ST. MARY'S UNIVERSITY

SCHOOL OF GRADUATE STUDIES

DETERMINANTS OF FINANCIAL DISTRESS IN THREE AND FOUR STAR HOTELS IN CASE OF ADDIS ABABA, ETHIOPIA.

By

YORDANOS ASSEFA

JUNE, 2021

ADDIS ABABA, ETHIOPIA

DETERMINANTS OF FINANCIAL DISTRESS IN THREE AND FOUR STAR HOTELS IN CASE OF ADDIS ABABA, ETHIOPIA

A RESEARCH PAPER SUBMITTED TO ST. MARY'S UNIVERSITY SCHOOL OF GRADUATE STUDIES FOR THE PARTIAL FULFILLMENT OF MSC. IN ACCOUNTING AND FINANCE

BY: YORDANOS ASSEFA

ADVISOR: ASEMAMAW GETIE (ASSISTANT PROFESSOR)

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DECLARATION

I declare that this MBA. thesis is my original work, and has never been presented for the award of any degree in this or any other university and all source of materials used for the thesis have been duly acknowledged.

YORDANOS ASSEFA

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St. Mary's University

JUNE, 2021

ADDIS ABABA, ETHIOPIA

ENDORSEMENT

This thesis has been submitted to St. Mary's University, School Of Graduate Studies for examination with my approval as a University advisory.

Adviser's Name and Signature:

_____

ASMAMAW GETIE (Ass. Prof)

ACKNOWLEDGEMENT

First my innumerable praise to the Almighty God and His Mother Saint Merry for giving me the opportunity, capacity and guidance throughout my life. Next I am deeply grateful and indebted to Asmamaw Getie (Ass. Prof.), my advisor, for his valuable guidance and understanding through all the preparation of this paper. I would like to pass my deepest gratitude to Kumlachew Gebeyehu for his encouragement, suggestions, guidance and overall assistance to Successful accomplishment of this research would have been very difficult without his generous time devotion from the early design of the proposal to the final write-up of the thesis by adding valuable, constructive and ever-teaching comments; and thus, I am indebted to him for his kind and tireless efforts that enabled me to finalize the study.

I am greatly indebted to my bother Zelalem Assefa for entirely financial coverage and supporting by any materials. My gratitude also goes to my bother Dr. Mengistu Alamrew their comment and moral support during my study time. My sincere appreciation and thanks also goes to my colleagues for the remarkable memories and constant moral support during the study period. I also feel great to express my thanks to the peoples who participated in the study for sparing their precious time to give the necessary data.

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ACRONYMS

DSC: Debt Services Coverage

EAT: Earning after tax

EBIT: Earnings before Interest and Tax

MOR: Ministry of Revenue

NPL: Non Performing Loan

PROFI: Profitability of Firm

ABSTRACT

Financial distress is a condition in which a company or individual cannot generate sufficient revenues or income, making it unable to meet or pay its financial obligations. This is generally due to high fixed costs, revenues sensitive to economic downturns. This study examines the determinants of financial distress in three and four stars' hotels in Addis Ababa Ethiopia using secondary data that covers the period 2015-2019. The source of this secondary data was Ministry of Revenue. The study employs descriptive statistics and the multiple liner regression models to identify the factors that affecting financial distress using stata 14 statistical package. The findings of the study show that financial distress is positively and significantly associated with profitability and solvability while efficiency is negatively and significantly related with the financial distress in the three and four stars' hotel. Leverage, liquidity and firm size was omitted from the regression model related with high multicollinearity effect. The overall result showed there is a financial distress in Addis Ababa Ethiopia. The hotel sectors should be maintaining and improving efficiency by hiring advanced and professional employee, restructure management team, make different employee incentives to appreciate their morals.

Key Words: DSC, Leverage, Profitability, Total Asset, Financial distress

CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

According to Glen (2005) financial distress is a situation whereby a firm does not meet creditors' obligations or are met with difficulties. Financially distressed firms have problems in meeting and/or paying off their due or overdue financial obligations to their creditors. Financial distress is defined as "the likelihood of bankruptcy, which depends on the level of liquid assets as well as on credit availability" (Hendel, 1996).

Ethiopia is getting an economic structure, which is shifting from the traditional agriculture sector to the modern service sector. The service sector accounts for the lion's share in terms of the structure of GDP (46.6%) in 2014/15 taking the lead from the agriculture sector (NBE, 2015).

This is the probabilistic definition given by Hendel in 1996, but various scholars given various contextual definitions for financial distress. There is no exact definition given for financial distress by any scholar, this is due to its complexity and variety of causes. Financial distress is surprisingly hard to define precisely. This is true partly because of the variety of events befalling firms under financial distress. The list of events is almost endless but here are some examples: dividend reductions, plant closings, losses, layoffs, CEO resignations, plummeting stock prices.

Traditional views of the causes of financial distress, which have over time been partially confirmed by empirical results Andrade and Kaplan (1998); Asquith et al. (1994); Whitaker (1999), provide some evidence that financial distress arises in many cases from endogenous risk factors, such as mismanagement, high leverage, and a non-efficient operating structure in place.

The causes of financial distress and bankruptcy can be varied when taking into consideration the instability, vulnerability, and ultimately the deep-rooted structural change taking place in the world economy (Outecheva, 2007).

Ethiopia is one of the oldest uncolonized and independent countries in Africa that possess the highest number of UNESCO World Heritage Sites in Africa. Moreover, Ethiopia is a multi-ethnic, multi-religious and multicultural country with several religious and cultural celebrations,

practices, and holidays throughout the year. Ethiopia is also a strategically important country in the Horn of Africa for most countries and therefore, many international meetings and conferences are held in the capital. This creates a huge demand for accommodation for the hotel business and even an increase in such a demand is expected in the future. Consequently, people who have understood the demand have started investing in the hospitality industry at different levels and capabilities (Ashale, 2013).

According to Elebute (1999) financial distress is observed in a country when a fairly reasonable proportion of banks are unable to meet their obligations to customers, owners and economy because of weakness in financial, operational or managerial capabilities & leads them to illiquid or insolvent.

Nowadays, most of the hotel sectors in Ethiopia experience financial distress situation, due to low level of debt service coverage and COVID 19. The financial report of most of hotels indicates that on average the debt service coverage ratio of less than fifty percent. This indicates that the hotels available cash is unable to cover the principal and interest on the bank loan. The liquidity position of the hotels, which is measured by current assets to current liabilities, is below the theoretical industry average.

According to Smith Travel Research (STR) (2020) COVID-19 is having an unprecedented impact on the Ethiopian hotel industry. The full effect is unknown, as the ultimate scale of the outbreak is yet to be determined. However, travel restrictions and social distancing policies have had a dramatic effect on the industry. Hotel occupancy in the Ethiopia has dropped to 43% and revenue per available room has declined by 30.5% for the week ending March 14, according to Smith Travel Research (STR)

1.2 Statement of the problems

In a broad sense financial distress could be understood as is used in a negative connotation in order to describe the financial situation of a company confronted with a temporary lack of liquidity and with the difficulties that ensue in fulfilling financial obligations on schedule and to the full extent. Financial distress usually involves at least two counterparts, a debtor and a creditor. The definition of who is a creditor can be indistinct. In a broader sense, these can be not only providers of external capital, but also other stakeholders of the company such as suppliers or employees. (Hui, H. and Jhao J, 2008).

Financial distress is the situation when a company does not have capacity to fulfill its liabilities to the third parties (Andrade and Kaplan 1998). Increasing Non Performing Loan (NPL) of commercial banks and inability to afford raw materials for production is a typical phenomenon of firm financial distress. The status of financial distress companies are classified between solvent and insolvent. To be classified as a financially distressed, the companies is in the position of minimum cash flow and most probably companies to make default payment and cannot fulfill financial liabilities to its vendors or clients. The consequence of financial distress the companies will get dead weight losses (Panowaro et al, 2010).

Gruszczynski (2004) explains financial distress as a company under financial distress can incur costs related to the situation, such as more expensive financing, opportunity costs of projects and less productive employees. The firm's cost of borrowing additional capital will usually increase, making it more difficult and expensive to raise the much needed funds. In an effort to satisfy short-term obligations, management might pass on profitable longer-term projects. Employees of a distressed firm usually have lower morale and higher stress caused by the increased chance of bankruptcy, which would force them out of their jobs. Such workers can be less productive when under such a burden.

