



**Addis Ababa University**  
**College of Business and Economics**  
**Department of Accounting and Finance**

**DETERMINANT OF PROFITABILITY OF FOREIGN  
FIRMS IN LEATHER INDUSTRY IN ETHIOPIA**

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**June 2023**

**Addis Ababa, Ethiopia**

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**APPROVAL BY BOARD OF EXAMINERS**

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## **STATEMENT OF CERTIFICATION**

This is to certify that Eskedar Mebratu has carried out her thesis on the topic entitled ‘Determinant of Profitability of Foreign Firms in Leather Industry in Ethiopia’. This work is original in nature and suitable for the award of Masters of Science (MSC) in Accounting and Finance.

Certified by:

**Habtamu Berhanu (PhD)**

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\_\_\_\_\_

Signature

Date

## **STATEMENT OF DECLARATION**

I, the undersigned, declare that this research is my original work, prepared under the guidance of **Habtamu Berhanu (PhD)**. All sources of materials used for this research have been duly acknowledged, the researcher further confirm that the research has not been submitted either in part or in full to any other higher learning institution for the purpose of earning any degree.

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**Eskedar Mebratu**

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## **Abbreviations**

CGI	Consumer Goods Industry
CSA	Central Statistics Agency
DBE	Development Bank of Ethiopia
EIC	Ethiopian investment commission
FDI	Foreign Direct Investment
LIDI	Leather Industry Development Institute
NBE	National Bank of Ethiopia
SSA	Sub-Saharan Africa

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## ABSTRACT

*This study was conducted to examine determinants of profitability foreign owned firms in leather industry in Ethiopia. Based on this main purpose, this study has used firm specific and macroeconomic determinants and it has examined effect of age of a firm, size of a firm, labor productivity of a firm, leverage of a firm, operating expense of a firm, output market of a firm, and economic growth of the country. The study has included 13 foreign owned firms that were operating in Ethiopia for more than 10 years and the study period includes years from 2013 to 2022. Based on its objectives, the study has followed quantitative research approach and employed descriptive and explanatory research designs. It has used quantitative data that was collected from secondary. The study data includes firm-specific and macroeconomic factors. The firm-specific data includes financial characteristics of firms and it was collected from income statements of the firms and from leather industry development Institute (LIDI). The macroeconomic data was about economic growth and this data was collected from Ethiopian Central Statistics Authority (CSA). As this study has included cross-sections of the firms and time of years from 2013 to 2022, it has followed panel data analysis methods. Accordingly, the study has conducted Hausman and LM tests and random effect model to select appropriate model for empirical estimations. Based on the regression result, it was identified that profitability of foreign owned firms in leather industry in Ethiopia is positively and significantly affected by their labor productivity and leverage. In contrast, it is negatively and significantly affected by age of a firm and output market for their products. Moreover, effect of operating expense is negative and significant at 10% significance level. However, profitability of the firms is not affected by their size and economic growth of the country.*

**Key Words:** Foreign owned firms, Leather industry, Profitability, Random Effect Model

# CHAPTER ONE

## INTRODUCTION

### 1.1 Background of the study

The development of manufacturing and secondary industry is an important step within the industrialization process, usually at its beginning. This process is typically reflected by a significant rise in the share of employment in manufacturing and by the growing share of national income from the industrial sectors (Bagchi 1990). Foreign Direct Investment (FDI), can boost the host country's economic growth by providing capital, creating new jobs, and transferring technology, skills, and management know-how (Prasad et al. 2003). FDI, especially of the manufacturing type can play a catalyst role in the industrialization process. In addition, FDI is recognized to have positive spillover effects on local firms through increased productivity, skills formation, and value chain integration (Lederman et al. 2010; Farole and Winkler 2014). Hence, FDI can help leverage investment to upgrade and diversify industrial structures of host countries. Hence,

There is an opportunity for industrialization process from FDI in manufacturing, especially the labor-intensive kind of manufacturing (Lin 2011). The developing countries can jumpstart industrialization by participating in international production networks. To utilize opportunities of FDI, host countries use different strategies to attract FDI. Theoretical and empirical studies largely agree that the determinants of FDI inflows vary depending on sectors and regions. The decision factors to invest in a foreign country range from economic, political, and social factors to cultural factors; these factors tend to be mutually reinforcing. Some studies have further divided the factors influencing FDI inflows in developing countries into two groups: i) on the demand side, factors are related to the intrinsic motivations of foreign investors (resource, market, or efficiency-seeking) (Calvo et al. 1993); and ii) on the supply side, the motivating factors are those which characterize the host countries, including variables such as macroeconomic policy and performance, trade openness, tax levels and incentives, the quality of legal and other institutions, market size and potential, the level of development of human capital,

etc. (Morisset 2000; Collins 2002). The role of factors on the supply side stresses that countries offering what foreign investors seek stand a greater chance of attracting more FDI.

Apart from traditional FDI concentration in a few mostly oil-producing countries (Angola, South Africa and Nigeria), FDI has been rising quickly in some fast-growing non-oil-exporters, including Tanzania, Zambia, Uganda and Ethiopia (UNCTAD 2019). Certain types of manufacturers have favored some countries. Measured by investment motivation, manufacturing FDI is mainly market-seeking in SSA. A series of occasional surveys by the central banks and investment promotion agencies all point out that most of manufacturing FDI are dominated by market-seeking FDI. In Ethiopia, 81% of the FDI is in manufacturing sector and largest investment is from Turkey and China with 37% and 23%, respectively, of total value of the FDI (WDI, 2021). Ethiopia holds large amount of FDI in textiles, clothing and leather, and footwear that include 77% of the investment. In these subsectors, the country received 5.1 billion USD FDI.

Market size, access to natural resources and low cost of labor are major determinants of FDI in Africa (Morisset, 2000). Market size also includes market access to third country markets (Kinda, 2014). Access to domestic and regional markets was the major factor that influenced investment decision of FDI firms. They are mainly driven by the desire to access either directly the national market or indirectly the regional or international market through the host country. Factors influencing efficiency FDI inflows such as cost of production and skills of the labor force have been found to affect FDI decisions less (fDi Market, 2003–2014). Further, there is an increasing importance of policy and institutional factors, such as trade openness and human capital, endowments that affect FDI in Africa. Lederman et al. (2010) points out that trade openness is especially important in comparison with other regions.

However, various studies have shown that a firm to continue in its business, it should be able to earn enough revenue to cover its operating cost and generate enough profit as amends to the providers of capital. Ifeoma, David and Sylvia (2012) stated that profitability indicates how well management of an enterprise generates earnings by using the resources at its disposal. Hence, similar to other businesses, FDI firms consider profitability from the investment. In this regard, studies conducted to assess profitability of FDI firms in Africa indicated that profitability in

manufacturing generally higher compared to other sectors, likely reflecting the high risk and low competitive environment (Kinda, 2014). First, recent surveys show that the overall rate of return of FDI in Africa has been above 9 percent since 2006, higher than world average of 7.5 percent and developing country average of 8.1. In Rwanda, manufacturing realized an average return to equity (ROE) of 24 percent in 2013. In Tanzania, net profits after tax in manufacturing increased consistently since 2008 and tripled between 2008 and 2011. Similarly, the profitability of manufacturing FDI in Uganda has been the second only to finance among all sectors in 2011–12 and 2012.

The leather and leather products industry in Ethiopia have multiple linkages to the wider rural economy in Ethiopia. This sector contributes on average about 6-8 percent of the gross value product of all manufacturing industries (UNCTAD, 2021). Moreover, the sector contributes about 6 percent to national GDP and the export of leather product continues to be an important source of foreign currency earning in the fiscal year of 2018. It is also highly labor intensive in its raw material sourcing, transportation, processing, and marketing phases. Studies indicated that 22,673 both permanent and temporary jobs have been created in the leather sector. Of this figure, 11,598 are female workers and the remaining 11,075 are male employees. These figures exceed the Government's forecasted target of creating 16,726 new jobs (UNCTAD, 2021). The industry thus possesses enormous potential to create much needed non-agricultural employment and looks set to play an important role in poverty reduction yet this potential has remained largely unexploited.

## **1.2 Problem statement**

FDI inflows into Sub-Saharan Africa represents only a fraction of the world total, yet they are rising fast. Given the rising importance of manufacturing FDI, FDI trends, particularly in the performance of manufacturing sector, differ significantly by country and by sector. Manufacturing FDI in SSA is mainly market seeking, aimed at penetrating the local or regional markets. Key determinants of FDI in Africa include market size and potential, as well as political and economic stability. Investment promotion seems to be instrumental for attracting FDI. But investment climate factors are crucial for sustaining FDI in host countries (e.g., increasing the operational or survival rate of FDI projects). For manufacturing FDI, the binding constraints are

the shortage of production inputs, power outage, and trade logistics, which hinder the manufacturing FDI's integration into the value chain (UNCTAD ,2018).

Ethiopian leather industry has contributed much to the growth and development of Ethiopian economy. It is highly labor intensive in the raw material sourcing, transportation, water utilization, processing and marketing phases. The industry thus possesses a huge potential to create much needed non-agricultural employment and looks set to play an important role in poverty reduction. It has also offered emerging employment opportunities and participating in social responsibilities. While consumption of leather product is on rise for the last decades, consumers have also become more refined in demanding more products (LIDI, 2021). Yet, this potential has remained largely unexploited. In the presence of far-reaching structural problems unique to the leather sector, ranging from adhoc hide and skin collection systems to weak marketing infrastructure, it is not immediately clear whether the sector would take off without proper policy support.

The immediate challenge for leather sector in Ethiopia in the years to come is to develop leather and leather products industries that target massive global markets and have very high job-creating potential. Besides supporting the existing manufactures in enhancing their production volume and products quality, the existing situation demands, among others, the need for government to promote further and attract new international investments and manufacturers aimed at increasing the overall production capacity and capability of the sector and take full advantage of the global market opportunity. Because the challenges in leather industry in Ethiopia were related to profitability of FDI firms in the country, it is important to analyze profitability of the firms and its determinants.

There are few studies conducted about profitability of FDI firms in different SSA. These studies indicated that there is variation of level of profitability of the firms from country to country. Furthermore, the studies were conducted for overall manufacturing sector and there is not study about profitability on at the firm level. However, there are no studies identified profitability of the FDI firms in Ethiopia except other related studies; Lisanetwork (2018) that examine determinant of the export performance of leather and leather product industry, Kumlachew (2012) that assessed market share, concentration, and profitability of Ethiopian leather industry,

Hunegnaw(2015) identified leather industry and environmental challenge, and Tsigereda (2020) studied determinants of Large Leather industry Manufacturing in Addis Ababa. Therefore, it is important to identify profitability of FDI firms in Ethiopia, particularly, in leather industry at firm-level.

It is conceptualized that, due to its return, i.e., expected profitability, FDI inflow is attracted by different factors like; market (local and international markets), resources, and labor cost. However, these factors were not empirically identified as they whether affect profitability or not. Moreover, in financial management literature, it is indicated that profitability of firms in manufacturing sector is affected by different factors whether the firm is FDI or not. As determinants of profitability largest focus was provided to financial management aspects. The studies have reached on different conclusion on the determinants considered by them. Furthermore, the studies have provided important focus on firm characteristics; such as size and age. However, findings of the studies for both financial management and other firm characteristics were misleading that they contradict one to another.

This study argues that profitability of FDI firms might be affected by FDI related factors and other factors common to all firms. Therefore, it is important to examine determinants of profitability of FDI firms by using FDI specific factors and general factors to manufacturing firms. This study includes FDI attraction factors such as market conditions and labor productivity; the firm characteristics (size and age) and financial management (such as liquidity and leverage).

### **1.3 Research Questions**

This study will be conducted to answer following research questions.

- What is effect of age on profitability of FDI firms in leather industry in Ethiopia?
- How firm size affects profitability of FDI firms in leather industry in Ethiopia?
- How leverage affects profitability of FDI firms in leather industry in Ethiopia?
- What is effect operating expense on profitability of FDI in leather industry in Ethiopia?
- What is effect of labor productivity on profitability of FDI firms at leather industry in

Ethiopia?

- What is the effect of market on Profitability of FDI firms in leather industry in Ethiopia?

## **1.4 Objectives of the study**

### **1.4.1 General objective**

The general objective of this study is to identify the determinants of profitability of FDI firms in leather industry in Ethiopia.

