T.C.

ANTALYA BILIM UNIVERSITY

INSTITUTE OF POSTGRADUATE EDUCATION

MASTER OF BUSINESS ADMINISTRATION

THESIS PROGRAM

THE IMPACT OF CORPORATE GOVERNANCE ON FIRM'S PERFORMANCE WITH THE MEDIATING EFFECT OF CAPITAL STRUCTURE

DISSERTATION

PREPARED BY

TALHA AKHTER SHEIKH

ANTALYA – 2022

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APPROVAL/ NOTIFICATION FORM

ANTALYA BILIM UNIVERSITY

INSTITUTE OF POST GRADUATE EDUCATION

Talha Akhter Sheikh, a master student of Antalya Bilim University, Institute of Post Graduate Education, master's in business administration with student ID 2011139, successfully defended the thesis titled "The Impact of Corporate Governance on Firm's Performance with the Mediating Effect of Capital Structure". which he prepared after fulfilling the requirements specified in the associated legislations.

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PREFACE

First and foremost, I would like to thank Almighty Allah for taking me through the two-year master's program at Antalya Bilim University (ABU) and making this dissertation a success.

I appreciate and respect my supervisor Prof. Bushra Soummakie, for her unending support, guidance, patience, motivation, and advice throughout the dissertation. I also thank all lecturers and non-teaching staff who made time to help in the success of this study.

I further extend my profound gratitude to my friends and the hardworking citizens of Turkey; you have been my inspiration.

Finally, I thank my parents and guardians for their financial and moral support. I am grateful to you all.

.... / .... / 2022

Talha Akhter Sheikh

Signature:

ÖZET

Bu araştırma, 2016-2020 yılları arasında 93 Türk firması için aracı faktör olarak sermaye yapısının varlığında kurumsal yönetimin firma performansı üzerindeki etkisini araştırmaktadır. Mevcut çalışma, kurumsal yönetim kapsamına giren temsili faktörler olarak yönetim kurulu büyüklüğü, yönetim kurulu bağımsızlığı, denetim komitesi büyüklüğü ve CEO ikiliğini ele almaktadır. Araştırmacı, dikkate alınan değişkenler arasında anlamlı bir ilişki çıkarmak için panel regresyon analizi tekniğini kullanır. Çalışma, dikkate alınan hipotezin kabul ve reddini incelemek için Panel Regresyon Modelleme'ye dayalı olarak yapılırken, aracılık analizi yardımıyla aracılık rolünü kontrol etmek için yapısal eşitlik modellemesi yapılmıştır. Mevcut çalışmanın bulguları, sermaye yapısının varlığında pozitif firma performansının çıkarılması için yönetim kurulu bağımsızlığı ve denetim komitesi büyüklüğünün ele alınması gibi gereken daha yüksek önemli değişkenler organizasyon için kısa bir politika çıkarımı sağlar. CEO ikiliği ve yönetim kurulu büyüklüğü, firmanın performansının desteklenmesi için teorik çıkarımlar olarak düşünülmelidir.

Anahtar Kelimeler: Kurumsal Yönetim, Finansal Kaldıraç, Firma Performansı, Panel Regresyon Modeli, Yapısal Eşitlik Modellemesi.

ABSTRACT

This research investigates the impact of corporate governance on firm's performance in the presence of capital structure as a mediating factor for 93 Turkish firms between the period of 2016-2020. The current study takes board size, board independence, audit committee size, and CEO duality as representative factors which comes under the corporate governance. Researcher uses panel regression analysis technique to extract meaningful relationship among considered variables. The study relied on Panel Regression Modeling for studying the acceptance and rejection of considered hypothesis while structural equation modeling has been carried out to check the mediation role with the help of mediation analysis. The findings of current study provide a brief policy implication for organization such as the higher significant variables board independence and audit committee size must be addressed to extract positive firm performance in the presence of capital structure. The CEO duality and board size need to be considered as theoretical implications for promoting firm's performance.

Keywords: Corporate Governance, Financial Leverage, Firm Performance, Panel Regression Model, Structural Equation Modeling.

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LIST OF ABBREVIATIONS

AUDTCMS:	Audit Committee Size
BS:	Board Size
BI:	Board independence
BOD:	Board of Directors
CEO:	CEO Duality
CG:	Corporate Governance
CS:	Capital Structure
COC:	Cost of Capital
FP:	Firm's Performance
FL:	Financial Leverage
FS:	Firm Size

CHAPTER 1

INTRODUCTION

This study aims to investigate the impact of corporate governance on firm performance in Turkey. Corporate governance has been an important research area, which deals with the various governance arrangements used to control the corporation within the objective of maximizing shareholders (owners) wealth. A literature review reveals this importance, and highlights problems with conflict of interest between shareholders and the management (Jensen and Meckling, 1976). When there are asymmetric information problems and imperfect contractual relations between managers and shareholders, managers have incentives to pursue their own objectives at the expense of shareholders. For example, managers might implement financial and investment strategies or may spend more on luxury projects for their own interests rather than increasing the value of the company. Furthermore, this conflict may result in transfer pricing, whereby assets of the company that they manage are sold to another company that they own below the market value.

Effective corporate governance should fundamentally guarantee shareholders' value by ensuring the appropriate use of firms' resources, enabling access to capital and improving investor confidence (Denis and McConnell, 2003). This is related both to internal organization and external market conditions; firm ‘s responsiveness to external conditions is largely dependent on the way the firm is managed as well as the efficacy of the firm ‘s governance structure (Gregory and Simms, 1999). Some authors (e.g. Rwegasira, 2000; Nam et al., 2004) have argued that good corporate governance prevents the expropriation of company resources by managers, ensuring better decision making and efficient management. This results in better allocation of company resources and, ultimately, improved performance.

With the previous unfortunate incidents, many authors have studied about the relationship between corporate governance and firm performance and interestingly found different results. Some of them found a positive association between corporate governance and firm performance (Kiel and Nicholson, 2003; Haniffa and Hudaib, 2006; Jackling and Johl, 2009). Good corporate governance has become necessary for improving firm performance, establishing investor rights, enhancing the investment atmosphere and encouraging economic development (Braga- Alves & Shastri, 2011) and has gained extensive fame in the stock market economy (Adiloglu & Vuran, 2012). Another researches stated that corporate governance influence firm performance inversely (Yermack, 1996; Hutchinson and Gul, 2003; Mashayekhi and Bazaz, 2008). Moreover, according to Bhagat and Black, 2001, there is no relationship between corporate governance practices and firm financial performance. In this context, this study investigates this relationship for the case of Turkey. This is because, generally studies have concentrated on developed or developing countries but in this context Turkey is a special case because according to different organizations it is defined as both developed and developing countries. Moreover, while there are studies related to relationship between corporate governance and firm performance for Turkey, they were conducted by using different variables than independent variables that are used for this study. Since their variables are different, it is not possible to compare results with previous investigations. Therefore, it is found that there is a research gap for this case. Hence, the focus for this study is exploring the impacts of corporate governance variables that are board size, board independence, CEO duality, audit committee size, capital structure and firm size on firm's performance.

Capital structure is a widely studied subject in the financial literature. It is how a firm finances its operations and growth using an optimal structure of debt and equity to increase firm value. One of the first theories on capital structure is Modigliani and Miller (1958) where they claim that in a frictionless world, capital structure is irrelevant to increase firm value. After the adoption of irrelevant theory, several theories on determinants of capital structure and other related theories have been studied and evolved. Mainstream theories are the trade-off theory, agency theory and Modigliani and Miller theory. The tradeoff theory reflects the balance (tradeoff) between the uses of tax shield benefits of debt and the cost of financial

distress that increases proportionally as the level of debt increases (Kraus and Litzenberger, 1973). The agency theory explains the relationship between principal and agent. It assumes that managers will not always act in such a way that it reflects the best solution for the shareholder, but they will rather act in self-interest. It separates between ownership and control, which results in conflicts between managers and shareholders, and eventually to agency cost (Jensen and Meckling, 1976).

Several factors can influence the debt-to-equity ratio (Frank & Goyal, 2009). Some examples are firm-specific factors like firm size, growth opportunities, profitability and tangibility (Rajan & Zingales, 1995; Titman & Wessels, 1988; Frank & Goyal, 2009; Chen & Jiang, 2001; Degryse, Goeij, & Kappert, 2012) which mainly represent the trade-off and pecking order theories. But also, country-specific factors (De Jong, Kabir, & Nguyen, 2008; Psillaki & Daskalakis, 2009) and macroeconomic factors (Alves & Francisco, 2014), like crises, can influence the way a company is classifying debt and equity. Additionally, corporate governance mechanisms include several factors which can influence a firm's leverage.

Deriving from the agency cost theory, the relationship between the principal (e.g., a shareholder of a firm) and the agent (e.g., a manager of a firm) can influence the capital structure decisions which are being made within the firm. Misalignments between the interests of the principal and agent may occur since an agent will not always act in the principals' best interest (Jensen & Meckling, 1976). To handle these situations, corporate governance mechanisms can be used to monitor and discipline the relationship (Detthamrong, Chancharat, and Vithessonthi, 2017). Corporate Governance is "a framework to build an environment of accountability, trust and transparency." (Detthamrong et al., 2017, p. 691). Jiraporn, Kim, Kim, and Kitsabunnarat (2012) study the effects of corporate governance quality on capital structure. They find that the level of governance a firm use, consequently, affects the performance and capital structure. Weak governance may lead to higher debt ratios and lower firm performance. Suggesting bad relationships between the manager (agent) and shareholders (principal). Continuously, Wen, Rwegasira and Bilderbeek (2002) find that when managers face stronger corporate governance, they tend to pursue lower debt ratios, indicating negative effects. On the contrary, other studies (Brailsford,

Oliver, and Pua, 2002; Bruslerie & Latrous, 2012) also investigate the effects of corporate governance on capital structure. Continuously, they find positive impacts of corporate governance on capital structure. Thus, corporate governance mechanisms can affect a firm's capital structure.

1.1 Background of the Study

Corporate governance has been gaining importance ever since the mid-80s and in recent years, with rising of competitive power, the importance of the corporate governance concept has reached appreciable level. It is defined as the "rules and practices by which companies are guided or run" and it also improves the relationship between the managers and shareholders of a corporation, as well as its stakeholders. It contributes to growth and financial stability by boosting up market assurance, financial market, integrity and economic efficiency (Organization for Economic Cooperation and Development (OECD,2004). Therefore, inadequacy of corporate governance policy of public and private sector is counted among the important reasons of the generated international financial crisis and company. It has become a concern both in developing and developed economies since previous financial scandals have increased demand for improved corporate governance practices (Baydoun et al 2013). The sudden disappearance of companies such as Enron and WorldCom which are prominent examples of world leading companies, showed that what is known about good company management needs to be thought through corporate scandals and mismanagements. This has caused the losses suffered by stakeholders of companies, primarily shareholders as a result the importance of corporate governance have increased further and becomes an essential part of financial markets, business and management. The reason for the concerns of corporate governance coming to the foreground and the protection of its position in the next years is corporate scandals that have happened recently. In the latest years after the fiscal crises happening in US and major corporate bankruptcies, corporate governance concept came to the fore in Turkey as well to be in harmony with the world and attract the foreign capital inflow to Turkey. Because it increases the need of foreign investment has boosted corporate governance applications in Turkey.