Accordingly Addis Ababa Hotel Owners Association (2020) survey report that Ethiopia's tourist arrivals for year 2019/2020 were be severely impacted, with figures potentially falling lower than the 849,000 reported in 2018/2019 to less than 600,000 related with Ethiopian Airlines' suspension and call elation of flights to over 80 destinations. Along with limited carriers flying to Addis Ababa, the situation is expected to further hit hotel performance, the report cites. With over 15000 workforces being furloughed and expected revenue loss per month of US$35,000,000, the worse is yet to come as the virus rages on. Addis Ababa Hotel Owners Association found that 88% of its member hotels in Addis Ababa have decided to partially or fully close the hotels due to low occupancy rates. Closed hotels are 56%, Partial closure 32% with 12% as quarantined facility. The Hotel Association is collaborating with the Government of Ethiopia to help institute some reliefs and stimulus packages for members of the association. It has however not seen concrete commitments from the financial institutions to arrange new payment terms and moratorium on loan payments among other reliefs.

Many hotels have recorded decline in bookings due to the health scare, while restaurants in major towns in the country are now restricted to offering only delivery services. Since most restaurants operate with fresh food products, which are difficult to keep in stock as demand fluctuates, they are bound to incur losses. Hotels across the globe perceived booking cancellations worth billions of dollars, and the hotel industry required a $150bn bailout (Ozili P and Arun T, 2020). Due to this reason many hotels give forced leave and canceled contract agreement of their employees which indicates hotels have experienced financial distress.

As per the review of the literature most of the empirical studies that have been conducted with the aim of identifying the determinate of financial distress, belong to developed countries. There are some studies that are conducted in developing countries but as per the knowledge of the researcher there is limited studies are conducted in the determinate of financial distress. Some researcher conducted the determinants of financial distress in the bank sectors and Manufacture Share Company in Addis Ababa, Ethiopia. But the study did not address the financial distress in hotel sectors in Ethiopia.

Thus, this study attempts to fill this gap of short of literature within the hotel sector in the context of Ethiopia. Secondly, the study is also unique in a sense that to the knowledge of the researcher there exists so far no literature of determinants of financial distress on hotel sectors despite the fact that the corporations are prevalent in such countries. Third, it also contributes to the debate of the relationship of various determinants and financial distress. Fourth, it also surveys the practice of handling financial distress to preview and serves a catalyst role in Ethiopia. Finally as per the knowledge of the researcher there is no study conduct in hotel sectors in Addis Ababa-Ethiopia. Therefore, this study will investigate the determinants of financial distress on three and fourth stars hotel in Addis Ababa, Ethiopia.

1.3 Research Questions

Following the above problem statement the study formulate the following research questions:

I. What is the level of financial distress of hotels sectors in Addis Ababa, Ethiopia?
II. What are the factors that cause financial distress in hotel sectors?
III. What type's relation between factors and financial distress in hotel sectors?

1.4 Objective of the study

1.4.1 General objectives

The main objective of this study was investigated the determinants of financial distress in three and four star hotels in Addis Ababa.

1.4.2 Specific objectives of the Study

- ✓ To describe the level of financial distress in three and four star hotels in Addis Ababa.
- ✓ To determine the relationship between the factors and financial distress in three and four star hotels in Addis Ababa.
- ✓ To identify the main determinants of financial distress in three and four star hotels in Addis Ababa**.**

1.5 Hypothesis Testing

To achieve the objective of this study, the research presented six hypotheses concerning the determinants of financial distress choice on the Addis Ababa-Ethiopian hotel industry was been tested.

Debt service coverage is used as a proxy for financial distress.

Debt service coverage: is the firm's ability of covering current obligations of fixed charge such as interest, dividend and other fixed charges payable currently.

This study examined only Debt service coverage as proxy of financial distress and relates to hotel determinants of financial distress. It does not examine other firm level financial distress determinants because their impact is limited in hotel industries.

Hypothesis: based on literature review the study hypothesizes:

H1: There is a positive relationship between liquidity and financial distress.

If the more the firm is liquid; the less the probability of firm's financial distress (sign+). The higher the firm's liquid assets, the higher the ability of the firms is cover its fixed charges and the lower the probability of the firm to go for financial distress. Therefore, there is a positive relationship between firm's liquidity and debt service coverage as proxy for financial distress.

H2: There is a negative relationship between leverage and financial distress.

If the more the firm's debt, the more the probability of the firm's financial distress. Bankruptcy is usually beginning with the default on debt servicing; thus, the higher the debt, the higher is the probability of default (sign -). If the higher the firms leverage, the lower the probability of its debt services coverage and the higher the probability of financial distress. Therefore, there is negative relationship between leverage and debt service coverage as proxy for financial distress.

H3: There is a positive relationship between profitability and financial distress.
If the profitability of the firm increases, the financial distress decreases. On the other hand the more unprofitable company, the higher probability of failing (sign+). Therefore, there is a positive relationship between firm's profitability and debt service coverage as proxy for financial distress.

H4: There is a positive relationship between solvability and financial distress.
If the firm has higher solvability, they have higher ability of debt service coverage (expected sign +). Therefore, there is a positive relationship between firm's solvability, which is measured in terms of its equity to total asset and debt service coverage as proxy for financial distress.

H5: There is a positive relationship between firm size and financial distress.
If the firm is less firm size in terms of assets, the probability of the firm's financial distress is more (sign +). Therefore, there is a positive relationship between firm's size measured in terms of total assets holding and debt service coverage as proxy for financial distress.

H6: There is a positive relationship between efficiency and financial distress.
If the firm has higher efficiency, they have higher ability of debt service coverage (expected sign +). Therefore, there is a positive relationship between firm's efficiency, which is measured in terms of its EBIT and debt service coverage as proxy for financial distress.

1.6 Significance of the Study

The result of this finding used for hotels as in input for improving the assessment of their financial practice and it helps to know the main factors that affect financial system.

The study was had practical importance on consolidating the understanding and relationship factors and financial distress towards bringing a sustainable competitive advantage and improved service giving strategy to the Hotels management in Addis Ababa.

It also provides possible recommendations to the hotels on how to take action to enhance financial distress. The findings will also be used as an input for the development of policies in the hotels. Moreover, it also serves as a reference for those who are interested to conduct advanced research works in the same field.

1.7 Scope of the Study

To achieve the objective of the study, the study was focused on determinant of financial distress on hotels in Addis Ababa Ethiopia, mainly focused on three and four stars' hotel in Addis Ababa. The reason why the study was not covering all less than three and above four star hotels in Addis Ababa and outside because of many reason including necessary data was not accessed easily and owner of the hotel was not volunteer to give the data and support my study. Therefore this study focused on three and four star hotels that covers last five years' data i.e. 2015-2019GC.

1.8 Limitation of the Study

This research was focused only three and four stars' hotels in Addis Ababa, Ethiopia and thus the results do not represent all hotels in Ethiopia. As the survey conducted on only restricted to Addis Ababa region and participate merely some hotels results may vary if research is conducted in other parts of Ethiopia in addition to other occupations. Some hotels are not willing to give data; this leads a reduced the sample size and the study was used only secondary data because hotel managers was not agreeable to collect primary data through questioner and interview due to Covid -19 pandemic a there was lack of literature on the title.

1.9 Organization of the Study

This study is organized in five chapters. Chapter one deals with introduction including background of the study, statement of the problem, research question, objective of the study, significance of the study, scope of the study and definition of operational terms. Chapter two reviews related literature including theoretical and empirical literature. Chapter three discusses research methodology including research approach, research design, sample size and sampling

technique, research respondent's data collection instruments and methods of data analysis. Chapter four includes data presentation, data analysis and interpretation. Chapter five discusses summary, conclusion and recommendation based on the findings of the study.

CHAPTER TWO

LITERATURE REVIEW

2.1. Theoretical Framework

This section deals about the theoretical framework supported by different authors regarding the financial distress. It is composed of meaning of financial distress and the various theories of financial distress.

2.1.1 Meaning of financial distress

Financial distress is defined as "the inability of a firm to pay its financial obligations as they mature". Beaver (1966) was one of the first researchers to point out that financial distress can have different forms of appearance.

Gordon (1971) argued on his article that the development of the theory of financial distress as a process having specific dynamics. Gordon highlights that financial distress is only one state of the process, followed by failure and restructuring, and should be defined in terms of financial structure and security valuation. The corporation enters this state when its power to generate earnings is becoming weak and the amount of debt exceeds the value of the company's total assets.

Opler and Titman (1994) define financial distress more broadly as a costly event that affects the relationship to debt holders and non-financial stakeholders. As a consequence, a company gains an impaired access to new capital and bears the increasing costs of maintaining this stricken relationship.

