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Corporate Governance of Publicly Traded Manufacturing Companies in Bangladesh

Maniruzzaman, Md.

University of Rajshahi, Rajshahi

CORPORATE GOVERNANCE OF PUBLICLY TRADED MANUFACTURING COMPANIES IN BANGLADESH

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BY

MD. MANIRUZZAMAN

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DEPARTMENT OF ACCOUNTING AND INFORMATION SYSTEMS
UNIVERSITY OF RAJSHAHI
RAJSHAHI-6205
BANGLADESH


Dedicated
To
My Parents

DECLARATION

I do hereby declare that the thesis titled **"Corporate Governance of Publicly Traded Manufacturing Companies in Bangladesh"** submitted to the Department of Accounting and Information Systems at the University of Rajshahi in Bangladesh as a part of the requirement for the degree of Doctor of Philosophy is exclusively the outcome of my endeavor. I have duly acknowledged the cooperation and contributions taken from different sources while writing this thesis.

I further declare that the substance or any part of this dissertation has not been submitted to any other university or organization for the award of any academic degree or diploma.

Md. Maniruzzaman
Ph.D Fellow
Registration No.: 16 108 33 502
Session: 2015-2016
&
Assistant Professor
Department of Accounting and Information Systems
University of Rajshahi
Rajshahi-62065
Bangladesh

March 2020

Department of Accounting and Information Systems
University of Rajshahi

CERTIFICATE

This is to certify that the thesis titled **''Corporate Governance of Publicly Traded Manufacturing Companies in Bangladesh''** submitted to the Department of Accounting and Information Systems at the University of Rajshahi in Bangladesh by Md. Maniruzzaman, Ph.D fellow of the session 2015-2016 for the award of the Doctor of Philosophy degree is an original research work completed under our supervision. We have meticulously gone through the whole thesis. We believe that the researcher has worked with utmost sincerity while preparing this thesis and the thesis, in our opinion, deserves consideration for the award of the Ph.D degree.

Principal Supervisor

Dr. Syed Zabid Hossain
Professor
Department of Accounting and
Information Systems
University of Rajshahi

Co-supervisor

Dr. Md. Sayaduzzaman
Professor
Department of Accounting and
Information Systems
University of Rajshahi

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(Md. Maniruzzam)

ABSTRACT

Corporate governance has become a burning issue in the corporate finance literature and draws attention from corporate policymakers around the globe owing to many scams and collapses recorded in corporate houses. CG mechanisms act as a guide in the hands of corporate policymakers to regulate corporate entities and enhance corporate performance. Many studies have been conducted on corporate governance issues using a developed country setting but a few studies are available in the literature that investigated corporate governance issues using the developing country setting. The population of this study has included all the DSE listed manufacturing companies from 2006-17. BSEC promulgated the corporate governance code of best practice in 2006 and revised it later in 2012. Hence, the study tried to recognize the impacts of CG mechanisms on performance by dividing the study period into two stories, the first one from 2006-11 and the other one from 2012-17. The research framework explains how CG mechanisms- internal and external-can influence corporate financial performance. The internal corporate governance mechanisms are board size, board independence, board audit committee size, female directorship, CEO duality, and ownership concentration. The external corporate governance mechanisms are institutional ownership, financial leverage, and SEC guidelines. The control variables are the firm size and firm age. The dependent variable is corporate financial performance measured by Tobin's Q and ROA. This study is empirical in nature and explains several theories, such as agency theory, institutional theory, stakeholder theory, resource dependency theory, stewardship theory, political economy theory, social theory, trade-off theory, and M-M theorem. It used the quantitative research method and based mainly on the premises of agency theory, though some other theories mentioned above help develop the hypotheses.

Regarding internal CG mechanisms to attain objective number ONE, the study shows that the influence of board size and board independence on corporate financial performance is negative and statistically insignificant measured as Tobin's Q, while the association is positive and significant measured as ROA. So, the associations are in separate directions under the two performance measures. The association between the audit committee size

and the corporate financial performance is positive and significant, measured as Tobin's Q and ROA. These findings indicate that the audit committee size affects corporate financial performance and support the theoretical arguments of agency theory. Concerning female directorship, the study reveals the relationship between female directorship and corporate financial performance is negative and insignificant measured as Tobin's Q, but the same is positive and significant as estimated by ROA. So, the associations are in different directions under the two performance measures. About CEO duality, its relationship with corporate financial performance is positive measured as both Tobin's Q and ROA, but the relationship is significant for only Tobin's Q, which suggests that CEO duality has a positive effect on corporate financial performance in the presence of other internal CG mechanisms. These findings are different from our theoretical arguments. Regarding ownership concentration, the study based on both Tobin's Q and ROA shows that the relationship between the ownership concentration and corporate financial performance is positive and highly significant, which signal that ownership concentration can significantly affect the firm value of the manufacturing companies in Bangladesh.

Regarding external CG mechanisms to attain objective number TWO, the investigation reveals that the relationship between the institutional ownership (external CG variable) and the corporate financial performance is negative and significant measured as both Tobin's Q and ROA, which suggests institutional ownership has negative effects on the corporate financial performance. Considering financial leverage as an external CG variable, its effect on corporate financial performance is positive and insignificant based on Tobin's Q, but its effect on the corporate financial performance is negative and statistically significant measured as ROA that reveals financial leverage has the mixed effects on corporate financial performance. About SEC guidelines (external CG mechanism), the inquiry reveals that the effect of SEC guidelines on the corporate financial performance is positive and statistically insignificant measured as Tobin's Q, but the effects of SEC guidelines on the corporate financial performance is negative and statistically significant measured as ROA that suggests financial leverage has mixed effects on corporate financial performance.

Regarding control variables to attain research objective THREE, the empirical analysis reveals that the effect of company age on the corporate financial performance is positive and significant measured as both Tobin's Q and ROA. While the effect of company size on corporate financial performance is negative and significant measured as Tobin's Q, but the effects of company size on the corporate financial performance is positive and statistically significant measured as ROA, which suggests company size has mixed effects on corporate financial performance.

Regarding internal, external, and control variables to attaining objective number FOUR, the study shows that board size is positively associated with both Tobin's Q and ROA, but the relationship is significant only for Tobin's Q that suggests board size can contribute to the attain objective Four. Concerning board independence, based on Tobin's Q, the relationship is negative and statistically significant, but based on ROA, the same relationship is positive and significant. While the consequence of audit committee size on corporate financial performance is also positive and statistically insignificant that suggests audit committee size has no impact on corporate financial performance. Regarding female directorship, the study reveals that female participation in a corporate board creates a negative effect on corporate financial performance. Concerning CO duality, the influence of CEO duality in a corporate board is positive and insignificant based on Tobin's Q, but the association is negative and significant based on ROA. The findings based on Tobin's Q differ from the theoretical arguments of agency theory. Concerning the effect of institutional ownership (external CG mechanism) on corporate financial performance measured as Tobin's Q is negative and insignificant, while measured as ROA, the same is positive but insignificant. Thus the relationships between the institutional ownership and the corporate financial performance are not in the same direction. These findings indicate that institutional ownership does not create any influence on corporate financial performance. The empirical results reveal a statistically significant positive effect of financial leverage on corporate financial performance measured as Tobin's Q, while the effects of financial leverage based on ROA is negative and statistically significant. These findings indicate that the effect of financial leverage on corporate financial performance relies on some other factors.

About the results of SEC guidelines on the corporate financial performance is positive and statistically insignificant measured as Tobin's Q, while the effects of SEC guidelines on the corporate financial performance is negative and statistically significant measured as ROA. Thus these findings testimony that the SEC revised guidelines is not only failed to create an impact on corporate performance, but also negatively influenced corporate financial performance. Considering company age (control variable), the empirical results reveal that the effect of company age on corporate financial performance, measured as both Tobin's Q and ROA is positive but statistically significant only for ROA. It is believed that older companies have better financial performance as they can enjoy the benefits of "learning by doing". Concerning company size (control variable), the empirical findings reveal that the effect of company size on the corporate financial performance is negative and statistically significant measures as Tobin's Q. The effects of company size on the corporate financial performance, measured as ROA is positive and statistically significant.