It is proved that global financial crises often have devastating consequences both in terms of their breadth and depth (European Economy, 2009:1-6; Crotty, 2009). Even though the world has witnessed several global crises, in 2008 there was a historical moment where the enormous damage of a global financial crisis led to overwhelming consequences, since no country has proved immune to the devastating effects (Foxley, 2009:7; Altman, 2009). Crotty (2009) explains that the crisis in 2008 is argued to be the worst crisis since the great depression in 1930's due to the fact that several economic sectors and many businesses across the globe ended up with liquidity issues and turned insolvent (Imbs, 2010; Ahn et al., 2011; Cetorelli and Goldberg, 2011). Campello et al. (2010) state that during the financial crisis the growth opportunities for many firms were affected negatively since it became harder to acquire external funding. According to Watson and Head (2010) this made the management more concerned about the relevant investment decisions as well as the appropriate level of debt and equity since it is proved to have an influence on firm performance (Fama and French, 1998; Gleason et al., 2000; Berger and Bonaccorsi di Patti, 2006; Margaritis and Psillaki, 2010; Fosu, 2013). Hence, since the financial crisis in 2008, increasing attention is paid towards companies' capital structure.

Since a higher level of debt is associated with more risk, the financial crisis is a great opportunity to capture the negative effects of an improper capital structure (MacKay and Phillips, 2005; Ross et al., 2013). Brealey et al. (2008) claim that the highly leveraged firms were the ones experiencing higher bankruptcy risk when the stock market collapsed in 2008. Additionally, Cornett et al. (2011) state that banks experienced liquidity issues as well, which impacted firms' borrowing cost negatively. since the credit supply was limited. Moreover, during the crisis the number of securities issued by firms dropped remarkably while the flexibility in securities with short maturity made them preferable (Almeida et al., 2011; Federal Reserve, 2012; Custódio et al., 2013; Fosberg, 2013). Furthermore, Bhamra et al. (2010) describe that the possibility of unexpected financial crises has made firms more concerned about financial stability and more conservative in their financial policies. As a result, the debt-to-equity ratio has become an important survival indicator (Campello et al., 2010). In sum, the aforementioned reasoning clearly proves that the financial crisis did impact on firms' capital structure.

The organized management provides a superior allocation of firm resources that ultimately increase the firm's performance. Among key organized management resources, the capital structure which is also known as financial leverage is a significant issue for a smooth-running organization from financial standpoint because it is directly related with the firm's ability to meet stake holder objectives (Marti et al, 2017). Muhammd et al. (2020) exclaimed that capital structure, capitalization financial structure, leverage ratio, and invested capital all have same meanings explaining that how much capital an organization have and what type of resources the company has used to build itself up and purchase its assed. A firm's decision of capital structure includes its choice of a target capital structure, the average maturity of its debt and the definite types of financing that decide to use at any particular time. (Chadha & Sharma, 2015) found two significant concerns with capital structure such as to maximize the firm's value and to minimize the overall capital cost of an organization. Turner et al. (2016) proposed that it is a choice among equity and debt where capital decision is one of the key elements of corporate governance attracting considerable concern of researchers.

However, the existence of imperfect conditions and market behavior, the concept of optimal capital structure emerges with the proposal of trade-off theory, which is significantly integrates the effects of corporate taxes, distress of financial stability, and agency problem. Simultaneously, the asymmetric recognition of data lead towards the appearance of signaling hypothesis and pecking order theory that neglect the term optimal leverage (Dao et al., 2020). But Younas & Javed (2014) indicated that if debt level is increases within an organization, then firm's asset becomes more tangible regarding firm's performance and promote market competition through encouraging new entrants to enter into the market.

1.2 Problem Statement

According to the accounting and corporate finance perspective, capital structure is the main focus and also a critical factor which is affecting the overall operating corporate levels

(Abor & Biekpe, 2014). To reduce the interest of shareholders, cost of capital are the motivations of capital structure and consequently, the maximization of shareholder's interest through organizational management comes under the mechanism of corporate governance which has always been related to the agency problems. Moreover, corporate governance may affect capital structure in many ways and it plays a vital role in making corporate financing decisions and meanwhile this particular structure (Corporate Governance) help organizations to protect their rights towards shareholders or to meet legal compliances because this is supportive to achieve corporate objectives. In addition, the main problem related to capital structure are first proposed by (Modigliani & Miller, 1958) come up with the trade-off theory which relates to the tax assumptions, and they suggest that the bridge between the cost of bankruptcy and benefits of tax-shields are balanced through capital structure which is linked to debt financing. But on the other hand, author Jensen and Meckling posits agency theory of capital structure and corporate governance which shows the conflicts are occurred between the agent and principal through the concentration and separation of management. Those companies with the structures of weak corporate governance cannot guarantee wealth creation with the sustainable shareholders as the governance mechanism and to hold the executives accountable for their stewardship with the help of corporate governance mechanism.

Further, agency cost is the main issue in corporate governance mechanism because of the absence of ownership and control in an organization and the financial institutions, government institutions, other corporations, shareholders and initial founders are including in ownership and control to manage organization operations. So, to protect the interest of shareholders and owners is the foremost requirement of corporate governance mechanism. On the other hand, to increase the firm value using an optimal structure of debt and equity with the help of capital structure which is using that how firm finances its growth and operations. Hence, many researchers posits that the theory of Modigliani and Miller (1958) claims to solve the issue of capital structure that is irrelevant to increase the firm value. However, from the perspective of agency cost theory, the association between the agent and the principal can influence the capital structure and firm performance decisions which are being made within the firm but the misalignments between the agent and principal's interest

may occur when an agent will not always act as the principal and to monitor and discipline the relationship the mechanism of corporate governance will help to handle these situations.

1.3 Research Objectives

From regulator perspective, there is a common belief regarding that good corporate governance applications have positive effect on firms' financial performance, but corporate governance indicators have different correlation on firm's performance in every country. Therefore, the aim of this paper is to examine whether corporate governance applications of listed Turkish companies can affect their firm performance. To achieve this purpose, the following objectives of this study are as follows:

- To evaluate the impact of Board Size on Firm Performance.
- To evaluate the impact of Board Independence on Firm Performance.
- To evaluate the impact of Audit Committee Size on Firm Performance.
- To evaluate the impact of CEO Duality on Firm Performance.
- To evaluate the effect of Capital Structure as a mediator factor between Board Size and Firm Performance.
- To evaluate the effect of Capital Structure as a mediator factor between Board Independence and Firm Performance.
- To evaluate the effect of Capital Structure as a mediating between Audit Committee Size and Firm Performance.
- To evaluate the effect of Capital Structure as a mediating between CEO Duality and Firm Performance.

1.4 Research Questions

- What is the influence of Board Size and Firm Performance in the non-financial sector of Turkey?

- What is the influence of Board Independence and Firm Performance in the non-financial sector of Turkey?
- What is the influence of Audit Committee Size and Firm Performance in the non-financial sector of Turkey?
- What is the influence of CEO Duality and Firm Performance in the non- financial sector of Turkey?
- What is the mediating effect of Capital Structure on the relationship between Board Size and Firm Performance in the non- financial sector of Turkey?
- What is the mediating effect of Capital Structure on the relationship between Board Independence and Firm Performance in the non- financial sector of Turkey?
- What is the mediating effect of Capital Structure on the relationship between Audit Committee Size and Firm Performance in the non- financial sector of Turkey?
- What is the mediating effect of Capital Structure on the relationship between CEO Duality and Firm Performance in the non- financial sector of Turkey?

1.5 Research Contribution

This research is based on several contributions which are considered or extracted from the gaps from past studies or researches. Meanwhile, the foremost contribution is to find out the "Impact of Corporate Governance on Firm's Performance with the Mediating Effect of Capital Structure" that depends on several factors such as using different independent, mediating and dependent variables, using distinctive dimensions of corporate governance and capital structure, in different context but to constructs researcher used different proxies and measurements. Moreover, Board Size, Board Independence, Audit Committee Size, CEO Duality as independent constructs while many researchers using more dimensions i.e., Family Ownership, Female Directorship and Audit Reputation, all these are come under Corporate Governance (Caramanis and Lennox, 2008). In addition, Capital Structure is a mediating variable in which financial leverage is a specific dimension using in this research, but on the other hand, many scholars or authors used different category to explain capital structure. Firm performance is a dependent variable for this paper and due to time period,

this study has limited variables, but another contribution is to collect data of non-financial institutions in the context of Turkey. Another contribution is to add missing variable as a mediator (capital structure) in the conceptual framework to analyze the relationship between independent and dependent variables.

1.6 Scope of the Study

Increasing the wealth of shareholders are considered as an important in corporate governance and capital structure depends on which relates to firm's performance (Goyal,2013). In addition, the evidence of financial crisis and to enhance the practices of corporate governance through the financial development of capital markets has a positive effect to check. However, the fiscal crises which is happening in the US and major bankruptcies related to corporate in the latest years has been developed by several regulations. Moreover, the existing structure of corporate governance has many differences compared to its developed counterparts' market in Turkey. Some of the differences are given below.

- Several corporations are run by families.
- The capital stock percentage is low.
- Low publicly firs are held.
- Different industries or big groups dominate markets in horizontal growth.

The scope of this research is to find out the "Impact of Corporate Governance on Firms Performance with the Mediating Effect of Capital Structure". Researcher select different variables such as Board Size, Board Independence, CEO Duality, Audit Committee Size used as independent derivatives and all of them come under corporate governance whereas financial leverage used a mediating as it is a category of capital structure. However, dependent variable is firm performance in the context of Turkey. We choose distinctive sector i.e., Non- Financial Institutions which are listed in Borsa Istanbul Stock Exchange (BIST). Moreover, past researcher had selected different population and sample size.

Additionally, the aim of this research is to find out the relationship between Board Size, Board Independence, Audit Committee Size, and CEO Duality on capital structure and on firm performance on the data of non- financial institutions. However, the magnitude and direction of these derivatives affect directly or indirectly intensity of these constructs.

1.7 Study Limitations

The limitation of this research is to sample companies that are listed in BIST i.e., Borsa Istanbul Stock Exchange that includes all listed institutions. Therefore, financial sector could not be analyzed before in any study due to availability of data. In this research, the collection of data sources are annual reports which is taken from the website of companies and using selected variables due to time horizon. Different proxies are using to measure dependent, independent and mediating variables in the context of Turkey.

1.8 Organization of the Study

The first chapter of the current study highlighted the background and importance of the research topic. Second chapter of the study provides a summary overview to contribution of previous studies i.e. literature review. Third chapter of the study shed light on research methodology, where the research tools and techniques are summarized. The data analysis and result discussion are carried out in section four. The last section of current study concludes the study with policy recommendation and limitations of the study.

1.9 Chapter Summary

This chapter summarizes the foremost headings of this specific section in which introduction comes first relates to the corporate governance, capital structure and firm performance by reading and recognized researches and with the help of explanations from different practitioners. Secondly, history of corporate governance and capital structure discussed under the background of the study and the issues regarding capital structure and corporate governance which is direct or indirect effect on firm performance examined in the problem statement. Further, according to the independent, dependent and mediating variables we aligned research objectives and research questions and more, research contribution is defined the gaps of this specific study in a very detail. Meanwhile, scope of the study discussed the importance relates to the context i.e. Turkey in brief. Organization of the study explains all chapters and under the headings of it and in the end, each point concludes in one manner.

CHAPTER 2

LITERATURE REVIEW

2.1 Theoretical Review

It includes underlined theories, which helps the author to solve their research problem according to the context and sector. This study explained Agency theory, which relates to the corporate governance dimensions and Modigliani &Miller defines capital structure along with the relationship with firm performance.

