment of masters of Science Degree in  
Accounting and finance.**

**June, 2022**

## **DECLARATION**

I, Alemu Ayalew Kebede, declare that the study entitled “Determinants of Lease Financing propensity by manufacturing Small and Medium Enterprises: Evidence from Ethiopia” original and prepared under the guidance of Dr Abebaw Kassie. The study have been done with my effort and all resources of materials used for the study have been acknowledged dully. I further confirms that the study has not been submitted to any other higher educational institution to earn any degree neither in part nor in full.

Name: Alemu Ayalew Kebede

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

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

**ADDIS ABABA UNIVERSITY**  
**COLLEGE OF BUSINESS AND ECONOMICS**  
**DEPARTMENT OF ACCOUNTING AND FINANCE**

This is to certify that the thesis prepared by Alemu Ayalew Kebede, entitled: “The determinants of lease financing propensity by manufacturing small and medium enterprises: evidence from Ethiopia”, is submitted in partial fulfillment for the Degree of Masters of science in Accounting and Finance complies with the regulations of the University and meets the expected standard for originality and quality.

Approval by the Examining Committee:

Sewale Abate (PhD)	_____	_____
Internal Examiner	Signature	Date
Dejene (Ph.D)	_____	_____
External Examiner:	Signature	Date
Abebaw Kassie (PhD)	_____	_____
Advisor	Signature	Date

# Acknowledgement

First and foremost, I give glory to El-Shaddai, and his mother for giving me a blessing and opportunity to achieve another milestone in my earlier life's journey.

I also would like to express my sincere and profound gratitude to my supervisor, Dr. Abebaw Kassie, whose helpful critique, patience, valuable ideas, and guidance helped me throughout this thesis project. My gratitude is also extends to City government of Addis Ababa job creation and enterprises development bureau for their cooperation on population and sample accessing. I would like to thank managers (owners) of manufacturing SMEs in Addis Ababa city Administration for their time, cooperation and willingness to participate during data collection.

Finally, I appreciate my family, relatives, and real friends for their encouragement and inspiration parents, especially my mother Mulu mekonen for her blessing, inspiration and guardianship over the years.

## **Abstract**

By using descriptive and explanatory research design and mixed approach, this study tried to identify and investigate the main determinant factors that affect propensity of lease financing by manufacturing small and medium enterprises in Ethiopia. Self-administered questionnaire were used to collect primary data and the secondary data was collected through reviewing proclamation, procedures, journals and various important literatures. The target population for this study was 1797 manufacturing small and medium sized enterprises located in Addis Ababa city administration. The sample size was determined by using the method appraised by Carvalho (1984) and a sample of 200 manufacturing SMEs was selected from Addis Ababa city administration using stratified proportional random sampling technique. The study were devised logistic regression model, where use of lease financing was regressed against enterprise related factors, institutional framework factors and leasing information and knowledge variable factors using STATA V<sub>14</sub>. The data collected was described using tables, bar charts, frequencies and percentages line with the objectives of the study. The variables selected were identified using stepwise regression method and presented as a final model using for analysis. The study revealed firm size, firm's age, growth opportunity and leasing information, knowledge and awareness have positive and significant factors. In contrast availability of loan, collateral and institutional framework factors are negative and significant impact that determine the lease financing propensity of manufacturing SMEs.as recommendation, the government should, intuitively appreciate and assist leasing systems as well as SMEs to freely engaged on lease financing system for development of it in the country by formulating attractive tax schemes and simple regulations

Key words; propensity to lease financing, determinant of lease financing, Manufacturing SMES, Ethiopia.

Contents	pages
Chapter one .....	1
1. Introduction.....	1
1.2. Statement of the problem .....	4
Research questions.....	6
1.3. Objective of the study .....	6
1.3.1 Specific objectives .....	6
1.4. Research Hypothesis .....	7
1.5. Significance of the study.....	7
1.6. Delimitation of the study.....	8
1.7 organization of the paper .....	8
2. Literature Review.....	9
Introduction.....	9
2.1 Theoretical review .....	9
2.1.1. Definitions of Small and Medium Enterprises .....	9
2.1.2. Definition of SMEs in Ethiopia .....	9
2.1.3. Concept of Lease financing.....	10
2.1.4. Types of lease financing.....	11
2.1.5. Significance of lease financing for small and medium enterprises.....	12
2.2.1. Theories in capital structure related to lease financing .....	14
2.2.1. Irrelevance Theorem of Capital Structure .....	14
2.2.2. Pecking Order Theory .....	15
2.2.3. Financial Contracting Theory .....	15
2.1.4 Signaling theory .....	15
2.3. Empirical literature review.....	16
2.4. Determinants of propensity to lease financing .....	21
2.4. Conclusion and Research gap .....	27
2.5. Conceptual framework.....	27
Chapter three.....	29
2. Research design and methodology.....	29
3.1 Research design .....	29

3.2 Target Population.....	29
3.3 Sampling .....	30
3.4 Data collection method .....	31
3.5. Method of data Analysis .....	31
3.6. Model specification and Description of Variables .....	32
3.7. Reliability test.....	32
3.8. Validity of research instrument .....	33
Chapter Four .....	34
Data analysis and Results.....	34
4.1. Introduction .....	34
4.2. Response rate of questionnaire.....	34
4.3. Demographic characteristics of respondents and SMEs.....	35
4.4.1. General characteristics of manufacturing SMEs.....	36
4.4. Descriptive Analysis .....	38
4.4.1. User of Lease financing manufacturing SMEs.....	39
4.4.2. Bi-Variate Analysis of firm-specific determinant variables and differential of lease.....	39
4.4.2. Institutional framework factors .....	42
4.4.3. Access to Leasing information and Knowledge .....	44
4.3. Econometrics Analysis.....	47
4.2.1 Estimation Diagnostic Test.....	47
4.2.2 Determinants of manufacturing SMEs lease financing propensity (Logistic Regression Analysis) .....	48
CHAPTER FIVE .....	53
CONCLUSION AND RECOMMENDATIONS.....	53
5. INTRODUCTION .....	53
5.1 Summary and Conclusions .....	53
5.2 Recommendations .....	55
References .....	58

## List of table and Figures

<b>List</b>	<b>page</b>
Table 2.1 manufacturing SMEs definition of Ethiopia. -----	11
Table 3.1: Cronbach`s alpha value-----	34
Table 3.2: Reliability Statistics-----	34
Table 3.3: Summary of Expected sign of Variables used in regression-----	35
Table 4.1: Commutative of Respondent's response rate-----	37
Table 4.2: sample given over gender distribution-----	38
Table 4.3: sample given over age distribution-----	38
Table 4.4: sample given over educational level-----	39
Table 4.5: sample given over gender distribution-----	40
Table 4.6: Summary of Descriptive statistics-----	41
Table 4.8: Result of multicollinearity test-----	45
Table 4.9: Result of Model summary-----	48
Table 4.11: Result of coefficients-----	49
Table 4.12: Summary of Expected sign and actual result of Variables used in regression-----	51

## Acronyms

AIS	International Accounting standard
LEF	Use of lease financing
COLL	Collateral requirements
COMESA	Common market for East and South Africa
DBE	Development bank of Ethiopias
FeMSEDA	Federal Micro and Small Enterprises Development Agency
MFI	Microfinance Institutions
MSE	Micro and Small-sized Enterprises
SME	Small and Medium-sized Enterprises
MSME	Micro, small and medium-sized enterprises

# Chapter one

## 1. Introduction

It's well-known that small and medium enterprises (SMEs) are the pillar and backbone of the country's economy in various perspectives. They have been supposed as a dynamic force toward sustainable economic growth and job creation in developing countries (Nega and Husien, 2016). And also, the significance of SMEs to any economy was easily noticeable, which includes: job creation at relatively low capital cost, vehicle for reducing income disparities, and to develop pool of skilled and semi-skilled workers (Yehualashet et.al, 2015).

Moreover, according to World Bank, (2018) SMEs have a multifaceted role to one country such as; innovation, the development of human capital, boosting competition and the creation of suitable economic system. Additionally, SMEs have played and continue to play significant roles in the industrialization, economic growth, and development of countries as a whole. Endris and Kasegn, (2022) justified that Micro, small and medium-sized enterprises (MSMEs) has been a key area to sustainable development and have myriad role in economy growth, poverty reduction, industrialization and livelihood as a whole for developing countries, specifically for growing youth population of sub-Saharan Africa.

Furthermore, Tafa,(2019) reported that with regard to sector contribution to creating job opportunities for job seekers, manufacturing sector ranked first. And also, to reduce food insecurity of the country Manufacturing and urban agriculture sector have huge contribution (Yimesgen, 2019).

Despite of the multifarious contribution of SMEs for countries, Access to finance has been identified as one of the most critical constraints to firm growth around one-quarter of firms in Sub-Saharan Africa (World Bank, 2018). In Ethiopia lack of access to finance is a key constraint that hinder enterprises development. Kenno and William, (2020) observed that Small and medium enterprise section of the sectors in Ethiopia are "Too small for banks and too large for MFIs" because of that they are underserved by financial market. Even though, banks have sufficient liquidity SMEs have faced limited access to finance (Brixiová et al., 2020).

Endris and Kasegn, (2022) reviewed that lack of access to finance, poor infrastructure, and entrepreneurial attitudes are main challenges facing MSMEs in sub-Saharan Africa. With regard to, Access to finance remains the largest obstacle in the region. And also, it became severe in time

of COVID-19 pandemic that lead two-thirds of micro and small firms in crisis and one-fifth of SMEs face risks of closing down permanently. In addition, according to COMESA (2020) report MSMEs which are featured by more labor intensive activities are highly vulnerable to the impact of COVID-19 pandemic, which is because of COVID-19 lockdowns, limited capital reserves and lack of sufficient collateral for new credit lines.

Moreover, the existence of inadequate loan size, borrowing cost and collateral requirement becomes the main challenges for SMEs growth (Goshim & Tefera, 2018; Sisay, 2016; Tadesse, 2014), and high rate and liquidity problem for matching fund (Abeiy, 2017; Amentie et al., 2016; Sisay, 2016) constrained MSEs access to finance in Ethiopia. And also, due to severe opacity SMEs are subject to higher collateral requirements, in spite of this in less developed countries, firms usually have limited assets to offer (Hanedar et al., 2014).

According to Mulu et.al, (2018) manufacturing MSEs' credit access is very much limited, they rely on their own funds. From their report the enterprises that had access to loans, two-third reported having loan access from MFIs, while only about 15% from commercial banks. And also, because of lack of collateral enterprises accounted about 61% have never applied for formal loans and 46% enterprises were rejected applicants to access loan from financial institutions. This implies that high collateralization is not only a barrier to applying for credit but also a major reason for rejection of loan applications. In general, one of the challenging constraint of small and medium enterprise in Ethiopia is lack of adequate capital in terms of equipment and funds to increase production and productivity (Nega and Hussien, 2016; Erestu, 2021).

As a result, to reduce this challenges in the country specifically for the manufacturing SMEs and to meet the financial needs of under-served missing middle segments of sectors leasing were a better way of alternative financing (Kenno G. and William G., 2020). Lack of sufficient collateral together with Severity information asymmetries that arising from weak institutions make small and medium-sized firms (SMEs) vulnerable for financial constraint and needs of an alternative lending technologies such as leasing (Gleeson, 2020).

Historically, the term lease financing arouses at the end 20<sup>th</sup> century due to the political changes and unprecedented economic transformations towards to free market economy. At that time, the expansion of the privatization policy gave the private sector the largest relative weight in the economic system of countries, and urge for the search of new, suitable, and more flexible methods

of financing fits with the conditions of the market economy and competent replace the declining traditional funding sources and to finance large capital equipment's (Marwan.2014).

Therefore, Leasing becomes the best alternative and attractive way of financing and for those who have limited capital and income or who wishes to conserve their cash flow and capital for other purposes (Thomas, 2020). According to Fatjola et.al. (2019), Financial leasing is a suitable financing option, especially for financing small and medium sized businesses, which may do not have a credit history or secured collateral and those have limited opportunities to access their finance need.

Moreover, beyond traditional and institutional lending system, leasing is an important way for SMEs to expand their access to short and medium term financing. When leasing, a firm make a small down payment and a series of subsequent payments for the use of production assets and equipment. Leasing enables SMEs to preserve cash for profit-generating activities (World Bank, 2018). Thomas (2020), demonstrates that leases have always have been and continue to be a type of financing device` preferred by persons who are constrained by their lack of access to capital markets.

In addition, Mol-gomez et.al. (2020) suggests that, In today's perfect competitive market we should turn our attention toward alternative sources of funding such as leasing, which have a clear advantages to the more vulnerable small and medium-sized enterprises (SMEs). Moreover, Lease financing plays an important role in the international economy, which could be even more significant in light of the new economic scenario originated by the COVID-19 health crisis, where we might experience an increasing number of financially constrained firms.

For the sake of that, leasing becomes one of the best alternative of financing SMEs across different countries. In the same vein, Government of Ethiopia has given responsibility to Development bank of Ethiopia to provide lease financing for Small and medium Enterprises in order to alleviate financial problems of these enterprises. In pursuit of this objective the bank has officially began SME Lease financing on October 2016. And also, there are five regional government owned leasing companies and one private leasing companies in the country, which are providing lease financing to different firms in the countries. In addition to what literatures shows, the annual report of Development bank of Ethiopia (DBE) regarding small and medium lease financing shows that the performance of the directorate was under achievement and at infant stage. Accordingly, this

study was aims to identify and examine the main determinant factors that affect lease financing propensity of manufacturing SMEs in Ethiopia.

## 1.2. Statement of the problem

As a rational knowledge in financing, due to their opaqueness, lower quality financial statements, lack of credit history and lack of sufficient collateral SMEs are financially constrained because they are perceived as riskier than large companies, as result leasing becomes a better alternative form of financing SMEs (Mol-gomez et.al., 2019). Even though, in developed countries the term lease finance is dominant and familiar form of financing, in developing countries it's its applicability is on infant stage. According to Kenno and William (2020) Despite of its potential to address one of the key challenges of SMEs access to finance which is lack of eligible collateral the term lease finance is not fully aware of in developing sub-Saharan African countries in general, and not widely available to enterprises in Ethiopia specifically. As alternative to credit, leasing has a great potential in Ethiopia, particularly in financing small and medium enterprises, but still leasing is underdeveloped with very little leasing knowledge in the sector (Helen, 2014). Moreover, Asfaw, (2016) concluded that even if lease financing have numerous advantage to the economic growth of one country, there is lack of awareness on the nature and benefits of leasing both on SMEs, public and suppliers in Ethiopia. More specifically, over the globe various scholars' examine various determinant factors that affect lease financing propensity of firm's

In this regard, despite the high growth rates and the benefits of lease as an alternative source of financing, Wardrop et al. (2015), concluded that there are still factors which suppress the further development of lease financing such as regulations, trusts and market imperfections. And also, Morais (2013) established that lease finance is used more predominant in some special firms than others. On the other hand, tax incentive were considered as an important influence on decisions of firms to lease or purchase (Antonello and Anne, 2010; Thomas, 2020). However, Zhang (2018) suggests that if institutional conditions are weak leasing is not used as an alternative means of financing, because the use of leasing requires sound institutions. On the other side, leasing might be a financing mechanism more commonly used by firms those experiencing financial constraints (Beck et al., 2008; Mol-gomez et.al. 2020).