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ABBREVIATIONS AND ACRONYMS

ADB	:	Asian Development Bank
AGM	:	Annual General Meeting
BAS	:	Bangladesh Standards for Auditing
BB	:	The Bangladesh Bank
BBS	:	Bangladesh Bureau of Statistics
BDT	:	Bangladesh Taka
BEI	:	Bangladesh Enterprise Institute
BFRS	:	Bangladesh Financial Reporting Standards
CA	:	Chartered Accountant
CAB	:	Consumers Association of Bangladesh
CEO	:	Chief Executive Officer
CSE	:	Chittagong Stock Exchange
CSR	:	Corporate Social Responsibility
DSE	:	Dhaka Stock Exchange
ECGI	:	European Corporate Governance Institute
FDI	:	Foreign Direct Investment
FI	:	Financial Institutions
FY	:	Fiscal Year
GCGF	:	Global Corporate Governance Forum
GDP	:	Gross Domestic Product
GNI	:	Gross National Income
IAS	:	International Accounting Standards
ICAB	:	The Institute of Chartered Accountants of Bangladesh
ICMA	:	The Institute of Cost and Management Accountants of Bangladesh

ICMAB	:	The Institute of Cost and Accounting Management Bangladesh.
ID	:	Independent Director
IFAC	:	International Federation of Accountants
IMF	:	International Monetary Fund
IPO	:	Initial Public Offering
ISA	:	International Standards on Auditing
MD	:	Managing Director
M-W Test	:	Mann-Whitney Test
NBFI	:	Non-Banking Financial Institution
NED	:	Non-Executive Director
NFI	:	Non Financial Institution
NGO	:	Non-Governmental organization
NSE	:	National Stock Exchange
OECD	:	Organization for Economic Co-operation and Development
OLS	:	Ordinary Least Squares
RJSC	:	Registrar of Joint Stock Companies and Firms
RMG	:	Ready Made Garments
ROA	:	Return on Asset
ROE	:	Return on Equity
BSEC	:	Bangladesh Securities and Exchange Commission
SEC Guidelines	:	Corporate Governance Guidelines of the BSEC
SOE		State Owned Enterprise
SPSS	:	Statistical Package for the Social Sciences
The Code	:	The Code of Corporate Governance for Bangladesh
UGC	:	University Grants Commission
WB	:	The World Bank

CHAPTER ONE

INTRODUCTION

INTRODUCTION

1.1 Introduction

The growing speed of globalization, liberalization, and synthesis of stock markets along with a list of contemporary financial disgraces throughout the world, and many questionable corporate failures that took place in Europe and the USA, have sparked the previous debates on ways to suppress the conflicts between stockholders and corporate management and plan a due good governance practice for the viable industrial development. The increasing call for a sound governance mechanism of corporations has drawn the ethos after the events aforementioned.

The leading goal of corporate governance is to approve the functional governance mechanisms to extend the authority of shareholders over their agents (corporate managers). All these have recently pushed the notice of researchers and corporate policymakers to protect the interest of shareholders and other stakeholders.

The present research is reliant on the quantitative method and examined the relationship between corporate governance mechanisms and firm economic accomplishment based on Tobin's Q (a market-driven model) and ROA (an accounting examination). The major CG devices are of two types, typically, internal and external devices. The internal CG devices are the size of the board, independence of the board, size of the audit committee, woman directorship, CEO-chairman duality, and concentrated control of a few shareholders. Contrarily, the external CG devices are institutional ownership, financial leverage, and regulatory guidelines. At the same time, firm-level control variables are firm age and firm size. This research is grown using academic support of the agency theory and several other CG devices, which might help diminish agency costs arising from the departure of ownership from stewardship (Fama & Jensen, 1980; Fama, 1980; and Jensen & Meckling, 1976). The study has covered theoretical research associated with the topic and a reflection on CG devices concentrating on the impact of the agency hypothesis.

The academic and practical importance of this research is established & acknowledged by a supplementary investigation. This opening chapter presents the study setting, goals, value, significance, and concludes beside fascinating penetrations into the systems that were applied to attain the objectives of the study.

1.2 Background of the study

Since its birth, Bangladesh was one of the poorest nations in the world. But the people of this country have changed the scenario with their endeavor and made the economy worth vibrant. In just four and a half decades, the economy of the country has been transformed into a lower-middle-income country and subsequently converts into a fast-growing emerging economy despite having a population of over 20 million. The transformation from an agrarian economy since the 1970s becomes now increasingly led by export-oriented industrialization with a continued average economic growth of over 5.84 percent from 1994 to 2018 and touching the magnitude of 7.90 percent in 2018, the highest growth rate in the history of Bangladesh (BBS report, 2018). Bangladesh is now treated as an emerging trade and investment destination in South Asia. Goldman Sachs mentioned that Bangladesh's economy as 'the miracle of the East' and branded Bangladesh in its 'Next 11' list after the BRIC nations. The government of Bangladesh has adopted a vision to change the country into an information-driven medium-income marketplace by 2021, and a peaceful, prosperous, and happy developed country by 2041(Star Online Report, 2016). But the actual scenario of the country does not prove the same because Bangladesh has continued to be an impoverished nation despite the healthy growth rate (Sobhan, 2016; Hasan et al., 2014; Ferdous, 2013). Hence, the question comes into light about the governance status in every field of the economy. Besides, considerable research on corporate governance has been done in the advanced countries encompass the United States of America, the United Kingdom, France, Australia, New Zealand, Germany, and Japan following a series of corporate scandals throughout this universe but a less attention has been given to the developing economies like Bangladesh (Denis & McConnel, 2005; Gibson, 2003; and Shleifer & Visny, 1997). However, the country has experienced a good number of corporate collapses over the years, such as Hallmark, Bismillah Group, Oriental

Bank, Modern Food Ltd, Adamjee Jute Mills Ltd (the largest jute mills in the world) along with two major stock market crashes, one in 1996 and another in 2010-11 (Ferdous, 2018), and thereby the collapse of DSE and CSE causing the colossal losses of atomistic investors, which testimony absence of firm-level good governance and failure of the regulatory bodies. Hence, the understanding of corporate governance becomes significant especially for emerging economies Bangladesh since, it assists the development of governance mechanisms that in succession helps firms through the more comprehensive passage to cheap finance, mitigation of agency conflicts, more dependable achievement, and also positive approach of corporate stakeholders (Claessens & Yurtoglu, 2013). Although a few studies (Ferdous, 2018) presented the understanding of the status of CG in Bangladesh, which are mainly focused on the status of corporate governance based on some compulsory administrative requirements (for example Sobhan, 2016; Siddique, 2010; Sobhani et al., 2009; Uddin & Chowdhury, 2008; Imam & Malik, 2007; Belal & Owen, 2007; Uddin & Hopper, 2003; and Belal, 2002, 2001, 1999). Hossain and Rahman, (2013) mentioned that firms in Bangladesh are mostly concentrated ownership or managed by dominant stockholders like a group of companies. Management of firms is just nothing but the extension of dominant owners, which results in CEO, administrative managers, and board chair are from the governing group in most of the Bangladeshi firms. It is evident (Farooque et al., 2008) on average, the top five shareholders own higher than 50% of a company's share capital. Imam and Malik (2007) mentioned that the ownership designs of 219 publicly traded companies of DSE were revealed about one-third of the total stocks owned by the leading three shareholders. This percentage becomes larger in land and buildings, oil & energy, engineering, textile, and pharma & chemical. Another study disclosed that firms in Bangladesh are not willing to come to the stock market for their required funds as they fear to lose control over the firm (Haque et al., 2006). Hossain and Rahman, (2013) mentioned that the common stock ownership of the top 5 and top 10 stockholders are half and three-fourths respectively, while the largest or top 1 shareholder owns around one-fourth of the equity capital, where the industrial division stands comparatively higher than the bank and nonbank finance companies. The concentration of ownership to a small group has a decisive influence on company value in Bangladesh as

they have more dominance over management and also an incentive to monitor the affairs of management, and hence reduce agency conflicts (Hossain and Rahman, 2013). The bi-directional association between proprietorship concentration and company value supports the crucial role of the founder family or the Top-1 shareholder in Bangladesh. In this context, for the dominant presence of large shareholders, external mechanisms (such as institutional investors, financial leverage and regulatory guidelines) suppose to have their proper role in influencing firm value, phenomena that draw the attention of policymakers. Also, firms in Bangladesh fail to ensure standard corporate governance practices in line with the developed world. During the first part of 2006, BSEC, a regulator of Bangladesh Stock Market under the aegis of the Ministry of Finance, issued and promulgated the Corporate Governance Notification (CGN) on 'comply or explain' basis. It is more known as the CG Code of Best Exercises, which acts as a guideline for the firms in Bangladesh to adopt corporate governance practices. CGN requires listed firms to select independent members of the board at a 1:10 ratio in line with the Anglo-American-style and then it has been revised again in 2012 and subsequently in 2018 as a mandatory provision where CGN requires listed firms to appoint independent directors in the ratio of 1:5. It can be mentioned here that the CG mechanism works well in Anglo-American countries since the jurisdiction of them extremely depend upon the clarity of enforcement of laws to protect shareholder's claims (Asian Development Bank, 2000) which, in contrary, found less effective in case of emerging economies like Bangladesh as important organizational powers have limited ability to exercise influences over firms to ensure compliance (Rashid 2011). We do not find any comprehensive study in the literature that examines the influence of CG devices (internal as well as external) on corporate financial achievement in the context of Bangladesh.

In a well-governed firm, financial leverage (FL) performs a significant role in shareholder wealth maximization and institutionalization of effective CG mechanisms, which are very essential for improving the fair price of a company, but more eminent FL reduces the corporate value by enhancing insolvency hazard (Sheifer and Vishny, 1997). Effective CG devices increase investor confidence with the assurance that there is a high prospect of getting back the investment in addition to satisfactory earnings on the capital.