2.1.1 Agency Theory

It comes from the economic theory proposed by the (Alchain and Demsetz, 1970) after that agency theory defines by the (Jensen and Meckling, 1976). But after the evolution of new development and technology within organizations or in the business world, this particular theory examines the relationship between principal and agent. Agency theory solves the problem of conflicts between managers who are agents and shareholders who are principals in any firm. Further, it is a contract between them to solve the issue through performing the services on behalf of following this specific agreement (Jensen and Meckling, 1976). The issue arises when shareholder (principals) considered that agents (managers) take decisions and take actions on the behalf of the interest of shareholders to maximize the wealth, but agents do not perform according to them. This occurs the problem among principal and agent. This is the first situation but on the other hand, there is another situation which relates to decisions of both principals and agents both of them are not aligned their acts or decisions with each other and after this issue the risk tolerance increases to sustain their goals or objectives (Pearce and Zahra, 1992).

According to Jensen and Meckling, (1976), the agency problem will cause financial losses and inefficiencies, which are determined as to monitor the expenditures to the agent

by the principal to limit their activities performed to take decisions. Further, managers have a control on a substantial amount of free cash flows, which are generated by the operations of organizations because these amounts of cash flows will be paid to shareholders in the shape of dividends. However, managers control the resources and power to reduce it by paying the dividends to shareholders (Jensen and Meckling, 1986). Hence, both monitoring and bonding expenditures will decrease the divergence of interest between principal and agent, and this is uncommon happens in the relationship with agency issue. According to literature, the sources of such problems are related to numerous factors, such as managers 'investment decisions (under- or over-investments), free cash flow, earning retentions and shirking that diverge from the positive net present value rule (Dhumale, 1998; Jensen, 1986, 1993; Jensen and Murphy, 1990; Shleifer and Vishny,1986). In practice, both principals and agents face a trade-off between incentives, whereby the agent should be motivated by creating attractive performance-based rewards; and risk sharing, whereby the agent needs to be protected from risk by low performance-based incentive. Therefore, agency problem stems from the incentive-risk sharing puzzle (Hart, 1995).

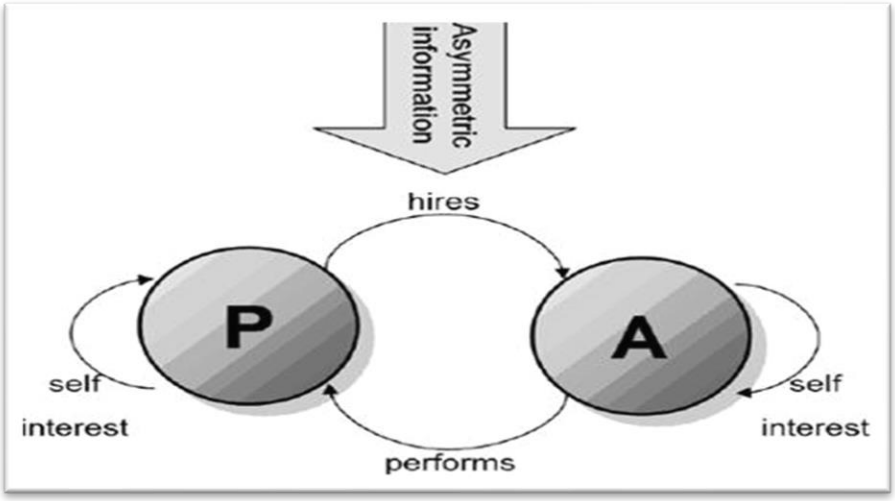


Figure 1: Principal and Agent

Source: (Klein, 2019)

2.1.2 Modigliani and Miller Theory

It describes capital structure includes two propositions proposed by Modigliani and Miller, (1958) is an irrelevant theory. It argues that firm value is irrelevant (non-dependent) in a frictionless and optimal world on capital structure and the organizations of this world are not perfect regarding markets efficiency and there is no cost of debt equally, no taxes, no cost of financial distress, no agency cost and no transaction costs includes in organizations and to determine the firm's value they highlighted that irrelevance of capital structure and capital cost on the value maximization through the management focuses on it (Modigliani and Miller, 1958). Although, Modigliani and Miller assumptions are too restrictive, and they acknowledge the market imperfections in 1963. After this time period, they revised their work along with including the tax benefits and tax shields as to increase the possibility of company's value. However, when capital markets development increased day by day, their statements are more with the weaknesses by (Modigliani and Miller, 1963) are discovered. This resulted that more theories on capital structure described with the findings and evidence for the significance of choices on capital structure.

In addition, when taxes are introduced then Modigliani and Miller correct their theory in 1963 and this situation arises when cost of equity or proportions of WACC would not exist. Further, on leverage (capital structure) have interest payments (debt cost), taxes are deductible from it (Modigliani and Miller, 1963). But as a result of their corrections, interest payments are lower than tax amounts when taxes are appeared which needs to be paid on the other side, increasing the firm's value through higher the net income. Moreover, tax shields would not exist, and dividend payments are not tax deductible (Modigliani and Miller, 1963).

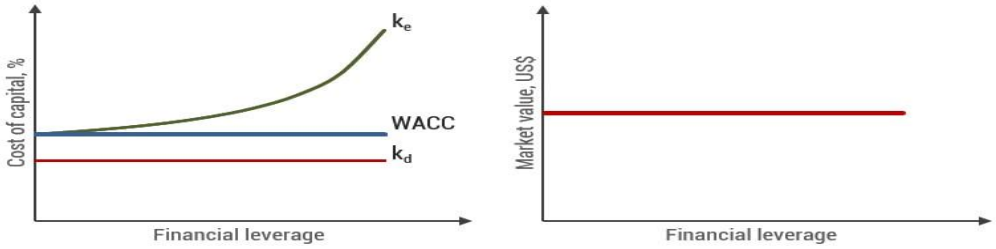


Figure 2: Cost of Capital WACC

Source: (Kim & Yen, 2018)

2.2 Conceptual Framework

This diagram shows the relationship between independent, dependent and mediating variables. Further, the main purpose of this research is to find out the "Impact of Corporate Governance on Firm Performance with the Mediating Effect of Capital Structure". In addition, we have different dimensions of corporate governance such as (Board Size, Board Independence, CEO Duality and Audit Committee Size) as independent constructs, Capital Structure as a mediating and Firm Performance used as dependent variable. The research conceptual framework is given below:

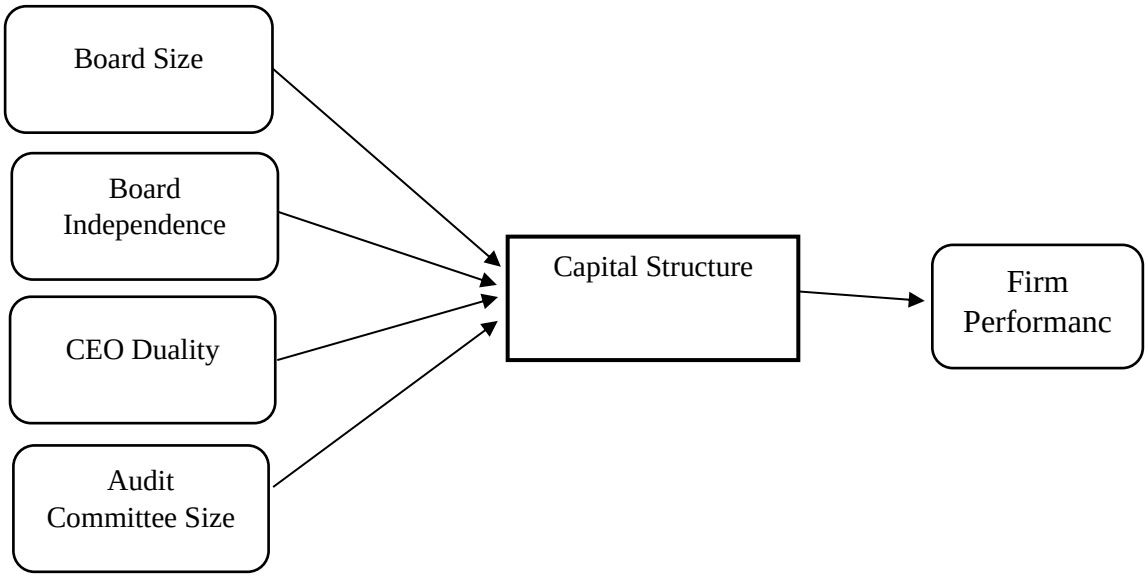


Figure 3: Research Model

2.3 Empirical Review

2.3.1 Corporate Governance

It is a framework to build an environment of accountability, transparency and trust (Detthamrong et al, 2017, p.691) or the way in which suppliers of finance to corporations assure themselves of getting a return on investment (Shleifer &Vishny, 1997, p 737). In addition, corporate governance deals with the agency conflict of separation between interest of managers and owners. Moreover, the owners can assure themselves of getting a return on their investment by applying good corporate practices. When good corporate governance practices are existent in the firm, the separation between ownership and control will decrease. Additionally, debt is often used as a disciplining device to ensure that managers do not oversight in a risky or negative NPV projects. These projects have a higher chance to result in lower or negative returns on investments for shareholders, since there is a low dividend payout. When good corporate governance practices can mitigate this divergence, it will be a substitute for leverage, and thus, impact a firm's capital structure. This is in line with Chang, Chou and Huang (2014) who argue that not only firm-specific factors, but also corporate governance practices determine the level of leverage. Jirapon et al, (2012) mention that corporate governance exists to provide checks and balances between management and shareholders and thus to mitigate agency problems (Jirapon et al, 2012, p.208). Hence, it is expected that corporate governance is able to mitigate the agency conflicts. However, reviewing previous literature delivers different results. For instance, who study a set of American firms between 1996 and 2016, find that levels of debt decrease when managers have more power and when the firms get older. These findings suggest that poor governance leads to lower levels of leverage.

2.3.2 Board Size

Board Size has been defined that it is a significant determinant of capital structure and corporate governance in several theoretical and empirical reviews (e.g., Hermalin and Weisbach, 1998; Jensen, 1993; Lipton and Lorsch, 1992; Yermack, 1996) found evidence consistent with the view of agency costs: that small boards are related with better firm performance. Board size effect firm's performance and they recommended that it has maximum seven to eight optimal members. Several researchers suggest that board size should not be too large or too small, it should be standardized in the mechanism of corporate governance and banks have large board as compared to manufacturing firms because they have less members. But in the perspective of capital structure, the bigger the board will be able to face pressure and able to follow managers in a better way to pursue levels of low leverage (Lipton and Lorsch, 1992). However, decrease in total productivity due to large boards researched by the organizational behavior and large the board size will become difficult for the coordination among managers and to take decisions on firm's value to maximize through the strategies. And in the literature of capital structure, firm's value increases by the bigger boards and by participating in new projects of NPV are increasing the firm's value by acquiring it. Meanwhile, debt and equity financing are different methods by using financing.

2.3.3 Board Independence

Board independence is explained as a total number of non-executive directors are divided from total number of board members relates to supervisory board (De Jong et al., 2005). According to agency problem, as a result of more board independency will help to monitor the management in a better way and when leverage is used as a monitoring device reduce the agency conflicts between agents and principals and it also effects on levels of leverage. As per Berger et al. (1997) suggest that higher the leverage becomes higher the board independence because they help to gain trust from outsider investors and can help firms

to sustain competitive advantage. They have more knowledge, experience and abilities to enhance the financing activities and reduce uncertainties within organizations. Researchers believe that agency theory reducing the debt ratio while holds strengthen of independent directors because of management supervision. However, when board is controlled by senior managers and independent directors are often faced issues by the strict supervisor, which leads managers to adopt leverage in a low level and to surrender large amounts of cash through the pressure by the supervisors.