Furthermore, Filareto-Deghaye & Severin (2007) concludes that according to the information asymmetry theory younger and smaller companies are more likely to use leasing. And also, leasing

is positively correlated associated with high financial leverage, low debt capacity and high probability of bankruptcy. According to Chu, et.al. (2008) the proportion of leases is positively associated with financial leverage and the proportion of capital assets, while a negative correlation is observed between the presence of leases and the firm size. Neuberger & Rathke- Doppner (2013) reported that small and young firms are likely to be constrained on the leasing market, while experienced and higher qualified entrepreneurs' use more leasing. In general, this indicates that there is a mixed result which brings debate and contradiction of determinant factors in the academic literatures.

Regarding to the topic lease financing few studies are conducted locally, for example (Sintayehu, 2019), (Befikadu, 2018), (Asfaw, 2016), (Mohammed, 2014) and (Kemal, 2012) by focusing on the regulated leasing companies overall activities in different perspectives like; leasing companies performance, challenges they faced, prospects of lease, and the overall situation of leasing activity in the country. Although, some of those studies are tried to identify the challenges the leasing industry faced and prospects of lease financing by assessing the supply side of the sector. And also, none of those studies are tried to investigate the determining variable factors which may affect manufacturing SMEs to choose and use lease as a financing mechanism in favor of other way of financing on the demand side perspective.

More specifically, the challenges forwarded by supply side sectors and identified by those studies doesn't empirically assessed on their degree of correlation and causal effect on lease financing in favor of the demand side perspective. These indicates the existence of empirical research gap and its severity. As far as the knowledge of the researcher, except the above researches and other annual reports the problem under the study was not researched in Ethiopia and overall it lacks empirical studies. Whereas, the main aim of this study was to establish and investigate the determinant factors that affect propensity to lease financing by manufacturing SMEs in Ethiopia.

Lastly, but not least Even if various empirical researches are conducted globally the variable factors that included on their analysis is not fit with those developing and under-developing countries. And also, the importance of leasing in emerging market economies has received almost no attention in the academic literature especially in developing country. Instead, that literature has focused overwhelmingly on devising ways of financing and ownership of capital assets, either through microfinance or formalization of possessory rights (Cull & Murdoch 2018: Thomas,

2020). Therefore this study were intended to contribute to the lease financing literature by the examining the main determinant factors of lease financing propensity by manufacturing small and medium enterprises in developing countries perspective in general and Ethiopia specifically.

### Research questions

- What is the relationship between firm's specific characteristics and lease financing propensity of manufacturing SMEs in Ethiopia?
- Does availability of loan affect lease financing propensity of manufacturing SMEs in Ethiopia?
- What is the effect lacks of collateral on propensity to lease financing by manufacturing SMEs in Ethiopia?
- What is the effect Institutional framework factors on lease financing propensity of manufacturing SMEs in Ethiopia?
- Does access to information and knowledge about lease affect the propensity of manufacturing SMEs in Ethiopia?

### 1.3. Objective of the study

The main aim of this study were to identify and examine the main determinant factors that affect lease financing propensity by manufacturing small and medium enterprises in Ethiopia.

#### 1.3.1 Specific objectives

- To investigate the effect of firms specific characteristics and lease financing propensity by manufacturing SMEs in Ethiopia.
- To examine the effect of loan on lease financing propensity of manufacturing SMEs in Ethiopia.
- To investigate the effect of leasing information availability and knowledge of manufacturing SMEs on propensity to lease financing in Ethiopia.
- To examine the effect of institutional framework factors on lease financing of manufacturing SMEs in Ethiopia.
- To examine the effect of collateral availability on propensity to lease financing by manufacturing SMEs in Ethiopia.

## 1.4. Research Hypothesis

As mentioned in the above research objective, the main objective of this study is to investigate the determinant factors that affect lease financing propensity of manufacturing SMEs in Ethiopia in general. In doing so, the main variables which are assumed to be the main determinant of lease financing are used. Furthermore, a hypothesis of the study was stands on the theories related to the study area and past empirical studies. The theories and conclusions from the literatures were used to establish expectations for the relationship between the different variables. Hence, the study were tested the following hypothesis:

- **H<sub>1</sub>**: There is a significant relationship between firms' specific characteristics and propensity to lease financing.
- **H<sub>2</sub>**: Loan for more than three years term have significant effect on lease financing propensity of manufacturing SMEs
- **H<sub>3</sub>**: Information availability and knowledge about lease finance have a significant effect on propensity to lease financing
- **H<sub>4</sub>**: The institutional framework factors have a significant effect of on propensity of lease financing.
- **H<sub>5</sub>**: Lack of sufficient collaterals have a significant effect on lease financing.

## 1.5. Significance of the study

The main practical contribution of this study were the determination of main variable factors that affect access and use of lease financing of manufacturing small and medium enterprises in Ethiopia as a financing opportunity for their business. Therefore, it was useful for lessors and other concerned institution to identify and take appropriate action in order to mitigate demand and supply factors that affects lease financing propensity of enterprises in the country. And also, the result of finding may useful for lessee to take attention for more significant factors and understand the impact of those variables on their financing decisions. Furthermore, it shall provide information and knowledge that can help Policymakers in Ethiopia to consider the finding while coming up with policies that may influence lease financing development of the country.

Besides, this paper may be contribute to the growing of capital structure literatures in general and lease financing specifically. Scholars and researchers may find this study useful if they wish to use

the findings as a basis for current and further research on the subject. On the other hand, this study can contribute for further understanding of debates on capital structure theories globally among scholars. Moreover, academic researchers dedicated to studying small and medium enterprises in the country or globally may benefit from this empirical study focused on the determinant factors that affect the lease financing propensity of manufacturing small and medium enterprises.

#### **1.6. Delimitation of the study**

This study was conducted to identify and investigate the main determinant factors of propensity to lease financing by manufacturing small and medium enterprises in Ethiopia. Since it is difficult to include all manufacturing SMEs found in Ethiopia, this study was delimited at Addis Ababa city administration. To identify the determining factors that affect lease financing manufacturing SMEs owner (managers) which are found in Addis Ababa were targeted. The reason for selecting Addis Ababa city administration is because of there is a number of manufacturing SMEs formed and operating in this city and the city is the economic hub of the country.

#### **1.7 organization of the paper**

The content of the study will organized as follows: chapter one included introduction and background of the study area, problem statement, research questions, objectives (general and specific), hypothesis to be tested, the scope and delimitation of the study. In chapter two presented literature reviews (theoretical, empirical and conceptual reviews) related to lease financing and manufacturing SMEs have presented. The third chapter focused on the research design, methodology, and interpretation methods. And also, in chapter four the main discussion and finding of the study have presented. The last chapter focused on summaries of major findings, conclusions, and recommendations for possible solutions to the problems.

# Chapter Two

## 2.Literature Review

### Introduction

In line with the main objective of the study, this chapter were focused on demonstrating the definition of manufacturing small and medium enterprise and concept of lease financing in line with their definition. And also, various theories to capital structure decision and lease financing determinants factors were summarized and presented. In addition to this, a detailed review of empirical studies on determinants of lease financing were discussed. Finally, the intended research gap and generalized conceptual framework of the study were justified and concluded.

### 2.1 Theoretical literature review

#### 2.1.1. Definitions of Small and Medium Enterprises

The term small and medium enterprises (SME) have a wide range of definitions and measures, which was varying from country to country. 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 production volume, and independence of the company (Harjula, 2008) cited Fitane (2018). Therefore, this indicates that there is no single definition for the term SME uniformly accepted around the globe.

#### 2.1.2. Definition of SMEs in Ethiopia

Unlike the international organization's definition bases of SMEs, since 1997 to 2011 in Ethiopia the only base used is the total asset. 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, 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. In accord with micro and small enterprises justification, small and medium enterprises also defined based on capital and labor.

**Table 2.1 manufacturing SMEs definition of Ethiopia.**

S.N	Enterprise level	Sector	Hired labor	Capital
1	Small	Industry	6-30	100,000-1,500,000 ETB
2	Medium	Industry	31-100	501,000-700,000 ETB

### 2.1.3. Concept of Lease financing

In obvious and simplified term the concept of Lease financing can be defined under two major economic and accounting perspectives. In the economic perspective, leasing means an alternative source of financing system to facilitate access to finance, that is a contract between the firms (the lessee) that uses the leased asset and the lessor who owns the leased asset and get lease payments in return from the lessee (Yuning & Qing ,2013). In the incidence of leasing the firms are subjected to a small and subsequent down payment to the lessors for the use of assets and equipment's (World Bank, 2018).On the other hand, in the accounting perspective lease financing defined as a contract whereby two parties make an arrangement in which one party uses an asset (lessee) and series of payments to the lessor in return for a payment over a period of time (IAS 17, 3). During the contract period, the leased assets are inherently serves as collateral.

Furthermore, Chang and Song, (2018) define leasing as an economic act of borrowing money in kind at a certain cost, which is a progressive trend of use of scientific and technological progress in material production. According to Thomas, (2020) leasing is a flexible mode of holding valuable assets serve with a wide range of assets and have a wide variety of functions in the context of both immovable and movable resource. Resources that are commonly leased includes agricultural land, mineral and timber rights, office buildings, shopping centers, industrial and commercial equipment such as aircrafts, ships, farm machinery and computers, autos and other motor vehicles, and furniture's.

More specifically, lease financing can carried up by using different modes. Typically, Based on Grow Africa (2018) the following are popular ways in Africa. The lessee identifies a given assets (equipment, vehicle, software, etc.) and approaches a potential lessor with equipment needs. May be in some cases where there is lack of information and when reaching marginal producers, a lessor might make a more proactive role in providing different equipment alternatives to users (lessee).

Secondly, the lessor purchases the identified asset and becomes its legal owner. Although, the lessee can be benefited from the use of the asset and assumes the risks of economic ownership the lessor remains the legal owner of the asset throughout contract period. Thirdly, for the use of the asset the lessee pays a series of repayments, and has the benefit of higher productivity based on a new technology and business model. Finally, at the conclusion of the leasing period, in addition to interest earned from the rentals paid, the lessor can have recovered a large portion or all of the initial cost of the identified asset. At this stage, the lessee has the option to acquire ownership of the identified asset by paying the final contractual rent, or may negotiate with the lessor a final purchase price. And also, either renew contract or upgrade lease equipment as the SME attain grows or return the lease equipment.

In general, According to Ethiopia Capital Goods Leasing Proclamation No.103/1998 Leasing means a financing in kind for production and service purpose by which a lessor provide lessee for use of capital goods without requiring collateral by collection of certain amount of payment for specified period. Therefore, on this study the term leasing belongs to only for a financing of capital goods through leasing institutions or other financial institutions.

#### 2.1.4. Types of lease financing

According to various authors and IAS 17 lease can be classified into finance and operating lease as a general term. The substantial risk taker and rewarding parties of the contract are the main distinguishing factor of this lease classification.

- I. Capital lease/Finance Lease** - this type of lease is usually a medium to long term non-cancellable leasing contract, whereby the lessee makes regular payments to the lessor for the use of the asset. For this type of lease, lessee have use and have control over the asset without holding the title to it. According to Banerjee (2011), the risks and rewards incident to ownership lies with the lessee. And also, the extent of the asset risk of obsolescence is consequent upon the asset's salvage value. In general, According to, Brigham and Daves (2006) capital lease finance has the following features:
- a) It is usually covers for a long-term period and have primary economic life of the asset.
  - b) The lessee have a right to purchase at the end of the lease contract period.
  - c) The lessor receives fully amortized rental payments equal to the full cost of the leased equipment plus a return on invested cost of capital.

- d) The risks and rewards are subsequently transferred to the lessee.
- e) Usually the contract was non-cancellable.

II. **Operating Lease-** On the other hand, this type of lease is usually short term lease for a limited periods, which does not entirely cover the useful life of the asset. Essentially an operating lease is a rental contract for the temporary (based on the agreement of both parties) use of an asset and it covers small span of economic life since the reward and risks can't fully transferred to the lessee. (Kraemer-Eis and Lang, 2012). In specific term, according to Pandey (2008), it is a temporary, cancellable lease agreement (by prior noticing both parties cancel the lease) where a value of a single lease contract may not cover the entire cost of the asset since the lease usually covers a period relatively lower than the asset useful life. Because of the short duration and the option to cancel the lease, the risk of obsolescence remains with the lessor e.g. the insurance and maintenance costs are remained with the lessor. And also, in operating lease the customer has no possibility to purchase the asset at the end of the contact, or may can acquire at a higher price than under a finance lease. Because of both the debt and assets are not recorded in the balance sheet, it's called off-balance sheet financing.

In general, According to Brigham and Daves (2006) operating lease has the following attributes

- a. In operating leases the lessor is required to maintain and service the leased equipment, and the cost of the maintenance is built into the lease payments.
- b. Operating leases are not fully amortized. In other words, the rental payments under the lease contract are not sufficient to the lessor to recover the full price of the asset. However, the contract is considerably shorter written than for the expected economic life of the leased asset, so the lessor can expect to recover all costs either by subsequent renewal payments, by releasing the asset to another lessee, or by selling the asset.
- c. Operating lease often contains a cancellation clause that gives the lessee the right to cancel the lease and return the asset before the expiration of the basic lease agreement. In this case, the asset can be returned if it is rendered obsolete.

#### 2.1.5. Significance of lease financing for small and medium enterprises.

From the rationale point of view, leasing is one of the best alternative funding to fulfill the financing needs of SMEs especially for those have limited access to traditional sources of

financing (Mol-Gómez-Vázquez et al., 2019). Li and Tsou (2019) argue that leasing allows firms to hedge asset price uncertainty associated with resale of purchased assets.

Moreover, the significance lease financing is multifaceted and have various edges. Firstly, according to Kraemer-Eis and Lang (2012), leasing might also overcome the adverse selection problem because the leased asset might be too important for the lessor's business operations to incur in default payments. Second, the misallocation of funds (moral hazard problem) under leasing is not possible because the lessor directly buys the specified asset and only allows the lessee to use the asset (Gallardo, 1997). In addition, empirical evidence shows that leasing helps preserving the leased asset by ensuring its maintenance (Hendel and Lizzeri, 2002; Johnson and Waldman, 2010).

Thirdly, leasing, compared to other sources of debt financing, is less dependent on strong and efficient legal systems because the ownership of the underlying asset is not transmitted under lease financing, making repossession easier in the event of default or bankruptcy of the borrower (Berger and Udell, 2006). According to Sultanov et al. (2009), many jurisdictions show that the legal ownership of the lessor makes leasing less risky than other secured financing. Barclay and Smith (1995) and Sharpe and Nguyen (1995) state that in the case of bankruptcy as compared with other forms of secured financing capital leasing has the highest priority form of financing. And also, in some cases the even if the lessee is in bankruptcy, lessor will receive the lease payments and at the same level placing the payments as other administrative costs.