Companies having good governance are expected to furnish adequate disclosures to shareholders and bondholders and expand the entry and exit for them. An improved financial system assures healthy movement of funds, while powerful administrative and judicial systems defend the contractual rights of shareholders and bondholders by hedging the possibility of damage due to management's exploitation and self-interested behavior. From the CG definition, we find two important thoughts i) a set of rules, and ii) a set of mechanisms, where the former defines the connection among the stockholders, bondholders, executives, lenders, government, and others, and the later help enforce directly or indirectly the former one (ADB report, 2000). CG is described as the practice by which corporate entities are governed and managed (Cadbury, 1992). CG includes legislation and the structure of links and methods created to assure that the BOD works to protect the benefit of the firm. The optimum gearing ratio refers to that mixture of debt and equity that reduces the cost of financing as well as the possibility of liquidation.

To date, various researchers have conducted a large volume of experimental research addressing how conflicts between managers and shareholders affect corporate governance, financial decisions, and financial performance. CG mechanisms are designed to improve organizational efficiency and effectiveness through reliable surveillance and direction, and thus, fulfilling a highly significant function in mediating the conflicts of interests of principals and agents (Shleifer and Vishny, 1997). An excellent CG framework facilitates a firm to collect required funds from investors because an efficient firm formation defends the rights of stockholders through increasing clarity, and reducing power struggles. Companies having weak CG framework experience more power conflicts since executives of those companies may comfortably exercise opportunistic behavior, and thus abuse the interest of the shareholders due to poor CG structure. The free cash flow theory illustrates that managers want to use suboptimal level of leverage, particularly, lower than optimal leverage, when they see that firms adopt poor CG structure as the use of lower than optimal leverage requires a lower amount of cash outflow and hence larger amount of cash retains in the firm that avails managers to be free rider over the cash balances to exercise self-interested behavior. Thus an effective CG structure encourages borrowed capital to hedge agency costs as it reduces the cash balances and subsequently reduces managerial opportunism. Accordingly, board structure, ownership structure, and corporate financial

policies have been suggested as potential mechanisms to control agency problems emanating from dispersed ownership (Jensen, 1986). This study integrates CG theories as well as the CS theories (for financial leverage). The agency theory evaluates the purpose of supervising to lessen agency friction and costs while capital structure theories represent the potential for an appropriate mix of own and loan funds to optimize the company value.

However, despite a great deal of empirical evidence are found in the literature linked to the influence of CG mechanisms on the corporate financial performance, which is mainly in the context of developed countries where the financial market especially, stock market is fully matured, and the powers and privileges of shareholders and all level of stakeholders are well protected. To provide deeper insight, the research strives to examine the effectiveness of firm-level CG on firm performance of publicly traded manufacturing companies in Bangladesh by a comprehensive review of CG mechanisms on some specific issues, such as the size and independence of corporate board, size of audit committee, CEO duality, Women directors, concentration of ownership/ control, and at the same time, this study also tries to have a look on some unaddressed issues like the influence of external corporate governance mechanisms namely Institutional Shareholding, financial leverage and regulatory guidelines on the corporate financial performance. Besides, this study tested the effects of company-level control variables, such as company age and company size on the financial achievement of companies. The study, therefore, evaluates the effects of the variables in a developing economy that have unique CG characteristics.

1.3 Statement of the Problem

1.3.1 What is the problem?

The increasing trend of the economy of Bangladesh gains attention from all over the world as the country is maintaining satisfactory economic growth since the last couple of years touching the magnitude of 7.90 in 2018, highest in all times of the history in the economy of Bangladesh. Behind the robust economic growth of Bangladesh, the manufacturing companies plays a pivotal role as this sectors contribute BDT 22,427 to GDP in 2018(Bangladesh Bank annual report, 2018) and BDT 19776 in 2017 along with a significant contribution to the national employment pool by 14.43 percent in 2017and

14.40 in 2016. But the international wave of merger and keen competition makes these sectors challenging and vulnerable in sustainability and long term economic growth. Besides, the collapses of some manufacturing corporations, such as Hall Mark, Bismillah Group, Modern Food Ltd., and Adamjee Jute Mills Ltd. have raised a big question on the economic situation of manufacturing corporations in Bangladesh and lessened the confidence of the investors (Rashid et. al., 2017). Furthermore, the market value of Bangladeshi companies had been fluctuating abnormally over the year beside two significant crashes of stock market indices, the first crash in 1996, and the other one was in 2011 (Ferdous, 2018) leading to the downfall of DSE and CSE and creating the colossal sufferings of small shareholders and bondholders, and the lack of company-level CG was identified by researchers (Sarkar and Nargis, 2012). Consequently, many studies on CG mechanisms have been conducted in the advanced economies including the USA, the UK, New Zealand, Australia, Germany, Denmark, and Japan following a large number of corporate failures and scandals around the world but a less attention has been paid to the developing economies like Bangladesh (Maniruzzaman and Hossain, 2019b; Shleifer and Vishny, 1997). All these issues together make it a debatable subject in corporate governance research.

1.3.2 Why is it a Problem?

It is believed that the failures in the corporate sector are not an unexpected issue, rather results from the lack of transparency, irregularities, malpractices, and poor monitoring systems of the regulatory bodies. The review of corporate governance literature reveals some clues linked to the failure of some companies in Bangladesh as well as the index crashes of DSE and CSE, the two chief capital market authorities in the country.

The corporate governance literature reveals the probable causes of failure of some companies and stock market index crash.

1. Poorly implemented judicial and administrative structures (Rashid, 2015).

2. Inadequate corporate control (Ferdous, 2018).

3. A hiatus of experts to promote a healthy CG culture (Imam and Malik, 2007).
4. The wholesale adoption of the Anglo-American corporate governance model (Rashid et. al., 2017 & Maniruzzaman and Hossain, 2019b).
5. Highly concentrated ownership (Hossain and Rahman, 2017).
6. BSEC guidelines are for only protecting the right of shareholders rather than all levels of stakeholders (Siddique, 2010).
7. The Companies Act, 1994 outlines no direction about the duties and obligations of the board (Uddin and Chowdhury, 2008).
8. Family dominance (Farooque et. al., 2008).
9. Board independence is still in illusion (Rashid et. al., 2017).
10. Lack of institutional and foreign investors (Maniruzzaman and Hossain, 2019a).

Furthermore, slender and badly managed securities markets, inefficient monitoring by BODs, and limited respect for the interests of minority stockholders are also obstacles to CG (World Bank, 2000).

1.3.3 How to solve this Problem?

The influence of CG on corporate financial performance is a topic of comprehensive experimental studies in financial literature. Good governance of companies becomes an indispensable segment of studies in finance and commerce after the advanced paper on the separation of corporate ownership from control by Adam Smith in 1776 in his major work, an inquiry into the nature and causes of the wealth of nations (Berle and Means, 1932). Businesses, where owners are separated from control, may undergo some degree of agency cost as if the managers do not invest their human capital with due care and due diligence rather tend to be opportunistic to abuse the interest of the owners in the form of taking benefits, which accommodate their choices or oppositely failing to heighten company

value. CG is a significant determinant of intensifying the corporate value and financial profits, and the influence varies from nation to nation due to separate arrangements emerging from different socioeconomic and administrative settings. The recent interest in CG at the global level spurred from the failure of major multinational companies, for example, AIG, Enron, American Airlines, Arthur Andersen, Chrysler, Citigroup, Delta Airlines, Dunlop, Enron, General Motors, Kodak, Marks & Spencer, Parmalat, WorldCom, and the Bank of Credit and Commerce International (BCCI), and so on. The Asian financial crisis and failure also attributed to the growing portrait of CG. Hence, importance should be given to developing strong corporate governance culture through promoting effective and standard corporate governance mechanisms in the corporate sectors in Bangladesh that in succession support businesses with more comprehensive entrance to low-cost finance, addressing agency conflicts, and better financial performance (Claessens & Yurtoglu, 2013). The bulk of prior research on CG was conducted in the context of advanced countries. Hence, circumstantial variations might produce varying outcomes, and as such results and summing-up of those researches does not apply to Bangladeshi publicly traded companies. Some of the research also used tiny representations, while this research has taken a big representation composed of entire publicly traded manufacturing companies in Bangladesh. To date, no available research has investigated the impact of external CG mechanisms on corporate financial achievement.

1.4 Justification and Contribution of the Study

- CG has been an increasingly critical perspective of organizational management for the sustainable financial performance and growth of a company. The association between CG and corporate financial gains is an unsolved open-ended subject of academic debate, and whether CG effects corporate monetary gain is a concern in the literature. Against this backdrop, the present research has explored the impact of inner and outer CG devices on company financial performance to provide some valuable insights on this topic and add to the existing literature. Lack of clarity and mixed results on the relationship between different CG devices and corporate economic achievement is complex, especially in developing country contexts.