### **1.4.2 Specific objective**

Specifically, this study will be conducted based on following specific objectives;

- To identify the effect of age on profitability of FDI firms in leather industry in Ethiopia;
- To examine the effect of firm size on profitability of FDI firms in leather industry in Ethiopia;
- To find out relationship between the leverage and profitability of FDI firms in leather industry in Ethiopia;
- To identify the effect operating expense on profitability of FDI firms in leather industry in Ethiopia;
- To analyze the effect of labor productivity on profitability of FDI firms at leather industry in Ethiopia; and
- To examine the effect of market on Profitability of FDI firms in leather industry in Ethiopia.

## **1.5 Significance of the Study**

This study has identified determinants of profitability of FDI at leather industry in Ethiopia. Thus, this study will have contribution to different stakeholders. First, the study will be important to Ethiopian investment commission (EIC) that it find out strategic factors to attract FDI to leather manufacturing industry. Second, the study will be important to FDI companies that the study shows main determinants of their profitability. Third, the study will provide insight for investment companies in other sectors. Finally, this study will be important for further studies in the area of the study.

## **1.6 Scope of the Study**

Based on the broad objective of identifying determinants of profitability of FDI firms at leather industry, this study has six specific objectives. In this regard, the study is geographically, conceptually and methodologically scoped. Geographically, the study is scoped to FDI firms operating in Ethiopia at leather manufacturing sector. Although FDI at leather industry is practiced for decades, this study was scoped to production since 2016. Thus, the time scope includes years from 2015/2016 to 2019/2020. Finally, conceptual the study will be scoped to six determinants of profitability related to firm characteristics; financial management and FDI attraction strategies.

## **1.7 Organization of the Study**

This study was organized under five chapters; first chapter presents introduction about the study that includes background of the study, statement of the problem, research questions, research objectives, significance of the study, and scope of the study; the second chapter is about literature review that include both theoretical and empirical reviews and conceptual framework; the third chapter will be about research design and methodology; fourth chapter presents result of data analysis and discussions; and the fifth chapter presents conclusion and recommendations.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURES**

#### **2.1 Theoretical Review**

##### **2.1.1 Concepts and Definitions**

###### **Leather Industry**

The leather industry has a long history dating back hundreds of years. It is a \$100 billion manufacturing sector that produces leather hides and goods all around the world. The most popular hides are from cows, sheep, goats, and pigs. The most popular products are shoes, clothing, and upholstery (leather-dictionary, 2022). In the strictest sense of the term, the leather industry covers the preserving of the rawhide after the slaughterhouse and the tanneries which process the raw skins into durable leathers. In the widest sense, the "leather industry" also includes the companies which then process the skins into ready-for-use articles. These include the shoe manufacturers, the clothing manufacturers, the manufacturers of car upholstery and the furniture industry. But also, the manufacturers of belts, bags and many other leather products (Liberty Leather Goods, 2022).

The leather industry is a global manufacturing sector that produces the raw, processed, and finished materials used to make leather goods. Animal hides are used to produce the leather. The hides are generally the waste product of the food industry. The animals used for hides, when treated humanely and well-cared for, are a renewable resource. Leather is one of the most traded products globally, with the export value of hides and skins exceeding \$5 billion annually (UNIDO, 2021).

Like any large collaboration of professional organizations in a production sector, the leather industry has its key parts. Each plays an important role within the production, processing, and sale of leather hides and leather goods. Using the BEC classification and HS concordance matrix, the leather tariff lines at the HS 6-digit level are segregated into outputs and inputs of the leather industry. Leather inputs are primary inputs (rawhides and skins), processed leather and chemicals

used in processing leather, while leather outputs comprise manufactured leather products (MarketLine, 2020).

The industry has grown smaller in recent decades due to the growing popularity of synthetic products such as plastic and rubber. Over time, tanneries have gone from small, localized operations to larger, regional tanning production facilities. Also, the volume of tanneries has consolidated into fewer, larger companies (Liberty Leather Goods, 2022).

Production processes continue to advance with technology. This allows for faster creation of higher-quality leathers and leather goods. The main markets for leather goods continue to be shoes, clothing, and upholstery. Also, fine leather is an incredibly versatile and cantonal material for small leather goods and accessories. There will likely always be a demand for finally crafted, high-quality leather goods (UNIDO, 2021).

### **2.1.2 Leather industry in Ethiopia**

The Ethiopian leather and leather products industry is relatively an older industry with more than 80 years of involvement in producing leather products. The history of the industry goes back to the establishment of Asco Tannery in 1928 and the subsequent establishment of Asco Shoe factory. The tanning industry in Ethiopia produces and exports all types of finished leather from hides, sheep skins and goatskins (LIDI, 2015). Ethiopia is the 8th largest livestock in the world, and the second largest in Africa. Thus, Ethiopia has naturally developed its leather industry in the past decades, mostly through large exports of raw skins. Tanneries are key factors as they process the transformation of the raw material into finished leather that will then be transform into commercial goods Central Statistics Agency recorded (CSA 2012).

The leather and leather products sector are the fifth largest export sector of Ethiopia which is considered as highest priority sector of the government for its increasing value addition. Finished leather represents the largest share of Ethiopia's output and export and it accounted for around 60 % of total leather-related exports in 2016. The value of exports of crust leather fell from more than \$90 Million in 2011 to nil in 2016 after the introduction of a 150% tax on export of semi-finished crust leather in December 2011. In parallel, finished leather exports rose from \$25.3

Million to \$67.6 Million during the same period, the main destinations being China, Hong Kong, Italy, Thailand India and United Kingdom which constitute 88.8% share (ERCA, 2016).

Ethiopia is generously endowed with livestock resources. Its cattle population of more than 53 million, along with sheep and goat populations of 25.5 and 24.1 million, respectively, put the country first in Africa. With an annual off-take rate of nearly 10% for cattle, 33% for sheep and 38% for goats, the country is endowed with huge potential for cheap supply of skins and hides. There is a clear recognition of this potential by policy makers in Ethiopia as indicated by the Growth and Transformation Plan (GTP) and several other national plans that preceded it. In the GTP document, the leather and leather products industry are one of the priority industries that is expected to contribute considerably to export diversification and foreign exchange earnings through greater value addition and productivity improvement (CSA, 2013).

Accordingly, as indicated in the series of development plans, (PASDEP, GTP-I and GTP-II); the nation's availability of such large resource base for the raw material coupled with its huge potential for creating employment and generation of foreign currency represent an opportunity for the leather sector in Ethiopia to be considered as a priority sector for the economic and industrial development of the country. Given this, like what had been envisioned during the past development plans, the recent Industrial Development Master Plan (2020/21-2029/30) of the country, lays out also a very ambitious vision for the leather sector in the country that represents a major transformation from its current state while seeking nearly \$2.3 billion in total export earnings. This indicates that the overall leather sector exports are targeted to grow to 30 times the current level (\$74 million).

The whole leather transformation process appears to be a byproduct industry. It is specialized in midrange products because of the lack of design skills and quality problems. The shoe industry faces different problems. The production is not self-sufficient, and the import costs of several shoe components compensate the comparative advantage due low salaries and government incentives as for the other products, they suffer from distance to the markets (Mines, 2016). It is beset with far reaching structural problems unique to the leather sector, ranging from unorganized hide and skin collection systems upstream to poor marketing infrastructure

downstream. It is not easy for the sector to achieve significant growth without properly addressing these deep-rooted problems.

Due to the availability of cheap raw materials including hides and skins as well as labor the leather and leather products industry (LLPI) has been one of the sectors which a range of industrial policies were introduced. This is because of the presence of wide ranging and mutually reinforcing problems at several stages of the leather value chain that have kept product quality low. The government has thus devised policies to improve the supply and quality of raw materials and has sought to stabilize their prices. Efforts have also been made to upgrade the production facilities and techniques of leather processing units while attempting to improve the international marketability of leather products in short the government intervention in the industry range from the point of skin and hides collection to the leather production and marketing stages. These were problems that inhibit industrial transformation and growth of the LLPI and that the market, left to its own devices, cannot help overcoming. Thus, proactive state intervention was not only required, they are also now recognized to have brought about extensive progress in the leather industry (Altenburg, 2010).

### **Profitability**

Performance evaluation is managing various economic resources and their efficient use within operational, investment and financing activities. It is optimized economic results a special attention should be given to the proper grounding of managerial decisions. These should be based on complex information regarding the evaluation of all types of activities within the company. Profitability is main concern of management of a company and it indicates financial performance of the company. It is a primary goal of any firms in economic point of view. It will have improved capital structure, increase employment opportunity, and strength of dividend payment to owners. Profitability provides overall performance of a company and useful tool for forecasting measurement of a company's performance.

There is absolutely no reason for a business to keep on running if it's not profitable or has no hopes of being profitable in the future. Now it becomes very important for businesses to make

sure that the business is profitable. One of the most important factors to be taken into consideration is the finance of the organization.

Based on its objective, the concepts of profit vary from entity to entity. To the financial management, profit is the test of efficiency and a measure of control to the owners a measure of the worth of their investment to creditors, the margin of safety, to the government a measure of taxable capacity and basis of legislative action and the country profit is an index of economic progress, national income generated and rise in the standard of living (Weston and Brigham 1978).

In the other words the ability to earn profit i.e. profitability, it is made up of two words profit and ability. The word profit represents the absolute figure of profit, but an absolute figure alone does not give an exact idea of the adequacy or otherwise of increase or change in performance as shown in the financial statement of the enterprise. Moreover, the word ability reflects the power of an enterprise to earn profits, it is called earning performance. Thus, any firm is mostly concerned with its profitability. According to (Ifeoma, David and Sylvia (2012) profitability ratios show firm's overall efficiency and measure both the profit margin that the firm can be able to generate as well as the return it provides on the physical facilities and fund it employs. The overall objective of a business is to earn a satisfactory return on the funds invested in it, while maintaining a sound financial position, profitability measures financial success and efficiency of management.

Profitability is a very important concept in the financial literature, especially since Miller and Modigliani (1961) presented the theory of dividend irrelevance, which states that company performance is only determined by its basic ability to generate profits and face business risks. According to Handriani and Robiyanto (2018), profitability is one of the most important goals of financial management besides maximizing the owner's wealth. Profitability is a very important performance determinant. An unprofitable business is impossible to survive. Conversely, highly profitable businesses have the ability to reward their owners with large profits on their investments. Therefore, the ultimate goal of a business entity is to gain a profit to ensure its business continuity under the prevailing market conditions.

Borio, Gambacorta and Hofmann (2017) defined profitability as a business capability, interpreting profit over a certain period. It is important to examine the profitability determinants in order to understand how companies finance their operations. Financial benefits are realized when the amount of income earned from business activities exceeds the costs and taxes are needed to maintain the corporate activities. Profitability is able to describe the company's performance in terms of the profits it receives from investments by shareholders or the amount of capital used in the business or in relation to sales activities. Considering the main purpose of investing which is for profit, therefore the profits deriving from a business are used to measure the success of the investment.

The financial needs of a business may vary due to size of the firm, sector in which it is operating, types of products and/ or services it is providing to its consumers. Finance is the backbone of any business. If a business does not know how to manage its finances well then not matter how big a funding it gets, all will eventually be wasted without much benefit to the business. Thus, a business, at all times has to keep on analyzing its financials in order to make sure that the business is sound financially. A high financial performance is an indicative of optimum use of resources – both financial and otherwise (Matar & Eneizen, 2018). Whereas, a low financial performance indicates an inefficient use of resources and inability if management to use the resources well. But when we look at financial performance of a company from a researching point of view, it is a dependent factor. This is because financial performance of a company is dependent on all the factors that affect the business be it internal or external. Internal factors affecting business's financial performance are: Management of the company, its ownership, Company size, etc. Whereas the external factors that affect a business which in turn affect its financial performance are: Political, Economical, Social, etc. (Matar & Eneizen, 2018)

Numerous researches have been conducted in the past for finding for the determinants of financial performance. When we look at the factors internally, the factors in the finance department in the organization are not the only ones that affect its performance. There can be factors related to marketing department, human resource department, administrative department, operations department, logistics department, etc. Research papers talking about the different factors and their effect on financial performance are discussed below in review of literature. When the financial performance of a firm is to be determined, we look at the profitability of the

business, its solvency or liquidity, different types of turnovers, its capital structure. All these factors help to determine the financial performance of a business. Apart from that there are certain off beat factors that can be used to determine the financial performance like corporate social responsibility, firm size, organizational culture, no. of employees, market share, etc. (Matar & Eneizen, 2018).