Lubomír L (2002) state on his article there are three possible reasons why the firm can go bankrupt. The first one, neo-classical, is a result of a state when the allocation of assets is inappropriate. The assets are usually industry specific and the bankruptcy is a mean of their reallocation. Within the (neo) classical approach, the bankruptcy procedures are the inevitable way to allocate resources efficiently. In this case the amount and size of bankrupted firms can give a first insight on the speed of restructuring. The second reason for bankruptcy might be just financial. The firm has the right structure of assets but its financial structure is bad with liquidity constraints. This means that even if the firm is viable in the long run it has to go to bankrupt in

the short run. The last reason of bankruptcy might be that the firm has the proper asset and financial structure but a bad management.

Andrade and Kaplan (1998) identify two forms of financial distress: the first one is default on a debt payment, and the second one is an attempt to restructure the debt in order to prevent the default situation.

Financial distress is the situation when a company does not have capacity to fulfill its liabilities to the third parties Andrade and Kaplan (1998). Increasing non-performing loan (NPL) of commercial banks and delisted of public companies in Indonesia is atypical phenomenon of corporate financial distress.

Purnanandam (2005) determines financial distress in terms of solvency. He develops a theoretical model of corporate risk management in the presence of financial distress costs. Financial distress is seen as an intermediate state between solvency and in solvency. A company is distressed when it misses interest payments or violates debt covenants.

2.1.2 MM Theory

Franco Modigliani and Merton Miller (1958) pioneered the studies of financial structure. The underlying assumptions of MM theory are perfect capital market and no taxation. Under such circumstances, investors could borrow and lend by themselves on the same terms as firms. So they would not pay extra for a levered firm which borrows on their behalf. MM theory contends that a corporation's financial structure does not affect its value and its capital cost. Given that the total value of a firm depends only on its profitability and risk, it stays the same if those two factors do not alter (Van Home & Wachowicz, 2001).

2.1.3 Agency Theory

Agency problem emerges, because perfect alignment of interests of managers, creditors and shareholders are implausible in practice (Barclay & Smith, 2006). Equity holders would vote for riskier operation or investment tactics and strategies, especially when the company is in danger of bankruptcy, since they are residual claimers. They tend to gamble at the expense of debt holders. Upside gains all accrue to stockholders, while creditors would not be able to enjoy any extra gains, since they typically receive fixed interest and principal. Since managers have the

incentive to act in the only interest of stockholders at the expense of lenders, restrictive contractual agreements are imposed on the management by creditors. Those agreements limit the management decision authority, resulting in suboptimal investment and operation decisions. For instance, a firm may be forbidden to invest in particular economic segments (Brealey et ah, 1999).

The managers are monitored to ensure that they comply with protective covenants in loan agreements. Monitoring could be done through auditing financial statements and supervising by independent directors (Barclay & Smith, 2006). Monitoring cost together with the cost of suboptimal investment and operation decisions constitute agency costs. When the debt level is low, the agency costs are immaterial. With the growth of the amount of debts, agency costs become significant. Agency costs tend to rise at an increasing rate with debt, and lower the corporation's value as a result (Brealey et ah, 1999). The presence of agency costs discourages a firm from borrowing, especially beyond a prudent level.

Agency theory also suggests the potential underinvestment problem (Barclay & Smith, 2006). A company with high leverage is more likely to pass up profitable investment opportunities than a company with low level of debts. New equity holders understand that the value created or preserved by their investments would be used to restore creditors' position.

Accordingly, incredibly high equity issuing costs would oblige managers to give up profitable investment plans. Even existing shareholders would utilize their voting rights to let the company forgo new investments, even if they are proved to be profitable. Because one the projects fall apart, the company would face the threat of debt default or even bankruptcy (Barclay & Smith, 2006).

On the other hand, the agency problem between managers and shareholders arises, when managers of firms with substantial free cash flow and limited growth opportunities squander money on "empire building", over-investing in core business, or even diversifying their businesses by acquisition into unfamiliar ones (Narayanan & Nanda, 2004). All those actions decrease a firm's value. Despite a variety of methods to reduce excessive free cash flow, for instance, paying higher dividends or stock repurchases, the most efficient way is to substitute more debts for equity (Brigham & Houston, 2002). Therefore, in order to decrease the agency

costs between shareholders and managers, it is advisable to increase firm's leverage ratio. Interest payments are contractual. If they are not realized, the company will default on debts or go bankrupt. Given that, managers would be more disciplined.

2.1.4 Trade off theory

The trade-off theory says that firms have optimal debt-equity ratios, which they determine by trading off the benefits of debt with the costs. In traditional trade-off models, the chief benefit of debt is the tax advantage of interest deductibility (Modigliani and Miller, 1963). The primary costs are those associated with financial distress and the personal tax expense bondholders incur when they receive interest income (Miller 1977).

The goal is to maximize the firm value for that reason debt and equity are used as substitutes. According to this theory, higher profitability decreases the expected costs of distress and let firms increase their tax benefits by raising leverage; therefore, firms should prefer debt financing because of the tax benefit. As per this theory firms can borrow up to the point where the tax benefit from an extra dollar in debt is exactly equal to the cost that comes from the increased probability of financial distress (Ross 2002, p.586). Garlappiet at (2005) also argue that increasing debt results in an increased probability of bankruptcy (financial distress). Hence, the optimal capital structure represents a level of leverage that balances bankruptcy costs and benefits of debt finance.

Based on the trade-off theory, financial distress has gained consideration as an important determinant of a firm's optimal capital structure Opler and Titman (1994) the trade-off theory suggests that a firm can capitalize on advantages from increasing its debt level through tax benefits (i.e., interest expense is tax deductible). However, as a firm exceeds the debt level above a certain point, the firm's degree of financial distress begins to increase and costs associated with debt begin to overshadow benefits. Therefore, the firm attempts to maintain its capital structure at a balanced and optimal level to avoid the greater costs of debt compared to the benefits of debt.

Jensen and Meckling (1976) extend the Modigliani and Miller (1963) theorem by including the possibility of financial distress costs. Thus, the idea of the trade-off theory is that an optimal capital structure at which the firm maximizes its value and minimizes its cost of capital exists; it

can be attained when the benefits and costs of debt exactly offsets (Miller 1977). Miller (1977), however, argues that bankruptcy costs are too small to affect optimal capital structure; he also argues that taxes are irrelevant to the firms' debt to equity choice.

2.1.5 Pecking Order Theory

Successful industry giants Ford Motor Co., Procter & Gamble and Microsoft, all operate at very low leverage level. As a matter of fact, the most profitable companies in a given industry are found to borrow the least (Myers, 2001). Pecking order theory suggests that a firm has hierarchical preference for financial resources. A firm prefers to finance in the following order: retained earnings and depreciation generated funds, debt financing and new common equity (Brealey et al., 1999).

Outside investors can hardly, if not impossible, access a firm's operational or financial information as inside managers do. Issuing new debts releases the news that the management has confidence in the firm's future profits and cash flows. On the other hand, issuing new equity conveys the information that the company's stocks have been overvalued, for the management attempt to issue the overvalued security to maximize the benefits for existing shareholders (Barclay & Smith, 2006). Consequently, increasing debt financing signal positive sign, whereas issuing equity is regarded as a bad omen. On average, stock prices drop 3% after firms announce new equity offerings (Barclay & Smith, 2006), while there is negligible impact on stock prices when companies use debt financing (Myers, 2001). The drop in stock prices is regarded as information costs (Barclay & Smith, 2006). Obviously, the information costs of debt are less than that of equity.

The pecking order theory implies that financial managers would automatically choose the cheapest available financing sources. The more profitable a company, the less the company borrows, for it can draw on its internal equity for future development without incurring any information or issuing costs (Barclay & Smith, 2006). Here is some evidence of financing in US enterprises endorsing the pecking order theory. In most years, external financing accounts for less than 20% of investment funds, and most of them are debts. In 1999, internal cash flow financed $805 billion out of $944 billion investment in US non-farm, non-financial firms.

External financing covered the rest, which was $139 billion. However, the borrowing was $283 billion and the equity financing was negative $144 billion (Myers, 2001).