- There are a few factors that have an assertive role in making Bangladesh an interesting case to study. Firstly, the company control in Bangladesh is limited to a few individuals and is inconvenient for a large number of stockholders and the current system on takeovers and mergers that collectively do not support the formation of new resources and sustainable growth. Secondly, boards are characterized as a corporate device that fails to perform their fiduciary responsibilities and disciplinary roles principally due to a lack of adequate powers. Thirdly, in Bangladesh, there are a series of debates on CG mechanisms that emerged from a stream of firm collapse. Fourthly, in Bangladesh, the monitoring of stock market regulators is weak that led to two massive stock market crashes- one in 1996 and the other one in 2010-11. Fifthly, the topic of corporate governance and corporate financial performance is contemporary and time-demanding. Finally, there is hardly any study on the influence of inside and outside CG mechanisms on corporate financial achievement using Bangladesh setting. Thus, it is imperative to examine the influence of inner and outer CG devices on company financial achievement utilizing ROA, the accounting device; and Tobin's Q, the market device to have some valuable practical insights on the issue, which would be suitable for the regulators of Bangladesh capital market as well as to the professional accountants, policymakers. The present research is different from all another observational research in the CG field, which is as follows:

- The investigation time (2006-2017) was determined to capture the effects of BSEC guidelines-2006 and the revised BSEC guidelines-2012 on corporate financial performance.

  - Twelve years period has been chosen to recognize and examine the development of internal as well as external CG devices and their impact on corporate financial achievement utilizing ROA, an accounting device and Tobin's Q, a market device.

  - This research uses secondary data, which have been obtained through the review of annual reports. The sample is comprised of 82 publicly traded manufacturing companies as against the population size of 150 DSE listed manufacturing companies as on December 31, 2017. The sampling is based on the following criteria.

- Must be listed on the DSE on or before December 31, 2006, and remained listed till December 31, 2017.

- Must have complete information required for this research (Maniruzzaman and Hossain, 2019). We apply all independent variables as explanatory variables not as predictors because this study has strived to identify the level of influence on the dependent variable. We do not have any plan to see whether predictor variables can prognosticate the response/ regress/criterion variable.

- The inner CG devices (board extent, board freedom, audit committee size, female directorship, Chief Executive Officer/ Chairman role duality, and ownership concentration), external corporate governance mechanisms (institutional ownership, financial leverage, and BSEC guidelines) and company-level dominated variables (company age and company size) have been analyzed in one OLS regression model. Besides, we have tested the impact of all independent variables separately by developing a series of OLS regression models to see the mechanism wise impact on corporate financial performance. The influence of the above-stated devices on firm performance was measured by applying Tobin's Q and ROA.

Thus the study would contribute to the theory and practice in finance in that it links the literature on CG with firm performance. The practice of CG devices is claimed to have a definite influence on corporate achievement. The present study results may offer important suggestions for corporate managers, members on corporate boards, regulators, individual investors, institutional investors, bondholders, and other stakeholders. CG declaration is needed by lenders, workers, governing bodies, and the wider population. Corporate management becomes difficult due to the enhanced need for funds and a flourishing finance community. Managerial decisions concerning CG thus need to be guided by a set of best practices. From the perspective of a researcher, this research will cast a flashlight on the most excellent applications in CG Devices of publicly traded companies in Bangladesh.

1.5 Objectives of the Study

The broad purpose of the research is to explore the association between CG devices and corporate financial achievement of publicly-traded manufacturing corporations in Bangladesh. Specific objectives based on general-purpose are as follows:

- To know the impact of internal corporate governance mechanisms on firm financial performance.
- To investigate the influence of external corporate governance mechanisms on firm financial performance.
- To evaluate the impact of firm age and firm size on firm financial performance.
- To test the influence of corporate governance mechanisms (both internal and external) along with some firm-level control variables (Such as Firm Age and Firm Size) on firm financial performance.

1.6 Scope of the Study

This research has been carried out on DSE listed publicly traded manufacturing companies using secondary data and examined the effects of both internal and external CG devices on corporate financial achievement employing ROA, accounting device, and Tobin's Q, market device. This research examined the influences of corporate-level controlled variables, such as company age and company size, on company financial performance.

1.7 Study Method

The study is empirical in nature as it explores the impact of CG devices on corporate financial success. So, the current research employs independent variables as explanatory variables instead of predictors, and hence we include the hypothesized predictor variables in the regression model irrespective of their significance or power of influence. The study strives to identify how explanatory variables explain the dependent variables and what might be the causes. The quantitative approach has been applied to conduct this study. The

quantitative approach has some subdivisions, such as inferential, experimental, and simulation approaches. The goal of this research is to form a database from which inferences can be drawn relating to the stated characteristics of the population, and thus the research is inferential in nature.

1.8 Framework of the Study

The present research is arranged in six chapters. The first chapter deals with introductory aspects of the study, such as background, problem statement, justification, objectives, scope, and methods. The second chapter exhibits the review literature and the research gap. It also examines the possible interrelationship amid CG devices. To date, many pieces of research have been completed that connected CG and corporate financial achievement. But, uncertainty is existed as to whether a distinct set of CG devices, combinedly or individually, can protect or enhance the wealth of shareholders. The principal-agent problem in agency theory has included and explained, and also the subsequent internal CG devices namely size of the board, board autonomy, size of the audit committee, woman directorship, CEO/ chairman duality, concentration of ownership, and external corporate governance mechanisms namely institutional ownership, financial leverage, and regulatory guidelines have been displayed and examined. The third chapter presents the corporate governance framework in Bangladesh. The fourth chapter affirms the research methodology where eleven hypotheses, research design, and data have been presented. The fifth chapter introduces the outcomes of the study, and the sixth chapter exhibits the main outcomes, inferences, policy implications, and direction for further studies.

CHAPTER TWO

LITERATURE REVIEW

LITERATURE REVIEW

2.1 Introduction

Chapter two presents the discussion of relevant theories, then a survey of literature highlighting the relationship between different variables of the study, and the summary of knowledge gaps as well as the conceptual framework of the study.

2.2 Corporate Governance Definition

The growing speed of globalization and the quickly changing business environment have created an urge to know corporate governance qualities and practices all over the world. The term CG has witnessed an extraordinary concern of corporate stakeholders in the contemporary universal market setting. CG forms a broad spectrum of statutes and systems following those executives of corporate entities work to achieve success and accomplish corporate financial goals. CG has been defined diversely, either narrowly, which centers around corporations and corporate stockholders or by broadly, which covers corporate responsibility towards various stakeholders along with stockholders. The phrase CG depends on the socioeconomic, techno-political, and regulatory systems of a state within that companies are established and operated. However, many scholars attempt to interpret this idea. The concept has discussed the principal components, for example, the internal administration of a company, reciprocities among corporate collaborators, and clarity & responsibility to provide information to both internal and external stakeholders. Though the interpretations of CG differ, the corresponding primary concepts seem to be more or less similar. The Cadbury code described CG as an arrangement through which corporations are governed and operated. Some other scholars interpreted it as a range of devices, which protect the benefits and claims of investors from insiders, such as executives and dominating stockholders (La Porta, Lopez-de-Silanes, Shleifer, 2000). The OECD guidelines for corporate governance (2004) affirmed that CG introduces a series of relationships within corporate administration, BOD, stockholders, and additional stakeholders. CG renders the framework by which the goals of a corporation are

established and the ways to accomplish these goals and supervision achievement are measured. Banks (2004) defined CG as a structure manifested and applied in a company for corporate stockholders, lenders, and other stakeholders. These interpretations of CG confirm a more extensive level, which depends on the compatibility of goals between corporate administration and corporate stakeholders.

Following the conservative outlook, CG is associated with ROI (Shleifer and Vishny, 1997). It ensures that the investors get suitable returns on invested capital. Agency theory leads the debate on CG, which directs the principal (owners) agent (manager) involvement instead of a wide variety of stakeholders. The next outline presents an understanding of agency theory. CG is the culture within that corporations, particularly, publicly traded corporation are controlled and the nature of accountability of executives to the owners (Dictionary of Accounting, Oxford University Press, 1999).

The broader interpretations of CG symbolize that stakeholders and stockholders must experience a more significant amount of responsibility. Solomon and Solomon (2004) stated that CG is a practice of counterweight, both internal and external powers over corporations, and ensures that corporations perform their responsibility to stakeholders and work in an ethically engaged way. Yet, CG is described as a tool through which BODs guide all the activities of chief executive officers, other executives, and stakeholders to enhance firm value, and consequently, maximize the wealth of shareholders (Monks and Minow, 2004).

The different dispute is survived on what forms the sound governance of companies (Plessis et al., 2005). Several pieces of research have shown that sound CG should be promoted within the company by instituting optional exercises based on the circumstances of the entity, and it is evident that the 'one size fits all' recipe must be bypassed because it is not the most useful practice for corporations (Arcot and Bruno, 2006). Many contemporary circumstances have reinforced the need for sound CG because of increasing globalization, deception, and corruption scandals have created a perception of inadequate governance and the necessity for improvement.