Fatjola et.al. , (2019) states that Lease financing is one of a financing mechanism, especially suitable for financing SMEs and new businesses, those do not have a good credit history and have limited opportunities to access other debt financing or secured collateral to loan. Moreover, one of the advantages of lease financing over traditional lending is the fact that a lessee can finance up to 100% of the purchase price of an asset and no additional collateral security is needed, because collateral for the contract is provided by the asset itself. On the same vein, because of the distribution of payments the lessee might be want to lease more expensive and advanced assets the goods acquired through lease might be of higher quality than purchased goods (Hendel & Lizzeri, 1998).

Moreover, under lease financing as a major advantage there is no other collateral to recover the loan or as a guarantee, this makes the process simple and easy for both parties because firms do

not have to go through long bankruptcy procedures. As we all know, in the case of loan from other financial institution, a court have to execute the guarantees associated to the loan, increasing repossession costs. In contrast, in lease financing bankruptcy costs are lower and easy to handle (Sultanov et al. (2009). According Bolea and Cosma(2017) those argue that Regardless of the choice between capital or operating lease there are numerous advantages, from which the avoidance of investment as one of the most important benefits. With a lease financing, the lessee can use the asset without having to invest a whole sum of money. Moreover, on the spot no mortgage is applicable that provides convenience to the lessee.

### 2.2.1. Theories in capital structure related to lease financing

Starting from the mid-20<sup>th</sup> century the financing decision and capital structure of firms' brings a scholarly debate and multifaceted outbreak for various theories over all the world. From those theories irrelevance theory of capital structure, pecking order and information asymmetry theories are the most influential and basic theories in the financing decision choice of firms. in a sense, those and other capita structure have a significant proposition on the lease financing propensity of firms and choice of this alternative financing mechanism as one of capital structure of enterprises.

#### 2.2.1. Irrelevance Theorem of Capital Structure decision

There are various outdated literatures highlighted the function of lease as a financing system of business firms. Borrowing from the Modigliani and Miller (1958) theorem in corporate finance theory, which states that without regard to the relative portion of debt and equity total cost of capital of a firm have the same value. Under a rigorous set of assumptions various literature states that, the costs to a firm of leasing an asset will be the same as the cost of borrowing money to purchase the asset (Miller & Upton 1976; Myers, Dill, & Bautista 1976). The assumptions that yield the irrelevance theorem in the lease-or-purchase context are based on underlying the original Modigliani–Miller theorem. The assumption includes that:

- (i) capital markets are accessible to all lessors and lessees and function causelessly;
- (ii) (ii) there are no differential transaction costs for acquiring or disposing of assets either by leasing or purchase;
- (iii) (iii) there is no default risk of either leasing or secured lending; and

- (iv) There is no any distortions that aroused by tax laws that affect the return to firms depending on whether assets are acquired by lease or purchase. In short, the proposition demonstrates that the firm's market value does not rely on the way it selects to disseminate and allocate financial resources for investment, but it is predicted by the underlying risk the assets itself and its power of earnings (Abdul et.al, 2017).

### 2.2.2. Pecking Order Theory

Myers and Majluf (1984) proposed the Pecking order theory which is hinged on asymmetric information and the existence of transaction costs. Pecking order theory assumes that enterprises follow a financing hierarchy from internal to extreme external. In this case, according to Botta et al. (2016), internal funds are given a priority over external funds. The theory demonstrates that enterprises goes for external funding only when internal financial resources are used and fully depleted. And also, It follows that external funds need to be important, safer, and without control restrictions for the firms. In this regard, Sharpe and Nguyen (1995) argue that according to the Pecking Order Theory when informational asymmetries are important, such as in firms of reduced dimension leasing is the first external financing option.

### 2.2.3. Financial Contracting Theory

According to Stanton and Wallace (2004) in the past financial leasing theory have focused mainly on the differential tax position of the lessee as well as the lessor being the primary rationale behind leasing. The argument conditioned that if the firm is unable to pay tax burden fully, then purchasing as well as lease an asset may become costly as there is a possibility that only a low capital investment were used (Imhoff, et.al, 2004). On the other hand, leasing an asset can lead to the lesser making a claim on tax allowance while the tax benefits can in turn be transferred to the lessee indirectly by use of lower lease payments.

### 2.1.4 Signaling theory

Although, the capital market situation is imperfect, it is assumed that buyers and sellers have assumed perfect information in a perfect capital market situation (Pandey, 2008). An imperfect information asymmetry theory explains that a situation where a party to a transaction does not possess no enough information about the market conditions and circumstances. The rationale point of imperfect information is that both the lenders (lessors) and small and medium enterprises are

confronted with information asymmetry. However, in a perfect market, information should be free and available to inform the judgment of the market society.

Moreover, Moyi (2000) demonstrates that small manufacturing companies need to acquire information necessary to enable them to make their financing decisions and buying equipment of their business. The Signaling theory assumes that top management of the firm should be responsible to share its internal information to external investors and financiers to get best price mix for its shares and to increase firm's market value (Mohamed et.al, 2021). Filareto-Deghaye & Severin (2007) proves that according to the information asymmetry theory younger and smaller companies are more likely to use leasing. Moreover, leasing is positively correlated and associated with high financial leverage, low debt situation and high possibility of bankrupt. Lack of sufficient credit information is a main factor that contributes to the constraints faced by enterprises as assessing their creditworthiness represents a special challenge (World Bank, 2018).

### 2.3. Empirical literature review

By using logistic regression Mol-gomez et.al. (2020) conducted a study on the economic and institutional determinants of lease financing across 25 developing and developed European countries. The study aims to assess how a country's economic development may influence the use of leasing by financially constrained firms. And also, to examine the correlation between the institutional framework environment and the use of lease financing. The study uses financial related variables as independent factors such as loan discouragement and credit constraint, firm's specific factors and institutional factors related country specific variables. According to their finding, although the extent of the variation was highly depends on the level of economic development of the country where the firms operate, and the likelihood of using lease finance increases for more financially constrained enterprises. For example, firms with a deteriorated debt level situation are more likely to use leasing in poor European countries than rich ones, whereas the likelihood of using lease finance by loan discouraged firms does not change across countries with different income level. Moreover, the association between leasing and other financing technologies such as, long- term loan and individual capital venture have a complementary association as sources of long-term financing.

To identify the reasons of why the financial leasing market is in stagnation and to understand firm specific factors that influence the demand of SME to be financed through lease Fatjola et.al. ,

(2019) conducted a study in on the impact of firm specific factors in Albania. To identify those factors 42 closed and open ended questionnaire have distributed to 150 enterprises in whichm50 SMEs that used lease and 100 never used before and logistic regression model were devised. The study concluded that firms' need for financing by SMEs and the leasing knowledge firms owners have positive and direct impact on the possibility of firms to use lease. This means, firms those have a higher need for financing are more likely to use lease financing. And also, recognizing the advantages of financial leasing by SMEs positively affects the possibility to use it to finance their assets need.

Siagian, et.al. (2017) conducted a study on the determinants factors of leasing business in emerging country in in case of Indonesia. The objective of the study is to examine leasing business in Indonesia, by considering the effect of leasing literacy, motivation to buy and ability to pay liabilities on leasing. The target of study has conducted on 200 respondents by using purposive sampling who have customers of leasing companies and live around Jakarta. The study is qualitative research by using survey and questionnaire. The result revealed that the type of product leased is mainly dominated by cars and motorcycles. Furthermore, the literacy to the access into leasing company has no effect. On the other hand, the result shows that literacy level significantly affects motivation and ability to pay liabilities. Finally, the study concluded that, customers do not care about the insight into leasing business. Most of the custom0ers used the literacy for to get the products and to be able to pay the installments obligations. Hence, they need sufficient information about leasing company and its services.

Al-shiab & Shamsi B. (2008) conducted an empirical study on the main determinants of lease financing development in Jordan in case of listed Jordanian industrial companies. The study uses 90 sample of industrial companies listed in ASE since 2008 which are companies great than \$5 million as it's the average total assets. The objective of the study is to investigate how Jordanian industrial companies value and evaluate lease financing as a way of financing. The study analyze the impact of tax & accounting, legal, and marketing variables on leasing the industrial items from the industrial companies point view as a possible lessees. Ordinary least square (OLS) model used for testing the study hypothesis. The study relies on primary data by using the questionnaire and personal interview approach developed by the researcher. Overall, 154 questionnaires were distributed on the Jordanian industrial companies listed on Amman Stock Exchange (ASE). The

study result shows that all explanatory variables had positive and significant effect on the use of lease finance. The study recommends that, paying more attention on such variables for enhancing the use of lease finance market in the country.

By focusing on hire purchase and finance lease and using publicly available financial information including annual reports, Meziane L. and Mario (2001), identified the determinants of leasing decision of small and large companies in United Kingdom. The study conducted on over 3000 quoted and unquoted UK companies over the period of 1982 up to 1996 by using their accounting financial data. Univariate and logit regressions were devised to examine the determinants of firms' leasing decision by using proxy variables factors for impact of tax, agency cost, debt financing, and profitability of the firms and the relationship between firm size and leasing decision. The univariate analysis conducted by comparing the size, tax position, debt-equity ratio, growth opportunities and profitability of lessee and non-lessee companies. On the other hand, in the logit model the dummy dependent variable which take 1 if the firm is using leasing and otherwise zero. For all firms in the sample, tax recoverable, additions to fixed assets, leverage and size are all positively correlated to the probability of using leasing. The determinants of leasing are not homogeneous across firms of different size. For large companies, leasing have positively correlated with profitability, leverage and taxation. In contrast, for small companies, the leasing decision is not driven by taxation or by profitability, but by growth opportunities. The study revealed that small firms with high Tobin's q and less profitable are more likely to use leasing. The study shows that for the sample as a whole, companies that use leasing are more likely to have tax losses, high debt to equity proportion and to be larger than companies that do not use lease finance. In general, the study concludes that leasing allows small firms to finance their growth and survival. On the other hand, for large firms, leasing appears to be a financial instrument used by sophisticated financial managers to minimize their after-tax cost of capital.

Austin, (2013) try to investigate the challenges and prospects of capital investment and lease financing in Nigeria. The main objective of the study is to identify militating variables against lease financing activities of Nigeria and to provide a strategic solution. The study uses primary and secondary data, and the data analyzed through statistical tools including regression analysis by using mixed approach. The finding identifies that lease financing have face a lot of bottlenecks such as; mismanagement, unstable economy and foreign exchange issues, regulation factors as a

major challenges. Finally, the study recommends government should conducive and stable economic environment for investors to engage in to lease financing business. In addition, all regulations should guide the leasing industry by standardize, harmonize, restructuring with adequate legislation. On the other hand, leasing companies should promote leasing activities with aggressive marketing mechanisms.

By using 293 working staff the National Treasury of Kenya as a case study and descriptive research design, Faith A. & Caro A., (2013) examined the factors influencing the Use of Lease Financing in Public Institutions in Kenya. The study also sought to determine the influence of availability of financial resources, cost reduction, agency cost and cost of borrowing on the use of lease financing in public institutions in Kenya. The study used primary and secondary data. To collect primary data structured questionnaires were used on 30% of the target population and use of a drop off and pick up later method were used. Content analysis was used in processing qualitative data and the quantitative data was analyzed by descriptive statistics and inferential statistics using SPSS. The study also used correlation analysis to establish the relationship between the dependent variable and independent variables. The study concluded that availability of financial resources and agency cost had an inverse influence on the use of lease financing. And also, cost reduction and cost of borrowing had a positive influence on the use of lease financing in public institutions.

Mary Wanjiku and Mburu (2017) used descriptive research design to examine the factors affecting lease financing in the manufacturing industries in Kenya. The main objective of this study were to determine the effects of access to information, financial resources, tax shield on lease financing in Kariobangi Light Industries. The study used a stratified random sampling method to select 30% of the target population. The study used primary data and collected by use of self-administered questionnaires: the questionnaires included structured and unstructured questions (such as Yes or No and Likert scales). The study concludes that there is a significant inverse relationship between financial resources and lease financing in organizations in the manufacturing industry. The study also concludes that there is a significant relationship between access to information and lease financing in organizations in the manufacturing industry. It was also established that taxation affects cash flows in organization in the manufacturing industry and lease financing influences the tax benefits of organizations in the manufacturing industry. The study also revealed that lease

financing was influencing tax depreciation, taxable income, net of tax cost of capital to a great extent and debt value.

On the supply side of lease financing function by Development Bank of Ethiopia, Dagnachew, (2019) try to assess and identify the challenges Bank faces in SMEs lease financing. To generalize the challenges faced by DBE purposive sampling design have been devised and Questionnaire, key informant interview and document review were used as data collection method. As a conclusion the study has been identified that, the bank's Small and Medium Enterprise selection criteria, poor supply chain with absence of proper and sufficient suppliers of capital goods, macro-economic instability like inflation and currency fluctuation, poor quality of financial statements of SMEs, lack of sufficient demand by SMEs, Lack of basic knowledge about Lease by SMEs, poor credit risk management by the bank and lack of proper internal policy and procedures that minimizes the cost associated with SMEs lease financing loans as a major challenges faced by development bank of Ethiopia.

On the initial commencement stage of lease financing activity in Ethiopia by assessing five regulated companies Asfaw, (2016) conducted a study on lease financing situation of the country. The main objective of the study were to investigate the challenges of the sector and to assess the legal and regulatory framework of the country. The study were used both primary and secondary data sources. All regulatory leasing companies at that time are included with supervisory bodies on by using purposive sampling technique. The finding identifies that lack of lease experts in the market, inadequate supply chain linkages, limited domestic suppliers and lack of awareness as a major impediments. The study recommends that changing legal and regulatory framework and create conducive environment by clarifying the leasing law and regulation and assist leasing companies in their activities.

Sintayehu (2019) explore challenges and opportunities of lease financing by assessing the performance of Development bank of Ethiopia. For the study purposive sampling were adopted on development bank of Ethiopia staff performer of lease financing. Mixed approach were adopted to by using primary and secondary data. The study explore challenge of lease financing in development bank of Ethiopia such as; inconvenient lease requirement, shortage of hard currency, inadequate management information system, lack of capital, limited number of local supplier, lack

of collaboration and unclear legal and regulatory framework. On the other hand, the study concludes lease financing have a potential opportunities on employment creation, new opportunity for investment and contributing for SMEs development.

## 2.4. Determinants of propensity to lease financing

Even though the different theories capital structure found the combination results and explain capital structure of firms (Bulan and Yan, 2009, 2007; López-Gracia and Sogorb-Mira; 2016), they are not able to provide a full picture of firms' financing decisions (Cosh et al., 2009; Romano et al., 2001, different scholars have been show that financing decisions are affected by a combination of entrepreneurial choices, specific company characteristics, industry characteristics, availability of financing instruments and macroeconomic, legal and institutional conditions, access to information and tax shield of finance sources (Fraser et al., 2013; La Rocca et al., 2009). To look over roughly on the major determinant factors of lease financing decision so of SMEs the following factors are identified and confirmed by different scholars.