Out of these factors, the profitability of a business is the most famous method to determine the financial performance of a business. Profitability in turn can be determined by calculating a no. of financial ratios like ROA, ROCE and ROE. The objective of measuring profitability as a measure of financial performance is that the main objective of business is to earn profits for its shareholders (as discussed above). Thus, profitability means how much returns are being generated by investing the funds of the shareholders of a company. Financial performance of a business in turn has an effect on various other arenas like the company's share price in the market, the dividend policy, the amount and kind of investment the company is eligible to get, scope of diversification, the amount of risk it should take, etc.

## **2.1.2 Theoretical Framework**

### **The Dynamic Theory of Profit**

Prof. J.B. Clark propounded the dynamic theory of profit in the year 1900. To him profit is the difference between the price and the cost of production of the commodity. Profit is the result of progressive change in an organized society. The progressive change is possible only in a dynamic state. According to Clark the whole economic society is divided into organized and unorganized society. The organized society is further divided into static and dynamic state and it is only in a dynamic state that profit arises. In a static state, the five generic changes such as the size of the population, technical knowledge, the amount of capital, method of production of the firms and the size of the industry and the wants of the people do not take place; everything is stagnant and there is no change at all. The element of time is non-existent and there is no uncertainty. The same economic features are repeated year after year and therefore there is no risk of any kind to the entrepreneur. The price of the good would be equal to the cost of production. Hence profit does not arise at all. The entrepreneur would get wages for his labour and interest on his capital. If the price of the commodity is higher than the cost of production, competition would reduce the price again to the level of the cost of production so that profit is

eliminated. The presence of perfect competition makes the price equal to the cost of production which eliminates the super normal profit. Thus, Knight observes, “Since costs and selling prices are always equal, there can be no profit beyond wages for the routine work of supervision”. It is well known that the society has always been dynamic. Several changes are taking place in a dynamic society.

### **Wage Theory of Profit**

This theory was propounded by Taussig, the American economist. According to this theory, profit is also a type of wage which is given to the entrepreneur for the services rendered by him. In the words of Taussig, “profit is the wage of the entrepreneur which accrues to him on account of his ability”. Just as a labourer receives wages for his services, the entrepreneur works hard, gets profit for the part played by him in production. The only difference is that while labourer renders physical services, entrepreneur puts in mental work. Thus an entrepreneur is not different from a doctor, lawyer, teacher, etc., who do mental work. Profit is thus a form of wage. The main defect of this theory is that it does not make a distinction between wage and profit. Wages are fixed and certain, but profits are uncertain income. The entrepreneurs undergo risk in production but the labourer undertakes no such risk. Entrepreneur bears the entire responsibility to organize the business, but labourer need not do so. Profits tend to vary with price but wages do not vary so. The labourer get his wages if he has put in the required amount of labour, but the entrepreneur may not get profit even if he works hard. Profit may include chance gain while wages do not include such an element.

### **Rent Theory of Profitability**

This theory was first propounded by the American Economist, Walker. It is based on the ideas of Senior and J.S. Mill. According to Mill, “the extra gains which any producer obtains through superior talents for business or superior business arrangements are very much of a kind similar to rent. Walker says that “Profits are of the same genus as rent”. His theory of profits states that profit is the rent of superior entrepreneur over marginal of less efficient entrepreneur. According to these economists, there was a good deal of similarity between rent and profit. Rent was the reward for the use of land while a profit was the reward for the ability of the entrepreneur. Just as land differs from one another in fertility, entrepreneurs differ from one another in ability. Rent of superior land is determined by the difference in productivity of the marginal and super marginal

land; similarly the profits of the marginal and super marginal entrepreneurs. In short, it is the intra-marginal lands that earn a surplus over marginal lands. So also intra marginal entrepreneurs earn a surplus over marginal entrepreneur. Just as there is the marginal land, there is the marginal entrepreneur. The marginal land yields no rent; so also marginal entrepreneur is a no profit entrepreneur. The marginal entrepreneur sells his produce at cost price and gets no profit. He secures only the wages of management not profit. Thus profit does not enter into cost of production. Like rent, profit also does not enter into price. Profit is thus a surplus.

According to critics there cannot be perfect similarity between rent and profit. Rent is generally positive and in rare cases it may be zero. But rent can never be negative. When entrepreneur suffers losses, profit can be negative. The theory explains profit as the differential surplus rather than a reward for an entrepreneur. Profit is not always the reward for business ability because it can be due to monopoly or it can arise due to favourable chance to the entrepreneur. The system of joint stock enterprise has become more important in the modern economy. The manner in which dividends are distributed among the shareholders is not at all related to latter's ability. Both dull and intelligent shareholders enjoy the same dividends. In fact, the less able may secure more dividends if they possess more shares.

### **Modigliani-Miller Theory**

The Modigliani-Miller theory proposed by Franco Modigliani and Merton Miller, (1958), forms the basis for modern thinking on capital structure. It disregards many important factors in the capital structure decision. The theorem specifies the financial decisions by firms that are irrelevant to the firm's value. The theorem states that, in a perfect market, how a firm is financed is irrelevant to its value. The result provides the base with which to examine real world reasons why capital structure is relevant.

Modigliani and miller considered a perfect capital market with no transaction or bankruptcy costs and with perfect information. The theory assumed that firms and individuals can borrow at the same interest rate, no taxes and investment decisions aren't affected by financing decisions. Modigliani and Miller made two findings under these conditions. Their first proposition was that the value of a company is independent of its capital structure. Their second proposition states that the cost of equity for a leveraged firm is equal to the cost of equity for an unleveraged firm,

plus an added premium for financial risk. That is, as leverage increases, while the burden of individual risks is shifted between different investor classes, total risk is conserved and hence no extra value created. Their analysis was extended to include the effect of taxes and risky debt. Under a classical tax system, the tax deductibility of interest makes debt financing valuable, that is, the cost of capital decreases as the proportion of debt in the capital structure increases. The optimal structure then would be to have virtually no equity at all.

Modigliani and Miller in their second “irrelevance” proposition indicate that given a firm’s investment policy, the dividend pay-out it chooses to follow will affect neither the current price of its shares nor the total return to its shareholders (Okelo, 2015). In other words, in perfect markets, neither capital structure choices nor dividend policy decisions matter. Studies have shown the use of certain factors in determining the financial leverage of the firm, hence the financial performance. Kumar (2014) points out that numerous documented researches showing a fall in equity prices just before the announcement of new equity issue and in the few years that follow hence validating the M & M leverage “irrelevance” theory.

In practice, company tax system and personal tax system interact in complex ways. Okelo (2015) suggested that the presence of taxes on personal income may reduce the tax advantage associated with debt financing. This is because firms could save corporate taxes by raising the debt to equity ratio, but investors would pay additional personal tax and, therefore, require higher returns to compensate for such a tax and the higher associated risks. MM proposition was therefore modified in 1977 to incorporate personal taxes but with the same argument that capital structure indeed matters. Mwangi (2015), also posit that a typical firm could double tax benefits by issuing debt until the marginal tax benefit begins to decline. It is not therefore possible for a firm to have a 100% debt financing.

### **Trade-off Theory**

Trade-off theory suggested by Jensen and Meckling allows bankruptcy cost to exist (Okelo, 2015). The theory looks at the tradeoff between tax benefit of debt and the costs of bankruptcy. It argues that firms will use debt as much as possible but watch out for any disadvantage that may arise as a result of a bankruptcy. It states that there is an advantage to financing with debt, that is the tax benefits of debt and that there is a cost of financing with debt that is the bankruptcy costs

and the financial distress costs of debt (Mwangi, 2015). The marginal benefit of debt declines as debt increases, while the marginal cost increases, so that a firm that is optimizing its overall value will focus on this trade-off when choosing how much debt and equity to use for financing (Migiro, 2013). Okelo (2015) believes that debts payment decreases cash flows available for managers. But, on the other hand, he states that this decrease will reduce the opportunities of profitable investing. Thus, companies with less debt have more opportunities for investment and in comparison, with other active firms in industry, have more liquidity. Additional costs of debt include potential bankruptcy costs and agency costs associated with the monitoring of investments by bondholders.

In practice however, firms do not operate with a 100% debt financing due to distress, bankruptcy and agency costs hence the need to match the costs and benefits. Moreover, the theory predicts that there is a positive effect of the tax rate and leverage due to allowable financial expenses against taxable income, it does not specify the effect of tax rate and leverage (Mwangi, 2015). Trade-off theory is adopted in this study because costs and benefits of alternate financial sources are “traded off” until the marginal cost of equity equals the marginal cost of debt, yielding the optimal capital structure, and maximizing the value of the firm.

Mwangi (2015) postulates that the theory was first suggested by Donaldson in 1961 and further developed by Myers and Majluf in 1984. It argues that firms have a preferred hierarchy for financing decisions with the highest preference being to use internal financing before resorting to any form of external funds. This is because internal funds incur no flotation costs and require no additional disclosure of financial information that may lead to a possible loss of competitive advantage in the market. Thus, issuing new shares may harm existing shareholders through value transfer from old to new shareholders.

Managers will prefer financing new investments by internal sources (i.e. retained earnings) first, if this source is not enough then managers seeks for external sources from debt as second and equity as last. Thus, according to the pecking order theory firms that are profitable and, therefore, generate high earnings to be retained are expected to use less debt in their capital structure than those do not generate high earnings, since they are able to finance their investment opportunities with retained earnings. Pecking Order theory states that companies prioritize their

sources of financing from internal financing to equity. Therefore internal financing is used first then when that is depleted, debt is issued and when it is no longer sensible to issue any more debt, equity is issued.

The theory maintains that businesses adhere to a hierarchy of financing sources and prefer internal financing when available, and debt is preferred over equity if external financing is required. The theory however assumes that firm's managers know more about the company's current earnings and future growth opportunities than outside investors and they will act in the best interests of the company's existing shareholders (Sheikh & Wang, 2013). There is a strong desire to keep such information proprietary as the use of internal funds precludes managers from having to make public disclosures about the company's investment opportunities and potential profits to be realized from investing in them (Mwangi, 2015). In safeguarding the interest of the existing shareholders, managers may even forgo a positive return project if it would require the issue of new equity, since this would give much of the project's value to new shareholders.

Aroni (2015) argues that equity is a less preferred means to raise capital because when managers issue new equity, investors believe that managers think that the firm is overvalued and managers are taking advantage of this over-valuation. As a result, investors will place a lower value to the new equity issuance. Okelo (2015), postulates that high tax rate firms use debt more than low tax rate firms in order to take advantage of tax shields on interest payments. Pecking order theory is therefore adopted in this study because the form of financing sources a firm chooses can act as a signal of its ability to access finance and consequently financial performance.

## **Agency Theory**

Agency relationship is one in which one or more persons (the principal) engages another person (the agent) to perform some service on their behalf which involves delegating some decision-making authority to the agent. Okelo (2015) postulates that an optimal capital structure is attainable by reducing the costs resulting from the conflicts between the managers, owners and debt holders. Therefore, the optimal financial structure results from a compromise between various funding options (own funds or loans) that allow the reconciliation of conflicts of interests between the capital suppliers (shareholders and creditors) and managers.

Agency costs are defined as the sum of the monitoring expenditures by the principal, bonding costs by the agent, and a residual loss. The existence of agency problem will arise due to the conflicts either between managers and shareholders (agency cost of equity) or between shareholders and debt holders (agency costs of debt). Ng'ang'a (2017) argued that agency theory is concerned with analyzing and resolving problems that occur in the relationship between shareholders and their professional agents.

A reliable tool to control agency cost can be the use of debt capital. Leverage will force managers to generate and pay out cash, simply because interest payments are compulsory. Interest payments will reduce the amount of remaining cash flows. Thus, debt can be viewed as a smart device to reduce the agency costs (Zurigat, 2014). The agency theory focuses on the divergence of interests between managers and stockholders. Okiro (2014) postulates that stockholders are wealth maximizes while managers maximize a utility function that include remuneration, power, job security and status.