2.1.6 Distress model

The financial distress models predicted that the financial failure of a business before it actually happened. Bankruptcy prediction models are useful to the stakeholders of a company in analyzing the performance of the company after emerging from a bankruptcy or distress condition. Altman (1968) attempted to assess the issue; the quality of ratio analysis as an analytical technique with a set of financial and economic ratios to be investigated. The discriminant-ratio model proved to be extremely accurate in predicting bankruptcy correctly in 94% of the initial sample with 95% of all firms in the bankrupt and non-bankrupt groups assigned to their actual group classification. Also Jensen and Meckling1976 provide empirical evidence of the limited ability of financial ratios to detect and/or predict fraudulent financial reporting. Also, Appiah &Abor (as cited in Jensen and Meckling 1976) assessed the usefulness of financial ratios together with a suitable Z-score model using multiple discriminate analyses and then applying it in order to measure the financial health and the risk of failure of UK manufacturing, distinguishing between failed and non-failed companies.

2.1.7 Measurement (proxy) for financial distress

2. 1.7.1 Debt Service Coverage

The debt-service coverage ratio is defined as earnings before interest and income taxes plus one third rental charges, divided by interest expense plus one-third rental charges plus the quantity of principal repayments divided by one minus the tax rate, Lico Junior (2000). The debt service is interest payment plus repayments of principal to creditors, that is, retirement of debt.

The fixed-payment coverage ratio measures the firm’s ability to meet all fixed payment obligations, such as loan interest and principal, lease payments, and preferred stock dividends. Gitman (1991). The degree of financial distress of a company is determined by the ability to service its debts. This ability is routinely assessed by financing banks which may rate the commercial debts on the basis of their own credit rating models, e.g. along the recent Basel accords Gruszczynski (2004).

2.1.8 Determinants of financial distress

Regardless of the model employed, the determinants of financial distress can be largely grouped into six classifications: liquidity, leverage, profitability, operational viability, firm size and efficiency.

2.1.8.1 Liquidity

Firm's liquidity is the ability of an asset to be converted to cash quickly at low cost. Liquid assets can be converted into cash quickly and cheaply Brealey et.al. (2000). The liquidity of a firm is measured by its ability to satisfy its short-term obligations as they come due. Liquidity refers to the solvency of the firm's overall financial position the ease with which it can pay its bills. Because a common precursor to financial distress and bankruptcy is low or declining liquidity, these ratios are viewed as good leading indicators of cash flow problems Gitman ((1991).

Several studies have suggested that firms with low levels of liquidity are more likely to experience financial distress, because cash constrained firms are more vulnerable to exogenous negative shocks to cash flow (e.g. Altman (1968) among others). In the multiple regressions analysis that follows, the researcher use the ratio of current asset to current liability to proxy liquidity and expect that it was positively related to the financial distress. Theoretically, the causes of financial distress are problems of liquidity, which is the inability of current assets to cover current liabilities: which is the measure of current ratio. The lower this ratio indicates that the firm has lower amount of current funds to cover the current obligation. The firm unable to meet its current obligation may have high probability of financial distress. Therefore, liquidity is an important determinant of financial distress.

2.1.8.2 Leverage

Leverage is the portion of the fixed costs, which represents a risk to the firm. Operating leverage, a measure of operating risk, refers to the fixed operating costs found in the firm's income statement, whereas financial leverage is a measure of financial risk, refers to financing a portion of the firm's assets, bearing fixed financing charges in hopes of increasing the return to the common stockholders. The higher the financial leverage, the higher the financial risk, and the higher the cost of capital (Shim and Siegel 1998).

Another determinant of financial distress is firm leverage. Once again, the theoretical underpinning for leverage as a predictor of distress lies in the fact that leverage limits the ability of the firm to withstand negative shocks to cash flow. Following Altman (1968) the researcher uses the ratio of total liabilities to total assets to control for the impact of leverage on distress. The other causes of financial distress are increased leverage ratio, which is the measure of how heavily the firm is indebted. The reason for risk is the prevalence of fixed cost. Leverage is the use of debt financing, and the leverage ratios are measures of the relative contribution of stockholders and creditors, and of the firm's ability to pay financing charges (Lico Junior 2000).

The debt ratio is an important factor for measuring firm's indebtedness. The higher this ratio indicates the greater the firm's degree of indebtedness and the more financial leverage it has. The times interest earned ratio and the fixed-payment coverage ratio are important components for measuring the risk.

The lower the ratio, the greater risk to both lenders and owners the greater the ratio, the lower the risk. This ratio allows interested parties to assess the firm's ability to meet additional fixed-payment obligations without being driven into bankruptcy. In general, the higher the firms leverage, the lower the firm's ability to cover its debt services and this will lead to financial distress. Therefore, leverage is an important determinant of financial distress (Lico Junior 2000).

2.1.8.3 Profitability

Profitability which is measured by return on equity has also been seen as a factor that determines whether a firm will become financially distress. Research findings by Tesfamariam (2014) revealed that there is an existence of a positive link between profitability and financial distress. Similar finding was also found by Ikpesu and Eboiyehi (2018) while studies by Thim et al. (2011) revealed that profitability negatively affects financial distress. Research work of Baimwera and Murinki (2014) indicates that profitability negatively affects financial distress. In similar vein, Campbell et al. (2011) documented that profitability has an inverse link with financial distress.

The firms Profitability ratios are used to measure the firm's return on its investments Brealey et.al (2000).) There were some researchers such as Hotchkiss (1995) who explored the achievement of bankrupt reorganization firms in US of America and focus on profitability.

Financial distress plays a significant role in a firm's operation and profitability through the influence of cost implications, such as administrative and legal costs associated with the bankruptcy process (i.e., direct financial distress costs) or increased costs of debt i.e., indirect financial distress costs for example, (Betker1997) and (Beaver 1966).

Other determinant of financial distress is profitability. In competitive markets, firms need to generate positive profits in order to survive. Firm profitability has linked to financial distress and bankruptcy in two ways. First, firms with poor management will ultimately be driven out of the market by more able management teams. Second, in the absence of a large reserve cushion, the lack of profits will ultimately be associated with low levels of liquidity. Here again, the researcher follow Altman (1968) in using the ratio of gross profit to total sales to proxy for firm level profitability.

2.1.8.4 Solvability

Solvability is the condition of being solvent; ability to pay all just debts. In other way is defined as whether something can be resolved and the degree of ease with which it can be resolved. The researcher used equity to total assets in order to see the sensitive to the probability of financial distress (Hotchkiss 1995).

2.2 Empirical Review

Yohannes Tesfahun (2014) conducted on financial distress on manufacture firm in Addis Ababa, Ethiopia. He was applied linear regression model to identify the factors affecting determinants on financial distress. According to his finding solvability, firm size, economic growth and liquidity have positive and significant influences to Debt Service Coverage as a proxy of financial distress while leverage has a negative and significant relation with DSC. Other variables such as profitability, efficiency and inflation have no significant impact on the status of firm's financial distress in manufacturing share companies in Addis Ababa-Ethiopia. Julio P and Luis R 2005 and Andualem Ufo 2011 they find financial distress is negatively related to liquid assets.

The study conducted by Andualem Ufo (2011).The aim to identify determinants of financial distress in selected beverage and metal manufacturing firms in Ethiopia. The study estimates determinants of financial distress using panel data starting from 1999 to 2005. Using panel data

regression, the researcher analyzed internal and some of external factors affecting firm's financial distress. The results show that profitability, firm age, liquidity and efficiency have positive and significant influences to Debt Service Coverage (DSC) as a proxy of financial distress. On the other hand, leverage (Lev) has a negative and significant relation with DSC. Other variables such as operational viability and good corporate governance have no significant impact on the status of firm's financial distress. Furthermore, the analysis indicated that operationally viable companies in some period of time should not be a guarantee that the companies going concern to fulfill its liabilities.

Lubomír L (2002). Studied the determinants of financial distress what drives bankruptcy in a transition economy. The main factors influencing the probability of bankruptcy are analyzed on Czech Republic 1993-1999 firm data. Basic models of the bankruptcy are compared: neoclassical, financial and corporate governance. The corporate governance hypothesis does not receive support in the ownership but the indicator of voucher privatization supports it Amiyatosh P (2004). The study develops a theory and evidences of corporate risk-management in the presence of dead weight losses caused by financial distress and test its implications using a comprehensive data set of over 3000 non-financial firms. Unlike extant theories that explain only the ex-ante risk management behavior of a firm, the result show that the shareholders optimally engage in ex-post risk-management activities even without a pre-commitment to do so. The researcher generates new cross sectional predictions by relating firm characteristics such as leverage and deadweight losses from financial distress to its risk-management incentives. The model predicts a positive relationship between leverage and hedging for moderately leveraged firms. This relationship reverses, however, for highly leveraged firms. Similarly the model produces a non-monotonic relationship between leverage and hedging for high market-to-book value firms. The empirical findings are consistent with these predictions. The empirical study presents the first large-sample evidence on the extent of hedging by non-financial firms and provides many new findings. The study finds that large and small firms hedge for different reasons.