### **I. Firms' specific characteristics**

Firm's age is considered as a significant factor for the likelihood of using lease financing, according to Cosci et al., (2013) leasing is lower propensity for older firms than Youngers' one. The size of the firm is one factor which determines its financial requirements and influences the access to different sources of financing. Neuberger & Rathke- Doppner (2013) report that young and small firms are more likely to be constrained on the leasing market, while older and higher qualified entrepreneurs use more leasing.

Eisfeldt and Rampini (2009) prove that, lease financing and size have a very strong relationship between, concluding that leased capital may be the most important source of external financing for small firms. In the existing literatures empirical results there is a dimensional evidence on the association between firm size and lease financing medium-sized firms use leasing more commonly because they are growing and therefore, they are more in need of financing (Beattie et al., 2000; Chavis et al., 2011; Mol-Gómez-Vázquez et al., 2019).

Furthermore, firms with positive growth have a higher likelihood of using leasing (Deloof et al., 2007; Cosci et al., 2013; Mol-Gómez-Vázquez et al., 2019). Companies those lease a larger fraction of their assets requirement are characterized by fast growth, high interest rate, contrived liquidity and less sales margin (Sloty, 2009). Franzen, Rodgers & Simin (2009) note that firms

with the highest market value to book value ratio are characterized by the highest levels of lease financing.

Similarly, Chigurupati & Hegde (2009) prove that faster growing companies (a higher value of the Tobin's q) are more likely to lease. Eisfeldt and Rampini (2009), on the other hand, argue that smaller firms paying lower dividends and showing a lower cash flow in proportion to their asset levels and a higher Tobin's q lease a major part of their assets. On the other hand, Companies with a considerable growth potential may seek bank loans or issue shares (Koh & Jang, 2009). Nevertheless, investors may be care about the future performance of the high growth enterprises, due to significant profitability dis-stability.

Furthermore, unlike debt or internal financing sources, operating leases have a better effect on high growth firms, since it does not change their creditworthiness. Growth opportunities measured by the market value to book value ratio, are negatively correlated with financial leasing and leasing in general, which may mean that they perceive financial leases as debts and therefore are less likely to employ them (Singh, 2011).

## **II. Sufficient Financial resources availability**

The range of available resources have a positive or negative effect on the opportunities identified by entrepreneurs (Hoegl, Gibbert & Mazursky, 2008). Increased amount of resources gives room for more experimentation, and thus there are increased chances of getting more ideas as well as innovation (Paladino, 2007). On the other hand, limitations in resources can create room for creativity. For example, an organization can explore all available avenues to satisfy its needs in the event that it has limited finances and in effect obtain information about lease financing.

According to Ozkan (2001), there is a mix on the impact of resource shortage on the identification of the opportunity and the innovative performance that may result. Financial resources Constraints can limit the ability of the firm to promote innovation that increases the performance of the enterprises. A shortage in the number of qualified managers can also restrict the capability of a firm in making right decisions on financing (Rao & Drazin, 2002). Besides, small companies that are limited in resources are unable to hire the required employees that can guide on whether to take a loan or to lease an asset.

According to Nyachieng'a (2012) limitations in resources creates a shift in the attention of entrepreneurs to the opportunities that are related to the various challenges that they are

experiencing. The only way to identify this effect is by associating the types of limitations to the different sources of opportunities.

One of the major challenge that small and medium manufacturing enterprises faced is the lack of access to finance or credit facilities. This in turn affects the number of choices that a firm can have as regards financing as they do not have many alternatives that they can turn to (Myers & Majluf, 2002). According to Baker (2007) the limitations in the availability of credit forces the entrepreneurs to rely only on finances that are emanating from their savings or in other cases by borrowing from friends and realities.

### **III. Financial constraint**

Profitability have a negative effect of on the use of lease financing were proved by Deloof, et.al. (2007). and also, in case of bankruptcy, the recovery to a lessor is superior to recoveries of a defaulted bank loan. As a rule, lease payments are made before creditors claim their share of the bankruptcy estate. Upon client's declaration of bankruptcy, lessors may still take over their assets from lessees, thereby reducing their credit risk. Therefore, lessors may benefit from a deterioration amount of the lessees' financial status. Hence, in enterprises in good financial condition may be less likely to use lease financing than companies facing difficulties. Similarly, larger firms with an easier access to external capital markets may be uninterested in leasing (Sharpe & Nguyen, 1995). Koh & Jang (2009) confirm that the use of lease decreases as the firm size grows, but this association changes over time. Moreover, they indicate leasing and cash flows, cash levels and profit have negative correlation. They state that firms with less internal funds are more likely to use operating leases. According to Chigurupati & Hegde (2009), larger companies are less propensity to lease, while firms with better profitability use less lease financing, since they may buy rather than lease their fixed assets. As noted by Callimaci, Fortin & Landry (2011), the total lease share increases with the high ownership concentration and decreases with the firm size. Singh (2011) achieves a weak confirmation of the negative correlation between financial distress measured using Altman's modified Z-score and financial leasing. He proves that using Tobit model larger firms are more likely to use lease.

The decision of small company regarding the choice of an appropriate source of financing their investment is dependent on many factors and requires taking into consideration firm's financial situation and analysing its debt and liquidity ratios (Opolski et.al, 2018). According to Mol-Gómez

et al., (2019) leasing is an alternative for constrained SMEs because it does not have additional collateral requirements. In a sense that the more financially constrained firms have higher debt capacity of leasing, which is a particularly important reason to lease for SMEs. On the other hand, firms receiving subsidies are more likely to use leasing.

In general, when the financing situation prevents the company from carrying out their projects, access to bank loans is difficult, projects cannot be successfully concluded without a loan from the bank, or when the financing needs of the firm are not met internally, and the likelihood of using lease financing becomes high.

#### **IV. Access to Information and knowledge about lease financing**

According to Mol-Gómez-Vázquez et al., (2019) even though there is a difference across developed and developing countries, asymmetric information problems is one of the major influencing factor in the association between lease financing and the existence of financial constraints. As a result, one of the main obstacles for the further evolution and development of SMEs considered is the lack of knowledge from firms according to financing options and the lack of a well-organized financial market (Cook & Nixon, 2000). Moutot et al. (2007) admits that there is a need for small manufacturing companies to acquire information necessary to enable them to make decisions that are related to financing their businesses and in buying equipment. The creation of vibrant SMEs, as well as efficient utilization of useful information on business is essential to achieving long-term, as well as economic growth that is sustainable (Corps, 2005). However, it is evident that most small manufacturing companies in developing countries lack access to quality business information. This information is said to be available to stand-alone institutions. In effect, it is argued that most SMEs rely on informal institutions to provide them with information that is not authenticated to be useful (Okello-Obura et al., 2008).

According to Okello-Obura et al. (2008), the information made available to SMEs should be thoroughly researched using local and international information as this will make such SMEs have recognition both locally and on the international arena. There is thus the need for different organizations ranging from professional bodies, private entities, and trade organizations to government departments to freely provide SMEs with relevant information as doing so will assist these enterprises in accessing business finances (Mellahi & Wilkinson, 2010).

#### **V. Institutional framework factors**

ADB (2014) mentioned that the Donor Committee for Enterprise Development (DCED) describes that business environment as the complex interplay of policies, laws, and regulations that affect business development in a given place and the institutions responsible for their enactment at the international, national, regional, and municipal level. A weak enabling business environment (legislation, policies, regulations, and support institutions) is the key constraint on the development of the SME sector. According to the ILO (2000) identified that institutional frameworks determine the effectiveness and efficiency of business infrastructures (business development skill, microfinance institutions, marketing, and research development).

A good institutional framework enables access of these services to the needy with minimum cost whereas poor institutions in general, lead to higher transaction costs (ILO 2002; OECD, 2018).

In the contrary, where there a weak regulatory environment that does not support the use of collateral and bankruptcy rights Berger and Udell (2006) underlines that, it may encourage the use of alternative financing instruments like leasing, where the asset is owned by the owner.

The policy and legal framework lacks clarity which hindered development and economic integration of the SME sector across countries though the entry into SMEs is easy but the capital lease financing was difficult and bureaucratic in Ethiopia, Tigray for SMEs resulting in a high cost of compliance and low productivity.

#### **VI. Substitutability or complementarity lease with loan**

Starting from the outbreak of lease financing as a financing mechanism there is an open debate on the substitutability or complementary view of lease with leverage. In this regard, some argue that leasing and secured debt are substitutes, and others argued that they are complementary. The Substitutability Theory which is commenced by Myers et al. (1976), Miller and Upton (1976), and Lewellen et al. (1976) argues that leasing is simply another form of secured debt. Which stands on as if both leasing and secured debt incur interest and depreciation expense a secured borrower incurs these directly, while a lessee incurs these indirectly through lease payments compensating the lessor for his interest and depreciation expense.

Graham et al. (1998) justify that like interest expense, lease expense is tax deductible. Increased leasing lowers a firm's marginal tax rate, which in turn decreases the benefits to debt financing. Therefore, the presence of tax deductions allows for a higher rate of substitution between leases and debt. This implies that leasing and secured debt are interchangeable and types of collateralized

borrowing – a secured borrower pledges firm assets to the lender, while the lessee pledges the leased asset to the lessor.

## **VII. Tax shield**

Yan (2002) reveals that the most significant difference between leasing and buying equipment is in the manner in which both are treated as regards income tax. A business with high-income tax might decide not to lease equipment based on its inability to bring forth economic advantage. Uwe (2008) says that the purpose of a leasing company to buy equipment is due to taxes. But because the equipment needs to be used in any way, the company is obliged to lease the equipment to other firms. It has been reported that the majority of businesses can make higher after-tax costs in buying equipment than the costs faced by the leasing company. This allows the leasing company to divide some of its profits to entrepreneurs while at the same time making a profit.

Leasing has its effects on the cash flows and thus it has an impact on the cost of capital after taxation (Kilpatrick & Nancy, 2007). In leasing, the amounts used to make direct payments and the timings made are crucial (McCue, 2007). In the event that taxation rates for the lessor and the leaseholder are not the same, the leasing operation gives room for a transfer of the effect of the tax shield to be made to the best available company (Kilpatrick & Nancy, 2007). In some instances, it is possible to agree on the conditions that may be advantageous to both the lessor and the leaseholder by use of the leasing tax laws.

According, Yan (2002) the most significant difference between leasing and buying equipment is in the manner in which both are treated as regards income tax. A business with high-income tax might decide not to lease equipment based on its inability to bring forth economic advantage. Uwe (2008) says that the purpose of a leasing company to buy equipment is due to taxes. But because the equipment needs to be used in any way, the company is obliged to lease the equipment to other firms. It has been reported that the majority of businesses can make higher after-tax costs in buying equipment than the costs faced by the leasing company. This allows the leasing company to divide some of its profits to entrepreneurs while at the same time making a profit.

Leasing has its effects on the cash flows and thus it has an impact on the cost of capital after taxation. And also, in the event that taxation rates for the lessor and the leaseholder are not the same, the leasing operation gives room for a transfer of the effect of the tax shield to be made to the best available company (Kilpatrick & Nancy, 2007). In some instances, it is possible to agree

on the conditions that may be advantageous to both the lessor and the leaseholder by use of the leasing tax laws.

## **VIII. Collateral**

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). 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).

### **2.4. Conclusion and Research gap**

In general, several studies conducted internationally and continentally regarding on lease financing determinants. As indicated on there is a debate and a contradiction on variables that affect capital structure in general and lease financing decision of firms. Locally few studies are conducted; For example, (Befikadu, 2018), (Asfaw, 2016), (Mohammed, 2014) and (Kemal, 2012) shows several implications about leasing industry of Ethiopia by focusing on the overall performance and activities of government owned leasing companies commencement, performance, challenges and prospects. But none of those studies investigate the determinant factors of lease financing in general and demand side determinants specifically. So, the determinants of lease financing to small and medium enterprises is a new research topic and needs further investigation.

### **2.5. Conceptual framework.**

Based on the theoretical framework and empirical evidence the study uses the dominant determinant factors of lease financing and their effect on propensity to lease financing by manufacturing SMEs in Ethiopia. The study tried to identify and investigate the relationship and effect of those factors on lease financing propensity of small and medium enterprises.

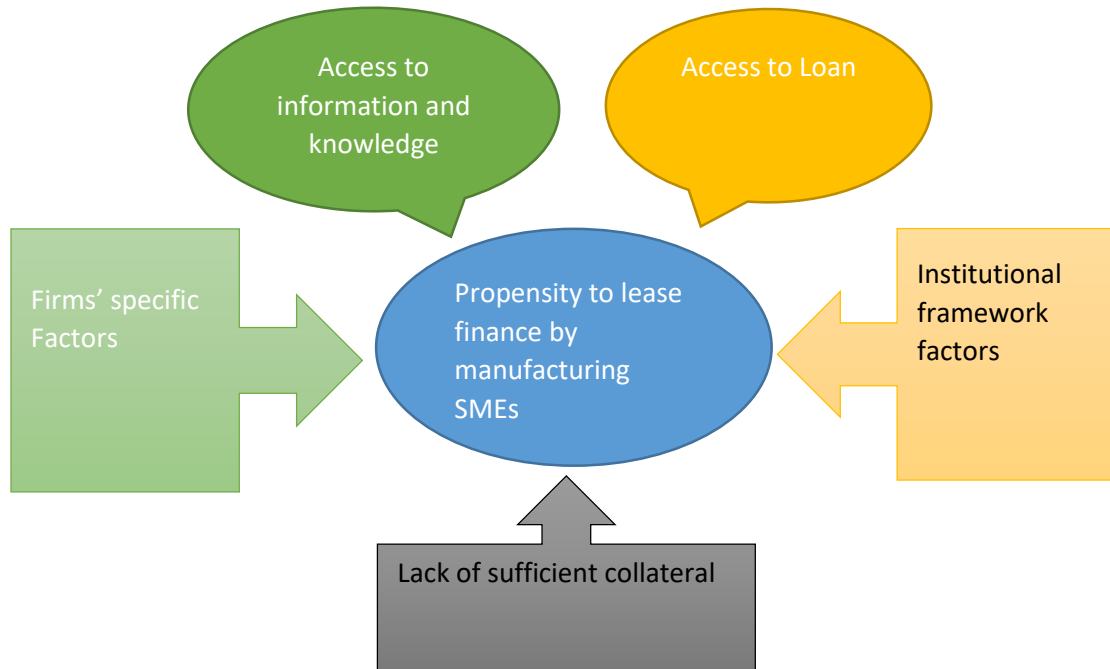


Figure1. Research framework: source: researcher own work based on various literatures implications.

# Chapter three

## 3. Research design and methodology.

This chapter explains and discusses the research approaches and methodologies applied in completing the objectives set for this specific study using primary data. Accordingly, this chapter is organized as follows; research design, population of the study, sampling size determination technique, the research instrument with its validation and reliability, data collection procedure, data analysis method, model specification and ethical consideration.

### 3.1 Research design

To identify and investigate determinant factors that influence lease financing propensity of manufacturing SMEs in Ethiopia This study were used descriptive and inferential statistics. According to Creswell (2014) there are three methods of research approaches which are qualitative, quantitative and mixed approaches. In accordance, this study used mixed approach which is integrate both quantitative and qualitative approaches. 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.