2.3.4 CEO Duality

CEO Duality refers to the board leadership and another board variable that might to reduce or increase the agency issue, it also explained that CEO and Chairman might be the same person or not. Further, in the perspective of agency problem CEO and chairman person separates the idea between them and due to better overseeing or management from board independence increasing through this specific theory (Jensen and Meckling, 1976). In the meanwhile, CEO should be any individual who have this position and chairman is the person who must be a member of non-executive director from the board's profile. Several organizations have no CEO duality this means that firm has a clear policy making between separation and management. CEO duality has importantly increased the power of CEO in the board's profile, and this will be decreasing the effectiveness for controlling the structure of corporate governance mechanism, this will also depend on the risk preference and leading to over-under leverage.

2.3.5 Audit Committee Size

In the good corporate governance, audit committee is the foremost mechanism and it relates to the directors' board (sub-committees) helps to prepare accurate financial disclosures & annuals reports in complaint with the help of internal control systems or reporting standards that how they are strong trough audit standards (John and Senbet, 1998).Moreover, it is responsible for providing the advice in selecting the external auditors

of the board to create the reliability and to control the management in making the financial reports. Audit committee size or members also create confidence in the accuracy and to maintain the quality of financial reports (Anderson & Harris, 2019). In addition, it helps to safeguard frauds to ensure the best practices and to meet the required reporting standards. The qualifications, knowledge and experience must have in the member of audit committee because they enhance the management monitoring and decreases the asymmetry problems regarding information (Beasley, 1996).

2.3.6 Capital Structure

According to Myers (1984), it is explained as the proportions that make amounts of capitalization and different kind of securities. It is based on different sources i.e., preference shares, equity shares, long term loans, retained earnings and debentures involved in the long-term sources. Capital structure is helpful to examine the financing sources and mix a security which is used by organizations to finance their real investments because these investments are the significant requirement of any firm is to remain in the business world to sustain some growth level profitability (Taub, 1975; Roden and Lewellen, 1995; Champion, 1999; Berger and Bonaccorsi di Patti, 2006; Margaritis and Psillaki, 2010; Fosu, 2013). However, firms used internal and external sources to finance these investments through issuing shares for public comes under the external whereas retained earnings involved in internal sources. It also exhibits the relationship between debt capitals, preference share capital and equity capital include in the long-term financing sources, and it must be reduced the firm's intrinsic value with the help of lowest level of capital structure. Moreover, it can be further defined that capital structure can be used for financial sources through debt and equity (Abor ;2005 and Shubita and Alsawalhah; 2012).

2.3.7 Firm Performance

Firm's performance is calculated through Return on Asset, return on equity and Tobin's Q Ratio to measure the firm's financial performance (e.g., Sarkar & Sarkar, 2000; Cheng, 2008; Guest, 2009; Jackling & Johl, 2009; Chen & Nowland, 2010; O'Connor,

Kinsella, & O'Sullivan, 2014). Past studies used different measurements as per different context or selected institutions (financial/non-financial). This research is used ROA Return on Asset to measure the financial performance for selected companies i.e., Non- Financial Institutions that is listed in BSIT (Borsa Istanbul Stock Exchange). However, it is defined as a percentage of net income to total assets because it is an indicator of accounting performance. It examines the operational performance for a specific time such as for one year as net income to total assets (Hoon, 2001). Moreover, it exhibits the net amount which is earned from capital assets from the investment of investors, and it incorporates the efficiency or effectiveness by all stakeholders through profitability.

2.4 Hypothesis Development

2.4.1 Board Size and Firm Performance

In the pre-existing literature, the researchers explained that board size is the most important factor in the mechanism of good corporate governance and in the same time authors did not find answers on the effect of board size on corporate governance (Lipton and Lorsch, 1992). In addition, past studies examine that there is a positive relationship between firm performance and board size (Adams and Mehran, 2003). Moreover, in the previous studies consequences when increases in board size it affects poor performance because of ineffective monitoring. However, according to the findings and past studies shows that there is also an indirect relationship between firm performance and board size due to larger and smaller boards of firms .Further, past studies exhibit that due to loans or savings in financial institutions also reduces firm's performance because of larger boards According to several researchers, Anderson, Mansi and Reeb (2004),Klein (2002) and Monk and Minnow (1995) board size and firm performance has both relationships positive or negative.

H1: There is a positive relationship between Board Size and Firm Performance

2.4.2 Board Independence and Firm Performance

According to (Berger et al., 1997). argues that it provides benefits to companies but among researchers it creates issue because some are agreed or disagree with this statement. Further, it can be defined as independency of board directors due to the skills, adversity and knowledge and regarding the agency problem which is concentrated on the conflict of principal and agents interest due to the separation among control and ownership (Muniandy and Hillier, 2015). On the other hand, researcher cites the solution of this issue, he states that it can be solved after the emergence of board independence through the reduction of management consumption. However, pre –existing researches shows mixed relationship between board independence and firm performance. As per (Jackling and Johl ,2009) board independence has a significant relationship between return on asset and return on equity. He also claimed that board independence has an effect on average performance, below average performance is not affected in the mechanism of good corporate governance.

H2: There is a positive relationship between Board Independence and Firm Performance

2.4.3 CEO Duality and Firm Performance

It refers to the chairman person who is involved in the board of directors and the CEO is also including in it to hold different positions (Boyd, 1995). It has a dual and powerful role in board's profile to take strategic decisions on firm performance. In addition, in the past studies CEO Duality has a negative relationship with firm performance because it impacts on decisions and monitoring of board directors (Bhagat and Bolton; 2008). It occurs when ineffectiveness in monitoring the responsibilities and in the separation of management and board. It has a negative relationship between CEO Duality and firm performance due to dual leadership.

H3: There is a positive relationship between CEO Duality and Firm Performance

2.4.4 Audit Committee Size and Firm Performance

According to DeFond and Lennox, (2011), past studies exhibit that members of audit committee enhance the firm's performance due to the member's availability whom to carry out the services. Moreover, to improve the status and power of audit committees with the help of inclination of audit committee within firms and it also decreases the cost of debt financing. In addition, audit committee primarily focuses on the process of financial reporting and to review these reports, accounting statements, internal audit controls and process through firm's financial managers and outsider's auditors. However, existing literature shows both significant and insignificant relationships between audit committee size and firm performance. Due to more expertise and experience have small audit committee size effects negative relationship with firm performance but on the other hand, positive relationship with firm performance exhibits due to the global financial crisis.

H4: There is a positive relationship between audit committee size and firm performance

2.4.5 Capital Structure with Board Size and Firm Performance

On the basis of existing literature, board size (BS) has a direct relationship with financial leverage (capital structure) on firm performance, due to the efficiency of decision making in the board may decline because of the large board size and it results a high leverage because to take decisions efficiently among board members (Abor and Biekpe, 2007). Moreover, larger the board may cause the agency problems which is separation between ownership & control, it also needed in the capital structure as means of more debt to solve this problem but on the other side, creditors believe that the greater board size take effective and efficient decisions and this results the debt cost (financial leverage) goes down (Bokpin and Arko, 2009; Rehman et al., 2010). In addition, more leverage and larger board size also effects on firm performance. Past studies exhibit that there is a negative relationship between financial leverage and firm performance with board size because larger the boards pursuing more debt to reduce corporate performance (Berger et al., 1997).

H5: There is a mediating effect of capital structure on the relationship between board size and firm performance

2.4.6 Capital Structure with Board Independence and Firm Performance

It is defined as a group of shareholders', and companies' executives but they are not in major shareholders and to run firms' operations they have knowledge, experience and appropriate qualification as the directors' board (Boateng et al., 2017). Independent directors have more information and knowledge who take effective decisions to take high degree of financial leverage Lin et al. (1998) and Feinerman (2017) argued mixed relationships due to some reasons. On the basis of prior literature, there is a negative association between capital structure with board independence and firm performance because they have supervision to focus managers to avoid excessive risk with the use of less debt. It affects disciplinary which is debt related and it also reduces uncertainty (Wen et al;2002).

H6: There is a mediating effect of board independence on the relationship between capital structure and firm performance

2.4.7 Capital Structure with CEO Duality and Firm Performance

It refers to the dual role in organization as CEO and chairman person and they have experience, knowledge and information along with the position to take decisions effectively and efficiently (Butt and Hasan, 2009).Most authors found negative relationship between firm performance and financial leverage because it impacts on strategic decisions through monitoring and according to agency theory, the duality role increases the CEO power over the board of directors, it also decreases the control mechanism of the structure of corporate governance effectively. It has mixed relationships between firm performance and CEO duality with financial leverage regarding their practices and impacts. On the evidence of existing literature, there is a negative relationship with capital structure and firm performance with CEO duality (Kang and Ausloos; 2017). And if the financial leverage tends to be lower and CEO is more risks averse have the CEO duality impact both significant and insignificant relationships with (Fosberg ,2004).

H7: There is a mediating effect of capital structure on the relationship between CEO duality and firm performance

2.4.8 Capital Structure with Audit Committee Size and Firm Performance

According to (Anderson et al., 2004; Harris and Raviv, 2008)., it involves in committees with internal and external auditors, and these are responsible for safeguarding the performance with a regular scrutiny of the process of financial reporting. Moreover, in the mechanism of corporate governance plays a significant role in increasing regulatory public and interest. It also decreases the chances of fraudulent in financial reporting and protecting shareholder's equity (Chen et al. 2016). Further, past study exhibits that audit committee size has a negative impact with firm performance regarding ROE and Tobin's Q ratio due to enhance the power of financial principal owners. In prior researches, it has also a negative impact with firm performance. In the perspective of financial leverage, mixed relationships exist i.e., positive or negative. If higher the leverage may consider the value of firms very low, and it has insignificant association with capital structure.

H8: There is a mediating effect of capital structure on the relationship between audit committee size and firm performance

2.5 Research Gap

This research is based on following gaps such as we find out "The Impact of Corporate Governance on Firm Performance with the Mediating Effect of Capital Structure". We have different variables i.e. Board Size, Board Independence, Audit Committee Size, CEO Duality, Capital structure and Firm Performance. Moreover, we choose different dimensions of corporate governance (Board Size, Board Independence, Audit Committee Size and CEO Duality) using as independent constructs, financial leverage (capital structure) as a mediating variable and firm performance used as dependent derivative of this research. Another gap is depending on to select different sector from past papers i.e. Non-Financial Institutions listed in BSIT (100 Index) i.e., Borsa Istanbul Stock Exchange. Different population and different

sample size are another gap of this research in the context of Turkey. Meanwhile, calculations of variables are selected from different papers not from one paper so using different proxies is another gap of this stud

2.6 Chapter Summary

This section highlights literature review of the research which is basically consisting of theoretical basis such. It covers following headings such as theoretical review including Agency Theory and Modigliani and Miller theory with the help of past studies. Both theories discussed independent, dependent and mediator variable. Moreover, discussion of each independent variable, mediating variable and dependent variable comes under the paradigm of empirical review. According to the conceptual framework, author also explained relationship with each independent with dependent variable then discusses relationship of mediator with independent and dependent variable. Research gap finds out with the help of past studies and author covers those missing factors which were not studied before.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Introduction

The research methodology comprises set of tools and techniques that academicians and researchers follow to find conclusion related with the selected research objectives and research problem. It helps researchers to go in systematic and scientific way to achieve the desired objectives. In the current chapter, the study discussed the tools and techniques used for through the research period. After introductory paragraph, next section provides summary view to theoretical framework used in the current study followed by mathematical and econometric representation of research model. In section four, the study shed lights on research strategy used in the study followed by the section variable description and measurement.