Pranowo et al. (2010) on their research identified the weakness on following are causes of financial distress for the firm, current ratio, efficiency and equity are statistically significant and have positive influence on the financial distress, where as leverage has significant but negative

influence to financial distress. The result also indicates that the dummy good corporate governance has no significant impact on the debt service coverage.

Harlan D. and Marjorie B. (2000) the study examines factors related to corporate financial distress across three continents. Using a multidimensional definition of financial distress they test three hypotheses to explain financial distress using historical financial data. A null hypothesis of a single global model was rejected in favor of a fully relaxed model, which created individual financial distress models for each region. This result suggests that despite other indications of worldwide convergence, international differences in accounting rules, lending practices, management's skill levels, and legal requirements among others has kept corporate decline from becoming commoditized.

Outecheva (2007) made an empirical research to public companies in USA which are under financial distress. The empirical result he develop an integral concept of financial distress which can be used as a theoretical basis for developing more complex and sophisticated models. The researcher generally classified two important factors: First, financial distress implies that the value of a firm's equity in such situation lies below the value of debt (under funding).

Ayneshet Agegnew (2018) was conducted determinants of profitability in hotel industry in Hawassa. The study was applied multiple linear regression model using 5 year data and the finding of the result shows that Equity ratio, operation cost ratio and firm size has significant impact at five percent significance level on profitability of four star hotels in Hawassa but hotel age is insignificant.

Tadess Yirgu (2016) studied on determinants of financial distress in banking sectors. The result of his study depicts capital adequacy, management efficiency, earning ability and bank size as having negative effect on banking financial distress and except size all of them appeared significant; whereas asset quality and liquidity appeared as having positive effect, but liquidity was only insignificant.

Kim's (1995) study a comprehensive panel data research done on the subject of financial structure in the hospitality industry. The study was applied ordinary least square regression model. The results revealed that conventional financial structure theories have strong explanatory power in US hospitality industry. The variables of asset structure, represented by the tangibility

level, has strong positive relation with total leverage ratio of both hotel and restaurant industry. On the other hand profitability, on the other hand, has strong negative impact on the total debt ratio.

Chan Kok Thim et al (2011) conducted on factors affecting financial distress in the case of Malaysian listed firm by using secondary data during the period 2005-2009. The researcher was used two models to analyze the relationships between financial distress and firms' characteristics and risk. The dependent variables are long-term debt to total equity ratio and short term debt to total equity ratio. The independent variables are profitability, liquidity, firm size, solvency, growth and risk. Firm size and Interest coverage ratio have a significant and positive related with financial distress. Profitability has a negative relationship with financial distress.

2.3 Conceptual Frame

According to Upton, (2001), a conceptual framework can be defined as a set of broad ideas and principles taken from relevant fields of enquiry and used to structure a successive study. Therefore, a conceptual framework is a research tool intended to assist a researcher to develop awareness and understanding of the situation under examination and to communicate with a study (Upton, 2001). Hence, a conceptual framework is used to outline possible courses of action or to present a preferred approach to an idea or thought that developed based on the literature reviewed in respective to study undertaken

So, the conceptual frameworks for the study identify financial distress as dependent variable whereas leverage, profitability, efficiency, liquidity, firm size and solvability as independent variables. This more illustrated through the figure below.

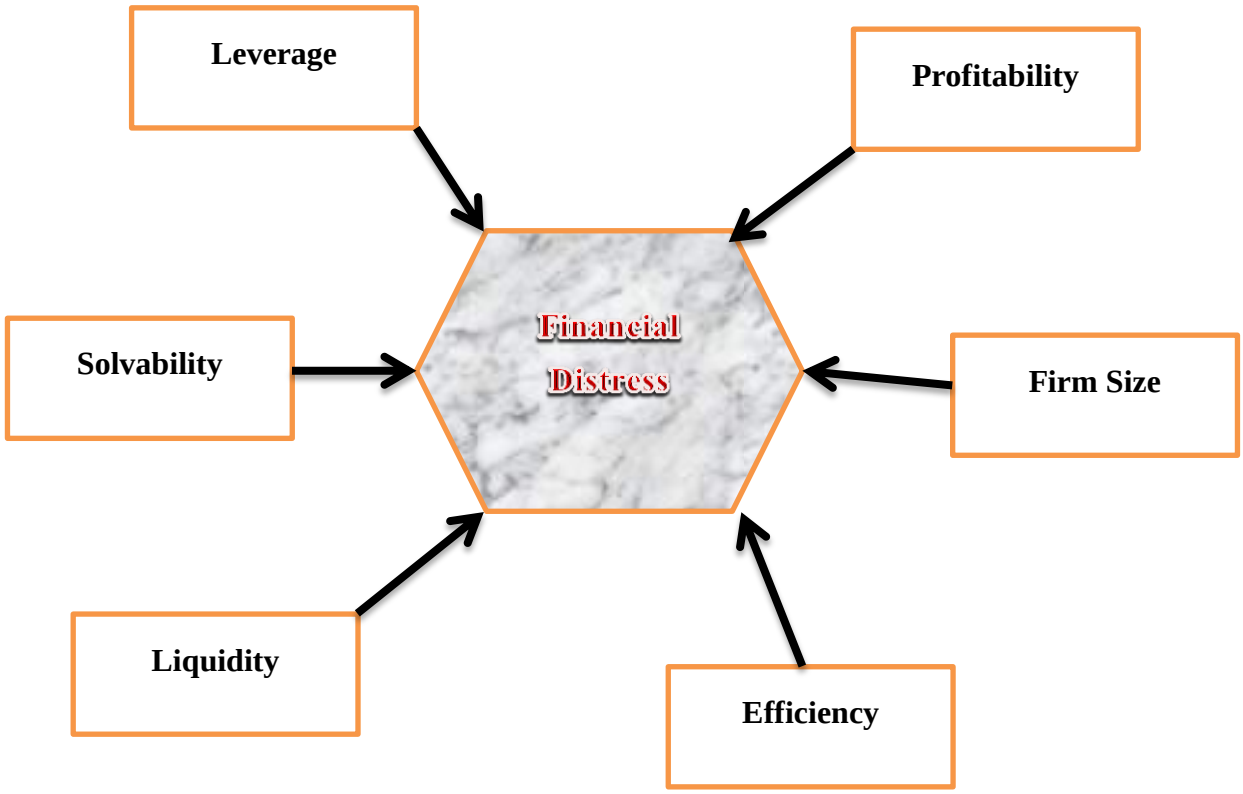


Figure 2.1 Conceptual framework of the Study

Sources: Owen (2021)

CHAPTER THREE

RESEARCH METDOLOGY

This part has carried out carefully by the researcher as it is the blue print that was guided us to achieve the desired goal. Accordingly, the research approach and design, method of data collection and source, econometric model specification and justification of variables was explained rigorously.

3.1 Research Approach and Design

The study was applied explanatory research design. Because, explanatory research design is used for quantitative data it attempt to explain the relationship between the dependent and independent variables (Cruse, 2003). In ordered to accomplish the proposed research with respect to the object and the nature or the research questions of the study, quantitative research approach was applied.

Therefore, quantitative data analysis is quantifying the relationship between dependent variable (financial distress) and independent variables (leverage, liquidity, profitability, firm size, solvability and efficiency).

3.2 Population of the Study

Addis Ababa is the Capital city of the Country where literally says the heartbeat of Ethiopia. Emperor Menelik II and his wife Taitu founded the city in 1889 by constructing his palace in Entoto. Addis Ababa is now a diplomatic city where many international institutions are located, the first hotel also founded by the two couples and named Taitu hotel in 1898 and exists to date, this footstep of the hotel industry followed by many standard hotels in the country. Many other hotels like Ras Hotel, Bekele Molla, Ghion, Genet, Finifine Adarash, Wabi Shebelle, Hilton, and Ethiopia hotels are among some that followed the tread of Taitu hotel. And now there is star related hotel in the city like Sheraton, Radisson Blue, Harmony and, Global hotel. This study was focused on only three and four star hotels in Addis Ababa related to data accessibility and time. In Addis Ababa there are 54 three and four star hotels.

3.3 Sampling Design and Sample size

There are two types of sample design. First random sampling design and non-random sample design. Under random sample design there are four categories such as simple random sampling, stratified random sampling, cluster random sampling and systematic random sampling whereas judgmental or purposive, Convenient, quota and snowball sampling are under the categories of non-random sampling. This study was applied judgmental sampling related to easily data availability because most hotels are not will to give information as well as financial statement for data collectors.