Mwirie (2015) argues that debt can be used to control the managers' behavior by reducing the free cash flows within the firm by ensuring prompt payment of interest payments. This minimizes the cash at the disposal of managers likely to be misappropriated through personal interests or still waste the cash in organizational inefficiencies at the expense of the firm's objectives. Key among the objectives is maximization of shareholders wealth by maximizing profitability, a measure of financial performance.

Indebtedness allows shareholders and managers to adhere to same objective of maximizing financial performance and hence shareholders wealth (Luigi & Sorin, 2014). For managers, the indebtedness has the power to incite them to perform since the more the company is indebted, the higher its bankruptcy risk and the higher the risk of losing their jobs, remunerations and other advantages. This is considered to be a sufficient threat in persuading them to down their inefficient management styles and in return yield maximum cash-flow to reward the debt (Mwangi, 2015). The optimal level of indebtedness is the one that allows the minimization of overall agency costs. Agency theory is therefore adopted in this study because there is need to reduce costs resulting from the conflicts between the managers, owners and debt holders in order to maximize financial performance.

## **2.2 Empirical Review**

Sahrial, et.al, (2021) examines determinant factors that affect manufacturing sectors profitability (Consumer Goods Industry) in Indonesia Stock Exchange. This study is designed using a quantitative approach through panel data series. The data collected from the online financial statement of 34 manufacturing listed companies for 2014 to 2018 using purposive sampling method and analyzed using static panel data regression. This study found that operating leverage has a significant positive effect on manufacturing sectors profitability. Meanwhile, the company size has a significant negative effect on manufacturing sectors profitability. Besides that, debt to equity ratio, current ratio and company growth does not affect manufacturing companies' CGI profitability in the Indonesian Stock Exchange. This study's findings indicate that manufacturing companies in the Consumer Goods Industry sector need to increase their operating leverage because optimal operating leverage can increase profitability. Also, it is necessary to study the company size's efficiency level due to inefficient company size reduces the level of profitability of CGI companies.

Raghav & Rishi (2019) identified determinants of Financial Performance of Manufacturing Firms in India. The study was conducted to analyze the manufacturing sector of India and determine the reasons for the sector's slow growth. A sample of 35 manufacturing firms were used for the study and the time period of study included 6 years from 2011-12 to 2016-17. The study was conducted by using ROA, ROCE and ROE as dependent variables that indicate financial performance. In addition, the independent variables were capital structure, liquidity, firm size, and working capital. Statistical tests that were applied were correlation, regression, sleekness and kurtosis. The results of the study revealed that independent factors significantly affected the financial performance of the firm. The capital structure and firm size affected the financial performance negatively; the liquidity and working capital affected the financial performance positively.

Ali, et.al.,(2018) examined determinants of financial performance of firms in textile sector of Pakistan. This study suggested that important factors of the study were the leverage, debt, risk, non-debt tax shield and tax shield in financial sector. Secondary data about the financial performance and its determinants was collected and the data was analyzed by using a regression analysis. The study has used panel methods and applied Housman's test. The results showed a

positive relation between leverage, debt, risk, non-debt tax shield and tax shield and the financial performance of the sector.

Das & Swain (2017) analyzed the impact of organizational factors on financial performance of firms in leather sector. The study used factors such as brand value, employee productivity, marketing expenditure, Company size, working capital ratio, leverage, dividend payout ratio on the profitability of the firm. The study has collected secondary data from the firms. The data was analyzed by using correlation and regression analysis. The results study indicated that brand value, marketing expense, size and dividend payout are positively related with profitability while leverage is negatively related.

Matar & Eneizen, (2018) conducted empirical study to identify determinants of Financial Performance in industrial firms: Evidence from Jordan. The financial performance was indicated by profitability represented by ROA. In the study, the independent variables were firm size, leverage, and liquidity. The study employed correlation and regression analysis. The results revealed that while liquidity had a positive relation with the firm's performance; leverage and firms' size had a negative relation.

Adebayo (2018) examined the determinants of profitability of manufacturing organizations in Nigeria. Twelve manufacturing firms out of twenty-two manufacturing firms in the Nigerian stock market constituted the sample of the study. The main variable used in the study include Return on Equity and Return on Assets used as proxies for profitability and Firms size, leverage, lag profitability, capital base and productivity used as explanatory variables. A panel data regression analysis via the fixed effect, random effect and Hausman test were conducted to analyze the data and the outcome was that all the explanatory variables were important determinants of profitability in the Nigerian manufacturing sector though it emphasized that efficient utilization of assets is more significant than the asset size. This study throws up the opportunities in the Nigerian manufacturing sector where the average return on equity is as high as 27 percent with limited volatility. There is need for the Nigerian government to continue to improve the ease of doing business and improve its support for Agro-allied industries because that sector portends promising future for Nigerian industrialization efforts, job creation, poverty alleviation and health promotion.

Vijayakumar and Kadirvelu (2014) in their study “Determinants of Profitability: The case of Indian Public Sector Power Industries” the presented a model for this research, multiple regression model was used, return on total assets and profit margin to sales ratio were used as major indicators of profitability. The study based in India covered from 1991 to 2012. The explanatory variables included Size, represented by total assets, growth by measure of growth rate of assets, leverage, current ratio, and inventory turnover ratio, operating expenses to sales ratio, vertical integration and age. The study identified that the age had strong significance in relation to the determinant of profitability and was followed by operating expenses to sales ratio, leverage, fixed assets turnover ratio, inventory ratio, size, current ratio, growth rate and vertical integration and further, size, operating expenses to sales ratio and fixed assets ratio had negative significance to the variation of profit in the Indian public sector power industries.

Ozcan & Umit (2017) empirically analyzed Profitability and its determinants for manufacturing firms in Turkish Manufacturing Industry by using Dynamic Panel Model. The study has included sample of 120 manufacturing firms listed in Borsa Istanbul Stock Exchange during the period 2005-2012. Estimation results from dynamic panel data model taking into account the endogeneity of variables indicate that lagged profitability, firm size, financial risk, R&D costs, net working capital, and economic growth are the most important variables affecting firm profitability. More specifically, profitability is positively and significantly affected by past profitability, firm size in terms of total sales, net working capital, and economic growth. On the other hand, R&D costs and financial risk have a dampening effect on the profitability.

In Turkey, Akben-Selcuk (2016) explored factors affecting profitability of all Turkish publicly quoted firms during 2005-2014 by using panel data analysis. This study concluded that firms' ROA is negatively related to financial risk and R&D costs and positively related to growth, level of liquidity, international sales and size. In addition, Çakir and Küçük Kaplan (2012) estimate the determinants of the profitability of 122 manufacturing firms quoted in Borsa İstanbul by using panel data analysis for the 2000-2009 period. In their study, they conclude that higher current ratio and higher leverage ratio are associated with lower profitability. On the other hand, stock turnover, asset turnover, and quick ratio have a positive impact on the profitability of quoted manufacturing firms. Further, Kocaman, et.al., (2016) identified the factors affecting the profitability of a sample of 15 listed industry firms during years from 1997 to 2013, by

employing fixed effects panel data model. Econometric results show that while profitability is positively and significantly associated with net profit margin and receivables turnover, it is negatively and significantly correlated with financial leverage and asset tangibility. Moreover, Doğan and Topal (2016) study the factors explaining the profitability of a sample of 136 Turkish manufacturing firms traded on the Borsa Istanbul Stock Exchange during 2005-2012 by using pooled OLS regression analysis. The study suggested that firm size is positively associated with ROA, whereas financial risk is negatively connected to ROA. However, the effect of firm age and liquidity level is trivial.

With the aim of assessing the profitability determinants of 11,682 firms operating in manufacturing and service sector during 2008-2016, Goddard, et.al (2020) consider a panel data of 5 European countries (France, Italy, Spain, Belgium, and the UK). Their dynamic panel data results show that while gearing ratio and size of firm in terms of total assets have a negative impact on profitability measured by ROA, the variables like past profitability, liquidity level, and market share have a positive effect on profitability. The factors explaining manufacturing firm profitability for Italy, Switzerland, and Sweden during the period 2008-2016 are studied by Hatem (2019). The empirical findings based on static panel estimation method indicate that profitability of manufacturing firms is positively and significantly associated with growth opportunities for all three countries. Only in the Swedish manufacturing industry, firm size affects profitability positively, whereas firm age influences profitability negatively.

Employing data on 30,764 private firms in the EU-15 area, Pattitoni, Petracci, and Spisni (2019) examine the profitability determinants during 2004-2011. The authors use both static and dynamic panel data models to estimate the impact of selected firm-level and macro-level variables on firm profitability measured by ROA. Estimation results from static and dynamic panel data analysis imply that while inflation rate, debt ratio, and firms size have a negative impact on profitability of private firms, net working capital-to-total assets ratio, growth rate of sales, opportunity cost of capital, majority shareholder, economic growth, and the annual return of market indices have a positive influence on ROA ratio.

Pratheepan (2014) tries to investigate what determines profitability of 55 manufacturing firms in Sri Lanka that are quoted at the Colombo Stock Exchange during the period from 2003 to 2012.

The results of the conducted panel data analysis show that while firm size significantly increase firm profitability measured by ROA, greater tangibility lowers ROA significantly. Besides, financial leverage and level of liquidity are not significantly associated with ROA. In addition, between the years 2008-2012, Sivathaasan, Tharanika, Sinthuja, and Hanitha (2013) investigate profitability determinants using a sample consisted of the 11 publicly traded manufacturing firms in Sri Lanka. Their results reveal that while profitability is significantly affected by capital ratio and non-debt tax shield, working capital, growth rate, and firm size do not have any significant influence on the profitability of sampled firms listed on Colombo Stock Exchange.

For Romania, using a sample of 46 firms listed on the Bucharest Stock Exchange for the period of 2009-2013, Vintilă and Nenu (2015) report that firm size in terms of employees and the ratio of sales to equity are positively and significantly correlated with ROA and ROE, whereas debt structure, asset tangibility, and growth in terms of sales are negatively and significantly associated with profitability measures. Using static and dynamic panel data models, Vătavu (2014) explores how firm characteristics and economic conditions influence the profitability of 126 publicly listed firms for the 2003-2012 period in Romania. Regression results imply that lagged ROA, size, debt, liquidity, tangibility, the level of taxation are the most important factors in explaining ROA. On the other hand, there is no statistically significant relationship between firm risk and ROA. As for economic conditions, inflation rate and the latest economic crisis have a negative influence on ROA.

In Oman, Al-Jafari and Al Samman (2015) examine the profitability determinants of 17 industrial firms listed on Muscat securities market for the 2006-2013 period. The results obtained from regression analysis suggest that while profit margin and ROA are positively and significantly influenced by size, growth, and working capital, financial leverage affects each of profitability indicators negatively and significantly. However, tangibility has also a significant and positive influence on firms' profit margin. In Pakistan, Abbas, Bashir, Manzoor, and Akram (2013) investigate the determinants of financial performance of 411 listed textile firms by using fixed effect model during the period 2005-2010. The results obtained from their regression equation indicate that financial performance measured by ROA as EBIT/Total assets is significantly affected by short term financial leverage, tax, non-debt tax shield, firm size, and risk. Based on a sample of 22 SME firms listed in Indonesian Stock Exchange Market during the

period from 2007 to 2012, Margaretha and Supartika (2015) try to analysis if the firm specific financial indicators affect profitability. While firm profitability is positively affected by industry affiliation and productivity, estimation results also imply that growth, the size of firm, and past profitability decrease profitability significantly. Meanwhile, firm age is found to be positive but insignificant in explaining profitability.

Lorena, Danijel, & Marko (2016) investigated determinants of the profitability of industrial firms in Croatia, using data for large, medium and small companies for the period 2003-2014. This paper provides a broad theoretical review of the determinants of profitability analyzed in economic literature with special remarks on firm level determinants, and explanation of most used variables such as size of firm, growth rate, profit in previous years, ownership, productivity, financial leverage, and indebtedness. Results from the panel ordinary least squares model for Croatia's manufacturing sector reveal a positive and statistically significant relationship between profitability, total factor productivity, and concentration measured through Herfindahl-Hirschman index. On the other hand, indebtedness and liquidity show a negative relationship with the firm profitability of Croatia's manufacturing sector.