3.2 Theoretical Framework

A well performing firm or organization can bring long term and high profit, which will generate employment opportunities, grabbing higher market share, and improve the income of individuals (Klein, 1998). The financial profitability of a firm may enhance the returns on its employees, corporate governance, and capital structure (Bhagat & Bolto, 2008). Klassen & McLaughlin (1996) probed that the purpose of corporate governance is to help build an environment of trust, accountability, and transparency that are necessary for fostering and promoting long term investment, business integrity, and financial instability. There are certain factors that describe the corporate governance such as behavior and culture, skills, integrity, experience, board size, board independence, audit committee size, and CEO duality (Brown & Caylor, 2004).

The agency theory depicts that board size and firm's performance are negatively associated with each other. Because a larger board will have more agency cost, which certainly increase the communication and coordination costs (Mallin & Ow-Yong, 2012). Hence, the firms bear loss in long run. Similarly, the board independence depicts the firm's board members, where majority of board members in small and large firms significantly reduces the firm's performance (Brown & Caylor, 2006). In some cases, the board independence makes the members independent, which makes firm able to create greater values for shareholders in certain situation. This will automatically promote the firm's performance. In contrast, the audit committee provides oversight of the financial reporting process i.e. the audit process (Ben_Amar & Boujenoui, 2007). This implies firm's system of internal control and compliance with laws and regulations. The availability of strong audit committee size promotes and encourages firm's performance, but higher audit committee size encourages and promotes the bribery and time consuming. This certainly influences the firm's performance negatively (Halme & Huse, 1997).

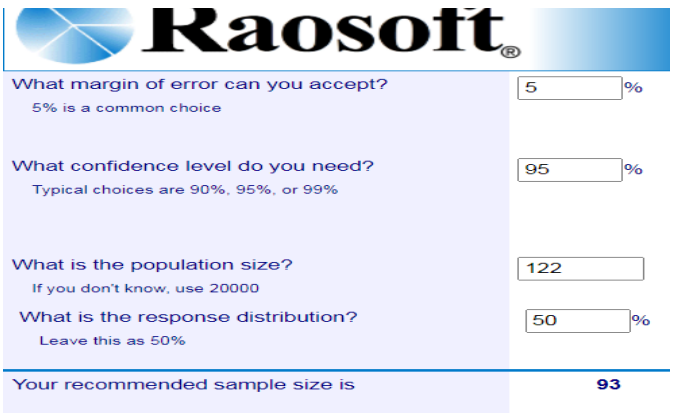
3.3 Research Design

It is the framework of research techniques and methods which are chosen by researcher. It has four types i.e., Quantitative, Descriptive, Casual/ comparative, Qualitative and Experimental but this paper has quantitative in nature because we have large sample size to gather the data from annual reports. The research approach is the process for executing the planning and monitoring the data of the study. It helps the researcher to collect the data in different ways such as through interviews, statistical methods and questionnaires. However, we collect data from annual reports, so this comes under statistical methods.

3.4 Data and Sampling Framework

Population is the statistics term, and it is explained as the numbers of participants & observations that has been targeted in this paper as this study is based on firms that are listed in (BIST) Borsa Istanbul as of 2020, there are total 480 number of firms listed in BIST (Borsa Istanbul Stock Exchange) including both financial and non-financial sector. 122 are non-financial companies' non- financial institutions. Listed companies are taken from Source: https://www.kap.org.tr/en/Sektorler. This research is quantitative in nature because we gathered data from non-financial institutions from annual reports. The study used secondary data, which was obtained through annual reports directors, audit committee profile, balance sheet & income statement. The market conditions are determined in accordance with listing requirements such as firm size and sector. We confine our sample to 122 companies the sample size is calculated through two methods Raosoft (it is basically a software that primarily calculates or generates that sample size of a research or survey) and Krejcie Morgan (1970) sample size determination table this model is used to simplify the determining process 0the sample size for a finite population and the total sample size of this study is 93.

To extract the sample size of this research, author use Raosoft calculator. It is an online sample size calculator which is basically software that primarily calculates or generates the sample size of a research or survey. After using this sample size calculator researcher gets 93 figures which come out from the total population which is 122 non-financial companies. It is the measurement tool helps to get the sample size of the study.



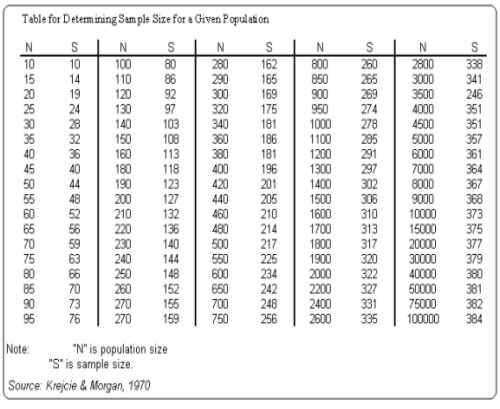


Table for Determining Sample Size for a Given Population

N	S	N	S	N	S	N	S	N	S
10	10	100	80	280	162	800	260	2800	338
15	14	110	86	290	165	850	265	3000	341
20	19	120	92	300	169	900	269	3500	246
25	24	130	97	320	175	950	274	4000	351
30	28	140	103	340	181	1000	278	4500	351
35	32	150	108	360	186	1100	285	5000	357
40	36	160	113	380	181	1200	291	6000	361
45	40	180	118	400	196	1300	297	7000	364
50	44	190	123	420	201	1400	302	8000	367
55	48	200	127	440	205	1500	306	9000	368
60	52	210	132	460	210	1600	310	10000	373
65	56	220	136	480	214	1700	313	15000	375
70	59	230	140	500	217	1800	317	20000	377
75	63	240	144	550	225	1900	320	30000	379
80	66	250	148	600	234	2000	322	40000	380
85	70	260	152	650	242	2200	327	50000	381
90	73	270	155	700	248	2400	331	75000	382
95	76	270	159	750	256	2600	335	100000	384

Note: "N" is population size
"S" is sample size.

Source: Krejcie & Morgan, 1970

Figure 4: Population and Sample Size

3.5 Variable Description and Explanation

The current study undertakes firm performance as dependent variable, while board size, board independence, audit committee size, and CEO duality as independent variable. The capital structure has been taken as mediating variable, while the firm size as control variable. The variable description, explanation, and measurement are summarized in the below table.

Table 1: Variable Description and Explanation

S. No	Variable Name	Variable Definition	Formula
1	Board Size	The board size is defined as the number of board members.	B. S=Total number of board directors
2	Board Independence	it refers to the percentage of total number of non-executive independent directors to the total number of board directors.	Board Independence = the ratio of the number of independent directors to the number of all directors
3	Audit Committee Size	It is defined to enhance the firm performance and many reports indicated that availability of the committee members is the most significant mechanism in corporate governance.	Audit Committee Size=the total number of audit committee members on the board
4	CEO Duality	It can be defined as the separation of control and ownership. Moreover, chairman and CEO are not the same person.	CEO Duality= Chairman and CEO has the same person give (0) otherwise (1)
5	Capital Structure	Capital structure refers to the company's assets regarding the funding sources and it involves both equity and debt ratios	Capital Structure=the ratio of total debts to total assets
6	Firm Size	The firm size refers to total assets of the firm owing.	Firm Size= the natural logarithm of total assets

7	Firm Performance	It is defined as company's financial performance, which signifies the firm value, profit or results.	Firm Performance=Return on Asset= Net Income/Average Total Assets

3.6 Data Sources

This research is quantitative in nature because we gather data from the annual reports which are extracted from the websites of non- financial companies that are listed in BIST i.e. Borsa Stock Exchange. We download annual reports from BIST and gather data from Income Statement, Balance Sheet, Corporate Governance Profile and Audit Committee Profile. There are two types of data sources i.e. primary and secondary sources. This study is basically used secondary sources because researcher collects data from the annual reports in which we headed towards Balance Sheet, Corporate Governance profile and Income Statement. Researcher used different formulas to measure independent (Board Size, Board Independence, Audit Committee Size and CEO Duality), mediator capital structure (leverage) and dependent variable is firm performance. We also used control derivatives such as Firm Size and Return on Asset (ROA).

3.7 Econometric Modeling and Statistical Tools

From theoretical framework, it is cleared that we are interested to explore different factors of corporate governance influencing the firm performance. The current study undertakes the firm performance as dependent variable while board size, board independence, audit committee size, and CEO duality along with firm size as independent variable. The mathematical representation of the theoretical framework is given as below.

$$Y = f(BSZ, BOI, ACZ, CEO, FSZ)$$

Y represents the dependent variable, which is firm performance, BSZ is board size, BOI is board independence, ACZ represent the audit committee size, CEO is CEO Duality, and FSZ represent the firm size. The mathematical relationship can be expressed in econometric modeling as below.

$$Y = \alpha + \beta1(BSZ) + \beta2(BOI) + \beta3(ACZ) + \beta4(CEO) + \beta5(FSZ) + \varepsilon$$

Where Y, BSZ, BOI, ACZ, CEO, and FSZ represent firm performance, board size, board independence, audit committee size, CEO duality, and firm size respectively. α represent the intercept, β1, β2, β3, β4, and β5 are the coefficient values variables.

3.8 Chapter Summary

This section entails methodology of the research which is the foremost part of every research. It consists on research design (Quantitative), population which is extracted from total non-financial firms listed in Borsa Istanbul Stock Exchange (BIST) whereas sample size is extracted from Raosoft calculator (it is basically a software that primarily calculates or generates that sample size of a research or survey) and Krejcie Morgan Model.(1970)it is defined as ever increasing need for a representative statistical sample in empirical research has created the demand for an effective method of determining sample size. Came up with a table for determining sample size for a give population. Further, data sources, sampling techniques and estimation model explain with the help of past studies.

CHAPTER 4

RESULTS AND DISCUSSION

4.1 Chapter Overview

Depending on the availability of data, we considered 122 non- financial companies and shortlisted 93 companies for final analysis. The collected data has been processed using STATA-14. The selected firms are divided into two broad categories i.e. small firms (having maximum of seven board members) and large firms (having more than seven board members). Out of 93 firms', 42 firms have board members seven or less. Similarly, 51 firms have been found having board members greater than seven members. The analysis section has been carried out in such way that first descriptive statistics showing the mean and median score of small firms, large firms, and overall firms. This will help us to predict the average performance of the considered firms. Third section of current study has carried independent sample t-test and paired t-test to check the significant difference among small and large firms. Fourth section of the current study explored the possible correlation between considered variables while the fifth section analyzed panel regression by taking both random effects and fixed effects model. The six sections have been carried to find mediation analysis while the hypothesis testing of current study discussed. The last section of current study provides a brief discussion of findings of current study supporting with the available literature.

4.2 Descriptive Statistics

It is a brief set of descriptive coefficients that summarizes a given set of data representative of a whole or sample population (Puneeta and Goel,2016). The mean, median, standard deviation, minimum, and maximum values of each independent, mediator and dependent variable. The brief description of descriptive statistics findings is summarized in below table.