The target population of this study was 54 three and four star hotels in Addis Ababa. From these total hotels this study was applied only 10 hotels due to COVID-19 case and time availability.

3.4 Data Types and Sources

The researcher was selected three and four star hotels in Addis Ababa and all the relevant secondary data sources gathered from ministry revenue by referring to documentation, organizational report, searching on websites such as published and unpublished materials and other sources of the simplicity of the research as to properly organize the study.

3.4 Methods of Data Analysis

The most methods of data analysis that is used for this study are descriptive and inferential statistics.

3.4.1 Descriptive Statistics

Descriptive statistics was the discipline of quantitatively describing the main features of a collection of data. In this research, descriptive analysis conducted to understand the behavior and interaction of the financial distress and its determinants with the aid of simple graphs, mean and standard deviation.

3.4.2 Econometric Model

In order to carry out the study, secondary data of three and four star hotels over the period of 2015-2019 was obtained on the financial performance from the annual reports and audited

financial statements. Data collected was analyzed using STATA 14 Statistical software. The study employed multiple linear regression model used to analyze the data from secondary source including all of its assumptions were tested. Because multiple linear regression model used to examine the relationship between the financial distress of three and four star hotels in Addis Ababa, Ethiopian and explanatory variables such as liquidity, leverage, profitability, firm size, solvability and efficiency. The result of a regression analysis is an equation that represents the best prediction of a dependent variable from several other independent variables.

3.5 Model Specification

The regression analysis was conducted to find out the relationship between independent variable (Leverage, Profitability, efficiency, liquidity, firm size, solvability) and financial distress in Addis Ababa four and five star hotels. The study will used 5 years period data (2015-2019). The regression model to be estimated is presented in the following linear form:

$$FD = \beta 0 + \beta 1LI + \beta 2PR + \beta 3FS + \beta 4SO + \beta 5LE + \beta 6EF + \varepsilon i$$

Where β0…β6 coefficient of the regression

LI= liquidity

PR= Profitability

FS= Firm size

SO= Solvability

LE= Leverage

EF= Efficiency

εi= error term

3.6 Definitions of variables

3.6.1 Dependent variable

Financial Distress: is the firm's inability of covering current obligations of fixed charge such as interest, dividend and other fixed charges payable currently. This study examine only Debt service coverage as proxy of financial distress and relates to firm determinants of financial distress.

3.6.2 Independent Variables

Liquidity: Liquidity refers to the efficiency or ease with which an asset or security can be converted into ready cash without affecting its market price. The most liquid asset of all is cash itself. If the more the hotel is liquid; the less the probability of firm's financial distress (sign+). The higher the hotel's liquid assets, the higher the ability of the firms is cover its fixed charges and the lower the probability of the firm to go for financial distress. Therefore, there is a positive relationship between firm's liquidity and debt service coverage as proxy for financial distress.

Profitability: Profitability is a situation in which an entity is generating a profit. Profitability arises when the aggregate amount of revenue is greater than the aggregate amount of expenses in a reporting period. If the profitability of the firm increases, the financial distress decreases. On the other hand the more unprofitable company, the higher probability of failing (sign+). Therefore, there is a positive relationship between firm's profitability and debt service coverage as proxy for financial distress.

Firm size: If the firm is less firm size in terms of assets, the probability of the firm's financial distress is more (sign +). Therefore, there is a positive relationship between firm's size measured in terms of total assets holding and debt service coverage as proxy for financial distress.

Solvability: The condition of being solvent; ability to pay debts; solvency. The more solvability they have higher ability of debt service coverage. Therefore, there is a positive relationship between firm's solvability, which is measured in terms of its equity to total asset and debt service coverage as proxy for financial distress.

Leverage: Financial leverage is the use of debt to buy more assets. Leverage is employed to increase the return on equity. However, an excessive amount of financial leverage increases the risk of failure, since it becomes more difficult to repay debt. Bankruptcy is usually beginning with the default on debt servicing; thus, the higher the debt, the higher is the probability of default (sign -). If the higher the firms leverage, the lower the probability of its debt services coverage and the higher the probability of financial distress. Therefore, there is negative relationship between leverage and debt service coverage as proxy for financial distress.

Efficiency: refers to the meeting of necessary requirements (elimination of market distortions, competitive markets, accessible information, etc.) for the provision of highest quality financial services at the lowest cost possible. If the firm has higher efficiency, they have higher ability of debt service coverage (expected sign +). Therefore, there is a positive relationship between firm's efficiency, which is measured in terms of its EBIT and debt service coverage as proxy for financial distress.

Table 3. 1 Summary of variables under investigation and expected signs

Independent variable	Measurement	Expected sign
Liquidity	current assets by its current liabilities	Positive
Profitability	Net profit ratio and earnings per share ratio	Positive
Firm size	Total assets holding	Positive
Solvability	Equity to total asset	Positive
Leverage	Ratio of total debt to total assets	Negative
Efficiency	EBIT and debt service coverage	Positive

Source: literature review

3.7 Diagnostic test

Estimating these equations when the assumptions of the linear regression are violated runs the risk of obtaining biased, inefficient, and inconsistent parameter estimates (Brooks, 2008). Consequently, the Multicollinearity, autocorrelation, Heteroskedasticity were conducted to ensure proper specification of equation 3.1.

3.7.1 Normality Tests

The normality assumption is required in order to conduct single or joint hypothesis tests about the model parameters (Brooks, 2008). In order to check if the data was normally distributed, the Skewness-Kurtosis (Jarque-Bera) test for normality was conducted. The null hypothesis under Jacque Bera test was that the distribution of the data was not significantly different from that of a normal distribution. The study tested the null hypothesis that the disturbances are not normally distributed. If the p-value is less than 0.05, the null of normality at the 5% level will be rejected.

Since the variables were found not to be normally distributed, the conversion of data to natural logarithms instead of absolute values was undertaken.

3.7.2 Multicollinearity

Multicollinearity was tested in the study using VIF whereby the cut-off point for severe Multicollinearity is VIF>10. Failure to account for perfect Multicollinearity results into indeterminate regression coefficients and infinite standard errors while existence of imperfect

Multicollinearity results into large standard errors. Large standard errors affect the precision and accuracy of rejection or failure to reject the null hypothesis. During estimation, the problem is not the presence of Multicollinearity but rather its severity. A VIF greater than 10, thus, indicates the presence of Multicollinearity.

3.7.3 Autocorrelation

Since the data involves both cross section and time-series, it raises the suspicion of the existence of serial correlation. The presence of serial correlation indicates that the variables in the model violate the assumptions of the regression (Anderson et al., 2007). To cater for serial correlation, the Woodridge test for autocorrelation will be employed. Serial correlation is a common problem experienced in panel data analysis and has to be accounted for in order to achieve the correct model specification. According to Wooldridge (2002), failure to identify and account for serial correlation in the idiosyncratic error term in a panel model would result into biased standard errors and inefficient parameter estimates. The null hypothesis of this test is that the data has no serial correlation. If the serial correlation is detected in the panel data, then the Feasible Generalized Least Squares (FGLS) estimation will be adopted

3.7.4 Heteroscedasticity

Since the data for this research is a cross-section of firms, this raises concerns about the existence of heteroscedasticity. The CLRM assumes that the error term is homoscedastic, that is, it has constant variance. If the error variance is not constant, then there is heteroscedasticity in the data. Running a regression model without accounting for heteroscedasticity would lead to unbiased parameter estimates. To test for heteroscedasticity, the Breusch-Pagan/Godfrey test will be used. The null hypothesis of this study will be that the error variance is homoscedastic. If the null hypothesis is rejected and a conclusion made that heteroscedasticity is present in the panel data, then this would be accounted for by running a FGLS model. The P value is less than 0.05, there is no heteroscedasticity problem.

CHAPTER FOUR

DISCUSSION AND INTERPRETATION

4.1 Introduction

This chapter contains both the descriptive and econometrics analyses results with their interpretations. Under the descriptive statistics, the trends and overall performances of the variables are presented. The statistical tools such as tables, graphs, mean and standard deviation are used to describe the variables used in the model. The econometric analysis begins by testing the necessary diagnosis such as multicollinearity, hetroscedasticity and normality. After estimation has been made the interpretation and discussion are continued based on the model results.

4.2 Result of Descriptive Statistics

The descriptive statistics describes the basic futures of the data in a study. It provides simple summaries about the sample with their measures and a better look about the variables by summarize the statistical properties of the series in the model. Table 4.1 below shows the summary of descriptive outcome for all the dependent variable and the independent variable used in the study such as mean, maximum, minimum, standard deviation and number of observation. The dependent variable used in this study was financial distress and the explanatory variables are profitably, leverage, liquidity, firm size, efficiency and solvability.