### 3.2 Target Population

Population defined by Uma and Roger (2016) as the entire group of people, events, or things of interest that the researcher wishes to investigate and make inferences based on the sample statistics. Therefore, the target population of this study Addis Ababa city which have the lion's share over 60% percent of the major cities in Ethiopia. In terms of sectorial distribution, furniture and wood working, food and beverage, metal working workshops, and agro-processing are the most important sub-sectors in the country. Therefore, the target population of the study includes all existing SMEs that engaged in manufacturing sector in Addis Ababa city Administration.

### 3.3 Sampling

The sampling technique for this study was proportionate stratified random sampling which is the most efficient method to collect precise and detailed information (Uma and Roger, 2016). Particularly two stages stratified sampling which involves dividing the population into homogeneous sub-groups called strata and proportional dissemination of questionnaire for SMEs owner (manager). Therefore, in this study the stratification will be based on manufacturing SMEs size (small and medium), then select samples from each sub-group using random sampling. The reason behind the selection of proportionate stratified random sampling technique is that it gives each element in the stratum an equal opportunity of getting into the sample, and all the choices are independent of one another.

According to City government of Addis Ababa job creation and enterprises development bureau 2021(2014 E.C) statistics there are 1797(1009 small and 788 medium-sized) enterprises that engaged in manufacturing of Construction materials, Metal and woodworks, Food processing and Textile and garment and operate in Addis Ababa city Administration.

The sample size determination of the study were based on a method developed by (Carvalho, 1984) as cited by (Zelalem, 2005)

<b><i>Population size</i></b>	<b>Low</b>	<b>Medium</b>	<b>High</b>
<i>51-90</i>	5	13	20
<i>91-150</i>	8	20	32
<i>151-280</i>	13	32	50
<i>81-500</i>	20	50	80
<i>501-1200</i>	32	80	125
<i>1201-3200</i>	50	125	200
<i>3201-10000</i>	80	200	315
<i>10001-35000</i>	125	315	500
<i>35001-45000</i>	200	500	800

(Source: Zelalem, 2005)

The population size of the study was 1797 manufacturing SMEs for Addis Ababa city Administration, Which Ranges Between 1201-3200, According to Carvalho's sample size

determination as indicated on the above table the selected sample for this study were 200 manufacturing SMEs. Accordingly, the sample size were distributed based on the proportion of small and medium enterprises as follow;

Size	Total population	Sample size
<b>Small</b>	1009	113
<b>Medium</b>	788	87

### 3.4 Data collection method

To make an analysis the researcher used both primary and secondary data. The primary data collected through self-administered questionnaire from SMEs owners (managers) which have close-ended and scaled type questions that are relevant to address the research question of the study. The researcher collected the data by disseminating the questionnaire to those available SMEs from such stratified sub-groups. Finally, the researcher used a secondary source of data which obtained through review of leasing proclamations, regulations, report, publications and literatures.

### 3.5. Method of data Analysis

The study used a quantitative types of data that will analyze using descriptive tools and inferential statistics. The data collected by using questionnaire were analyzed by using descriptive statistics that involve frequency distribution, bar chart, percentage, tables and STATA v-14 were devised. Other informations are interpreted by summarizing the information and organizing based on the research questions and objective of the study.

And also, binary Logistic regression model was used to investigate the impact of independent variable on the dependent variable. Chi-square test and Regression analyses was carried out to

Variables	Symbol	Measurement
firm's specific characteristics;		
<b>Size</b>	SIZE	Dummies that takes value one if the firm is more than medium and zero otherwise.
<b>Firm age</b>	FIRMAGE	Measured by interval scale

establish and investigate the strength of relationships between the studied variables and to test the

<b>Growth of enterprise</b>	GRTH	Dummies that takes value one if the increase more than ten employee within the last fiscal year (2021/2013 E.C) and zero otherwise.
<b>Accountant</b>	ACC	Dummies that takes =1 if the firm have professional accountant who prepares financial statement, otherwise zero
<b>Loan</b>	LOAN	Dummies that takes value of =1 if the firm access loan from bank or microfinance institutions for longer than 3-years term, otherwise zero.
Collateral	COLL	Dummies that takes =1 if the firm have sufficient collateral to acquire loan, otherwise zero
Access to Information and Knowledge of enterprises management about lease	LIN	Measured by proxy questions ranked by Likert scale.
Institutional framework factors	INST	Measured by proxy questions ranked by Likert scale

hypotheses which independent variables (s) individually or collectively provide a meaning full contribution towards the explanation of the independent variables.

### 3.6. Model specification and Description of Variables

To examine the determinant factors that influence lease financing of SMEs, there is an estimated equation where access and use of lease finance is reflected as a function of the following variables.

$$\log\left(\frac{p^i}{1-p^i}\right) = \beta_0 + \beta_1 \text{SIZE} + \beta_2 \text{FIRMAGE} + \beta_3 \text{LOAN} + \beta_4 \text{COLL} + \beta_5 \text{ACC} + \beta_6 \text{GRTH} + \beta_7 \text{INST} + \beta_8 \text{LINA} + \varepsilon$$

Y = lease financing (dummies of lease finance use or not)

$\beta_0$  = Constant Term;  $\beta_1$ -  $\beta_8$ = Beta coefficients;  $\varepsilon$  = Error term

### 3.7. Reliability test

Reliability refers to the consistency of the measurements of variables (Hair, et al., 2020). The commonly used test of internal reliability Cronbach’s alpha, which is essential to calculate the average of all possible split-half reliability coefficients. A computed alpha coefficient will vary between 1 (denoting perfect internal reliability) and 0 (denoting no internal reliability) (Bell and Bryman, 2014) .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) suggested that if Cronbach's alpha coefficients which have ranged from 0.5 to 0.90, a test is considered reliable if the same results are gotten repeatedly. Therefore,

the reliability test result for two likert scale variables were above 0.66 for institutional factors and 0.75 for leasing information and knowledge. And also the average result shows above 0.70 which is a good internal reliability between statement questions.

**Table 3.1. Reliability statistics**

<u>Variables</u>	<u>Cronbach's</u> <b>Alpha</b>	<u>Number of Items</u>
Institutional framework factor	0.661	6
Leasing information and knowledge	0.751	7
<b>Total(institutional framework and leasing information and knowledge)</b>	<b><u>0.704</u></b>	<b><u>13</u></b>

---

(Source: STATA output, 2022)

### 3.8. Validity of research instrument

Validity of a research instrument means the extent to which a research instrument evaluates what it ought to be measured (Hair, et al., 2020). For theoretical validity, there will be an extensive literature review relating to the topic which satisfies the theoretical context. Content validity which measures the appropriateness of the research instrument used and construct validity is all about how well the questions in the questionnaire will give the result to be measured. The Validity of questionnaire items was maintained by adopting in modified ways of expertly structured questionnaire items to use the research instrument. Therefore, most of the measurement statements were adopted from (mo-gomez et.al. 2020; Fatjola, 2019; Wanjiku and Mburu (2017).

Therefore to the validity of the measurement the measurement instruments devised in this research are adopted from is not questionable.

# Chapter Four

## Data analysis and Results

### 4.1. Introduction

The purpose of the study was to identify and examine the main determinant factors lease financing propensity of manufacturing small and medium enterprises in Addis Ababa City administration. Accordingly, this section demonstrates the research results based on research main objectives. The analysis included respondents and SMEs demographic characteristics, lease financing use and correlated determinant variables, descriptive and inferential statistical findings. Tabulation and figures are used to show numerical values and to test specified assumptions.

### 4.2. Response rate of questionnaire

Data for this study were collected from manufacturing small and medium enterprises in Addis Ababa city Administration. A total of 200 sample respondents were targeted and proportional questionnaires were prepared and distributed to respondents. However, a total of 187 respondent's covers 93.5% of the total sample were collected. As Mugenda and Mugenda (2003) stated response rate of the questionnaire that was more than 70% scaled as an excellent response. Therefore, the response of 187 respondents was analyzed and devised in this study for data analysis and interpretation.

**Table 4.1 Respondent's response rate**

	Small	Medium		
Response rate Category			Frequency	Percent (%)
Respondents	86	101	187	93.5
Non-respondents	1	12	13	6.5
Total			200	100.0

Source: researcher own survey, (2022)

### 4.3. Demographic characteristics of respondents and SMEs

To discover the small and medium manufacturing entrepreneur respondent's general characteristics the researcher request their gender, age, and education levels of manufacturing SMEs owners (managers). The results collected are indicated as follows.

Table 4.2 general characteristics of respondents.

No.	Character	Category	Frequency	Percent (%)
1	Gender of respondent	Female	64	34.2
		Male	123	65.8
		Total(N)	187	100.0
2	Age of respondent	18-25	4	2.4
		(26-35) years	62	33.15
		(36-45) years	74	39.57
		Above 45 years	47	25
		Total(N)	187	187
3	The educational level of Respondent	Primary	14	7.5
		Secondary	20	10.7
		Diploma or TVET	98	52.4
		First degree	51	27.25
		MA/MSc above	4	2.15
		Total(N)	187	100.0

#### 4.3.1. Gender of respondents

One characteristics which was used to analyze the demographic characteristics of the respondents under this study is gender. As presented on table 4.2,the distribution of the respondent's characteristics the percentages of gender shows that 65.8% of the respondents are male and the remaining 34.2% are female on the collected sample distribution.

#### 4.3.2. Age of respondent

During the collection process the respondents were asked about their age using interval scale basis. The observation indicated on table 4.2 shows that 2.4 % were under 26 years of age, 33.15% were 26-35 years old, 39.57% were 36-45 years old, and 25% were over 45 years old.

#### 4.3.4. Educational status of respondents

The other major demographical characteristics about respondents observed were educational level of owners (managers). As a result of survey indicated on table 4.2 presented 17(9 %) of the respondents have a primary level, 27(14%) of respondents have a high school, and 59(31.5%) of the respondents have a diploma or TVET which is college certificated level, 79(42%) have university first degree and the remaining 5(2.5%) of the respondents were above graduate level. The observation indicates that respondents have different levels of education.

##### 4.4.1. General characteristics of manufacturing SMEs

For firm specific variable factors that affect use of lease financing by manufacturing SMEs in Ethiopia the main characteristics of enterprises were identified and summarized in accord with the objective of the study. The result is presented in table 4.3. Includes responded data related to the management of the enterprise, organizational form, and specialty engagement type of business as provided below.

**Table 4.3 specific characteristics of the enterprise**

No	Business character	Category	Frequency	Percent (%)	Enterprises sing(ever used) lease financing	Enterprises never used lease financing		
1	Manager of the business	owner-manager	142	75.95	49	74.25%	93	76.85%
		Manager	45	24.05	17	25.75%	28	23.15%
		Total	187	100%	66	100%	121	100%
2	Organizational form of the business by legality	Sole proprietorship	109	58.3	36	54.55%	73	60.34%
		Cooperatives	36	19.25	13	19.70%	23	19%
		Partnership	42	22.45	17	25.75%	25	20.66%
		Total	187	100.0	66	100%	121	100%
3	Age of the enterprises in year	less than 5 years	32	17.1	8	12.1%	24	19.85%
		(6-10) years	84	45	14	21.2	62	51.20%
		(11-15) years	54	28.8	12	18.2%	21	17.35%
		15 and above years	17	9.1	32	48.5%	14	11.60%
		Total	187	100.0	666	100%	121	
4	Specialized type of the business enterprises engaged	Metal & Woodwork	89	47.5	19	28.80%	70	57.85%
		Food Processing	28	15	11	10.6%	11	14.05%
		Construction materials	54	29	24	36.35%	25	20.65%
		Textile and Garment	16	8.5	6	24.25%	10	8.25%
		Total	187	100.0	66	100%		

#### 4.4.1.1. Management of the enterprise

In this study the manager of the enterprise which is whether owner or hired were taken as one independent variable as a proxy for firm specific factor. As a result of the survey indicated on the above table 4.3 the greater parts of the respondents were owner- manager which is 142 (75.95%) and only 45 (24.05%) were hired managers.

#### 4.4.1.2. Enterprise Age

The other enterprise characteristics demonstrated were firm age starting from their operation year by using scaled measurement system. The result presented on table 4.3 show that 47(25%) are under 5 years old, the majority 65(34.7%) are 6-10 years old, 52(28%) are 11-15 years old, and 23(12.3%) are 15 years or older.

#### 4.4.1.3. Legality Status of the Enterprise

When the data collection collected the respondents were specifically requested about their enterprise legality status on the survey time, which is categorized in three main organizational forms (sole proprietorship, cooperative and partnership). As a result of survey, indicated on table 4.3 from 187 sample observations 83(44.5%) were sole proprietorship, 59(31.5%) were cooperative and the remaining 45(24%) were partnership forms of organization.

#### 4.4.1.4. Enterprise specialized business engagement

The enterprises specialized engagement sector which is a sub-sector in manufacturing industry were observed to assess the relationship with lease financing propensity. The data collected as presented on table 4.3 shows that majority of sample enterprises engaged in metal and woodworks covered by 89(47.5%) and, 54(29 percent), 28(15 percent), and 16(8.5 percent), were covered by construction inputs, food processing, and textiles & garment respectively.

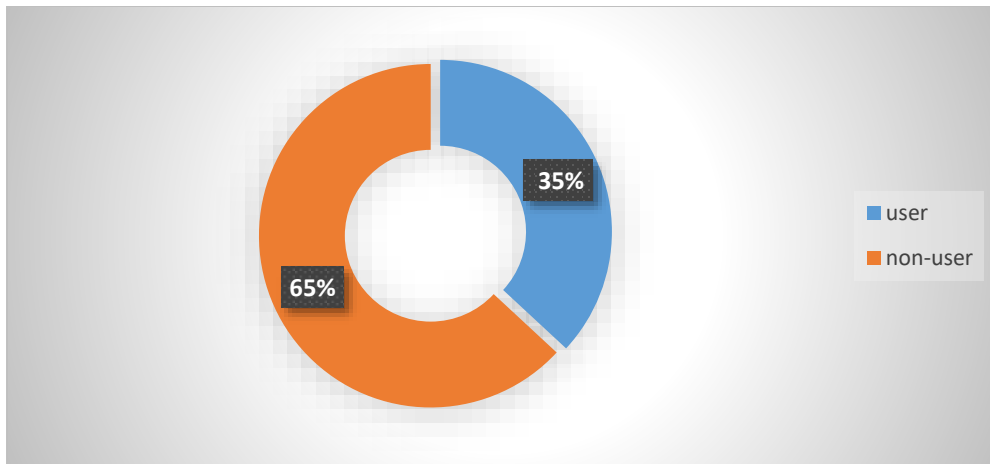
### 4.4. Descriptive Analysis

In accord with the objective of the study and procedure of surveying system during data collection period important variables which were mentioned on the econometrics model that may tends in determining the lease financing propensity of manufacturing SMEs were captured and extensive data manipulation, analysis and interpretation were made. This section of the study presents the descriptive analysis for the study variables. The distribution of the data set which is the dependent and independent variables used in the study were explained by using descriptive statistics. The summary of descriptive statistics is presented to determine the relationship between variables (bivariate analysis), frequency distribution, percentage, mean, and standard deviation for the dependent variable (lease financing) and independent variables (firm size, loan, firm age, collateral

availability, professional accountant, leasing information and knowledge, and institutional framework factors).