Table 2: Descriptive Statistics of Firm's

Small Size Firms

	Board Size	Board Independence	Audit Size	Committee	CEO Duality	Capital Structure	Firm Performance	Firm Size
Mean	6.615	0.516	3.856		0.740	0.434	0.473	8.300
Medan	7.000	0.500	4.000		1.000	0.420	0.034	8.405
St.	0.578	0.268	1.223		0.439	0.303	2.004	1.514
Min	5.000	0.286	2.000		0.000	0.002	-0.258	5.215
Max	7.000	2.333	8.000		1.000	0.995	17.233	10.99
Orbs	210	10	210		210	210	210	210

Large Size Firms

	Board Size	Board Independence	Audit Size	Committee	CEO Duality	Capital Structure	Firm Performance	Firm Size
Mean	9.040	0.441	3.433		0.713	0.412	0.110	8.681
Med	9.000	0.375	3.000		1.000	0.393	0.024	8.668
Std.D	1.364	0.200	0.960		0.453	0.317	0.470	1.130
Min	8.000	0.111	2.000		0.000	0.000	-2.014	5.846
Max	15.000	1.600	6.000		1.000	1.010	4.324	10.92
Orbs	255	255	255		255	255	255	255

Overall Firms

	Board Size	Board Independence	Audit Size	Committee	CEO Duality	Capital Structure	Firm Performance	Firm Size
Mean	7.932	0.475	3.626		0.725	0.422	0.276	8.507
Med	8.000	0.429	4.000		1.000	0.407	0.030	8.469
Std.D	1.620	0.236	1.107		0.447	0.310	1.409	1.331
Min	5.000	0.111	2.000		0.000	0.000	-2.014	5.215
Max	15.000	2.333	8.000		1.000	1.010	17.233	10.99
Orbs	465	465	465		465	465	465	465

The mean number of board size for small firms is recorded 7, 9 for large firms, and 8 for overall firms. The average board independence for small firms is recorded 0.516, 0.441 for large firms, and 0.475 for overall firms. The average audit committee size for small, large, and overall firms are 3 while capital structure for the respective firm is recorded 0434, 0.412, and 0.422. The firm performance for small firms in Turkey has been found higher than the large firm as the small firm performance is recorded 0.473, while 0.110 is for large firms. The average firm size for small firms is recorded 8.30 while for large firms it has recorded 6.681. Table 1 exhibit the mean value of board size recorded 7.932 (we know that human being cannot be expressed in proportions), therefore it can be stated that average board size for the respective 93 organizations for the period 2016-2020 recorded 8 members with average standard deviation of 1.62. The minimum board size member recorded 5 while maximum of 15 board size recorded for the respective companies.

The mean value of board independence recorded 0.475 with 0.429 as median or central value. The minimum board independence value recorded 0.111 while maximum of 2.333. The mean values for audit size committee, capital structure, firm's performance, and firm's size have been recorded 3.62, 0.422, 0.276, and 8.507. The standard deviations of the respective variables are recorded 1.107, 0.310, 1.409, and 1. 331.The below figure provide a summary overview to firm performance w.r.t small and large firms. It can be seen that the small firm on average perform better than that of large firm, which indicates that those firm where the board size on average lower have better performance as compared to those firms where the board size members are larger.

For all kind of firms, the capital structure plays significant role for improvement of firm's performance because it maximizes the firm's market price of share by increasing earnings per share of the ordinary shareholders. Li et al. (2009), probed that capital structure increases dividend receipts of shareholders, investment opportunities, and generate new wealth resulting investment opportunities. The below figure provides an insight to capital structure performance of both small and large firms in Turkey.

4.3 Correlation Analysis

The good corporate governance in advanced economies is expected to increase firm's performance, because it is used to optimize the values for stakeholders and shareholders in the long run. Correlation analysis is a statistical measure, use for degree of association and possible relationship between two variables. It tells about the degree of association between two variables. The coefficient of correlation lies between± 1, where the correlation near or equals to plus or minus one represents the possibility of perfect positive or negative correlation that indicates the complete dependence of two variables on each other.

The below table 2 provides an insight to correlation results showing the possible relationship between the factors of corporate governance i.e., board size, board independence, audit committee size, CEO duality, and capital structure, and firm size with firm's performance.

Table 3: Correlation Analysis

		Firm Performance	Board Size	Board Independence	Audit Committee	CEO Duality	Capital Structure	Firm Size
Firm Performance	Pearson Correlation	1	-.183**	.020	-.012	.076		.029
	Sig. (2-tailed)		.000	.673	.796	.105	.264	.534
	N	455	455	455	455	455	455	455
Board Size	Pearson Correlation	-.183**	1	-.165**	-.147**	.071	-.076	.090
	Sig. (2-tailed)	.000		.000	.002	.128	.104	.054
	N	455	455	455	455	455	455	455
Board Independence	Pearson Correlation	.020	-.165**	1	.237**	.064	.042	-.135**
	Sig. (2-tailed)	.673	.000		.000	.175	.370	.004
	N	455	455	455	455	455	455	455
Audit Committee	Pearson Correlation	-.012	-.147**	.237**	1	-.364**	.025	-.051
	Sig. (2-tailed)	.796	.002	.000		.000	.597	.282
	N	455	455	455	455	455	455	455
CEO Duality	Pearson Correlation	.076	.071	.064	-.364**	1	-.099*	-.030
	Sig. (2-tailed)	.105	.128	.175	.000		.034	.517
	N	455	455	455	455	455	455	455
Capital Structure	Pearson Correlation	.053	-.076	.042	.025	-.099*	1	-.071
	Sig. (2-tailed)	.264	.104	.370	.597	.034		.132
	N	455	455	455	455	455	455	455
Firm Size	Pearson Correlation	.029	.090	-.135**	-.051	-.030	-.071	1
	Sig. (2-tailed)	.534	.054	.004	.282	.517	.132	
	N	455	455	455	455	455	455	455

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

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

From rest of the table, we can see that board independence give significant negative correlation with board size as the coefficient correlation value is recorded 0.165. Similarly, the audit committee size correlates with board size is recorded negative and statistically significant, as the coefficient of correlation is recorded -.147 with probability value 0.002. This indicates the presence of significant negative correlation between audit committee size and board size.

The correlation between board independence and audit committee size is recorded 0.237 with probability value 0.000, showing the presence of moderate significant positive correlation between the two variables. There has been found significant negative correlation between firm size and board independence as the correlation coefficient is recorded -0.135 with probability value 0.004, showing the presence of significant low negative correlation between the two variables. CEO duality has been found having significant negative correlation with audit committee as the correlation coefficient value is recorded -0.364 with probability value 0.000. Similarly, there has been found moderate negative correlation between capital structure and CEO duality because the correlation coefficient value is recorded -0.099 with probability value 0.034. This indicates the presence of low negative significant correlation between capital structure and CEO duality.

Rest of the variables show insignificant correlation having different direction of relationship but since their probability value is recorded greater than 5%. This indicates that most of the variables in our study showed insignificant correlation or there is no degree of association between different independent variables. However, most of the variables in the correlation analysis give insignificant results, but at least we can see the possible relationship among considered variables. As the correlation process is statistical measure, therefore we need econometric estimation by considering the time and cross section effect, which are missing in correlation analysis. The next section provides a summary overview to random effect model to show the impact of independent variables on the dependent variable.

4.4 Random Effect Model

The correlation analysis results found low negative correlation between corporate governance factor with firm's performance, but it did not confine the coefficient values showing how much do the corporate governance factor influence the firm's performance. As the current study is undertaking 42 small and 51 large Turkish firms for the period 2016-2020. Therefore, the available data set have panel features and the current study relied on panel regression model.

Panel data regression or panel regression analysis is a powerful way to control dependencies of unobserved, predictors on an outcome variable, which can lead to biased estimator in traditional linear regression model. There are three types of panel regression model i.e. pooled regression model, random effects model, and fixed effects model. Pooled Ordinary Least Square (Pooled OLS) has constant coefficients referring both slopes and intercept where the researchers can pool all data and run ordinary least square regression. Since, it has no role of varying intercept and slopes that are complementary part of panel data; the method provides a good estimation for large data set. In other hand, fixed effect model is panel regression model in which the model parameters are non-random quantities or fixed. Whenever we are interested to analyze the impact of variables overtime, then fixed effect model is best suitable that explores the relationship between outcome and predictors within an entity.

The key limitation of fixed effect model is it can't control variables that vary overtime. Since the current study is undertaking variables that vary overtime and w.r.t firms, which mean the reliance on fixed effect model, will not give satisfactory outcome. The random effect model also known as variance component model is statistical model where the model parameters are random variables. Random effects model is used in panel regression analysis or panel data when it assumes no fixed effects or simply it allows for individual effects. The random effects model is useful when there are lots of level i.e., many species or blocks, relatively little data non each level, and uneven sampling across levels.

Hence, the above designed theoretical foundations and empirical model applicability, the most suitable method for the current study is random effects model. Since the current study is undertaking 93 firms with 5-year period, and it is important to explore the variant response of the predictors (independent) variables impact on outcome (dependent) variable. Therefore, these conditions best support the applicability of random effects model. Zyad (2014); Uchida (2019); and Puneeta (2016) also recommended this model. The below table provide a summary overview to pooled OLS, fixed effects model, and random effects model for small, large, and overall panel data.

Table 4: Random Effect Results for Small Firms

Random Effect GLS Regression					Number of Obs	210
Group Variables	Company ID				Number of Groups	42
R-Square					Obs per Group	5
	Within	0.0536			Wald Chi-Square	11.27
	Between	0.3505			Prob >Chi-Square	0.0803
	Overall	0.0531				
Corr (u_i, X)	0.145					
Firm Performance	Coefficient	Std.Err	z	p>z	95% Conf.Int	
Board Size	-0.109*	0.059	-1.866	0.057	-0.209	-0.05
Board Independence	-0.196***	0.067	-2.906	0.004	-0.263	-0.129
Audit Committee Size	-0.012	0.030	-0.383	0.758	-0.042	0.018
CEO Duality	0.113***	0.018	6.175	0.000	0.095	0.013
Firm Size	0.070***	0.023	3.079	0.002	0.047	0.093
_Const	0.966**	0.487	1.983	0.047	0.479	1.453
Sigma_u	0					
Sigma_e	0.4665					
Rho	0					

To explore the direct relationship between corporate governance (independent variable) on the firm's performance, we considered the key study variables i.e., board size, board independence, audit committee size, CEO duality, and firm's size as independent variable. From the above multiple linear regression model, the value of R-square suggests that the independent variables i.e. Board size, board independence, audit committee size, and CEO duality are responsible for around 5.36%, 35.05% and 5.31% variations within, between and overall organizational performance. The R-square value suggest that the predictors are responsible for good sum of variations in the dependent variable and rest of

variations in firm's performance comes from outside the regression predictors such as the return on assets, return on investment, liquidity, and liability etc. The coefficient values suggest that board size and board independence have significant negative impact on firm performance because of probability value less than 5%, while CEO duality and firm size have significant positive impact on firm's performance in case of small firms in Turkey. The audit committee size has insignificant impact on firm performance as the probability value is recorded greater than 5% i.e., 0.758.