Table 4. 1 Descriptive statistics for Dependent and Independent Variables

Variable	Observation	Mean	Std. Dev.	Min	Max
DSC	5	1.058117	.1342602	.9104644	1.243265
Profitability	5	.0109197	.0127267	.0003463	.0330672
Solvability	5	.6375925	.0402708	.5689821	.6731173
Efficiency	5	.3825556	.5218679	.0183942	1.301997
Leverage	5	.5187742	.4357633	.0289777	.9743174
Liquidity	5	1.969187	1.171228	.7240027	3.514646
Firm size	5	4.792	3.263284	1.73	8.72

Source: Secondary data (2021)

The results show that the average debt service ratio is 1.058117 it express that the hotel has cover their current obligation by 1.058, with a maximum value of 1.243265and a minimum value of 0.9104644 indicating there is financial distress in hotel industry, use Debt Service Coverage (DSC) < 1.2 is a proxy of Financial Distress (Jeff Ruster, 1996). Standard deviation is 0.1342602, which indicates small difference in debt service coverage in hotel industry.

The average profitability is 0.0109197 which is measured by net income to total and the range between .0003463 and the value of standard deviation is .0127267 which implies the presence of less variation among the values of profitability across three and four star hotels included for this study.

Solvability is 0.6375925 on average with the minimum and maximum values of 0.5689821and 0.6731173 respectively it implies that the presences of less variation in the value of solvability across three and four star hotels in Addis Ababa, Ethiopia. The hotels efficiency shows a mean of 0.3825556 with a maximum of 1.301997 and a minimum of 0.0183942. The standard deviation is 0.5218679 indicating greater deviation or variability in the Hotel's financial distress in studying period.

Leverage is 0.5187742 on average with the minimum and maximum values of 0.028977 and 0.9743174 respectively. The standard deviation of the firm is 0.4357633 implies there is medium variation between three and four hotels. The three and four hotels have the liquidity ratio of 1.969187 on average and the minimum and maximum value is 0.7240027 and 3.514646 respectively with the standard deviation of 1. 171228. The variability of returns that is, business risk, measured by the standard deviation of returns had the mean value of 1.969187.

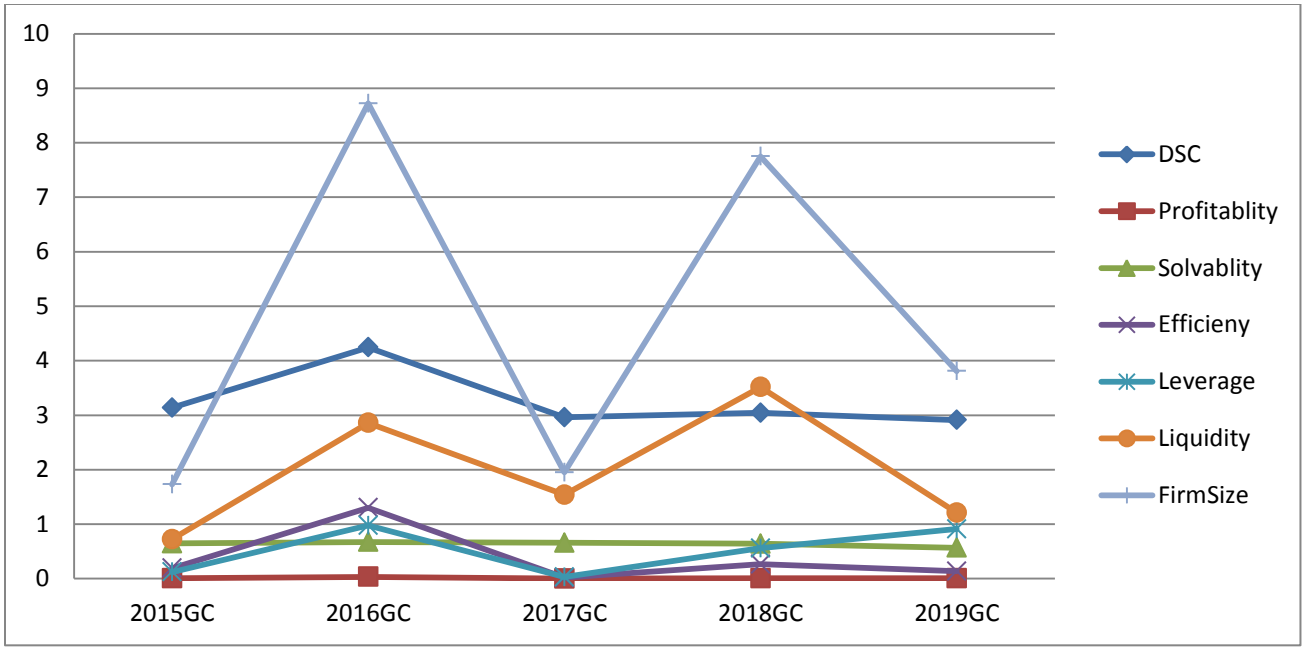
The mean value of firm size is 4.792. Therefore, with regard to firm size as shown in the table above, there exists significant variation across the sample hotel industries for the reason that the value of the standard deviation is 3.263284. Hence the highly aviated firm size among hotel industry may have significant impact on debt service coverage that we are going to see in the regression results. Based on this result one can inferred that firm size is the main determinates of financial distress as compared to other variables.

4.3 Trend analysis

This section presents the trend analysis of profitably, solvability, efficiency, leverage, liquidity and firm size and its effect on financial distress. The trend analysis is conducted so as to help establish the movement of the variable under the study.

As it clearly indicate the graph below about the financial distress and their determinants (profitability, solvability, efficiency, leverage, liquidity and firm size) from 2015-2019, comparatively firm size has high effect on debt services coverage in all study period as compared to other factors special in 2016. The second higher result in all studding period is liquidity. So, liquidity is the second factor for financial distress. The firm profitability is the least one in time this implies hotels are loss this leads to increase the financial distress of the hotels.

The variation of firm size is very high as compared to other dependent variables and the value is greater than one. In 2017 the value of all independent and dependent variable is least and increasing in 2018 except profitability.



Fgure 4. 1 Trend analysis

4.4 Result of Regression Analysis

4.4.1 Multicollinearity test

AVIF test was performed to test the existence of multicollinearity, problem. The result of the test is greater than 10 indicate a high presence of multicollinearity problem among the explanatory variable and also the average VIF is more than 95. To avoid this multicollinearity problem omitted and transform variables which have is correlated

Table 4.2 Multicollinearity test

Variable	VIF	1/VIF
Firm Size	239.14	0.004182
Liquidity	107.25	0.009324
Efficiency	21.22	0.047134
Leverage	15.92	0.062824
Mean VIF	95.88	

Source: Stata output (2021)

After omitted high correlated (Leverage, liquidity and Firm Size) the result of the test indicates the highest VIF is 4.62, which displays the model performed with no major multicollinearity problem among the explanatory variable.

Table 4.3 Multicollinearity test after omitted high correlated variables

Variable	VIF	1/VIF
Profitability	4.62	0.216263
Log efficiency	4.14	0.241821
Solvability	1.25	0.797549
Mean VIF	3.34	

Source: stata output (2021)

4.4.2 Heteroskedasticity Test

The interpretation of Breusch-Pagan test is done using the p value, if the p value is less than 5% significant level it is the indication of hetroscedasticity accordingly as show the table below. The result of the test shows there is no hetroscedasticity problem since the p value (0.6184) is greater than 5% significant level.

Table 4.4 Heteroskedasticity Test

Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
Ho: Constant variance
Variables: fitted values of DSC
chi2(1) = 0.25
Prob > chi2 = 0.6184

Source: stata output (2021)

4.4.3 Normality test

The null hypothesis for normality test is the sample data are not significantly different than a normal population and alternative hypothesis is the sample data are significantly different than a normal. For small sample sizes, normality tests have little power to reject the null hypothesis and therefore small samples most often pass normality tests Oztuna D et al (2006). The sample size of this research is small which five are. Therefore the data is normal distributed to the population.