2.3 Theoretical Foundation

CG has been observed from various viewpoints applying various analytical lenses, for example, Sir Adrian Cadbury observed CG from a direction viewpoint and describes it as a system by which corporations are governed and regulated (Cadbury, 1992, p.15); while Shleifer and Vishny (1997, p.737) highlighted on the link viewpoint and thought it as a means of dealing with how corporate fund providers convince them of receiving a fair profit on both own and loan capital. Other researchers (e.g. Mallin, 2010; Solomon, 2007; Morck et al., 2005; Letza et al., 2004a) favored viewing CG from a more comprehensive standpoint to include different stakeholders into the corporate purposes. The OECD (2004, p. 11), for instance, describes CG as a series of links between corporate management, BOD, stockholders, and additional stakeholders.

Majority interpretations vary notably because of the difference of corporate exercises throughout the universe (Chizema & Kim, 2010 and Aguilera & Jackson, 2003). Furthermore, Mallin (2010) indicated, various subjects, such as accounting, finance, management, law, economics, etc. have led to the evolution of CG, as such assumptions that supported CG remain quite indifferent. Thus being driven from different theoretical perspectives, corporate governance has been defined in many ways and formalized in different forms for recognizing the purpose of the corporation, determining who should have the control, knowing the obstacles of finding an optimal solution (Ferdous, 2017; Letza et al., 2008 and Letza et al., 2004a). However, the research shows that notwithstanding these large-scale differences, the majority of contemporary views on CG may be classified in a couple of conflicting models- shareholders and stakeholders (Letza et al., 2004a; Friedman & Miles, 2002; and Kakabadse & Kakabadse, 2001)). However, the stockholding model recognizes CG as a device to address the concerns through restricted its spirit to meet the requirements of just stockholders, the opposing stakeholders model supports a more comprehensive foresight to meet the demands from stakeholders (Letza et al., 2008; Letza et al., 2004a).

The subsequent subsections review the above-stated viewpoints of CG to know the process that has shaped our present research and similar prior researchers on the compliance of CG guidelines (especially the work of Letza et al., 2004a).

The logical structure on which CG and financial leverage depends constitutes the agency approach, stakeholder approach, stewardship theory, institutional theory, political theory, M-M theory, trade-off approach, social theory, and free cash flow approach.

2.3.1 Agency Theory

It is the principal basis of CG (Ermongkonchai, 2010; Krambia-Kapardis & Psaros, 2006; Hendry, 2005; Roberts, 2004; and Datton et al., 1998), which suggests stocks ought to be broadly owned and managerial duties separated from that of owners, and managerial works might differ from those needed to optimize the earnings of stockholders (Berle and Means, 1932). Jensen and Meckling (1976) found 'master-servant' frame and insisted that this approach acknowledges the power link, where the master specifies tasks for the servant/manager (Mallin, 2004, p.12); the power connection is therefore regarded as an authorized connection between the master and the servant who is chosen by the former and allowed to exercise authority to take decision (Shankman, 1999). But it is highly doubtful that representatives will ever work in the highest benefits of the master (Jensen and Meckling, 1976). Dalton et al., (1998) recommended the agents might work for their interest instead of stockholders as the agents get control over the company. The principal-agent attachment makes shareholders loser because of agents' steadfast inclination to maximize their benefits (Hendry, 2005; Fama & Jesen, 1983; and Fama, 1980). Thus there should be a balance of power between owners and agents as well as institutional control over the agents/ managers so that they can not violate the system (Mallin, 2010; Shleifer & Visny, 1997; Hart, 1995; and Blair, 1995). Agency costs occur due to the abuse of power by managers and to check the abuse (Mallin, 2004, p.13).

The traditional stockholder viewpoint means that stockholders, the principal corporate stakeholders, work for social purposes beyond their interests will generate a plot for managers to misuse power and for regime to interfere in company choices, and so there is a chance that corporate resources will be allotted casually (Ferdous, 2017 and Letza et al., 2004a). The stockholder approach is necessarily agreeable with the Anglo-American approach of CG (Reed, 2002). Reed (2002, p.230) described the Anglo-American design or the stockholder viewpoint of CG as the first, monothematic board composition that provides nearly the sole authority to stockholder matters; second, a powerful position in

monetary markets (both as the principal root for finance and as a correcting tool to sort out the power conflict); third, an analogous vulnerable role of bank financial institutions; and fourth, limited or absence of industrial plan including companies interacting with state offices (and workgroups)".

The stockholding quarters of CG holds that the most suitable answer to the power dilemma is to learn the efficient arrangement directing the master-servant connection, and a suitable stimulus program to control the direction of the management to benefit shareholders (Letza et al., 2004a, p.248). Also, to defend stockholder benefits and make sure a desirable CG model for corporations, a three-tier regimented

CG device (AGM, BOD, and Executives) is designed as a balance of power tool in the company system (Letza et al., 2004a; Keasey et al., 1997; and Jensen & Meckling, 1976). This stockholder viewpoint of CG acknowledges that unfriendly takeovers, alliances, and acquisitions are some of the essential devices, and by which the laissez-faire economy can manage underperforming companies, and hence defend the benefits of the shareholders, bondholders, and other lenders (Rwegasira, 2000).

The usefulness of the Anglo-American design is subject to different hypotheses. It implies a moderate level of ownership consolidation and restricted share-ownership by financial institutions (Krambia-Kapardis & Psaros, 2006; Rwegasira, 2000; La Porta et al., 1999; Berle & Means, 1932); regulation of the market (commodity, finance, and managerial expertise), having an aggressive global market (Reed, 2002); right, trustworthy and up-to-date information circles to the financial market (Long, 2004; Krambia-Kapardis & Psaros, 2006; and Fama, 1980); the stock market is very matured and liquid, and a fully grown regulatory judicial body backing to defend against the transfer of assets and insider dealing (Krambia-Kapardis and Psaros, 2006). Mallin (2010) again discloses the quality of the judicial arrangement by declaring that the premises of agency approach are widely relevant to the United States and the United Kingdom, wherever the judicial systems provide high-quality security to marginal stockholders. However, these conditions are not prevailing in various countries.

Research scholars of CG have great interest on Agency hypothesis (e.g. Renders & Gaeremynck, 2012; King & Wenb, 2011; Warda & Filatotchev, 2010; Hendry, 2005; Arnold & Lange, 2004; Elston & Goldberg, 2003; and Fama, 1980). The works of Fama & Jensen (1983); Jensen and Meckling (1976); and Berle & Means (1932) are a few explorers who realized the usefulness of this approach, and after that scholars started to use hypotheses, patterns, and evidence to know control frame, board applications, power struggles, CG reform, financial leverage/ gearing (Manosa et al., 2007), and so on. In emerging economies, many different scholars encompassing, Manosa et al. (2007), Imam and Malik (2007), Farooque et al. (2007a; 2007b); and Mukherjee & Reed (2002) applied this approach to analyze CG arrangements, problems, and to prognosticate potential answers to guarantee more reliable governance.

In spite of the commanding agency theory, growing research (e.g. Henrekson & Jakobson, 2012; Roberts, 2004; Aguilera & Jackson, 2003; Burton, 2000; and Devis et al., 1997) pitches suspicion on the power of this theory to explain CG concerns throughout the globe. Daily et al. (2003b); Jones (1995); and Donaldson & Davis (1994) opposed to the statement of the opportunistic behavior of the agents and held that executives are reliable and have to be adequately authorized. But Moreland (1995); Sykes (1994); and Charkham (1994) stated the main weaknesses of this theory and the stockholder viewpoint of CG is tentatively market-driven, while it neglects some permanent expenses and CAPEX that are necessary for enduring survival of a company.

Proponents of this approach argued that CEO/ chairman duality is expected to generate a struggle for benefit between agent and principal and may hurt the principal's gain. Yet, Donaldson and Davis (1994) rejected that arguments by demonstrating that watchful BODs approve CEO/ chairman duality as it ensures the uniformity of direction within the company, which supports the presence or the fantasy of effective administration and CEO/ chairman duality also enables firms to assist the stockholders even more. Based on those thoughts, a few contemporary investigations recommended that CG applications following agency theory should be revised in the setting of the modern marketplace (Chancharat et al., 2012; Lin & Chuang, 2011; and Tangpong et al., 2010).

2.3.2 Stakeholder Theory

There exists a clear opposition between the conventional understanding of the stockholder approach and the stakeholder viewpoint of CG not more than half a century. Stakeholder theory observes a company having a lack of confidence in its ability to protect the interests of wider external stakeholders in spite of maximizing the wealth of shareholders (Letza et al., 2004a, p.243). The notion 'stakeholder' originally emerged in the business research in 1963. Henceforth the concept has been inferred to theorized and popularized to some groups without whose backing the company could not survive (Freeman and Reed, 1983). But, this notion is now clearly understandable because the concept is related to the organizations or persons who can change or are inspired by the fulfillment of the firm's goals (Ferdous, 2017; Freeman, 1984; and Sternberg, 1997), and therefore, it involves various interest groups, for instance, workers, clients, vendors, government, and the larger community.