#### 4.4.1. Lease financing User distribution of manufacturing SMEs

From the observed manufacturing SMEs sample the respondents were also asked to indicate whether their companies were using lease financing service to finance their business operation. The survey result shows that only 69 (35.3%) of manufacturing SMEs were using lease financing and the remaining 121(64.7) were not using or ever used lease financing during data collection period as shown below figure 4.1.



**Figure 4.1: User and non-user distribution of lease financing by manufacturing SMEs**

#### 4.4.2. Bi-Variate Analysis of firm-specific determinant variables and differential of lease

VARIABLES	LEASE FINANCING USER AND NON-USER OF MANUFACTURING SMES							X <sup>2</sup> -test	p-values
	Non-users of lease financing		Users of lease financing		Total				
	Frequenc y	% age	frequency	% age	Frequency	% age			
<b>ENTERPRISE SIZE</b>							7.9412	0.005	
<b>SMALL</b>	73	72.28	28	27.72	101	100			

<b>MEDIUM</b>	45	52.33	41	47.67	86	100		
<b>PROFESSIONAL ACCOUNTANT</b>							1.4138	0.234
<b>HAVE HIRED PROFESSIONAL ACCOUNTANT</b>	63	59.45	43	40.55	106	100		
<b>DON'T HAVE ACCOUNTANT</b>	55	67.90	26	32.10	81	100		
<b>ACCESS TO LOAN</b>							16.1956	0.000
<b>ACCESS TO LOAN FOR &gt;3 YEARS</b>	61	53.04	54	46.96	115	100		
<b>NO ACCESS TO LOAN</b>	57	79.17	15	20.83	72	100		
<b>COLLATERAL AVAILABILITY</b>							11.4837	0.001
<b>HAVE SUFFICIENT COLLATERAL</b>	53	79.10	14	20.90	67	100		
<b>NO SUFFICIENT COLLATERAL</b>	65	54.17	55	45.83	120	100		
<b>GROWTH OF SMES</b>							17.8467	0.000
<b>HAVE GROWTH STATUS</b>	26	42	36	58	62	100		
<b>DON'T HAVE GROWTH</b>	33	26.5	92	73.5	125	100		
<b>FIRMS' AGE</b>							15.8101	0.001
<b>LESS THAN 4 YEAR</b>	37	78.72	10	21.28	47	100		
<b>4 TO 8</b>	45	69.23	20	30.77	65	100		
<b>9 TO 13</b>	28	53.85	24	46.15	52	100		
<b>13 AND ABOVE</b>	8	34.78	15	65.22	23	100		

#### 4.4.2.1. Firm's specific Variables

##### **Firm Size and manufacturing SMEs propensity to lease**

Firm size of the enterprises was one of the firm-specific variables that were found to be related to lease financing propensity. The association between firm size and use of lease financing by manufacturing SMEs shows that among comprised medium sized enterprises in the sample, 47.67 percent were use lease. Whereas, only 27.72 percent of small enterprise were accounted user of lease financing (Table 4.3). This confirms that medium and above sized enterprises are more propensity to lease financing. The chi-square test specified a statistically significant relationship between firm size and lease financing status (Pearson  $\chi^2 = 7.9412$ ; P-value = 0.00, df=1)

## **Enterprises Age and propensity to lease financing**

In various access to financing findings firm's age plays a vital role to access and choose among alternative financing mechanisms. In this study, firm's age were considered as a significant variable that associate with lease financing propensity of manufacturing SMEs. The table given below reveals that the association between enterprise age and use of lease financing shows propensity to lease was greater among those enterprises whose were more than nine years operation enterprises (46 and 65 percent based on their scale) and those have 4 to 8 years of operation were relatively high as comparatively than those have less than 5 years of operation. The Pearson chi-square test shows that the relationship between firms age and lease financing were statistically significant ( $X^2 = 15.8101$ ,  $P < 0.001$ ,  $df = 4$ ).

## **Collateral availability and manufacturing SMEs propensity to lease**

Another variable which was considered in this study was the relationship between availability of sufficient collateral and use of lease financing. The table given below briefly explains that, the percentage of using lease financing by manufacturing SMEs were lower (20.90 percent) among those enterprises those had sufficient collateral as compared with those had no sufficient collateral (45.83 percent) during the survey time. The bi-variate analysis revealed that there was the existence of relationship between lack of sufficient collateral availability and manufacturing SMEs lease financing propensity ( $X^2 = 11.4837$ ,  $P = 0.001$ ,  $df = 1$ ).

## **Access to Loan and propensity to lease financing**

The study sought to establish the effects of long-term loan availability from financial institutions on lease financing propensity of manufacturing SMEs in Ethiopia. The respondents were also requested to indicate the availability of loan from financial institutions within the last three fiscal years. As far as the relationship between SMEs lease financing usage and their situation of acquiring long term loan is concerned, the percentage of lease financing usage was higher (48.65 percent) among those respondents those had no access to loan, when compared with those had access to loan from financial institutions (20.90 percent). The chi-square test of association was statistically significant ( $X^2 = 16.1956$ ,  $P = 0.000$ ,  $df = 1$ ).

## **Enterprise growth and manufacturing SMEs propensity to lease**

The association between enterprises lease financing propensity and their growth was found to be statistically significant. As it was shown in the table below the differentials in lease financing status among those with high growing opportunities have higher (49 percent), whereas those SMEs whose their growth opportunity is low have comparatively less (31 percent). The Statistical test of bivariate analysis of the association was also statistically significant ( $X^2=5.8652$ ,  $P<0.015$ ,  $df= 1$ ).

#### 4.4.2. Institutional framework factors

To assess and investigate the institutional framework factors on the use of lease financing of manufacturing SMEs the researcher intends to show how the institutional framework statements contribute as a determining factor on the response SMEs using frequency on level of agreement and percentage share of the frequency results as shown on Table 4.5.

To examine the effect of institutional framework factors on propensity to use of lease by manufacturing SMEs six inter-related statements were proposed on the study sample respondents. The first statement question asked to observe the perception of respondents were about their level of agreement on the complexity and cost of lease financing required by leasing institutions. As shown on the table 4.5 10(5.35%) and 26(13.90%) of the respondents were strongly dis-agree and dis-agree, respectively, and 39(22.46%) of the respondents were neutral to stick with agree or dis-agree. On the contrary, 99(52.94%) and 13(6.95) of the SMEs managers agree and strongly agree with that the requirement to acquire lease financing from leasing institutions were complex, costly and time consuming.

The other statement proxies on the institutional factors were training mechanisms and programs provided by any institutions to enhance the growth of lease financing propensity of SMEs. In this regard, 113(60.43%) agree and 4(2.14) of the respondents have strongly agree with that there is lack of training provided by any institutions to increase the awareness of SMEs owners toward significance of lease finance. On the other hand, 29(15.51%) dis-agree and 5(2.67%) strongly dis-agree and the remaining 34(18.18%) were neutral to forward their perception.

On the spot, with respect to the perception of SMEs owner on the government appreciation to use lease by SMEs 134(71.66%) of the respondents was agree and 4(2.14%) were strongly agree that there is lack of government appreciation to use lease as alternative way of financing by using

Institutional framework factors		Summary statistics		
NO.	Statements	Level of agreement	Frequency	%age
1	The requirement to acquire lease financing from leasing institution is complex, costly and time consuming	Strongly disagree	10	5.35
		Dis-agree	26	13.90
		Neutral	39	22.46
		Agree	99	52.94
		Strongly agree	13	6.95
2	There is a lack of training given by any institutions about lease financing	Strongly disagree	5	2.67
		Dis-agree	29	15.51
		Neutral	34	18.18
		Agree	113	60.43
		Strongly agree	6	3.2
3	There is lack of government appreciation to use lease financing as a source of financing	Strongly disagree	6	3.21
		Dis-agree	14	7.49
		Neutral	29	15.51
		Agree	134	71.66
		Strongly agree	4	2.14
4	There is a lack of sufficient leasing companies that provide lease financing	Strongly disagree	3	1.6
		Dis-agree	7	3.74
		Neutral	29	15.51
		Agree	138	73.8
		Strongly agree	10	5.35
5	There is apolitical intervention on lease financing system of the leasing institutions	Strongly disagree	8	4.28
		Dis-agree	18	9.63
		Neutral	75	40.11
		Agree	82	43.85
		Strongly agree	4	2.14
6	The procedure and regulations of lease financing service of the country is complex and restrictive	Strongly disagree	3	1.60
		Dis-agree	4	2.14
		Neutral	79	42.25
		Agree	96	41.34
		Strongly agree	5	2.67

different incentives. In contrast, 29(15.51%) respondents were neutral and only 14(7.49%) of the respondents were dis-agree with additional (6(3.21% of strongly dis-agreed respondents.

The other institutional framework factor proxy statement were the perception of manufacturing SMEs managers on the availability of sufficient leasing institutions in Ethiopia as a factor to propensity to lease. As a result shown on table 4.5. 138(73.80%) of the respondents was agree and 10 (5.35%) strongly agree that there is lack of sufficient leasing institutions that engaged and provide lease financing financial market. Unfortunately, only 10(5.34%) of respondents are dis

agree (7) and dis agree (3) with the statement and the remaining 29(15.51) were neutral to forward their perception.

The other issue arose that may affect the lease financing propensity of SMEs were the political intervention on lease financing system of the country. Since, majority of the leasing institutions in Ethiopia were government owned the respondents were asked about their observation on the intervention of politics on financing, the result shows that 75(40.11%) of the respondents were neutral to forward their perception. On the spot, 82(43.85%) and 4(2.14%) of the respondents were agreed and strongly agree respectively about the existence of political intervention on the leasing system. on the contrary, 18(9.63%) of the respondents were dis-agree and only 8(4.28%) were strongly disagree with the political intervention on the leasing system of the country.

Finally, the respondents were asked about their level of agreement with the complexity and restrictiveness of leasing regulations and procedures of Ethiopia. As presented on table 4.5 96(51.34%) and 5(2.67%) agree and strongly agree with the complexity of leasing regulations and procedures in Ethiopia. And also, 79(42.25%) of the respondents were neutral to judge the regulations and procedure of the country. Toward this statement only 4(2.14%) and 3(1.60%) of respondents were agree and strongly dis-agree respectively.

**Table4.5: descriptive statistics result for institutional framework factor statements**

4.4.3. Access to Leasing information and Knowledge

According to Asymmetric information problems is one of the influencing factor in the association between lease financing and the existence of financial constraints (Mol-Gómez-Vázquez et al), and also one of the main obstacles for the further evolution and development of SMEs considered is the lack of knowledge from firms regarding to financing options and the lack of a well-organized financial market that provide and create awareness on information opaque SMEs (Cook & Nixon, 2000).

**Table4.5: descriptive statistics result for leasing information and knowledge factor statements**

Access to leasing information and knowledge Summary statistics				
NO	Statements	Level of Agreement	Frequency	%age
1		Strongly disagree	11	5.88

	I have enough information about what lease financing means	Dis-agree	66	35.29
		Neutral	20	10.70
		Agree	86	45.99
		Strongly agree	4	2.14
2	I know that lease financing is a better way to finance business without collateral	Strongly disagree	3	1.60
		Dis-agree	48	25.67
		Neutral	52	27.67
		Agree	48	25.67
		Strongly agree	36	19.25
3	I know that The legal consequences in case of bankruptcy are less with the leasing.	Strongly disagree	2	1.07
		Dis-agree	47	25.13
		Neutral	54	28.88
		Agree	69	36.9
		Strongly agree	15	8.02
4	I know that Lease terms are more favorable than credit.	Strongly disagree	1	0.53
		Dis-agree	54	28.88
		Neutral	48	25.67
		Agree	44	23.53
		Strongly agree	40	21.39
5	I know that Leasing contracts are generally less restrictive.	Strongly disagree	2	1.07
		Dis-agree	51	27.27
		Neutral	55	29.41
		Agree	45	24.06
		Strongly agree	34	18.18
6	I know that Leasing enables 100% down payment financing	Strongly disagree	4	2.14
		Dis-agree	52	27.81
		Neutral	55	29.41
		Agree	34	18.18
		Strongly agree	42	22.46
7	I know that of tax reduction is the biggest advantage of leasing.	Strongly disagree	5	1
		Dis-agree		69
		Neutral		51
		Agree		45
		Strongly agree		21

In line with the previous literatures, SME managers were asked about their level of agreement on access to leasing information and knowledge and awareness about importance of lease financing as alternative mechanism of financing.

With respect to access to sufficient leasing information 4(2.14%) and 86(45.99%) of the respondents were strongly agree and agree about their access to leasing information. However, 11(5.88%) and 66(35.29%) of the respondents were strongly agree and agree with that they have sufficient information about lease financing service. Similarly, 20(10.7%) of SME managers were indifferent about their access to leasing information.

Regarding to assess the general awareness level about the importance of leasing to access leasing without collateral. Surprisingly, 89(47.9%) the SMEs owners have responded dis-agree and 7(3.74) strongly dis-agree with the statement. on the other hand, 25(13.37) and 48 (25.67) strongly agree and agree with the important of leasing to access financing without collateral. The remaining 18 (9.63%) of the respondents were indifferent to forward their understanding and stick neutral.

The other statement question, the level of awareness of SMEs managers about less legal consequence of lease during bankruptcy. As a result presented on table 4.6. 22(11.76%) and 72(38.50%) of the enterprise managers were respond that they strongly dis-agree and dis-agree with their awareness about lower legal consequence of lease during bankruptcy. In contrast only 30(16.04%) of respondents were strongly agree and 48(25.67%) of respondents were agree, the remaining 15(8.02%) of respondents were neutral to forward their understanding about the advantage.

Additionally, SME owners are requested to assess the level of awareness of SME managers about more favorable characteristics of Lease terms than credit. As presented on table 4.5. 29(15.51%) were strongly dis-agreed and 59(31.55%) were dis-agree about the favorableness of lease over loan terms. In contrast, 30(16.04%) were strongly agree and 39(20.86%) agree with the favorable characteristics of lease over lease. On the spot, 30(16.04%) of respondents were neutral.

Moreover, the other statement question results 16(8.56%) respondents strongly dis-agree and 62(33.16%) dis-agreed were the perception of respondents about their level of awareness on less restrictive characteristic of lease financing. In this regard, 28(14.97%) and 29(15.51%) of the respondents were strongly agree and agree about the less restrictive characteristics of lease financing. On the other hand, 52(27.81%) of respondents were neither dis-agree nor agree about the statement.

The other interesting variable statement which asks the respondent level of agreement about 100% down payment characteristics of lease financing in Ethiopia. With respect to the statement, 55(29.41%) of the respondents were neither agree nor dis-agree. And also, 42(22.46%) of the respondents have a perception of agree and 34(18.18%) were strongly agree about the 100% down payment characteristics of lease financing. On the other side, 4(2.14%) and 52(27.81%) of the respondents were strongly agree and agree, respectively.