The coefficient value for board size depicts that with every additional member in board size, the firm performance in small companies on averaged decreases by 0.109%. The results are statistically significant at 10%. Similarly, the board independence showed negative significant impact on firm performance, with every one percent chance of increase in board independence, the firm performance on average falls by 0.196%. The CEO duality showed that in small firms, where there is more than one CEO have on average 0.113% higher performance as compared to those firm where there is one CEO.

Table 5: Random Effects Model of Large Firms

Random Effect GLS Regression					Number of Obs	255
Group Variables	Company ID				Number of Groups	53
R-Square					Obs per Group	5
	Within	0.1082			Wald Chi-Square	29.07
	Between	0.137			Prob >Chi-Square	0.0001
	Overall	0.1081				
Corr (u_i, X)	0.145					
Firm Performance	Coefficient	Std.Err	z	p>z	95% Conf.Int	
Board Size	-0.082	0.075	-1.092	0.333	-0.157	-0.007
Board Independence	-1.022**	0.453	-2.256	0.024	-1.475	-0.569
Audit Committee Size	0.060***	0.010	5.949	0.000	0.05	0.070
CEO Duality	0.883***	0.196	4.514	0.000	0.687	1.079
Firm Size	-0.255	0.264	-0.968	0.465	-0.519	0.009
_Const	9.464***	0.796	11.890	0.000	8.668	10.260
Sigma_u	0					
Sigma_e	1.314908					
Rho	0					

To explore the direct relationship between corporate governance (independent variable) on the firm's performance, we considered the key study variables i.e., board size, board independence, audit committee size, CEO duality, and firm's size as independent variable. From the above random effect model, the value of R-square suggests that the independent variables i.e. Board size, board independence, audit committee size, and CEO duality are responsible for around 10.82%, 13.7%, and 10.81% variations within, between and overall organizational performance. The coefficient values suggest that board independence have significant negative impact on firm performance because of probability value less than 5%, while audit committee size and CEO duality have significant positive impact on firm's performance in case of large firms in Turkey. The audit committee size has positive while firm size has negative but insignificant impact on firm performance as the probability value is recorded greater than 5% i.e., 0.333 and 0.465.

Table 6: Random Effect Model for Overall Firms

Random Effect GLS Regression					Number of Obs	465
Group Variables	Company ID				Number of Groups	93
R-Square					Obs per Group	5
	Within	0.0441			Wald Chi-Sqaure	20.75
	Between	0.4275			Prob >Chi-Square	0.0009
	Overall	0.0442				
Corr (u_i, X)	0					
Firm Performance	Coefficient	Std.Err	z	p>z	95% Conf.Int	
Board Size	-0.171***	0.041	-4.157	0.000	-0.211	-0.131
Board Independence	-0.064**	0.029	-2.189	0.024	-0.0.93	-0.035
Audit Committee Size	-0.353***	0.066	-5.360	0.000	-0.419	-0.287
CEO Duality	0.288*	0.159	1.815	0.069	0.129	0.447
Firm Size	0.051	0.049	1.031	0.302	0.002	0.100
_Const	1.031	0.796	1.295	0.284	0.235	1.827
Sigma_u	0					
Sigma_e	1.390661					
Rho	0					

(Note: *, **, & *** represents significance of coefficient at 10%, 5%, and 1% respectively)

The random effect results for all firms reveals that board size, board independence, and audit committee size have significant negative impact on firm performance. Because the probability values of coefficients recorded less than 5%. The coefficient values for all these variables are recorded negative. For board size we can say that by keeping other things constant, with every one-member increase in board size, the firm's performance on average will decrease by 0.171%, which can deviate between 0.131% and 0.211%. Similarly, if the chances of board independence increase by 1% by keeping other things constant, than the firm performance on average will decrease by 0.064% and that can deviate between 0.035% and 0.093%.

The same results have been found for audit committee size where the coefficient value is recorded 0.353, showing that by keeping other variables constant, every one-member increase in audit committee size, the firm's performance on average will decrease by 0.353% and it can deviate between 0.287% and 0.419%. Since the coefficient for audit committee size is recorded lowest among the negative coefficients of variables, therefore we can say that audit committee size has higher degree of influence the firm's performance.

However, the coefficient for CEO duality has been found and statistically significant at 10%. The results reveal that on those firm where there are more than one CEO have on average 0.288% higher performance as compared to those firm where there are only one CEO. This higher performance deviates between 0.129% and 0.447%. Thus, we can say that those firm where there are more CEOs on average perform better as compared to those where there is one CEO.

In contrast to above significant coefficient values, the firm size has been found having insignificant impact on the firm performance. As from literature, we were expecting that firm size is one of key factor that accelerate firm performance but, in this study, we found no significant impact of firm size on firm performance.

From our random effect models, we can sum up that board size, board independence, and audit committee size has negative significant impact on firm performance in case of small and overall firms but for large firm we found audit committee size has positive significant impact on firm performance. CEO Duality has been found having significant positive impact

on small, large, and overall firm performance. Hence, we can conclude that firms who are seeking to improve their performance need to reconsider their policies towards board size, board independence, and audit committee size and also need to encourage CEO duality to have higher performance.

4.5 Mediation Analysis

The mediation analysis is a statistical measure used to quantify the casual relationship that an antecedent variable cause mediating variable, which causes a dependent variable. It improves programs by providing information about critical ingredient of successful program. Firms, investors, and governments have recognized the importance of corporate governance in boosting capital market stability, economic growth, and firm performance. The existing literature reveals that good, governed firm will prefer equity as compared to debts and companies around the world chose optimal capital structure to meet assets and operating needs that maximize firm performance in the presence of efficient capital structure (Abdallah & Ismail, 2017; Ngatno et al., 2021. As directly, there has been observed limited impact of capital structure on firm performance along with corporate governance, therefore the current study undertakes capital structure as mediating factor. Below table provides mediating role of capital structure in the relationship between corporate governance and firm performance.

For ongoing study, we used structural equation modeling, where we focused on how independent variables directly influence the dependent variable. We estimated this direct relationship using random effect that gave direct impact of the independent variables on the dependent variable. As we observed that most of our independent variables gave high negative impact on the dependent variable but from literature, we observed that most of the variables have positive impact on firm performance. Therefore, it is very important to seek how these independent variables influence the firm performance in the presence of capital structure.

The capital structure refers to specific mix of equity and debt used to finance a company's operations and assets, which means it is an accelerator to promote economic activities in firm. The presence of proper capital structure devotes to a company's ability to deal its short-term debt and liabilities and company can have no financial restriction to carry their economic activities. Obviously, having higher capital structure needs a well-balanced board size, proper board members, and audit committee size to keep check and balance of company's performance overtime. Similarly, the firm size and CEO duality also directly depends on the presence of higher capital structure. Therefore, to further rectify the impact of important independent variables on firm performance, capital structure has been used as key mediating factor.

The below table provides summary overview to explore the mediation role of capital structure in the relationship between dependent and independent variables. It is worth taking to note that the mechanism of the relationship is presented in figure 7, which shows direct, indirect, and total effects of mediation results.

Table 7: Mediation Analysis

Small Firm's			Large Firm's		Overall Firm's	
	Without Mediator	With Mediator	Without Mediator	With Mediator	Without Mediator	With Mediator
Board Size	-0.109*	-0.025	-0.082	-0.087	-0.171	-0.028
	(0.059)	(0.017)	(0.075)	(0.094)	(0.041)	(0.003)
Board Independence	-0.196*	-0.539*	-1.022*	-0.028	-0.064	0.012
	(0.067)	(0.016)	(0.453)	(0.091)	(0.029)	(0.013)
Audit Committee Size	-0.012	-0.012	0.060*	0.032	-0.353*	-0.003
	(0.030)	(0.016)	(0.010)	(0.082)	(0.066)	(0.004)
CEO Duality	0.113**	0.003	0.883*	-0.120	0.288**	-0.019
	(0.018)	(0.016)	(0.196)	(0.081)	(0.159)	(0.013)
Firm Size	0.070	-0.005	-0.255	-0.166*	0.351*	-0.004
	(0.023)	(0.018)	(0.264)	(0.079)	(0.049)	(0.003)
_Const	0.966*	0.676*	9.464*	0.756*	1.031**	0.145*
	(0.487)	(0.289)	(0.796)	(0.274)	(0.796)	(0.065)
Capital Structure	---	0.724*	---	0.676*	----	0.295*
		(0.265)	----	(0.289)	----	(0.072)
Ch-Square Ms (5)	20.5420	38.5400	46.2580	21.1325	140.2350	210.3210
Prob> Chi-Square	0.0010	0.0000	0.0000	0.0050	0.0000	0.0000
Chi-Square Bs (11	31.5380	23.5000	41.2340	24.0260	154.3265	176.2890
Prob> Chi-Square	0.0010	0.0001	0.0000	0.0024	0.0000	0.0000
R-Squared	0.3505	0.0212	0.1370	0.0028	0.4275	0.0212

(Note: Standard errors are given in parenthesis; *, **, and *** denotes the significant values at 1%, 5%, and 10% significance level respectively)

From the above coefficient results for overall firms, the coefficient values, the coefficient value for board without mediation was recorded -0.171 that has been brought down -0.028. This indicates that capital structure has partially mediated the influence of board size on firm performance. Similarly, the board independence coefficient also turned positive as it changed from -0.064 to 0.012. The audit committee size coefficient declined from -0.335 to -0.003, while CEO Duality coefficient turned negative i.e., 0.288 to -0.019.

Similarly, the firm size impact turned to be negative as the coefficient dropped from 0.351 to -0.004.

Since the above estimated results are calculated with and without mediators, the below table provides summary overview to mediation results for overall firms.

Table 8: Mediation Results for Overall Firms

Variables	Coefficient	Standard Error	T-test	Probability	Decision
Board Size	-.157	.040	-3.89	0.00	Mediation Exist
Board Independence	.105	.028	3.75	0.00	Mediation Exist
Audit Committee Size	-.017	.006	-2.86	0.00	Mediation Exist
CEO duality	.288	.159	1.81	0.07	Mediation Not Exist

The coefficient of all independent variables i.e., board size, board independence, and audit committee size recorded statistically significant having probability value less than 5%. We can interpret the coefficient of board size as, in the presence of 1% higher capital structure, the inclusion of one extra board member will reduce the firm performance by 0.157%. In case of board independence, the presence of 1% higher capital structure, every 1% increase in board independence, the firm performance on average will increase by 0.105%. For audit committee size, we can say that in the presence of 1% higher capital structure, every one-member increase in audit committee size, the firm performance on average will decrease by 0.017%. All these results are statistically significant at 5%. The probability value for CEO duality is recorded greater than 5%, which means the capital structure do not mediate the relationship between CEO duality and firm performance.

Hence, we can conclude that capital structure plays significant mediation role in the relationship between board size, board independence, audit committee size (independent variables), and firm's performance, while insignificant role in the relationship between CEO duality and firm's performance.

4.6 Hypothesis Testing

There were set different hypothesis based on the research objectives. The below table provides an overview to acceptance and rejection of hypothesis used in the study. The acceptance and rejection of hypothesis has been carried out using the probability value of t-test, if the probability value is greater than 5%, we accept the null hypothesis otherwise we reject it.