Tarik (2020) establish the crucial determinants of the profitability of manufacturing companies listed on the Dhaka Stock Exchange (DSE). Data were collected from different manufacturing companies listed on the DSE from 2014 to 2019. Pearson's correlation and ordinary least squares regression models were used to establish the relationship among profitability and different determinants of profitability such as liquidity, leverage, sales growth, management efficiency, capital intensity, firm size, working capital, annual inflation and GDP growth. The regression analysis results showed that liquidity and leverage have a statistically significant negative impact on profitability. On the other hand, managerial efficiency, sales growth and capital intensity have a statistically significant positive impact on profitability. The study also found that firm size, working capital, annual inflation and GDP growth have no significant impact on profitability. The study concludes that liquidity, leverage, managerial efficiency, sales growth and capital intensity are the strong determinants of profitability of the manufacturing companies.

Matthijs (2018) assessed the factors influencing profitability of manufacturing firms listed on the New York Stock Exchange. The investigated variables include: firm size, intensity of research

and development, growth rate, productivity, age, net asset turnover, leverage ratio, and current ratio. Data was collected on 250 American manufacturing firms for years 2012-2017. The results indicate profitability is positively and significantly affected by growth rate, employee productivity, leverage ratio, current ratio and profitability. No statistically significant relationship was found for firm size and age and profitability. The results also suggest a negative relationship between net asset turnover and profitability.

Didik, et.al., (2020) explored the profitability determinants of the manufacturing companies in Indonesia. Several independent variables examined for their influence on profitability were working capital, firm size, firm growth, capital structure, and non-debt tax shields. The sample of this study were manufacturing firms listed on the Indonesia Stock Exchange from 2010 to 2017. The number of samples were 350 manufacturing companies. The results of this study indicate that working capital, firm size and firm growth were positively related to profitability. Meanwhile, capital structure and non-debt tax shield did not affect profitability. The findings of this study were consistent with the pecking order theory and the financial agency theory. This study implies that managers need to adjust their investment needs with the profitability that has been achieved and the total assets of the company, and to maximize the value of the company by managing current assets so that the rate of the return on marginal investment is equal to or greater than the cost of capital used to finance the current assets. Furthermore, financial managers must be able to determine essential investment objectives by maximizing the use of assets and fixed assets which are expected to make the company to enjoy the sales growth in the future. Although this study organically builds upon recent studies about the firms' profitability, it conducted in the new administrative setting in Indonesia, which is the Widodo's administration. Widodo's administration supports the manufacturing industry to be able to compete globally.

### **2.3 Literature Summary and conceptual Framework**

In the framework of the resource-based view theory, RBV (Jovanovic, 1982; Wernerfelt, 1984), where specific determinants of business enterprise have the greatest significance, it is assumed that the older the company is it can potentially acquire more resources (Autio, 2005), and the older the company is, it possesses higher amounts of information and more experience, enjoys a better reputation and it is enabled to have wider and better access to financing. Aldrich & Auster (1986) stated that younger organizations suffer from "liability of newness," referring to the high

failure rate of new businesses. This means that newer organizations have a difficult time surviving the first couple of years after incorporation. On the other hand, older firms have a natural advantage in terms of performance, as younger firms are focusing on survival and growth, as opposed to maximizing profitability. Akben-Selcuk, (2016) and Vijayakumar (2011) indicated that firm age positively affects profitability that implies found older, more developed firms to have a significantly higher level of profit than newer firms.

However, there are a multitude of studies which confirmed the negative relationship of age and profitability, where as an important argument, the lag of older companies to market changes and innovations have been highlighted (Glancey, 1998). According to Organizational Life Cycle theory, older organizations, or firms in a later stage of the life cycle, tend to experience declining performance (Dodge & Fullerton, 1994). This phenomenon occurs due to depreciating and obsolescing assets, in combination increasing costs and slower growth hindering profitability. Loderer & Waelchli, (2009) validated this view by concluding a negative relationship between profitability rate and the age of a business. In addition, Hirsch, Schiefer, Gschwandtner, & Hartmann, (2014) found that firm age negatively influences profitability levels.

More-established and older firms have better performance than newer firms because older firms likely are further along in the learning-curve, thus have more experience and know-how in their operations; have developed strong, in-imitable relationships with suppliers and possibly competitors; and less overhead than newer organizations, as most equipment and asset investments have been paid off and fixed costs minimized.

A variety of studies argue that the average cost of operating a small business is higher than the average cost of operating large enterprises (Agiomirgianakis et al., 2013). Large enterprises have higher levels of profitability when compared to small ones, primarily due to economy of scale. On the other hand, small enterprises are often new players on the market, so they take over market shares and profits of large companies (Papadogonas, 2007). Aldrich & Auster (1986) argued that smaller firms suffer from “liability of smallness,” implying that organizations with fewer assets lack the resources and know-how to be significantly profitable. Resource-based View suggests that firms with more assets and capital benefit from a competitive advantage, allowing the firm to engage in more investments and projects than smaller organizations,

rendering it more profitable in aggregate (Barney, 1991). According to RBV theory, the positive correlation between company's size and profitability, is a result of the more accessible access to capital and of suitability for utilization of the economy of scale's principles, which ultimately leads to higher profitability. Eslava, Haltiwanger, Kugler, & Kugler, (1964) stated that the diversification capabilities of larger firms enable a higher, less variable profit rate, compared to smaller firms. Empirically, this relationship is confirmed by Gschwandtner (2005), Nunes et al. (2009), Fukao (2006), Asimakopoulos et al. (2009), Stierwald (2010), and Dwyer et al., (2010).

Although it is revealed that profitability is expected to increase as firm's size increases in view of the economies of scale hypothesis, but agency problems between firm managers and shareholders of the firm cause the profitability to decrease, suggesting that a larger firm size is likely to be associated with lower profitability (Voulgaris & Lemonakis, 2014; Pattitoni et al., 2014; Hatem, 2014). Larger firms should be more profitable in the long-run for the following reasons: 1) ability to sustain higher losses for a longer period of time due to greater amount of total assets, 2) less dependent on one customer segment or market due to portfolio diversification, and 3) stronger market presence establishes credibility, making larger organizations more attractive for investment, line of credit and preferred choice for awarding sales contracts. If an organization grows in size, an increase in resources and capital should result in greater return on assets because it results economies of scale, enables entry to new markets, and allows access to, if not more, outside capital. The most common choice for company's size variable comes down to property size, number of employees and total sales. According to Hirschey, (2008) total sales is most frequently used measure of company size.

Liquidity indicates the level of solvency of the firm and efficiency in asset utilization. An adequate level of liquidity could help firms to expand their operations, pay their debts on time and take advantage of long-term profitable investment opportunities (Goddard et al., 2005). A company can experience higher levels of profitability by reducing accounts receivable and inventory. Thus, having a faster inventory turnover and receiving payment quicker results in a more liquid and more profitable organization (Deloof, 2003). More specifically, companies can influence their profit rate by efficiently handling cash conversion and account receivables. Hence, companies can create more value, or instigate a higher level of profitability, through conservative and efficient working capital practices (Nazir & Afza, 2009).

The availability of working capital funds needed by each company varies according to the type of business. The working capital management is considered effective if the company is able to balance its sources and the use of working capital (Rita, Wahyudi and Muharam, 2017; Effendi and Disman, 2017). The company's ability to obtain profits can be seen from the success and ability of companies to use working capital productively.

If an organization is more efficient in terms of current ratio, then the firm will experience higher levels of profit because of less risk related to inventory surplus and perishability, higher levels of liquidity in case of economic down-turn, and quicker cash conversion cycles reduce risk of customer non-payment, or bad debt.

Although there some studies that stated liquidity has no effect on profitability, various studies found that company liquidity determines its profitability. Ghasemi & Razak (2017), Nguyen & Nguyen (2020), Saripalle (2018), and Isik & Tasgin (2017) revealed that company liquidity has a positive effect on the profitability. In contrast, Alarussi et al. (2018) and Margaretha & Khairunisa (2016) evidenced that there is no relationship between company liquidity and profitability.

Liquidity is measured by current ratio and indicated by net working capital-to-total assets ratio. Current ratio is the ratio to analyze the company's ability to meet short-term obligations before reaching due date (Fahmi, 2016). The company's ability to pay off short-term obligations allows the company to affect profitability.

The leverage ratio, also called the debt ratio, measures the total amount of liabilities compared to the total assets held by a firm. There are several debt ratios used in studies within the capital structure. It uses indicators such as the ratio of total indebtedness in relation to properties, total capital debt and long-term debt in relation to capital. Moreover, it is indicated by financial risk, which is measured by total debt-to-total assets ratio, represents the decisions regarding debt structure of a firm.

According to Muhammad (2003) a certain level of indebtedness is desirable, but an excessive level leads to financial turmoil. Firms with higher debt ratio may experience cash shortages due to their periodic debt payments, which may cause them to miss out on lucrative investment

opportunities (Pervan & Mlikota, 2013; Wu, 2013; Pattitoni et al., 2014; Ventoura, 2002; Murugesu, 2013; Admati, Demarzo, Hellwig, & Pfleiderer, 2018; Wijaya et al. (2020)). Their findings support the claim that once debt is issued, shareholders can resist leverage reductions and stock buybacks. This makes it difficult for a firm to recapture shares; thus, deeming debt issuance unfavorable with regard to profitability. Firms with a lower debt rate should be more profitable because of lower chance of bankruptcy, less dependence on shareholders and leverage can be hard to resolve, and lower total liabilities on balance sheet, maintaining a favorable financial position.

On the other hand, indebtedness does not have to have only negative impact on profitability. Namely, if the borrowed funds are invested in products / services which bring an additional income, with the average profit values, indebtedness will in the long term have a positive impact on profitability. Hence, it is revealed that debt can actually increase the profitability of a firm (Singapurwoko, 2011; and Devi & Devi, 2014). The main argument being that debt issuance injects more funds into the organization, stimulating organizational growth and thus enabling higher profitability and efficiency.

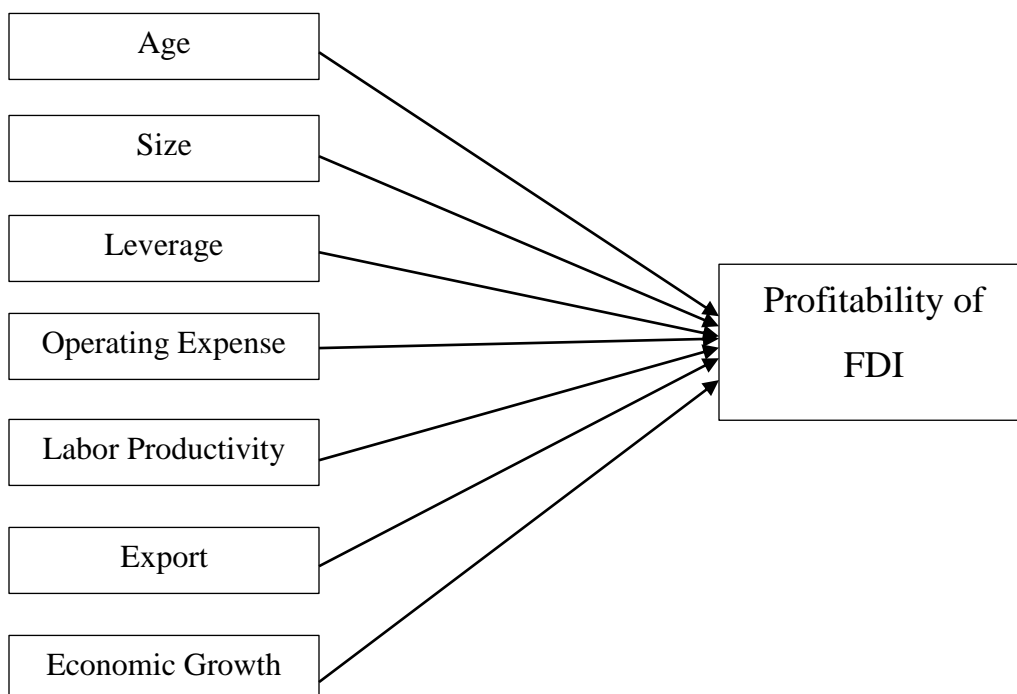
Literature on the effect of leverage and profitability states that there are certain circumstances in which the ratio is positive and also negative. Nevertheless. Susilo et al. (2020), and Margaretha & Khairunisa (2016) found that leverage does not affect profitability.