Finally, SME managers were asked about their level of awareness about the tax shield advantage of lease, which is taken as the main significance of lease over other source of financing in lease financing literatures. Surprisingly, as presented on table 4.5 only. 10(5.35) and 23(12.30%) of the respondents were strongly agree and agree respectively. In the contrary, 32(17.11%) and 74(39.57%) of respondents were strongly dis-agree and dis-agree, respectively. At the middle, 48(25.67%) of SME managers were indifferent and neutral response about the tax advantage of leasing.

### 4.3. Econometrics Analysis

This section presents regression analysis for the study. It includes testing model assumptions and estimating the association between dependent variable and independent variables. This study is conducted with an objective of identifying the factors affecting the impulse purchase and analyzed by using logistic regression model. Before conducting regression analysis, basic assumptions of the model were tested.

#### 4.2.1 Estimation Diagnostic Test

For logistic regression model there are different possible ways of examining goodness of fit the model to show how likely the sample results are, given the parameter estimates. Therefore, before estimating the event of using binary logistic regression model, goodness of fit of the model and multicollinearity diagnoses were important and made accordingly.

##### 4.2.1.1 Multicollinearity test

Multicollinearity effect occurs when one column of the independent variable design matrix is linearly dependent on the other columns, and which causes a problems of both interpretation and

computation in the regression analysis. The problem manifests itself when a regressor is highly correlated with another regressor, or a linear combination of a number of predictors.

The diagnostic test used in this study were correlation analysis, which is useful to identify the correlation between independent variables and to avoid double effect of explanatory variables from the model. One of the assumption that is made when using the logistic regression estimation method is that the explanatory variables are not perfectly correlated with one another. The multicollinearity problem should be corrected and reviewed when the correlation extent to be above 0.8 (Cooper and Schindler, 2009; Tebachnicge and Fidel, 2013). Thus, all correlations that have occurred among explanatory variables are less than 0.5 correlations and this indicates there is no-multicollinearity problem in the study.

#### **4.2.1.2 Model fitness test**

The techniques used to assess and realize the goodness of fit of a model is Hosmer-Lemeshow test method. The test is used to not-reject or reject the alternative hypothesis for the test of the model adequately describes the data. Therefore, alternative hypothesis is rejected, if the significance level of the test is less than 0.05, and the null hypothesis which states the inadequacy of the model to describe the data is accepted. The result of the test indicates chi-square value is 3.89 and associated probability is 0.8670 indicating that the model is well fit to estimate the association of dependent and independent variables. This suggests that binary logit model is appropriate to estimate the main determinant factors affecting lease financing propensity of manufacturing SMEs (see Appendix III).

#### 4.2.2 Determinants of manufacturing SMEs lease financing propensity (Logistic Regression Analysis)

In this section attempts have been made in explaining the main determinants of lease financing propensity of manufacturing SMEs. As mentioned earlier, Logit model was selected to identify the main and significant determinants of use of lease financing in the study area. The estimated logit model is presented below in table 4.6, in which the dependent variable being use of lease financing regressed on firm specific, institutional framework and leasing information, knowledge and awareness of entrepreneurs variables which are expected to affect propensity to lease financing

in the study area. The Table 4.6.below presents the main factors that determine manufacturing SME propensity to lease financing.

**Table 4.6: Results of logistic regression**

LEASE	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]		Odds Ratio
SIZE	1.092351*	.6215181	1.76	0.079	-.125802	2.310504	2.981
LOAN	-3.443857***	.728364	-4.73	0.000	-4.871424	-2.01629	.032
COLL	-1.959154***	.6367492	-3.08	0.002	-3.20716	-.7111487	.140
GRTH	1.001074*	.5929128	1.69	0.091	-.161014	2.163161	2.721
ACC	1.02387*	.5950989	1.72	0.085	-.142503	2.190242	2.783
FIRMAGE	.9246066***	.3139299	2.95	0.003	.3093153	1.539898	2.520
INS	-.3257199***	.1215049	-2.68	0.007	-.563865	-.0875747	.722
LINA	.3806842***	.0718728	5.30	0.000	.2398161	.5215523	1.463
cons	-8.221386**	3.293904	-2.50	0.013	-14.67732	-1.765452	.0002

Number of obs = 187  
 LR chi2(8) = 147.50  
 Prob > chi2 = 0.0000  
 Pseudo R2 = 0.5990

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Source :( Stata output, 2022)

In the column labeled coefficients negative sign indicates an inverse relationship of predictor independent variables with the log odds of the dependent variable. In contrast, a column labeled —Coefficients with positive sign indicates a positive relationship between explanatory variable to the log odds of the dependent variable.

To discuss and interpret the logistic regression results the most appealing way to the regression coefficient is using odds ratio. The odds ratio shows the degree of impacts of each explanatory variable directly on the odds of being using lease financing. This means, odds ratio of each coefficient is transformed and devised to interpret the impact of each variables on the dependent variable. In this regard, estimates of odds greater than 1.0 indicate that the use of lease financing is greater than that for the reference category as of based on the sign of the relationships between the dependent and independent variable. Estimates less than 1.0 indicate that the use of lease financing is less than that for the reference category of each variable as of their relationships. Therefore, the estimated final model presented in Table 4.6 were interpreted in terms of odds ratio as follows:

## **The firm specific factors**

From the identified firm specific characteristics considered in this study as a determinant factors firm age, enterprises specialized operation and enterprises legality status are statistically insignificant and omitted from the regression by using stepwise regression.

Various study results conducted different scholars it gives the impression that firm size was positively and negatively correlated with use of lease financing. In this regression analysis, the size of enterprises which is small and medium were entered as a dummy predictor which is a positive and significant impact on lease financing propensity of manufacturing SMEs with odds ratio ( $\beta$ ) = 2.98, which means that the medium and above sized enterprises propensity to use and access of lease financing were 2.98 times more in relative to small sized manufacturing enterprises in the study area which is in line with the finding by Beattie et al., 2000; Chavis et al., 2011; Mol-Gómez-Vázquez et al., 2019) that argues medium sized enterprises are more likely use leasing because of they are growing and needs additional source of financing. On the contrary, this finding were contradicts with the finding by lasfer (2007), Neuberger & Rathke- Doppner (2013), Eisfeldt and Rampini (2009) those argues that smaller firms are more leasing propensity because of they are constrained from other forms of financing.

On the other hand, in addition to the dummy size of enterprises Firm's age is considered as a significant factor for the likelihood of using lease financing in this study. Accordingly as presented table 4.6.the lease financing propensity of enterprises were significantly increased by 2.52 times as the firms get older with 1% significant level. The result is consistent with the size and growth potential of enterprises effect, since they become a larger and have better growth potential as they operate in the market for many years. The result supports, Neuberger & Rathke- Doppner (2013) argument that small and young firms are likely to be constrained on the leasing market, while older firms are use more leasing. However, it was contradicted with the finding of Cosci et al., (2013) which states use of leasing is lower for older firms than Youngers.

The other variable which have positive and a significant effect on lease financing propensity of manufacturing SME is the growth opportunity of enterprise with the odds ratio( $\beta$ ) = 2.72 at 10% significant level. The finding shows consistency with Chavis et al., (2011); Chigurupati & Hegde (2009) argument that leasing is more used by faster growing enterprises. This implies that enterprises that have a better growth status have 2.72 times lease financing using propensity than

enterprises whose growth capacity were lower. The intention is may be, enterprises with more growth potential were strive to add and expand their enterprise investment. On the contrary, the finding were contradicts with (Koh & Jang, 2009) those argues enterprises with a considerable growth potential may seek bank loans or issue shares.

The rationale point of imperfect information is that both the lenders (lessors) and small and medium enterprises are confronted with information asymmetry (Pandy, 2008). The other firm-specific variable examined in this study using logistic regression were the effect of having professional accountant on the enterprises. As Dagnachew (2018), concluded lack of reliable and organized financial statement to analyze the financial statement of SMEs by the supply side is one of the main challenge. Accordingly, this study sought to examine the effect of hired professional accountant on propensity to lease. As presented on table 4.6 manufacturing SMEs that have hired professional accountant have 2.78 time more likely to use lease as compared with those don't have an accountant at 10% significant level.

The association between use of lease financing and access to loan for more than 3-term years SMEs shows that, the probability being using lease is less likely than to those manufacturing SMEs have accessed as compared to those don't have accessed loan. As indicated on the table 4.6 SMEs those have better access to loan for more than three years term loan have less likely to use leasing as a financing option. And also, they have 0.06 times less likely to use lease financing than SMEs those don't have access to loan from financial institutions at 1% significant level. The odds ratio of access to loan is very low which implies, when the firm access more of loans for more than three years term the likelihood of using lease is becomes perfectly negative with zero propensity to lease. The finding were opposite with Sharpe and Nguyen (1995) argument that according to the Pecking Order Theory when informational asymmetries are important, leasing is the first external financing option. The implication of this study is quite clear that in Ethiopia enterprises are not aware of and conscious about lease financing system and the system by itself is at infant stage. Therefore, it's is not surprise that firms can use any available financing mechanism they can instead of choosing the best mix order of financing. Rather than, the finding is consistent with Mol-Gómez-Vázquez et al., (2019) finding of leasing is an alternative for constrained SMEs because it does not have additional collateral requirements and this result comes to be valuable only when enterprises owners are better awareness of lease unless it's worthless.

Most SMEs are denied and discriminated by the lenders in providing financing because of high risk and for not having adequate resources to provide as collateral (Kihimbo et al. 2012). From results which indicate that, availability sufficient collateral by manufacturing SMEs affects the propensity to lease finance negatively at 5% significant level. The Logit model predicts that if the enterprise don't have sufficient collateral to access loan the probability of not-using lease financing were increased by the odds ratio of 0.76( with odds ratio of the reverse (0.24-1)) as compared to those have sufficient collateral to access loan from financial institutions. The finding were evidenced that SMEs those have sufficient collateral have lower propensity to lease as compared with those don't have collateral to access loan.

### **Institutional framework factor**

As Chavis et al., (2011) argued that in poor countries with weak institutions the use of lease financing were far less, rather they rely more on informal sources of financing. In this regard, as indicated on the above table the summated statement institutional related factors have a negative and significant impact on lease financing propensity of manufacturing SMEs in Ethiopia with the odds ratio ( $\beta$ ) =0.656 with 1% significant level, which means a one point increment on the institutional framework variables have 0.582 times negatively affect the lease financing propensity of manufacturing SMEs on the study samples.

### **Leasing information and knowledge**

One of the main determinant factor identified in this study were the availability of information about the use of lease financing and the knowledge and awareness level of manufacturing SMEs owners (managers). As indicated on the above table 4.6 the factor have a positive and significant impact on the lease financing propensity of manufacturing SMEs in Ethiopia, which have odds ratio  $\beta$ =1.463, which implies that manufacturing SMEs owner(manager) who have more and sufficient information, knowledge and awareness have 1.563 times more likely use lease financing than those who have limited. The result of finding was consistent with Fatjola et.al. ,(2019 ) the leasing knowledge of firms owners have positive and direct impact on the possibility of firms to use lease as a financing method.

## CHAPTER FIVE

### CONCLUSION AND RECOMMENDATIONS

#### 5. INTRODUCTION

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

##### 5.1 Summary and Conclusions

This study is conducted to identify and examine the main determinant factors that influence the lease financing propensity of manufacturing small and medium enterprises in Ethiopia by taking Addis Ababa city administration as a sample of the study area. To achieve the objective, the study were devised Binary logit regression model. In the model use of lease financing were taken as dependent variable and 6 explanatory variables were included. Based on the result of the logit model six of the explanatory variables were found significant determinants of lease financing propensity of manufacturing SMEs; of which, in which the dependent variable being use of lease financing regressed on firm specific, institutional framework and leasing information, knowledge and awareness of entrepreneurs variables which are expected to affect propensity to lease financing in the study area. To estimate the extent of the effects of each determinant variables, several tests were needed to be done. Firstly, to see if there is a multi-collinearity it was tested through a correlation matrix, if there was an issue between variables. And also, goodness of fit of a model were tested by using Hosmer and Lemeshow technique that confirmed a model is feasible and appropriate.

The study was conducted through primary data collected from manufacturing SMEs. And also, descriptive and explanatory research design and mixed research approach were devised. To analyze the descriptive statistics, the researcher used graphs, tables, and chi-square tests, mean, maximum, minimum, and standard deviation of variables. Further, the researcher used bi-variate and logistic regression analysis to examine the effect of independent variables on the dependent

variable. Therefore, in accord with the specific objective of the study the researcher reached the following main conclusions.

The result of association of lease financing propensity with age of enterprises were positive and significant. The study revealed that manufacturing SMEs whose have higher years of operation have higher propensity to lease than those have recently organized SMEs. And also, the size of SMEs have a positive and significant impact on lease financing propensity of manufacturing SMEs. The result indicates that the odds ratio of using lease financing increases by 2.835 times for medium sized enterprises as compared with small enterprises. Which is may be as a result of enter[rises those have better potential to survive and grow are deemed by leasing institutions to be less risky and have a better chance to get leasing without collateral.

The finding of the study indicated that, likelihood of using lease was found to be lower for SMEs those have access to loan as compared to those don't have accessed loan for more than 3 years term 1% level of significance. This indicates that there is negative and significant relationship between lease financing and loan, which supports the theory of substitutability of lease and loan. When the SMEs have sufficient collateral to acquire loan from different financial institution when they want they become limited and discouraged to use this unfamiliar financing mechanism (lease) which is at infant stage in Ethiopia. The study logistic result confirmed that the use of lease financing by manufacturing SMEs were decreased by 0.257 times as compared with those don't have sufficient collateral.

In Consistent with previous studies (Mol-gomez et.al.,2020, Cosci et al., 2015; Deloof et al., 2007), the result of logistic regression indicate that the probability of using leasing increases by 2.961 times at 5% significant level for firms with positive growth status manufacturing SMEs, which is may because they have exhausted by their loan capacity from financial institutions.

The result of institution framework factors (The bureaucracy and requirement to acquire lease, lack of training, lack of government appreciation, political intervention on lease financing system, lack of sufficient leasing companies, and complex and restrictive procedure and regulations of lease financing service of the country) impact indicates that there is a negative and significant impact on lease financing propensity of manufacturing with the odds ratio of 0.656 at 5% significant level. This implies that one unit measurement increment of institutional framework factor statement decreases the use of lease financing by 0.656 points. It seems that a better

institutional environment (simple bureaucracy and requirement to acquire lease, training by institution, government appreciation, no political intervention, and sufficient number of leasing companies with transparent procedure and regulations) does increase the likelihood of using leasing.

This study also sought to examine the effects of access to information, knowledge and awareness of SME owners on lease financing propensity of manufacturing SMEs in Ethiopia. The study found that access to information, knowledge and awareness affects lease financing propensity of manufacturing enterprises to a great extent and at 1% significant level by 1.563 odds ratio. These findings agree with Corps (2005) argument that small manufacturing companies need to have access to adequate information to equip them in making decisions on business financing and buying of equipment. As Moyi (2000) concluded that poor and inadequate information can create chaos and misunderstanding by small enterprises and financial institutions, SMEs are negatively and significantly affected by lack of information, knowledge and awareness.