Table 4.5 Result of Regression Analysis

Source	SS	df	MS	Number of obs = 5
Model	1.24236953	3	.414123177	F (3, 1) = 13539.93
Residual	.000030585	1	.000030585	Prob > F = 0.0063
Total	1.24240012	4	.310600029	R-squared = 0.763
				Adj R-squared = 0.722
				Root MSE = .00553

DSC	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Profitability	43.67442	.467218	93.48	0.007***	37.73786	49.61099
Solvability	3.079636	.0768879	40.05	0.016**	2.102683	4.05659
Logeffi	-.0454459	.0036772	-12.36	0.041**	-.0921693	.0012775
_cons	.7384642	.0463882	15.92	0.040**	.1490468	1.327882

Dependent Variable: DSC(Financial distress)
Predictors: (Constant), profitability, solvability, efficiency

***Significant at 1% level, **Significant at 5% level *Significant at 10% level

Model summery

The regression model considered financial distress (DSC) as dependent variable and the factors affecting performance for the individual factor as the independent variables. A multiple regression analysis is conducted to evaluate how well the three factors predict financial distress of the hotels. As it is depicted in above the table, the linear combination of the factors is significantly related to financial distress (Adjusted R^2 =.0.722). This means that, 72.2% of the positive variance of financial distress in the sample can be accounted for by the linear

combination of the three factors that affect financial distress which are profitability, solvability and efficiency

The ANOVA result (ANOVA. **F= 13539.93 and P<0.0063**) in the above table indicated the overall significance of the model .generally the ANOV result clearly depicted or explained the existence of the relationship between the independent variable (profitability, solvability and efficiency) and dependent variable financial distress. The overall model is significant at 5% a significant level.

The multiple linear regression result

$Y = B0 + B1X1 + B2X2 + B3X3 + \varepsilon$

$DSC = 0.7384642 + 43.67442\text{PRO} + 3.079636\text{SOL} - 0.0454459\text{Logeff}$

Where DSC= financial distress

PRO= profitability

SOL= solvability

Logeff= log of efficiency

The regression model points out the relationship between the dependent and the independent variable. The model result suggested that profitability and solvability have a positive and a significant at p<0.05 whereas efficiency has a negative and a significant at p < 0.05.

Profitability (pro) is the ratio of net profit to total sales, this indicate how large the ratio of net profit to sales generated by operating activities in order to cover the company's debt and other fixed charges. Profitability has positive relationship with financial distress, with regression coefficient 43.67 and p value 0.007, implies that is significant at 1% significant level. The coefficient of profitability result of the model shows that β1=43.67 this implies that a one unit of profitability increase will leads to an increase financial distress by 43.67units. Empirical evidence also shows profitability and financial distress has a significant and positive relationship. For instance, Andualem Ufo (2011) conducted determinants of financial distress in selected beverage and metal manufacturing firms in Ethiopia. The study estimates determinants of financial distress using panel data starting from 1999 to 2005. Using panel data regression, the

researcher analyzed internal and some of external factors affecting firm's financial distress. The final result shows profitability is positive and significant influence of financial distress. Accordingly Yohannes Tesfamariam (2014) studied on determinant of financial distress in manufacturing sector profitability is a positive and insignificant effect of financial distress. This indicates that profitability is inconsistent factor for financial distress.

Solvability (sol) has a positive relationship with financial by coefficient 3.0796 and p-values 0.016. This means that a one unit increment of solvability will lead to an increase in financial distress by 3.0796. Empirical evidence also shows that solvability and financial distress has a significant and positive relationship. For instance, Accordingly Yohannes Tesfamariam (2014) studied on determinant of financial distress in manufacturing sector solvability is a positive and significant effect of financial distress. This indicates that solvability is consistent factor for financial distress.

The third variable coefficient of efficiency $\beta 3 = -.0.045$ this means that a one unit increment of efficiency will lead to a decreasing financial distress by 0.045 at 5% significant level. This result is related to the finding of Pranowo et al. (2010), efficiency is statistically significant and have positive influence on the financial distress. But this result is not similar to the finding of Yohannes Tesfalem (2014) because efficiency is insignificant and positive effect for his study. This shows that efficiency is not a constant factor for financial distress.

Table 4. 6 Summary of hypothesis testing result

Hypothesis	Statement	Result
H1	There is a positive relationship between profitability and financial distress.	Accepted
H2	There is a positive relationship between solvability and financial distress.	Accepted
H3	There is a positive relationship between efficiency and financial distress	Accepted
H4	There is a positive relationship between liquidity and financial distress.	Rejected
H5	There is a negative relationship between leverage and financial distress.	Rejected
H6	There is a positive relationship between firm size and financial distress.	Rejected

Source: own Computation (2021)

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATION

5.1 Summary and Conclusion

The objective of this study is to examine the determinants of financial distress in three and four stars hotel in Addis Ababa Ethiopia. This study used secondary data during the period 2015-2019 and the sample of 10 three and four star hotels were operating. Descriptive statistics and regression analysis were performed to describe the determinants of financial distress in three and four start hotels in Addis Ababa, Ethiopia. This chapter presents a conclusion of the study by summarizing the study's findings and discussing their implications, and providing suggestions for future research.

The study examines the impact of firm level characteristics on performance of services hotels in Addis Ababa, Ethiopia over the period of five years from 2015-2019. For this purpose, efficiency, firm size, leverage, liquidity, solvability and profitability are selected as independent variables while DSC (financial distress) is taken as dependent variable. The results of regression analysis reveal that efficiency, profitability and solvability are most important factors of financial distress in hotels industry in Addis Ababa, Ethiopia whereas liquidity, leverage and firm size are statistically insignificant relationship with DSC.

The value of R square (0.763) reveals that 76.3% of the dependent variable explains by the independent variables. Therefore, it implies that internal and external factors are important determinants of financial distress in hotel industry in Addis Ababa, Ethiopia to the extent on average 76.3%.

Positive coefficient of variable profitability states the positive relationship. The relationship between DSC and profitability is statistically significant (+) implies the profitability of the firm increases, the financial distress decreases. Even though the relationship between profitability and DSC is positive the firm faces financial distress in this study.

Solvability is positive and statistically significant at 5% level. The positive relationship between solvability and DSC implies the firm has higher solvability; they have higher ability of debt

service coverage. Therefore hotel industries have the ability to solve the debt service coverage in Addis Ababa, Ethiopia.

Efficiency is negatively and significantly related with the DSC. This predicts that the performance of highly efficiency in Ethiopian hotel services is going to be less DSC. Firm's Efficiency or turnover ratios measure how productively the firm is using its assets. The firm efficiency is measured in terms of its asset turnover, average collection period and average payment period. These components indicate the firm's viability as well as speed of turning over its assets within the year, which determines the firm's financial distress. Even if which is not supports the hypothesis formulated for the study.

Other explanatory variables like leverage, liquidity and firm size are not considered as powerful explanatory variables to define the determinants of financial distress in hotel industry in Addis Ababa, Ethiopia over five years.

5.2 Recommendation

Based on Based on the major findings obtained from the result, the researcher provided the following recommendation

- The hotel sectors should be maintaining and improving efficiency by hiring advanced and professional employee, restructure management team, make different employee incentives to appreciate their morals.
- Hotels should have actively monitor the cash flow and reduce overhead and waste to improve the solvability of hotels to cover their debt.
- The profitability in good way to deduct company cost and major expense so hotels should have done cost minimization or revenue maximization to decease the hotels financial distress.

Further Research

This paper use as reference for next researcher who study on hotel industry, and I advise next researcher to increase the sample size including year 2020to investigate how the covid -19 affect the Hotel industry.

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Appendix 1

Multicollinearity test

Variable	VIF	1/VIF
Profitablity	4.62	0.216263
logeffi	4.14	0.241821
Solvablity	1.25	0.797549
Mean VIF	3.34	

Hetroscedacity test

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Breusch-Pagan / Cook-Weisberg test for heteroskedasticity
         Ho: Constant variance
         Variables: fitted values of DSC

         chi2(1)      =     0.25
         Prob > chi2  =   0.6184

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Appendix 2

Regression Analysis

Source	SS	df	MS	Number of obs = 5
Model	1.24236953	3	.414123177	F (3, 1) = 13539.93
Residual	.000030585	1	.000030585	Prob > F = 0.0063
Total	1.24240012	4	.310600029	R-squared = 0.763
				Adj R-squared = 0.722
				Root MSE = .00553

DSC	Coef.	Std. Err.	t	P>t	[95% Conf.	Interval]
Profitability	43.67442	.467218	93.48	0.007	37.73786	49.61099
Solvability	3.079636	.0768879	40.05	0.016	2.102683	4.05659
Logeffi	-.0454459	.0036772	-12.36	0.041	-.0921693	.0012775
_cons	.7384642	.0463882	15.92	0.040	.1490468	1.327882