The impact of debt on profitability can be divided according to three basic relations (Kebewar, 2012): a) Signal theory which assumes a positive impact of debt on profitability; b) The theory of agency costs: b1.) The correlation is positive if the capital's agency costs are between the owners and manager, b2.) The correlation is negative if the agency costs of debt are between owners and lenders; c) The tax aspect - correlation is unpredictable, complex and depends on the tax evaluation of interests, income tax and tax valuation. The trade-off theory has been developed in explaining the company's capital structure to profitability. The greater the profitability obtained by the company, the greater the debt support needed to generate the company's investment activities.

Studies in financial management have not found an optimal capital structure, the best one that can be achieved by the company to obtain maximum profitability (Rupeika-Apoga et al., 2018; Thalassinos et al., 2015). Thus, theoretical studies provide complex and intertwined answers on the impact of debt on profitability. Generally, the lower the debt ratio of a business, the lower the risk associated with investment.

An improvement in economic conditions is more likely to affect the aggregated demand and supply and thus profitability of the firm (Lee, 2009; Pattitoni et al., 2014; Voulgaris & Lemonakis, 2014).

Based on the literature reviewed, conceptual framework of the study is presented in Figure 2.1 below.



*Figure 2. 1: Conceptual Framework*

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Research Design and Approach**

Burns & Grove (2001) stated that research designing is intended to plan and implement the study in a way that enables to obtain intended results, thus, increasing the chances of obtaining information that could be associated with the real situation. As a method of analysis, this study will follow descriptive and explanatory research designs. Before running the explanatory analysis, the descriptive design will be implemented intended to describe about firm level profitability and its determinants of the FDI firms in leather industry in Ethiopia. The explanatory design will be applied to examine determinants of the profitability by following econometric procedures. This method enables to identify causal relationship between independent variables and dependent variable.

Furthermore, this study has followed quantitative research approach that investigates quantitative properties and phenomena and relationships between the study variables by systematic and scientific way.

#### **3.2 Population and Sampling Method**

This study intends to identify determinants of profitability of FDI firms in leather industry in Ethiopia. Based on this objective, this study targets FDI firms in the leather industry. The leather industry in Ethiopia includes tannery, footwear, and goods and garments. In the tannery, there are 13 FDI firms; and in the footwear, and goods and garment there 6 and 3 FDI firms respectively (ELI, 2022); totally, 22 FDI firms. Hence, this study includes 22 FDI firms operating in leather industry.

Due to small number of firms, the study has not followed any sampling strategy; instead, all firms were included in the study.

### 3.3 Variable Measurement

This study includes one dependent variable, ROA proxy to profitable and 7 independent variables. Based on previous studies, mathematical approach was followed to computed the variables. Measurement of the variables is presented in Table 3.1 below.

*Table 3. 1: Variable Measurement*

Variable	Measurement
Profitability (ROA)	Measured by Return on Asset and computed as revenue after tax to asset ratio
Size (SZ)	Indicated by asset size of the investment. It is measured as natural logarithm of total asset.
Age (AG)	Age is measured as number of years the firm is in operation in Ethiopia
Leverage (LV)	Total debt over total assets
Liquidity (LQ)	Net working capital over total assets
Labor Productivity (LP)	Revenue per labor
Market condition	This variable is indicated by two measurements; proportion of sales from international market and aggregate market condition in the country (GDP).  Proportion of the sales to foreign market (FM) is measured as ratio of export to total revenue and aggregate market condition is measured as personal capita income of Ethiopia.

### 3.4. Data Type and Sources

This study has used firm level and macroeconomic data. The data is mainly about financial reports. In addition, the macroeconomic data is about personal income during the study period. Hence, entirely, this study has used numeric data. These data are secondary data that was collected from the firms and LIDI. Since, LIDI stores the required data and additional that was not available in LIDI was collected from the firms. Moreover, the macroeconomic data was

collected from Ethiopian Statistical Agency (ESA). The study has used yearly reports of the firms for 10 years from 2013 to 2022.

### **3.5. Method of Data Analysis**

The study dataset contains cross-sections and time variables. This analysis was conducted based on panel data analysis strategy that the dataset contains cross section of the FDI firms in leather industry and yearly data about the firms in the dataset. The panel data has advantage over cross sectional and time series data by combining time series of cross section observations give more informative data, more variability, less co-linearity among variables, more degrees of freedom and more efficiency (Gujarati,2004).

The collected data was analyzed by using the descriptive statistics and multiple regressions. For the descriptive analysis, the study has used descriptive statistics such as the mean, standard deviation, maximum and minimum values will be used. Further, the regression analysis was conducted by using panel strategies. To this end, the study has used Housman specification test to select appropriate model between fixed and the random effects models. Moreover, the diagnostic tests were undertaken in order to check the validity of the model and fulfill the assumption of the Classical Linear Regression Model.

Based on econometric procedure, the econometric estimation was conducted by using Fixed Effect and Random Effect models and an appropriate model was selected by using Hausman test. In addition, further econometric procedures were conducted based on the assumptions of selected model. Moreover, the study conducts model assumption tests.

The empirical estimation was conducted by using firm-specific data and estimated by using following equation.

$$ROA_{it} = \beta_0 + \beta_1SZ_{it} + \beta_2AG_{it} + \beta_3LV_{it} + \beta_4LQ_{it} + \beta_5LP_{it} + \beta_6FM_{it} + \beta_7GDP_{it} + \varepsilon$$

The study has used STATA version 16 computer software to conduct the data analysis.

### **3.6 Ethical Considerations**

Every person involved in the study were entitled to the right of privacy and dignity of treatment, and no personal harm was caused to subjects in the research. Information obtained were held in strict confidentiality by the study. All assistance, collaboration of others and sources from which information was drawn were acknowledged.

## **CHAPTER FOUR**

### **RESULT AND DISCUSSION**

#### **4.1 Introduction**

This study was conducted with an objective of identifying determinants of profitability of FDI firms in leather industry in Ethiopia by using 13 FDI firms in the industry that were operating for more than 10 years. Particularly, the study has examined effect of size of a firm, age of a firm in Ethiopia, labor productivity in a firm, domestic input, leverage of a firm, market for product of a firm, and economic condition of the country. Hence, the study has included firm specific and macroeconomic determinants; and the data was collected from the firms and CSA about the firm specific determinants and the macroeconomic determinants, respectively, for period from 2013 to 2022. The study has used ROA as profitability indicator. As the study include cross-sections of firms and time period of years from 2013 to 2022, the data was analyzed based on panel data analysis strategy. This chapter presents the result of data analysis and provides discussion on the results. The first section of the chapter provides descriptive analysis by using descriptive statistics such as mean, standard deviation, minimum and maximum. The second section is about the regression analysis. It presents model specification tests, estimation result and post estimation tests.

#### **4.2 Descriptive Analysis**

As presented in previous chapter, this study has followed descriptive and explanatory research designs. Hence, data was analyzed by using descriptive and inferential statistics. This section of presents results of the descriptive analysis and the result is summarized in Table 4.1 below.

Based on the previous studies, this study has used ROA proxy to profitability of a firm. As stated in the Table 4.1, mean of ROA for the firms is 0.159. This is to mean that the firms are collecting net profits of 15.9 Birr from 100 Birr investment. Minimum value of ROA during the study period in the firms was 0.118 that indicates the firms that were least profitable earn profit of 11.8 Birr from 100 Birr investment. Moreover, the firm that was most profitable during 2013 to 2022

earned net income of 19.3 Birr from 100 Birr investment. This indicates that, in leather industry in Ethiopia, during 2013 to 2022, FDI firms earn favorable profit from their investment.

*Table 4. 1: Descriptive Statistics*

Variable	Obs	Mean	Std.Dev.	Min	Max
ROA	130	.159	.009	.118	.193
Age	130	12.223	1.021	11	18
asset	130	1,719.867	1,602.119	45.688	8,928.799
Labor productivity	130	.347	.129	.136	.973
Leverage	130	.283	.092	.055	.565
Liquidity	130	.205	.089	.123	.937
Export	130	.242	.037	.179	.445
GDP	130	440.62	84.28	311.37	570.31

Source: Author's Computations, 2023

Experience of the firm is considered as important determinant of profitability of FDI firms in a hosting economy. This is due to that the firms adopt new business environment as they operate for longer period. This study has included firms that have an average of 12 years in Ethiopia. Firm with lowest experience have operated for 11 years in Ethiopia. On the other hand, most experienced firm has operated for 18 years. This indicates the firms have appropriate experience to adopt the business environment in the country.

During the study period, the asset of the firms ranges from 45.69 million Birr to 8.93 billion Birr; and average asset of the firms was 1.72 billion Birr. This indicates FDI firms in Ethiopia in leather industry highly vary by size. Moreover, this result indicates that the firms are at low to medium level for the size of multinational firms. This suggests that the firms have no intention for large investment in the country.

Ethiopian government uses different strategies to attract FDI firms. Availability of labor force and low cost of the labor are one of the pillar strategies to attract the firms. This study has assessed labor productivity of the firms and it is identified that an average productivity of labor in the leather industry is 0.347 million Birr. This indicates, on average, 1 worker in a firm product revenue of 0.347 million Birr in a year. This suggests as stated by the government, there

is high role of labor for production in leather industry. However, it is important to conduct further analysis to examine the effect of labor on profitability of the firms.

Availability of finance sources from local sources are considered as important factor not only to attract FDI investment but also it makes the firms profitable. In line with this, this study has assessed provision of finance by domestic institutions. This study has observed that, on average, 28.3% of finance of FDI firms in Ethiopia is from local source. However, the level of the finance highly varies within the firms. The lowest proportion of the finance was 5.5% that suggests only 5.5% of finance of the firms is provided by financial institutions in Ethiopia. On the other hand, highest leverage ratio was 56.45% where, more than half of finance for the firm was provided by domestic institutions. This indicates that, FDI firms in industry in Ethiopia were adequately financed by domestic financial institutions, particularly, by commercial banks and Development Bank of Ethiopia.

Moreover, it is expected that the FDI firms in leather industry mainly use inputs from domestic sources. However, this study identified that the firms use only 20.5% of their inputs from local sources. On the other hand, this implies that about 79.5% of cost for inputs is paid for imported inputs. This ratio highly varies within the industry; where, minimum proportion is 12.3% and maximum proportion is 93.7%. The small of proportion domestic input might be associated that domestic inputs are cheaper than the imported inputs. This study revealed that although the government encourage using inputs from local sources, the domestic inputs are less competitive when compared to the imported inputs and there is low supply chain integration with the domestic firms. However, this needs further analysis whether that the inputs are substitutes or price of imported inputs is higher than the domestic inputs.

In regards to the firm specific factors, finally, this study has assessed output market of FDI firms in leather industry in Ethiopia during 2013 to 2022. For this purpose, this study has used proportion of revenue from the outputs exported by the firms. Accordingly, it is computed that FDI firms in leather industry, on average, sold 54.2% of their outputs in international market. However, there were firms that sold only 47.9% of their products in foreign markets. In contrast, most exporting firm sold 74.5% of its products abroad. This indicates FDI firm in leather industry in Ethiopia use both foreign and domestic markets to sell their products; however, the

export level is not as expected by government that the government prefers export intensive firms to firms that locally sell their products.

This study has used both firm specific and macroeconomic factors that affect the profitability of FDI firms in leather industry in Ethiopia. As shown above, the study has presented different firm specific factors. On the other hand, the study has used macroeconomic determinant, economic growth as determinant of profitability of the firms. This is intended to measure size of the economy and aggregate demand for products of the firms. It is measured by using real per-capita GDP that enables to adjust effect of economic instability and income distribution. The average yearly per capital of Ethiopia during 2013 to 2022 was 440.6 USD and it ranges from 311.37 USD to 570.31 USD. This shows weak power of consumers to purchase products of the firms.

### **4.3 Regression Analysis**

In addition to descriptive research design, this study has used explanatory research design that employs regression analysis. Since the study used panel data, method for the regression analysis was panel models. Accordingly, the study has implemented random effect, fixed effect and pooled OLS models based on the econometric procedures of panel data analysis (for the estimation result of each model, see Appendix A).