This viewpoint of CG has been generalized after the printing of Freeman's *Strategic Management: a Stakeholder Approach* (1984). Henceforth, research on CG observed an unbelievable rise in recognition from researchers (e.g. Tse, 2011; Tipuric, 2011; Vitezic, 2010; Freeman, 2009; Kaler, 2009; Stieb, 2009; and Belal, 2004). They argued either in favor of moving against this more comprehensive view of CG or the illustrated the following two conflicting criteria: stockholder and stakeholder.

Jones and Wicks (1999) have reviewed four main premises of stakeholder approach, those are: i) a company builds ties with several fundamental groups (stakeholders), which influence and remain influenced by its choices; ii) the theory is involved with characteristics of the relations about both ways and ends for a company and its stakeholders; iii) wellbeing of all (legal) stakeholders has inherent power, and no assortment of benefits is expected to control others; and lastly, iv) stakeholder assumption concentrates on handling the decision making of managers (Jones and Wicks, 1999, p.207).

Donaldson and Preston (1997) extended the concept by understanding that this method of CG may be classified into- regulating and instrumental. The regulating method means 'inherent worth' in stakeholders and views stakeholders as ending, but the instrumental method is specially engaged in how the advantages of stakeholders can be applied to enhance firm performance and competence and considers them as 'ways' (Letza et al., 2004a, p.250).

While formalizing the CG approaches, the regulating plan clarifies that companies are awarded as social beings to fulfill the needs of the society (Sullivan and Conlon, 1997), and as such managers are agents and custodians of stakeholder concerns (Letza et al., 2008; Letza et al., 2004a). They asserted that the latter approach supports stakeholders' value as their engagement in corporate affairs would improve firm performance, opposition, and financial success (2004a, p.251). Based on the above premises, many researches (e.g. Tipuric, 2011; Tangpong et al., 2010; Vazquez-Brust et al., 2010; Kaptien, 2008; Jones et al., 2007) assumed that stakeholders are interested to participate in important corporate decision making for warranting prosperous company policy and for that Greenwood recommends, stakeholder involvement must be allowed as a system of involving stakeholders assertively in organizational activities (Greenwood, 2007, p.315).

Nevertheless, prior investigations show that the prescribed method of stakeholder alliance/stakeholder administration differs from researcher to researcher. For instance, Gray (2002) and Van-Buren-III (2001) observed the assimilation method from answerability and reliability systems and considered that stakeholder alliance is a means of achieving corporate answerability and engagement for stakeholders. But considering managerial approaches some other scholars, such as Deegan (2002) and Owen et al. (2000) preferred stakeholder commitment as a means controlling hazard, management direction, etc. Few more concurrent mechanisms accepted it in the context of green disclosure standpoint (Choi et al., 2008 and Belal, 1997; 2004), information transfer perspective (Kamoche, 2006) or even from the perspective of stakeholders' compensation (Livesey and Kearins, 2002; Swift, 2001).

Letza et al. (2004a) acknowledged the misuse of the administrative control pattern also exercises a stakeholder viewpoint of CG as it supports stakeholder prosperity. Based on the model, as insisted by Letza et al. (2004a) the main CG dilemma arises whenever corporations grant undue authority to office managers; they might misuse their authority in the realization of benefits (Letza et al., 2004a, p. 245). It asserts that sound CG is established if executive managers do not want to involve in such crimes. So, this approach encourages lawful reforms in CG mechanisms, for instance, a fixed duration for CEOs, the fair selection of nonexecutive directors, and higher authority for them (Letza et al., 2004a, 2004a, p. 245).

On the whole, stakeholder context of CG claims that the governance dilemmas can better be solved by strengthening the support of stakeholders and by building an atmosphere where values, workers' support, inter-company collaboration, belief, and lasting alliances are encouraged (Blair, 1995 and Keasey et al., 1997). If executed well, the proponents of the stakeholder paradigm consider the all-inclusive method of CG is capable of offering a clear competing edge to corporations. Turnbull (1997a; 1997b) maintained that suitable stakeholder control might enhance fairness and individual governance in publicly traded companies, the state of freedom in the public corporations/ institutions, and the effectiveness of both areas (Turnbull, 1997b, p.11). Hillman and Keim (2001) opined that stakeholder links are different in different companies and as such duplication is tough for competitors. Choi and Wang (2009) added to the above assertion and affirmed that the engagement of stakeholders can control stakeholders' satisfaction, and hence promote their loyalty to the firm.

Nonetheless, the stakeholder approach also picked remarkable critiques. Analyzing this approach of CG, many studies (for example Tse, 2011; Plaza-Ubeda et al., 2010; Jansson, 2005; and Sternberg, 1997) pronounced that dissimilar to stockholder approach, stakeholder approach is an inadequate arrangement of corporate intention to set precise devices for good CG. Sternberg (1997, p.5) insisted that a corporation is answerable to everybody answerable to nobody. Comparable testimonies have been provided by many scholars (Orts & Strudler, 2009; Sundaram & Inkpen, 2004; Letza et al., 2004a; and Jenson, 2000). They claimed that the benefit of stakeholders differs from segment to

segment and also within members of a particular segment, which might usually produce a struggle for benefit. This approach neither motivates managers to handle the issues nor presents an opinion on the ways to obtain the quid pro quo amongst stakeholders. Amazing earlier research has (Kaler, 2006; Kochan & Rubenstein, 2000; and Gioia, 1995) recognized that it is tough to implement the stakeholder approach as it does not show how management can put it into operation, but some separate works (Tipuric, 2011; Tse, 2011; Waddock and Graves, 1997) spread such critique by affirming that this approach bequeaths managers without naming a fair, uniform, and well-built device to recognize the impact of stakeholder control on corporate achievement. Some other scholars (DeBakker et al., 2005; Griffin, 2000; and Frederick, 1994) showed that the comprehensive outcomes on this approach are continued to be unsolved. Research like (Orts & Strudler, 2009; Kaler, 2006; and Jenson, 2000) farther insisted that the stakeholder approach places executives at the core engagement, without setting any standards for controlling them. Hence, free rein management is allowed for this approach (Sternberg, 1997).

Amazing contemporary research (for example, Tse, 2011; Aguilera & Cuervo-Cazurra, 2009; Balgobin, 2008; Okike, 2007; Reaz & Hossain, 2007; and Cuervo, 2002) showed the feasibility of creating a fresh approach incorporating characteristics (those match country conditions and common interests) obtained from the existing approach of CG. The researchers held that the characteristics of present approaches have their advantages and have planned based on the needs of a precise time and history. They may not be completely suitable but can be modified according to demand, and knowing these methods will provide a better insight of the governance system which may in turn help to develop a better way to address the existing situation (Ferdous, 2017 and Letza et al., 2004a), and a mixture of characteristics of diverse approaches might compensate the shortcomings of each other. In brief, the recently developed testimony the suitability of a CG approach for a conceptual paradigm to be useful to recognize a vibrant and ethnic inclusiveness approach, which can properly explain the peculiar operations of local CG, instead of attempting to process sound presence into the disassociated device (Letza et al., 2004a, p.256).

2.3.3 Stewardship Theory

Stewardship theory was originated in the groundbreaking research by Donaldson and Davis (1991) where uppermost managers work as stewards for the company and serve the highest interests of the owners. The theory asserts that managers are to give decisions and work for the highest benefits of the firm, placing group choices above individual choices. Specifically, stewards are to make appropriate decisions that are in the highest interest of the organization, as there is a steadfast opinion that stewards will benefit if the firm prospers. At the same time, stewardship theory assumes that executives' and managers' main duty is to maximize corporate financial performance while operating under the assumption that both principal and stewards benefit from the performance of the organization.

Daily et al. (2003) predicted that to preserve the fame as corporate decision-makers, managers and board members should the company efficiently to augment economic performance and corporate dividends. The executives and directors are perceived to be competent administrators of their companies if they can pay back the funds provided by shareholders and lenders to build a good standing.

This theory maintains that executives and owners have no struggle of interest and that the purpose of good governance is to prepare devices and frameworks that could promote useful reciprocity in both parties. This approach maintains that there is no major obstacle to managerial control, and recommends that corporate managers should be meticulous in all actions (Donaldson, 2008). The basic assumption of this approach is that the functions of executives are aligned with the interests of the principals. The theory assigns the highest value on purpose concurrence amid the parties associated with CG than on the benefit of managers.

This theory is mainly used to recognize the circumstances in which the benefits of the owners and the steward are adjusted (Donaldson and Davis, 1993). There are circumstantial and emotional factors to influence one to be an agent or steward. The circumstantial elements are associated with the nearby social setting, rather than the job setting of a company.