## 5.2 Recommendations

Based on the major findings of the study, an attempt has been made to forward some policy implications and recommendations that seems to be relevant for policy design and formulation pertaining to the issue of lease financing. To build up sustainable and conducive leasing environment and to be the beneficiary of lease financing strengths the following recommendations are forwarded.

The main determinant factors that have been identified by the study are emanating from the leasing institutions, SMEs and government. Therefore, along with the existing actions and commitments, based on the major findings of the study, the following issues are recommended to increase the lease financing propensity of manufacturing SMEs:

### ❖ **For lease financing institutions**

To enhance the lease financing cultures of SMEs in Ethiopia leasing institutions found in the country should be:

- Formulate transparent, easily accessible, and simple procedures that helps to attract interested SMEs toward the modern way of financing in the world.
- Continuously organize and disseminate informations and the way how lease works to SMEs specifically. And also, the main features of leasing by their institutions and its advantage as

compared with other terms of financing should be forwarded to SMEs by using conferences, media campaigns, promotion, leaflets and other ways of communication to SMEs sectors.

In general according to the finding lack of sufficient information, low awareness and restrictive institutional procedure and bureaucracies are the main challenges for SMEs lease financing propensity of SMEs. Therefore, the corporate management system of institutions should identify and arrange itself for better progress of leasing in the country toward avoiding those supply side determinants that affect lease.

❖ **For small and medium Enterprises**

- The nature and way of operation of SME lease financing is different from other loan forms and since it doesn't have full collateral guarantee it was riskier than other loans. Therefore, SMEs are highly recommended to fulfil all necessary requirements and in respect with laws, regulations and directives the country.
- To access sufficient information SMEs owners (managers) should participate on awareness creation conferences, symposiums and they should be conscious to assess their environment to acquire such types of alternative financing mechanisms.
- Upgrade their knowledge status by reading different sources of knowledge about financing mechanisms and upgrade their educational status to have a good understanding of their business success ways, especially, to enhance their financing problems.
- The other important thing SMEs need give due attention is preparing reliable and well-organized financial statement that helps them to easily access financing facility. Therefore, SMEs needs to have a professional accountant that prepares at least basic financial informations that helps lessors (lenders) to analyze the risk and their credit worthiness.

❖ **For Government Organs who may concerned**

The implication is straightforward that SMEs in general and manufacturing specifically need due emphasis and special treatment because they are the pillar of one's country growth and development. Indeed, it was appreciable for the so far efforts of the government on manufacturing SMEs specific policies and strategies.

According to the document reviewed about necessity and formation of SME lease financing program as well as the overall goal leasing institutions, especially those owned by the government they don't have clear and transparent operation procedures accessible and useful to decide which financing mechanism is better by SMEs. Therefore, since majority of the leasing companies are

government owned, the government should arrange and organize follow-up schemes toward those institutions work progress to avoid their bureaucratically problems. And also, the government should avoid and separate the businesses from politics, rather there should be transparent and accountable leasing working environment.

Moreover, regarding the availability of sufficient leasing companies, during the document review time the minimum capital requirement to establish leasing company in Ethiopia were too high and it doesn't seem affordable by domestic investors. So, the government should, reassess the regulation and make easy requirements for the sake of enhancing SMEs access to alternative financing institutions. In general, the government should, intuitively appreciate and assist leasing systems as well as SMEs to freely engaged on lease financing system for development of it in the country by formulating attractive tax schemes and simple regulations.

❖ **Recommendations for further Studies.**

The study conducted in this thesis have significant and sparking impact toward examining the main determinant factors of lease financing propensity by manufacturing SMEs. However, the study also uncovered many areas that need additional study. The purpose of this section is therefore to identify and point out the need for further research in this topic. Firstly, in this study dummy variable are used to measure the use of lease financing, rather than using a variable in terms of birr amount or assets value. Therefore, it's recommended to conduct a study amount based measurement, which is important to set and identifying firms with high or low use of lease financing. Secondly, this study various firm-specific characteristics were devised by category, rather than continuously which is more informative and less restrictive when interpreting the estimated relationships. Finally, the researcher recommends further studies on the topics of the effects of lease financing on financial performance small and medium enterprises in Ethiopia.

## References

- Amentie, C., Negash, E., & Kumera, L. (2016). Barriers to growth of medium and small enterprises in developing country: Case study in Ethiopia. *Journal of Entrepreneurship & Organization Management*, 5(3), 1–4. <https://doi.org/10.4172/2169-026X.1000190>
- Al-shiab & shamsi banih (2008), Determinants of lease financing development in Jordan in case of Jordanian industrial companies listed on Amman stock exchange. Article in *Studies in Business and Economics*, DOI: 10.29117/sbe.2008.0048 .
- Antonello C. and Anne F. (2010): Determinants of leasing propensity in Canadian listed companies, *International Journal of Managerial Finance* Vol. 7 No. 3, 2011 pp. 259-283 q Emerald Group Publishing Limited, DOI: 10.1108/17439131111144469
- Asfaw A., (2016), lease financing in Ethiopia; assessment of five regulated lease financing companies, unpublished Msc thesis Addis Ababa University.
- Ayyagari, M., Beck, T., and Kunt, D. (2007), Small and Medium Enterprises across the Globe: A New Database, *Small Business Economics* 29 (4): 415–34.
- Beck, T. and Demirguc-Kunt, A., (2006), Small and Medium-Size Enterprises: Access to Finance as a Growth Constraint. *Journal of Banking and Finance*, 30: 2931–2943.
- Beck, T., & Demirguc-Kunt, A. (2006). Small and medium-size enterprises: Access to finance as a growth constraint. *Journal of Banking & Finance*,
- Bierman, H. (2005). *The Lease versus Buy Decision*. Englewood Cliffs, NJ: Prentice-Hall.
- Bolea, A.; Cosma, R. Leasing as a modern form of business financing. *Prog. Econ. Sci.* 2015. [CrossRef]
- Bulan, L. and Yan, Z. (2009), “The Pecking Order Theory and the Firm’s Life Cycle”, *Banking and Finance Letters*, Vol. 3 No. 1.
- Brixiova, Z., Kangoye, T., & Yogo, T. U. (2020). Access to finance among small and medium-sized enterprises and job creation in Africa. *Structural Change and Economic Dynamics*, 55, 177–189. <https://doi.org/10.1016/j.strueco.2020.08.008>
- Creswell, J. W. (2009). *Research design: Qualitative, Quantitative, and Mixed Methods Approaches*, 3rd edn. California, USA. Sage Publications.
- Dagnachew N., (2019) Lease financing in Ethiopia, Assessment of three regulated lease financing companies, unpublished MSc thesis, Addis Ababa University.

Gleeson, B. (2020). Global leasing report 2020. White Clarke Group. Retrieved July 17, 2020, from <https://www.whiteclarkegroup.com/reports/global-leasing-report-2020>

Endris E. and Kassegn A. (2022), the role of micro, small and medium enterprises (MSMEs) to the sustainable development of sub-Saharan Africa and its challenges: a systematic review of evidence from Ethiopia; *Journal of Innovation and Entrepreneurship*. Retrieved from; <https://doi.org/10.1186/s13731-022-00221-8>

Grow Africa, (2018) briefing paper on lease financing

Hendel, I., & Lizzeri, A. (2002). The role of leasing under adverse selection. *Political Economy*, 110(1), 113–143. <https://doi.org/10.1086/324387>

Johnson, J. P., & Waldman, M. (2010). Leasing, lemons and moral hazard. *Journal of Law and Economics*, 53(2), 307–328. <https://doi.org/10.1086/648384>

Kenno G. and William G., (2020) Transforming Financial Service Markets for Micro, Small and Medium Enterprises (MSMEs) in Ethiopia through Direct Technical Assistance to Financial Institutions: the Case of Enterprise Partners

Kraemer-Eis, H., & Lang, F. (2012). The importance of leasing for SME finance (Working Paper 2012, 15). European Investment Fund.

López-Gracia, J. and Sogorb-Mira, F. (2008): Testing Trade-off and Pecking Order Theories Financing SMEs, *Small Business Economics*.

Leon, F. (2015). Does bank competition alleviate credit constraints in developing countries? *Journal of Banking & Finance*, 57, 130–142. <https://doi.org/10.1016/j.jbankfin.2015.04.005>

Lubonja, F., Gjylameti, B., Kurti, S., (2019). Financial leasing in Albania and the impact that internal factors of a SME would have on the probability to be financed by lease. *Central European Economic Journal*, 6(53), 189-198. DOI: 10.2478/ceej-2019-0015

Mary Wanjiku and Mburu (2017): Factors affecting lease financing in the manufacturing industry in Kenya, *International Journal of Business Management & Finance*.

Mol-Gómez-Vázquez A. , Ginés H. & Johanna K., (2020): Economic and institutional determinants of lease financing for European SMEs: An analysis across developing and

developed countries, *Journal of Small Business Management*, DOI: 10.1080/00472778.2020.1800352

Pandey, I. M. (2008) *Financial Management*. 9<sup>th</sup> edition, India: Vikas Publishing House pvt.

Thomas W., (2020): *The Economics of leasing: 2020: Journal of Legal Analysis*, Published by Oxford University Press on behalf of The John M. Olin Center for Law, Economics and Business at Harvard Law School. DOI:10.1093/jla/laaa003

Raja Rehana, Abdul Razak Abdul Hadib, Hafezali Iqbal Hussainc (2019) Sectorial-Specific Capital Structure Determinants: Evidence from Bursa Malaysia, *International Journal of Innovation, Creativity and Change*

Sintayehu Abebe (2019) opportunities and challenges of lease financing service in development bank of Ethiopia, unpublished MSc thesis, Addis Ababa University

Siagian, P. Jonny, Noerlina (2017). Determinants of Leasing Business in Emerging Country. *Risk governance & control: financial markets & institutions*, 7(2), 49-55. Retrieved: <http://dx.doi.org/10.22495/rgcv7i2art5>

Sultanov, M., Kotei, M., Naim, A., Pirnie, S. K., & Rabah Al Sugheyer, B. (2009). *Leasing in development: Guidelines for emerging economies*. Report, International Finance Corporation.

Tim L. (2021), *How Does Leasing Affect Leverage?* University of North Carolina.

Wysocka, M. (2008). *Credit or leasing? Comparative analysis*. Warszawa: Drągowski A.D.  
Yuning C &, Qing S (2013), *Analysis and prospects of research on finance lease in China*, Tianjin University of Science & Technology, China.

Zhang, N. (2018). Leasing, legal environments, and growth: Evidence from 76 countries. *Journal of Economics and Finance*, 42(4), 746–764. <https://doi.org/10.1007/s12197-017-9419-5>

# APPENDIX

## QUESTIONNAIRE

### ADDIS ABABA UNIVERSITY COLLEGE OF BUSINESS AND ECONOMICS DEPARTMENT OF ACCOUNTING AND FINANCE

**Dear respondent,**

I am a graduate student at Addis Ababa University, in the Department of Accounting and Finance. The purpose of this questionnaire is to collect information and conduct a study on “**Determinants of lease financing propensity by manufacturing Small and Medium Enterprises: Evidence from Ethiopia**” as a part of partial fulfilment of Master’s Degree in Accounting and Finance. 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.

If you have any question or clarifications enquiries, please contact me in person through my E-mail: [alemuayalew01@gmail.com](mailto:alemuayalew01@gmail.com) or call through +251-917146421

Thank you very much for your valuable time and cooperation in the data supply.

Yours sincerely

Alemu Ayalew

#### Instruction

- No need to write your name
- For multiple choice type question encircle the letter on the relevant choice
- For Likert scale type statements mark (√) sign only once for the given variables depending on your level of agreement.
- For any suggestion write your opinion on the language you prefer (Amharic or English)

**Part-I:**

**1. General Characteristics of Respondents**

1. Gender;                    A. Female                    B. Male
2. Age:     A. Below 25            B. 26-35            C. 36-45            D. 45-60            E. Above60
3. Educational qualification;     A. No formal education     B. Primary     C. High School     D. Diploma     E. Degree     F. MA/MSc and above
4. Your status in the enterprise A. Owner(shareholder)-manager     B. External(hired)-manager

**2. Enterprise specific characteristics.**

1. What is your enterprise category size status  
   A. Small                    B. medium
2. In which form did your enterprise organized?  
   A. cooperatives B. sole proprietorship     C. partnership     D. Share Company
3. Age of your business in operation?  
   A. Less than 4 years     B. 5 to 9 years     C. 10 to 14 years [ ]     B. 14 and above years [ ]
1. What is the specialized business operation your enterprise engaged  
   A. Construction materials  
   B. Metal and woodworks  
   C. Food processing  
   D. Textile and garment  
   E. Other.....
2. Does your enterprise increases more than ten employees within the last fiscal year (2013 E.C to now)            A. Yes            B. No
3. Does your enterprise have an accountant that prepares financial statement?  
   A. Yes                    B. No
4. Does your enterprise gets loan from banks or MFI in the last three years for your business operation longer than three years term?  
   A. Yes                    B. No

5. Does your enterprise have enough collateral guarantee to access a loan from financial institutions?

A. Yes B. No

**Part II: use of lease financing by Manufacturing Enterprises:**

1. Does your enterprise were using lease financing?

A. Yes B. No

**Part III: Please indicate your opinion regarding the following statements (1.Strongly Disagree, 2.Disagree, 3.Neutral, 4. Agree, 5. Strongly Agree.**

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 disagree	Disagree	Neutral	Agree	Strongly
<b>1 Institutional framework factors</b>					
The requirement to acquire lease financing from leasing institution is complex, costly and time consuming					
There is a lack of training given by any institutions about lease financing					
There is lack of government appreciation to use lease financing as a source of financing					
There is apolitical intervention on lease financing system of the leasing institutions					
There is a lack of sufficient leasing companies that provide lease financing					
The procedure and regulations of lease financing service of the country is complex and restrictive					
<b>2 Leasing information, and knowledge</b>					
I have enough information about what lease financing means					
I know that lease financing is a better way to finance business without collateral					
I know The legal consequences in case of bankruptcy are less with the leasing.					
I know that Lease terms are more favorable than credit.					
I know that Leasing contracts are generally less restrictive.					
I know Leasing enables 100% down payment financing					
I know that taxation is the biggest advantage of leasing.					

**Thankyou for your time!!!**

Appendix III: Hosmer-Lemeshow Goodness of Fit Test

Hosmer-Lemeshow Goodness of Fit Test		
Chi-square	DF	Sign.
3.89	8	0.869

**Appendix II: Multicollinearity test**

**1. Correlation Matrix**

corr LEASE SIZE LOAN COLL INST LINA GRTH (obs=187)							
	LEASE	SIZE	LOAN	COLL	INST	LINA	GRTH
LEASE	1.0000						
SIZE	0.2061	1.0000					
LOAN	-0.2943	0.0666	1.0000				
COLL	-0.2478	0.0266	-0.2096	1.0000			
INST	-0.2650	0.0776	0.0931	0.1076	1.0000		
LINA	0.6413	0.2566	-0.0908	-0.2725	-0.0873	1.0000	
GRTH	0.1771	0.1590	0.1442	-0.1393	-0.1151	0.1361	1.0000