The first procedure of the regression analysis was conducting model selection. To select appropriate model between random and fixed effect model, Hausman specification test was conducted for ROA models. The null hypothesis of this test is random effect is appropriate model that assumes unique errors ( $u_i$ ) are not correlated with the regressors. In addition, as a second procedure while specifying model, the study has conducted Breusch-Pagan Lagrange multiplier (LM) to decide between a random effects regression and a simple OLS regression. The null hypothesis in the LM test is that variances across entities is zero, no significant difference across units (i.e., no panel effect). The results Hausman and LM tests are presented in Table 4.2 below.

*Table 4. 2 Model Selection*

<b>Test statistics</b>	<b>Hausman</b>	<b>LM</b>
Chi-square	13.10	7.76
P-value	0.0696	0.0027

Source: Own Computation, 2023

As shown Table 4.3 above, Chi-square value ( $\chi^2 = 13.1$ ) for Hausman test is not statistically significant ( $p = 0.0696$ ) at 5% significance level. Therefore, this study fails to reject the null hypothesis. This implies that random effect model is more appropriate than fixed effect model to predict the data in the study. Consequently, this study has selected the random effect model to fixed effect model.

Second, following the Hausman test, this study has analyzed the model selection between random effect model and pooled OLS. It is computed that chi-square value ( $\chi^2 = 7.76$ ) is statistically significant ( $p = 0.0027$ ); hence, it is rejected that variance across entities is zero and this suggests existence of random effects. As a result, POLS results biased estimation due to existence of heteroskedasticity and random effect model is more appropriate than the POLS. This implies random effect model is more appropriate than pooled OLS model to estimate determinants of profitability of the firms. Hence, it is concluded that there is significant difference across profitability of FDI firms in leather industry in Ethiopia during period from 2013 to 2022.

Based on the Hausman and LM tests, this study applies random effect model for empirical estimation. The random effect model meets an assumptions of normality test, autocorrelation, and homoscedasticity. Therefore, the model specification tests confirm robustness of the model in regards to normality, autocorrelation and heteroskedasticity. Nevertheless, there is no evidence that the model is free from multicollinearity problem. Therefore, third, this study has checked existence of multicollinearity problem in the estimation model. The multicollinearity describes the relationship among explanatory variables. This study uses Spearman correlation to detect existence of the multicollinearity among independent variables. The correlation matrix is presented in Table 4.4 below.

As shown in Table 4.3 above, correlation coefficients for relationships among the independent variable are small with maximum value of 0.758 computed for relationship between GDP and lnasset. This value is below the standards suggested by Cooper & Schindler (2009) and Hailer et al (2006) that recommend to correct the multicollinearity problem when the correlation extent to be above 0.8 and 0.9 respectively. In addition, these variables have no conceptual relationship of one variable to represent the other. Hence, the estimation model is free from multicollinearity problem.

*Table 4. 3: Multicollinearity Test*

<b>Variables</b>	<b>(1)</b>	<b>(2)</b>	<b>(3)</b>	<b>(4)</b>	<b>(5)</b>	<b>(6)</b>	<b>(7)</b>
<b>(1) lnage</b>	1.000						
<b>(2) lnas</b>	-0.175	1.000					
<b>(3) lp</b>	0.127	-0.488	1.000				
<b>(4) lvr</b>	0.225	0.513	-0.420	1.000			
<b>(5) lq</b>	0.653	-0.142	0.281	0.055	1.000		
<b>(6) fm</b>	0.078	-0.635	0.184	-0.008	0.002	1.000	
<b>(7) gdp</b>	0.122	0.758	-0.515	0.661	-0.023	-0.336	1.000

Source: Author's Computations, 2023

Based on the results of Hausman test and LM test, random effect model is used conduct the regression analysis. Therefore, this study provides interpretation based on estimation result from random effect model. The result of random effect model is presented in Table 4.4 below.

*Table 4. 4 Estimation Result*

roof	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
lnage	-0.049	0.008	-6.01	0.000	-0.065	-0.033	***
lnas	0.000	0.001	0.36	0.715	-0.002	0.003	
lp	0.067	0.004	16.30	0.000	0.059	0.075	***
lvr	0.028	0.007	4.13	0.000	0.015	0.041	***
lq	-0.010	0.006	-1.76	0.078	-0.021	0.001	*
fm	-0.043	0.017	-2.52	0.012	-0.077	-0.010	**
gdp	0.000	0.005	0.05	0.963	-0.009	0.010	
Constant	0.159	0.025	6.25	0.000	0.109	0.209	***

Mean dependent var	0.159	SD dependent var	0.009
Overall R-squared	0.747	Number of obs	130.000
Chi-square	377.918	Prob > chi2	0.000
R-squared within	0.763	R-squared between	0.739

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

Source: Author's Computations, 2023

As shown in Table 4.4 above, chi-square ( $\chi^2 = 377.92$ ) is significant ( $p = 0.000$ ) at 1% significance level. This indicates independent variables in the model significantly affect the dependent variable and the overall R-square value is 0.747 that shows 74.7% of variation of dependent variable is due to variation with independent variables in the model. In general, the result of econometric estimation has shown that ROA of the firms significantly vary from firm to firm during the periods from 2013 to 2022 and this variation is significantly related to factors such as age, size, labor productivity, source of finance, source of input, market for product of the firms, and economic growth of the country. On overall, these factors resulted 74.7% of variation of the profitability of the firms. However, level of effect of these factors varies from factor to factor. Based on result of empirical estimation, the effect of individual factor on profitability of the firms is presented in following sections.

#### **4.4 Effect of Age on Profitability of FDI Firms**

As shown in Table 4.4, result of empirical model, coefficient of age ( $\beta = -0.049$ ) is significant ( $p = 0.000$ ) at 1% significance level. This result indicates that age negatively and significantly affect profitability of a firm. Further, this result is interpreted as, firms with 1% higher age/experience earn 4.9% lower profit from the investment while other factors are remained constant. Based on this, this study revealed that in leather industry in Ethiopia, FDI firms that operated for longer period has lower profitability than the firms that recently started their operation in the country. The result of descriptive analysis has shown that the firms were operating in Ethiopia for 11 to 18 years with an average of 12 years. This is good time period to adopt the business environment in the country. However, profitability of the firms is declining as their experience in the business environment gets higher. This might be linked with time related factors and application of new technology for their production that new firms start their operation

by implementing new technology and technology of the older firms outdate with time unless it is replaced by new technology or maintained adequately and timely.

This finding is in contrast to RBV Theory (Jovanovic, 1982; Wernerfelt, 1984), where it is assumed that the older the company is it can potentially acquire more resources (Autio, 2005) and it possesses higher amounts of information and more experience, enjoys a better reputation and it is enabled to have wider and better access to financing. In addition, Aldrich & Auster (1986) stated that younger organizations suffer from 'liability of newness' referring to the high failure rate of new businesses. This means that newer organizations have a difficult time surviving the first couple of years after incorporation. On the other hand, older firms have a natural advantage in terms of performance, as younger firms are focusing on survival and growth, as opposed to maximizing profitability. Akben-Selcuk, (2016) and Vijayakumar (2011) indicated that firm age positively affects profitability that implies found older, more developed firms to have a significantly higher level of profit than newer firms. However, this study has included homogeneous group of firms that were not new and they were operating for more than 10 years; hence, they might not face liability of newness. Hence, in contrast, this study revealed that newer FDI firms in leather industry in Ethiopia have better performance than older firms because older firms less likely are further along in the learning-curve despite more experience and know-how in their operations; have developed weaker, imitable relationships with suppliers and possibly competitors; and more overhead than newer organizations.

However, similar to finding of this study there are different studies which confirmed the negative relationship of age and profitability, where as an important argument, the lag of older companies to market changes and innovations have been highlighted (Glancey, 1998). According to Organizational Life Cycle theory, older organizations, or firms in a later stage of the life cycle, tend to experience declining performance (Dodge & Fullerton, 1994) due to depreciating and obsoleting assets, in combination increasing costs and slower growth hindering profitability. In addition, empirical studies such as Loderer & Waelchli, (2009), and Hirsch, Schiefer, Gschwandtner, & Hartmann (2014) found that firm age negatively influences profitability levels. Hence, finding of this study is similar to theoretical framework of Organizational Life Cycle theory; empirical studies such Loderer & Waelchli, (2009) and Gschwandtner, & Hartmann, (2014).

#### **4.5 Effect of Size on Profitability of FDI Firms**

This study has computed that coefficient of size ( $\beta = 0.000$ ) is not statistically significant ( $p = 0.715$ ) that indicates the level of asset a firm has insignificant positive effect on its profitability. For percentage difference in asset of the firms, there was no any change in profitability of the firms. Hence, based on this result, this study revealed that profitability of a FDI firm in leather industry in Ethiopia is not affected by level of its assets. However, this study failed to support previous studies that identified neither positive nor negative effect of size of a firm on its profitability.

In contrast to finding of this study, Agiomirgianakis et al., (2013) argue that large enterprises have higher levels of profitability when compared to small ones, primarily due to economy of scale, an average cost of operating a small business is higher than the average cost of operating large enterprises; and organizations with fewer assets lack the resources and know-how to be significantly profitable (Aldrich & Auster, 1986). Moreover, according to RBV, firms with more assets and capital benefit from a competitive advantage, allowing the firm to engage in more investments and projects than smaller organizations, rendering it more profitable in aggregate (Barney, 1991). According to RBV, size positively affect profitability due to more access to capital and suitability for utilization of the economy of scale's principles, which ultimately leads to higher profitability. Moreover, Eslava, Haltiwanger, Kugler, & Kugler, (1964) stated that the diversification capabilities of larger firms enable a higher, less variable profit rate, compared to smaller firms. If an organization grows in size, an increase in resources and capital should result in greater return on assets because it results economies of scale, enables entry to new markets, and allows access to, if not more, outside capital. In contrast, agency problems between firm managers and shareholders of the firm cause the profitability to decrease, suggesting that a larger firm size is likely to be associated with lower profitability (Voulgaris & Lemonakis, 2014; Pattitoni et al., 2014; Hatem, 2014).

Hence, this study revealed that difference in profitability of FDI firms in leather industry in Ethiopia is not associated with difference in size of the firms.

#### **4.6 Effect of Labor Productivity on Profitability**

This study has computed that, in empirical model, coefficient of LBR ( $\beta = 0.067$ ) is statistically significant (0.000) at 1% significance level that indicates labor productivity positively and significantly affect profitability of a firm. Specifically, this result is interpreted as, on average, as revenue generated by employment of 1 more labor raised by 1000 Birr, profitability of a firm increases by 6.7%, by holding other factors constant. This result shows that higher proportion of revenue generated by labor results on higher profitability of the firms. Based on this result, this study revealed that FDI firms in leather industry in Ethiopia during 2013 to 2022, as leather industry is labor intensive, firms that have higher proportion of revenue from labor have better performance than firms that have lower proportion of revenue generated by labor hired. Hence, labor intensive firms are more profitable than the capital-intensive firms. This determinant is most significant factor in the empirical model suggesting that profitability of the firms is mainly affected by productivity of labor in the firms.

#### **4.7 Effect of Leverage on Profitability of Firms**

This factor is mainly used to assess availability and usage of external source finance for FDI firms in leather industry in Ethiopia. As it presented in previous sections, leverage is measured by using debt ratio of the firms that was obtained from financial institutions in Ethiopia. Proxy to source of finance, this study used liability from domestic sources to examine effect of leverage on profitability of the firms. The result of regression analysis has shown that coefficient of leverage ( $\beta = 0.028$ ) is statistically significant ( $p = 0.000$ ) at significance level of 1%. This indicated that during the periods from 2013 to 2022, leverage positively and significantly affect profitability of FDI firms in leather industry in Ethiopia; that, firms that have higher proportion of leverage from domestic sources have higher profitability than firms that have lower proportion of leverage from the domestic sources. Specifically, this result indicated that leverage of the firms increases by 1%, productivity of profitability of the firms increases by 2.8% while other factors are held constant. Based on this finding, this study revealed that leverage in general and finance from domestic sources, in particular, helps to increase profitability of FDI firms in leather industry in Ethiopia.