Davis et al. (1997) opined that how the parties decide to be agent or steward is as follows: First, this is a collective choice of both the parties. Second, the mental aspects and the socio cultural history of both parties influence them to reach a specific decision, and lastly, the assumption that an individual regarding the other can affect the decision of union between stewards and agents. But Davis et al. (1997) remained mute regarding the particular communications of forerunners in the forecast of the stewardship approach versus agency approach. When a person, both intellectually and circumstantially, wants to be either a steward or an agent, there is no struggle inside the person. The difficulty appears if there are opposing passions between emotional and circumstantial elements.

The theory implies that growing a steward or an agent is the outcome of a systematic method. A person assesses the advantages and disadvantages of one class against another based on this method. The stewardship research has enormous input into stewardship theory, which claims stewards are not charitable, but there are circumstances where managers perceive that working for the benefits of stockholders also serves the benefits of managers. In these circumstances, stewards would understand that corporate financial achievement instantly affects the views of their financial achievement. Contrarily, to be a powerful steward of a company, s/he is to manage her/ his occupation (Daily et al., 2003).

2.3.4 Institutional Theory

Significant shortcomings of the present literature on CG are its extreme familiarity with the agency approach to describe the heart of CG paradigm (Seal, 2006). But many other scholars (e.g. Daily et al., 2003a) claimed that socio cultural phenomenon for the progress of CG has got insufficient notice in this approach, many other scholars (Siddiqui, 2010; Yoshikawa et al., 2007; Enrione et al., 2006; and Paredes, 2005) are in the opinion that this theory useless to represent major corporate governance issues in the context of developing countries not to talk of developed countries. All the deficiencies have compelled scholars (e.g. Siddiqui, 2010; Enrione et al., 2006; Mir & Rahman, 2005; and Greenwood et al., 2002) to examine substitute analytical structures, and amid these, this approach is an enormously attractive option.

Following Chua and Rahman (2011), this approach describes why numerous companies require comparable institutional arrangements and socio-cultural factors in spite of their different businesses, and how companies develop the manners of each member (p.320). In plain language, this approach demonstrates why diverse institutional arrangements are comparable (Siddiqui, 2010 and Suchman, 1995). This approach highlights precise time when several flushes in the company setting might arise due to cultural standards, morals, and customs. Hence the intellectual context needs to be considered in assuming CG systems (Chua and Rahman, 2011and Scott, 1995). Compatible with these reports, this section examines the flush of a company setting for launching the precise review of research outcomes.

The idea of firm authority holds with the spirit of this approach and presents it exclusively than the earlier-flowering administrative systems (Scott, 1995). Suchman (1995) explained legality as an opinion or theorized judgment, which corroborates firm activities are acceptable, just or proper [in a social order] (1995, p.574). While, Scott (1995) stated that this approach examines uses of supplementary institutional practices to build up institutional arrangements, systems, and forms to act in response of the above-mentioned outside macro demands in receipt of legality. Nevertheless, organizations might demand legitimacy to assure constancy, reliability, and legality (DiMaggio & Powell, 1983 and Meyer & Rowan, 1977).

Research (for instance, Carroll & Hannan, 1989 and Meyer & Rowan, 1977) showed that legality was examined in various expressions of endorsement, fairness, suitability, and similarity (Deephouse & Carter, 2005). But, this research observes legitimacy as the public recognition emerging from adhering to regulative, normative, and cognitive standards and suppositions.

While investigating CG in Bangladesh, Siddiqui (2010, p.263) argued that firms favor legitimacy because corporate stakeholders offer support companies that look sound, decent, and proper. Chua and Rahman (2011) stated that agreement with hope is a necessary component of corporate accomplishment. The researchers further discussed on the choices companies are to take in reply to or following their organizational setting that

includes: (1) strong organizational components like influential stakeholders groups, and (2) the laws and conditions that the stakeholders groups are to meet to get the desired compensations for holding up and validity (Chua and Rahman, 2011, p.320). Hence, this approach is of critical aid in the existing research to demonstrate why companies provide support to enhance their validity to get desirable organizational resources.

Considering Bangladesh setting, many types of research (for instance, Siddiqui, 2010; Belal & Owen, 2007; and Mir & Rahman, 2005) used this approach to explain CG improvements here. Siddiqui (2010) studied the evolution of CG measures in the context of this developing country to affirm that the main players of CG are disclosed to various levels of validity and hazard, and act equally (p. 270). The article ended by asking that notwithstanding the existing socioeconomic arrangements that do not hold the shareholder approach, Bangladesh has accepted the stockholder approach of CG (Siddiqui, 2010, p.270). Siddiqui (2010) therefore expressed apprehension towards agency-based notions of market review. This approach may not be quite fitting for Bangladesh. Comparable conclusions appeared from the research of Mir and Rahman (2005) they examined the International Accounting Standards (IAS) adoption practices in Bangladesh and declare that isomorphic order make it obligatory for the country to 'carbon copy' most of the IAS and labeled these as Bangladesh Accounting Standards (BAS) that are not that much feasible to guarantee corporate performance. However, the conclusions present an essential source of accepting the system /standard upgrading ways in Bangladesh. Moving to the similar institutional approach, this research examines whether, subsequent to the beginning of this approach, corporations have been doing well as the system adoption process and if so, why. However, two preceding approaches are used to discuss study problems. This approach is used to confirm the investigation as well as to acquire a more comprehensive knowledge of the problems and related answers.

2.3.5 Political Theory

This approach leads to enhance polling posts from stockholders instead of buying the same. Thus holding political power in a corporation may affect CG in the company. The common concern is enormously held if the political government becomes engaged in shaping business decision making while recognizing social difficulties (Pound, 1992). This

paradigm reveals the distribution of corporate authority, earnings, and opportunities are determined through the favor of the political regime. This approach of CG may have an extended impact on governance improvements. Beyond the preceding few decades, the government of Bangladesh has been perceived to hold a great executive impact on companies, and as such, there is an invasion of governments in the governance of companies.

The association between corporate achievement and CG become a topic of comprehensive study in recent times. The manifold important experimental research explores the relationship between corporate financial performance and any sub-set of various dimensions of CG, for instance, the board size, board structure, managerial remuneration, insider control, CEO/ Chairman Duality, Female directorship, anti-takeover provision, etc.

2.3.6 Social Theory

The social hypothesis has four fundamental criteria: fictional character, elucidative, profound humanist, and profound structuralism. Usually, the fictional character tries to present logical reasons for cultural activities and practices that are prevailing in theoretical sociology and convention theoretical finance. The fictional character highlights the significance of judgmental system, balance, and balance in the community and how those could be kept. This involves the command and control of human activities. Economic arrangements and markets are observed as a point of material fact, defined by uniformities and regularities that can be assumed and interpreted concerning cause and effects (Ardalan, 2008).

2.3.7 The Modigliani-Miller Theorem

Modigliani and Miller's (1958) model of capital structure in contemporary financial management assumes that the firms have a distinct set of predicted cash inflows and own capital. If a company prefers a particular symmetry of loan capital and equity to fund its assets, then it distributes the money inflows amid shareholders. Shareholders and companies are assumed to hold similar access to the capital and money markets that provide indigenous leverage. Investors may create leverage that is desired, but not attempted. Besides, the shareholders can be relieved of leverage that a company decided,

but not required. Consequently, corporate leverage does not affect company value. The paper initiated both accuracy and debate. M-M hypothesis proves capital structure irrelevance under different conditions.

The traditional arbitrage-based irrelevance plan renders frames in which arbitrage by stockholders holds the company value free from its leverage. The next irrelevance hypothesis assumes that given a company's funding scheme, the dividend payout it decides to pursue control either the prevailing value of its shares or the entire dividend to its shareholders (Miller and Modigliani, 1963), in different term either capital structure decisions or distributed/ dividend choices matter. The article encouraged rigorous studies dedicated to proving false of irrelevance as a question of opinion or as an experimental theme. The generally accepted ingredients constitute tax payment, cost of the transaction, cost of bankruptcy, power struggles, conflicting decision, absence of reparability within finance and procedures, variation with time capital market events, and shareholders clientele impacts. Harris and Haris (1991) affirmed that the M-M irrelevance hypothesis is difficult to test. Loan capital and company value both reasonably internal and inspired by other circumstances such as return on investment, security, and augmenting chances, they could not build a fundamental experiment of the hypothesis by sinking value on loan capital. Except for the event that reasonably strong experimental associations among many parts and corporate leverage survive, but not negating the hypothesis. It seems an extraordinary characterization of wherewith existing companies is funded.

Though the M-M theory does not present a faithful account of how companies fund their works, it presents a system of learning causes why funding matters and the information gives a fair description of much of the assumptions of corporate finance. Therefore, it is inspired by the initial expansion of both the trade-off approach and the pecking order approach.