Table 9: Hypothesis Decision

H0: *No significant relationship* ***H1:*** *Exist significant relationship*

	t	p	Decision
Board Size-----→ Firm Performance	-4.158	0.000	*Significant*
Board Independence-----→ Firm Performance	-2.290	0.001	*Significant*
Audit Committee-----→ Firm Performance	-0.051	0.960	*Insignificant*
CEO Duality------→ Firm Performance	1.817	0.070	*Insignificant*
Firm Size-----→ Firm Performance	10.304	0.000	*Significant*
Mediation Hypothesis Testing:H0: *Mediation Exist****H1:*** *Mediation Not Exits*			
Board Size -> Capital Structure-> Firm Performance	.837	0.403	*Insignificant*
Board Independence -> Capital Structure-> Firm Performance	11.017	0.000	*Significant*
Audit Committee Size -> Capital Structure-> Firm Performance	11.251	0.000	*Significant*
CEO Duality -> Capital Structure-> Firm Performance	0.1	0.92	*Insignificant*

From the above hypothesis table, it can be seen that board size, board independence, and firm size have probability value less than 5%, which means that the respective variables suggesting significant relationship with firm size and the alternative hypothesis developed through comprehensive literature has been accepted. The findings of Board Size, Board independence, and firm's size provides empirical supports to hypothesis 2.1, 2.2, and 2.5 showing significant negative results for the first two variables and significant positive results for 2.5 hypothesis.

In contrast audit committee and CEO duality show insignificant results because the probability value is less than 5% and the results are inconsistent with that of Detthamrong, Chancharat, and Vithessonthi (2017) who found negative significant relationship for Thailand's firms. The given variables i.e., audit committee and CEO duality do not show any significant empirical supports to the hypothesis 2.3 and 2.4, which presumed the possibility of significant negative impact of the considered variables on the firm's performance.

To test the hypothesis from 2.6 to 2.9 that predicts that financial leverage (in the current study the capital structure been taken as proxy for financial leverage) mediates the effect of corporate governance of the firm's performance. The key assumption followed to test the mediating relationship existing significant relationship between independent variable and mediator, significant relationship between mediator and dependent variable, and significant relationship between independent and dependent variable. The test statistics and probability value of mediating hypothesis-showing mediation in the relationship between independent and dependent variable suggest that hypothesis 2.6 and 2.9 are rejected which means that financial leverage do not mediate significantly in the relationship between board size and firm's performance and CEO duality and firm's performance. In contrast, the mediation results in the relationship between audit committee and board independence suggest that capital structure mediates the relationship between board committee and firm's performance and board size and board independence and firm's performance. The results support the study's hypothesis 2.7 and 2.8. Therefore, it can be concluded that capital structure/ financial leverage play significant mediation in the relationship between audit committee, board independence with firm's performance. There exists no significant mediation impact of capital structure in the relationship between board size, CEO duality, and firm's performance.

4.7 Measurement Model

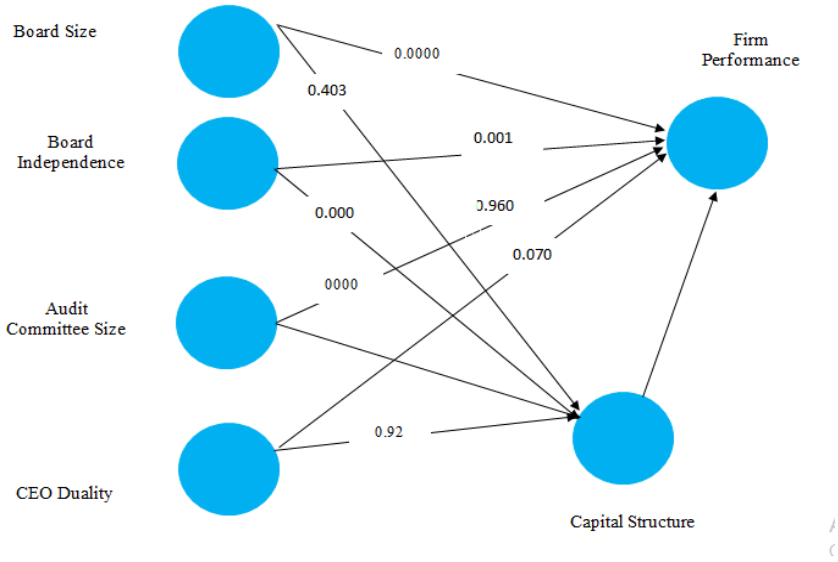


Figure 7: Direct and Indirect Effect of Panel Regression Analysis

CHAPTER 5

CONCLUSION AND POLICY RECOMMENDATIONS

5.1 Conclusion

The main purpose of this research is found out "The Impact of Corporate Governance on Firm Performance with the Mediating Effect of Capital Structure" in the context of Turkey. Further, this research is basically consisting of following steps such as in the introduction chapter researcher discussed how corporate governance comes into existence over the past decades and what financial crises impact on it. Firm performance is necessarily affected by corporate governance because these are the principles of it and every organization should set their rules and regulations to achieve their objectives or goals. Moreover, researcher add mediation effect as capital structure as per past research that how leverage can also impact on corporate governance. Although, to design a conceptual framework researcher adopt different independent variables including mediator construct and dependent variable. Here, our main point is corporate governance so to adopt dimensions of Corporate Governance I.e. Board Size, Board Independence, Audit Committee Size and CEO Duality as independent derivatives, capital structure as a leverage used as a mediator and to check the impact of these constructs we have firm performance as a dependent variable. As per independent, mediator and dependent variables researcher aligned research questions and hypothesis to achieve the objectives of this research. Hence, problem statement is also discussed regarding non-financial institutions of Turkey that how Turkish companies code their corporate governance to sustain their goals. Hence, literature review of this research is consisting of theoretical and empirical review. Agency theory, Modigliani & Miller both are the underlined theories which is considered for capital structure and corporate governance problems and solutions in many better ways and these theories are adopted from pre-existing literature. Discussion of variables in the heading of empirical review in which researcher is defined each construct with the help of definitions which is adopting from the explanations of several authors or

scholars. Moreover, hypothesis development was completed through the relationships between independent, mediating and dependent variable. Methodology of this study consist on deductive approach because we used existing theories and pre-test the hypothesis, positivism approach due to find out the relationship between independent and dependent variables and population of the this study is to choose Turkish companies which are 480 in total which are listed in Borsa Istanbul (BIST) out of which research target population is non-financial sector which is 122 in total after getting total population used Raosoft calculator to get sample size which is based on 93. Although, secondary sources are used to collect the data which is extracted from annual reports of each company and prepare panel data for the results. However, according to the research STATA and SPSS software to analyze the output and to interpret each figure as per significant values. The overall research is quantitative in nature because of data collection procedure i.e. annual reports. Researcher used 5 five years' data due to time limitation and need to complete this research paper on time. So, to prepare panel data in which 93 organizations are included. Board size, Board Independence, Audit Committee Size, CEO duality, Capital Structure and firm performance used as main derivatives but firm size and return on asset worked as a control variable to measure research variables.

The findings of current research revealed significant low negative correlation between board size and firm performance i.e. -0.183. Previously David (2019) also found negative correlation between the two variables and concluded that a larger board will have more agency cost. Moreover, a larger board has many issues such as increased coordination cost and communication. Hence, the findings of current study were consistent with that of David (2019). About the correlation between board independence and firm performance, the literature has mixed up results while researcher findings showed low positive correlation. For example, Fuzi, halim, and Julizaeerma (2016) found moderate positive correlation between board independence and firm performance and claimed that board independence increases the autonomous power of higher authorities, and they functionally operate the firms to achieve sustainable growth, which significantly improves the firm performance. In contrast, Willams (2006) found negative correlation and assumed that higher board independence

encourages monopoly of board members, which certainly influence the employee's productivity and lead to lower firm performance.

About audit committee size, Ronald (2019) claimed that in small firms, audit committee play significant role in improving firm performance as it becomes easier to keep check and balance of employees' performance but in large firm's it becomes hard to maintain proper check and balance and the hiring of new professional lead to suffer more costs. The current research found moderate negative impact on audit committee for large and overall firms but high positive impact in small firms. The study also found significant positive role of CEO duality in all small, large, and overall firms. In contrast, the firm size has been found moderate positive correlation with firm performance.

The capital structure plays significant mediation role in the relationship between board size, board independence, audit committee size (independent variables), and firm's performance, while insignificant role in the relationship between CEO duality and firm's performance.

5.2 Limitations and Recommendations for Future Research

This study was limited to 122 Turkish companies listed in Borsa Istanbul Stock Exchange (BIST). Among the samples, there are 93 companies that can be used as other samples cannot provide full set of information which is needed in this research. This would cause the samples not to properly represent the whole population. There are few companies that have changed the time period of their annual reports due to their companies' internal decisions. This could affect the accuracy of data as well. Another concern which may also affect the accuracy of data was external factors such as economic recession. Finally, there is only two indicators used for each of the variable which are Board Size and Board Independence (corporate governance practices) and firms' ROA (firm performance). Different results will be obtained by using several indicators.

This research can be improved by analyzing a longer time period. It is recommended that the financial data ranging over 5 years would be reliable. It cannot be denied that the longer time period of research can provide more accurate results. There are possible numbers of variables that can be used to investigate the determinants of corporate governance practices and firm performance. This research has only used board size, board independence audit committee size and CEO duality as the tools to indicate the corporate governance practices of companies while capital structure worked as a mediator. Future researchers can use external mechanisms as well. On the contrary, firms' ROA was used to indicate the firm performance. There are still many other indicators such as earning per share (EPS), Tobin's Q and Return on Equity (ROE) can be used to measure firm performance.

5.3 Conclusion

Corporate governance is one of the relevant topics, especially in the aftermath of firm failures and/or a banking/financial crisis. Two important questions have often been asked: First, can strong corporate governance reduce the firm's risk (e.g., investment risk and financing risk)? Second, do firms with strong corporate governance perform better those with weak corporate governance? While empirical results appear to be mixed, many regulators around the world have firm beliefs that strong corporate governance would reduce the probability of the firm taking on excessive risk (e.g., over-leveraged) and enhance firm performance. In this study, researcher used a large sample that covers non-financial firms listed in Turkey during the period 2016- 2020 to shed light on of the relationships between corporate governance, Capital Structure, and firm performance. Results find that for an average firm, corporate governance (i.e., board size, board independence, audit committee size, CEO duality and capital structure) has no effect on leverage and performance. To the best of our knowledge, we are one of the first to show that corporate governance exerts the indirect effect on firm performance via financial leverage for firms in an emerging market economy. Future research can be done by adding more variables of corporate governance or capital structure. Other countries data can be analyzed to check the impact of corporate governance and capital structure on firm's performance. Comparison between Turkey and

other countries data can be done for identifying the impact of corporate governance, capital structure and firm's performance. The economic condition of the country may not be the same in future. This research will help the financial manager to set policies accordingly especially firms falling under selected sectors (financial or non-financial institutions) will be beneficial as compiled results will help them to see the over-all performance of the sector. It can help the financial manager in decision making, which will lead to attract investors to invest in particular firm directly or indirectly. Since corporate governance helps to improve the culture and environment of any company its negligence can be risky, and it cannot be over emphasized. Hence corporate governance and capital structure can tend to help company against mismanagement, corruption and bankruptcy and also can help to attract foreign as well as domestic investments.

5.4 Chapter Summary

The section is concluded that how corporate governance and their indicators effect on firms' performance after analyzing each factor and extracting the data from annual reports. Further, data is gathered from the listed companies of Turkey as per sample size and time horizon of this research. Recommendations, limitation discussed on the results of this research whereas the overall research is concise in research summary along with all the aspects and factors. Conclusion highlights that how corporate governance has directly or indirectly impact on firm performance and how capital structure mediates firm performance and corporate governance practices.

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