#### **4.8 Effect of Input Cost on Profitability of Firm**

FDI inflow management in Ethiopia considers provision of input with low cost from domestic sources. The result descriptive analysis showed that larger proportion of input is from foreign sources; i.e., largest proportion of input cost paid for operating inputs from foreign sources. The effect of using imports from domestic sources is examined by using the empirical model. As it is presented in Table 4.1, coefficient of domestic inputs expense ( $\beta = -0.01$ ) is statistically significant at 10% significance level. This indicated that FDI firms that use higher proportion of domestic inputs have lower profitability rate. In particular, this result indicates 1% rise of utilization of domestic inputs results, 1% fall in profitability of the firms while other factors are held constant. Based on this result, this study revealed that domestic inputs are inefficient and low quality, and expense on these inputs resulted profitability of the firms to decline. However, although this effect is weak, it needs attention of management of the firms and government of the country.

#### **4.9 Effect of Market on Profitability of Firms**

Coefficient of market ( $\beta = -0.043$ ) is statistically significant ( $p = 0.012$ ) at 5% significance level. This result shows that profitability of the firms negatively and significantly affected by proportion of output of the firms exported abroad. Specifically, this result shows that as proportion of sales to foreign market increases by 1%, profitability of the firms decreases by 4.3% when other factors are similar. In contrast, 1% rise in proportion of sales in domestic market rises profitability of the firms by 4.5%. This finding indicates that products of FDI firms in leather industry in Ethiopia is not competitive in international markets.

#### **4.10 Effect of Economic Growth on Profitability of Firms**

Empirically, this study has computed that coefficient of GDP ( $\beta = 0.000$ ) is not statistically significant ( $p = 0.963$ ). This indicates that economic growth has positive but insignificant effect on profitability of FDI firms in leather industry in Ethiopia during periods from 2013 to 2022. Based on this result, this study revealed that slow growth rate of the economy has no contribution to profitability of the FDI firms. This might be due to products of FDI firms in leather industry in Ethiopia targets foreign markets irrespective to economic condition in the country and the domestic market is left for domestic investment.

## **CHAPTER FIVE**

### **SUMMARY, CONCLUSION AND RECOMMENDATIONS**

#### **5.1 Introduction**

This study was conducted with an objective of identifying determinants of profitability of FDI firm in leather industry in Ethiopia. Accordingly, the study has assessed firm specific and macroeconomic factors that determine profitability of the firms. The study has used yearly data and included 13 firms that have financial statements for at least 10 years. Hence, the study has included 130 observations and analyzed the data by using panel data analysis methods descriptive statistics and econometric models. Following model specification tests, the econometric estimation was conducted by using random effect model. The results of the data analyses were presented in previous chapter, chapter 4. This chapter presents summary of major findings, conclusions drawn based on major findings of the study and recommendations provided based on the conclusions drawn.

#### **5.2 Summary of Major Finding**

The study has identified that coefficients of age, labor productivity and leverage are significant at 0.01 significance level. Coefficient of age is negative and coefficients of labor productivity and leverage are positive. This indicates that profitability of FDI firms in leather industry in Ethiopia is negatively affected by age of the firms. However, it is positively affected by labor productivity and leverage of the firms.

In addition, coefficients of cost of output market and cost of domestic inputs are negative and significant at 5% and 10% significance levels, respectively. However, among the firm specific factors, coefficient of size of a firm is not significant at any significance level. Unlike the firm specific factors, indicator of macroeconomic condition, effect of economic growth is not statistically significant on profitability of the firms.

Therefore, this study has found out that profitability of FDI firms in leather industry is affected by the firm specific factors; however, it is not affected economic growth of the country. It is positively affected by labor productivity and leverage of a firm. In contrast, it is negatively

affected by age and sales in foreign market. There is weak negative effect domestic inputs on profitability of the firms. However, profitability of a firms was not affected by its size.

### **5.3 Conclusion**

Based on the major findings, this study has drawn following conclusions.

- During periods from 2013 to 2022, age of FDI firms in leather industry in Ethiopia negatively influences profitability of the firms. Relatively, older firms earned lower profit than the younger firms. As the firms in the study were not newly established; instead, they were operating for more than 10 years, technology of older firms is getting outdated and resulting on higher average cost for production. Moreover, this implies, in relation to declining organization learning curve theory, learning from the business environment is declining for the older firms.
- Despite different empirical and theoretical evidences, profitability of FDI firms in leather industry in Ethiopia, during periods from 2013 to 2022, was not related to size of the firms. Hence, profitability of the firms is not subject to their size.
- Profitability of the firms highly related to labor productivity. In the industry, firms with higher proportion of output by labor earned higher net profit than firms with lower proportion of output per worker. The efficient allocation of labor of the firms helped to increase their profitability and the firms were earning higher return from additional employment.
- Leverage became important source of profitability of the firms that firms that have higher leverage from domestic sources earned higher net profit from their investment. The FDI firms from low interest loan from DBE and commercial banks, helped to solve financial distress of the firms.
- The FDI firms were provided by inefficient and low-quality domestic inputs. As a result, although it is weak, profitability of firms with higher proportion of domestic inputs for the production has reduced. Hence, these low-quality inputs have resulted wastages during the production and caused low demand for output that reduced net profit earned from the investment.

- Products of FDI firms in leather industry in Ethiopia has low competitiveness in international market that as size of export increased profitability of the firms has decreased. Despite strategic point of FDI in Ethiopia, domestic markets were better than foreign markets resulting on better profitability of the firms.
- Finally, this study concludes that profitability of FDI firms in leather industry in Ethiopia is not associated with macroeconomic condition of the country. Economic growth in the country has not caused profitability variation among the firms in the industry and variation from time to time. Hence, the small variation of the growth has not caused difference of the profitability of the firms.

## **5.4 Recommendations**

Based on the conclusions drawn, this study provides following suggestions to management of the firms.

- As profitability of the older firms is lower than the younger firms, mainly, the older firms are suggested to check technologies applied by them. The firms are suggested to maintain and update the existing technology. In addition, firms in the industry are suggested to update their technology in subject to previous period performances.
- In addition, firms have to check their output labor ratio. The firms are suggested to increase their production by hiring additional labor until the ratio starts to fall. As the firms are not at optimal level of employment, they are suggested to increase their level of production by using additional labor.
- Third, this study suggests firms with additional demand for finance to contact domestic finance sources that provide finance with low interest rates; especially, DBE and CBE. Based on this decision, the firms can expand their production level and result on economies of scale that enables them to reduce average cost of production.
- Fourth, this study suggests management of the firms to substitute domestic inputs with imported inputs if the domestic inputs have lower quality by comparing other factors; like cost of the imported inputs with the domestic one.
- Fifth, this study suggests management of the firms to consider international quality of

their products. For this purpose, the firms are recommended to advance their process technology and employ quality inputs. Moreover, the study suggested to jointly and strategically to use both domestic and foreign markets. They can sell their products in local markets if they possess low quality products that lack international competitiveness.

## **5.5 Limitations and Suggestions for Further Studies**

This study has tried to reach on generalizable result. Despite its effort, this study is not free from limitation that might affect optimal outcomes. This study suggested further studies to consider its limitations. First, this study has entirely depended on quantitative data from only secondary sources. Hence, further studies were suggested to include detailed primary data that support finding based on the secondary data.

Second, this study included foreign firms only in leather industry and it failed to include firms from other industries. Therefore, this study suggests to include other industries to reach more generalizable conclusions by using larger dataset.

Therefore, this study suggests further studies to extend type and size of dataset used by this study by including qualitative and quantitative data from primary sources, increase number of observations and apply advanced methodology and estimation models.

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## Appendices

### Appendix A: Estimation Models

#### A1: Random Effect Model

```

Random-effects GLS regression              Number of obs   =       130
Group variable: Firm                      Number of groups =        13

R-sq:                                     Obs per group:
  within = 0.7627                          min =           10
  between = 0.7393                         avg =          10.0
  overall = 0.7471                          max =           10

Wald chi2(7) =       377.92
corr(u_i, X) = 0 (assumed)                 Prob > chi2     =       0.0000
    
```

roaf	Coef.	Std. Err.	z	P> z	[95% Conf. Interval]	
lnage	-.0493346	.008204	-6.01	0.000	-.0654141	-.0332551
lnas	.0004001	.0010949	0.37	0.715	-.0017458	.002546
lp	.0666267	.004088	16.30	0.000	.0586143	.0746391
lvr	.0276413	.006692	4.13	0.000	.0145253	.0407574
li	-.0100133	.0056799	-1.76	0.078	-.0211457	.0011192
fm	-.0433152	.0171864	-2.52	0.012	-.0769999	-.0096304
gdp	.0002214	.0047661	0.05	0.963	-.0091199	.0095628
_cons	.1592395	.0254689	6.25	0.000	.1093213	.2091576
sigma_u	.0018558					
sigma_e	.00390171					
rho	.18449253	(fraction of variance due to u_i)				

#### A2: Fixed Effect Model

```

Fixed-effects (within) regression
Group variable: Firm

Number of obs   =    130
Number of groups =    13

R-sq:
  within = 0.7724
  between = 0.4892
  overall = 0.6660

Obs per group:
  min =    10
  avg =   10.0
  max =    10

corr(u_i, Xb) = -0.3709

F(7,110) = 53.33
Prob > F = 0.0000

```

roaf	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lnage	-.0463657	.0086107	-5.38	0.000	-.06343	-.0293014
lnas	.0039236	.0018505	2.12	0.036	.0002564	.0075907
lp	.0652478	.0049126	13.28	0.000	.0555122	.0749833
lv	.023859	.0070496	3.38	0.001	.0098884	.0378296
li	-.0102844	.0057001	-1.80	0.074	-.0215807	.0010119
fm	-.0375013	.0185007	-2.03	0.045	-.0741654	-.0008373
gdp	-.013181	.0084427	-1.56	0.121	-.0299124	.0035505
_cons	.2137812	.0403322	5.30	0.000	.1338523	.2937102
sigma_u	.00379765					
sigma_e	.00390171					
rho	.48648667	(fraction of variance due to u_i)				

F test that all u\_i=0: F(12, 110) = 3.60 Prob > F = 0.0002

### A3: Pooled OLS Model

Source	SS	df	MS	Number of obs =	130
Model	.007150477	7	.001021497	F(7, 122) =	53.46
Residual	.002331316	122	.000019109	Prob > F =	0.0000
				R-squared =	0.7541
				Adj R-squared =	0.7400
Total	.009481793	129	.000073502	Root MSE =	.00437

roaf	Coef.	Std. Err.	t	P> t	[95% Conf. Interval]	
lnage	-.0505088	.0081319	-6.21	0.000	-.0666066	-.0344109
lnas	-.0006294	.0008717	-0.72	0.472	-.0023551	.0010963
lp	.0638274	.0037518	17.01	0.000	.0564004	.0712544
lv	.0339029	.0065417	5.18	0.000	.0209529	.046853
li	-.0099186	.0059704	-1.66	0.099	-.0217375	.0019004
fm	-.0440692	.0163292	-2.70	0.008	-.0763945	-.011744
gdp	.001523	.0037311	0.41	0.684	-.005863	.0089091
_cons	.158367	.0214081	7.40	0.000	.1159874	.2007465

## Appendix B: Model Specification Tests

### B1: Hausman Test

	Coefficients		(b-B) Difference	sqrt(diag(V_b-V_B)) S.E.
	(b) fe	(B) re		
lnage	-.0463657	-.0493346	.0029689	.002615
lnas	.0039236	.0004001	.0035235	.0014918
lp	.0652478	.0666267	-.0013789	.0027242
lvr	.023859	.0276413	-.0037823	.0022167
li	-.0102844	-.0100133	-.0002711	.0004793
fm	-.0375013	-.0433152	.0058138	.0068486
gdp	-.013181	.0002214	-.0134024	.0069687

b = consistent under Ho and Ha; obtained from xtreg  
 B = inconsistent under Ha, efficient under Ho; obtained from xtreg

Test: Ho: difference in coefficients not systematic

```
chi2(7) = (b-B)'[(V_b-V_B)^(-1)](b-B)
        =      13.10
Prob>chi2 =      0.0696
(V_b-V_B is not positive definite)
```

### B2: LM Test

Breusch and Pagan Lagrangian multiplier test for random effects

roaf[Firm,t] = Xb + u[Firm] + e[Firm,t]

Estimated results:

	Var	sd = sqrt(Var)
roaf	.0000735	.0085733
e	.0000152	.0039017
u	3.44e-06	.0018558

Test: Var(u) = 0

```
chibar2(01) =      7.76
Prob > chibar2 =      0.0027
```