2.3.8 Trade-off Theory

Discussion on corporate capital structure commenced due to the premises revealed by Modigliani and Miller (1958; 1963). At the very outset, due to the nonexistence of company tax and insolvency costs, they assumed that company value is free from corporate

capital structure decisions. Next, the authors arrived at another resolution, with corporate tax the company value would enhance if the company raises its leverage. Therefore, the authors claimed, the optimal level loan capital will be reached depending on the substitution between the tax benefit of debt paid by the intensified danger in liquidation and agency charges of loan capital. The desirable debt to equity ratio is the limit at which corporate value is augmented (Jensen, 1993). Corporate value is autonomous of the capital structure and there is no optimum debt to equity ratio for a specific company recommending that there is a tax benefit of using debt. Theoretically, Stulz (1990) observed that leverage is positively correlated to firm value and that capital structure is employed to lessen agency expenses, and as a consequence company value rises.

2.3.9 Free Cash Flow Theory

Based on the free cash flow device (Jensen, 1986), leverage serves as a regulating device and whereby decreases the power dilemma, thus increase corporate value by decreasing the agency costs of easy money movement. Different results are evident due to the more elevated level of leverage. Usually, corporate executives are disinterested to invest in unprofitable fresh schemes because new schemes may fail to produce surplus cash inflows for the company, so there is every possibility that the executives might decline to pay the fixed interest and loan capital when they are listed to pay. Likewise, it may lead to the failure of generating adequate profit to give dividends to stockholders. Besides, more leverage compels corporate executives to give the cash inflows to the loan providers as they are forced to repay a predetermined amount for a particular time. If corporate management declines to meet this commitment then loan providers may lead the company into liquidation. This uncertainty may motivate executives to reduce their payment on incentives and enhance their performance. Based on the agency approach, Jensen (1986) stated that the greater the level of ethical risk, the greater the corporate leverage. Corporate management may require fulfilling their obligation emerging from the loan that will lessen their rewards. Prior studies imply that debt can serve as an auto-control governance tool, i.e., introducing debt is pushing management feet to the flame by requiring them to make cash to pay off the interest and principal amount (Gillan, 2006).

Leverage reduces the agency prices of free cash flow and improves managerial performance as the debt market monitors the efficiency of the capital market. Also, for loan funding, management has to prove its skills and abilities to manage the corporation. Practically, it is obvious that leverage substitute by bank loan can be a replacement for controlling devices, particularly in poorly managing companies. Thus the free cash flow approach implies that leverage is a controlling tool. The higher the level of leverage, the higher the possibility of insolvency, and if it occurs, executives may drop their positions/ work. Hence, executives have to work efficiently to bypass this danger of facing the obligation to debt providers. Also, as a result, it may decrease the proceeds of the executives as they are under compulsion to improve the corporate cash inflows. It will further improve the performance of management in choosing new plans. Collectively, the above initiatives lead to an improvement in company value. Therefore, the above situations align the interests of owners and managers. These lead the stockholders to choose higher leverage, and in these circumstances, concentrated ownership may have a powerful role in forcing the management to accept high leverage.

2.3.10 Summary of Theoretical Foundation

The agency approach concentrates on the opposing interests of the masters and servants, but the stakeholder approach examines the struggle between the benefits of various assortments of stakeholders. Stewardship approach underlines the significance of BOD as stewards and visualizes a performance exceeding their established monitoring engagement held from the agency hypothesis viewpoint. The institutional approach depends on the assumption that a better legal environment encourages the adoption of good CG practices, and the political approach leads the strategy of promoting polling assistance of stockholders, rather by buying balloting authority. M-M theorem, trade-off hypothesis, and the free cash flow hypothesis evaluate the effect of leverage as a monitoring mechanism, which increases the efficiency of managers.

2.4 Corporate Governance Systems

The common ingredient of a CG tool is the BODs (Filatotchev and Boyd, 2009). Corporate ownership arrangement has an impact on the type of power dilemmas in management and stockholders as also amid stockholders. Difficulties occur when control of a company is separated from its owners. The advanced economies such as the USA, Canada, the UK, France, Australia, and New Zealand, split ownership pilots executives and stockholders not to share the basic benefits as their business is alliance is opposing and it has grown a dilemma (Jensen & Meckling, 1976). But, in ownership concentration, when a particular stockholder holds the most comprehensive power and sufficient authority on the company, in the Federal Republic of Germany, Japan, and emerging economies, the primary difficulty is the separation of interests that occur within dominant/ controlling stockholders and atomistic stockholders.

In dispersed control, a substantial number of stockholders own a tiny piece of corporate stocks. This little segment of owners named outsiders. They endure very little incentive to exercise an effective power regarding the actions of the company and do not involve in corporate decision making. So, dispersed control arrangements are considered an alien practice. The shareholders in this arrangement depend on the self-governing directors to perform an active part in controlling the managerial opportunistic action, including ensuring fair disclosure, appraising accurately the achievement of management and ensuring a protecting style of stockholders' benefits. Afterward, the refugee policy is thought to be responsible and is supposed to promote market liquidity. However, a regulatory framework and a well-functioning legal structure are required for this system (Farhat, 2014).

There are a small number of people, either managers, groups, companies, BODs, and moneylenders in concentrated control arrangements, who have their power and control. These personalities or groups are called corporate insiders as they usually operate, control or have a big impact on managing the actions of the company (Farhat, 2014). Hence, consolidated ownership arrangements are considered as corporate insider arrangements. There are diverse techniques by which corporate insiders exert power over companies, such as pyramid type arrangements (Wiwattanakantang, 2001). For instance, the ownership

arrangement practices the compressed pattern in nations such as Japan and Germany as against democracies like the UK and the USA. But in Germany and Japan, bank financial institutions perform significant CG functions. However, Prowse (1992) stated that bank financial companies in Japan are the foremost important large stockholders. Contrarily, in Germany, the main stockholders are the companies, accompanied by individuals (Franks and Mayer (2001). Franks, Mayer, and Rossi (2009) asserted that in the UK diffusion of control was evident before robust stockholders' claims arrived in reality and the important reason for the aforementioned was takeovers and amalgamations.

As stated by Mayer (2000), corporate insider policy was first observed in Europe, where a tiny number of stockholders accumulate the majority of the stocks, they have a struggle of interest forming the agency dilemma amid massive and small stockholders. Stockholders are required to exercise the powers of polling and their ability to transform corporate financial achievement. La Porta et al. (1999) noted that the three most influential stockholders in European nations usually hold greater than half of the total stocks. Similar to La Porta et al. (1999) and Gorton & Schmid (2000) examined German corporations and affirmed a positive association amid corporate financial achievement and corporate ownership density of bank financial institutions, where stockholders are associated with companies through equity shares, partly leading and commanding them. Two corporate boards are involved in this design: managerial and monitoring. While, in Japan, the ideal is characterized by particular associations (Kabushiki), where beliefs, commitment, and agreement in families are unique and a great harmony subsists amid the state, banks, and companies.

2.5 Corporate Governance Mechanisms

CG, a collection of devices, manage and regulate companies in line with the predetermined goals and objectives of the organization as the detachment of ownership from governance limits owners to run and manage the corporate entity (Shleifer & Vishny, 1997). The purpose of CG devices is to reduce the agency cost emerging from the divorce of ownership from management because agents are sometimes viewed with opportunistic behavior to exploit personal benefits at the cost of the owners (Fama and Jensen, 1980). There are two kinds of CG devices—outside and inside— to address agency dilemmas that

are recommended by agency hypothesis (Jensen, 1993). Inside key devices include the size of the board, independence of the board, size of the audit committee, CEO/ chairman duality, female directorship, and structure of ownership (Denis & McConnel, 2003; Denis, 2001; Agrawal & Knoeber, 1996; Hermalin & Weisbach, 1991; and Jensen, 1986). But, outside key devices include institutional ownership, financial leverage, and governing guidelines (Bushman and Smith, 2001). The common belief is that those devices can protect and control the operations in a firm as well as strengthen the discipline in control and ownership. Farinha (2003) continued with the preceding findings and attached amazing features, such as the use of reliability, safety investigators, distribution system, and liability management as inside devices. They picked variables to substitute the compensation plans, board composition, control, and a series of achievement criteria such as total revenues (TR), Tobin's Q (TQ), rate of accounting profit (RAP), and return on assets (ROA). They choose a vibrant GMM stipulation system, which is powerful for transforming endogeneity, simultaneity, and heterogeneity. They recognize no causal connection between CG and corporate financial achievement, implying that important relationships revealed by combined ordinary least squares (OLS), and set results models are the end of false associations.

While Hassan (2009) examined Australia companies and categorized the supervising CG devices into three segments, such as 1) devices inside the company that include size and composition of the board, chief executive officer/ chairman duality, chief executive officer tenure, chief executive officer pay, and managerial shareholding; 2) devices outside the corporation, which involve concentrated ownership, liability, and corporate acquisitions; and 3) government statutes & laws.

Usually, the influence of CG devices on corporate financial achievement presented diverse and indecisive results around the globe. However, this evidence is yet not satisfying in establishing a link amid sound CG applications and corporate financial achievement (Heracleous, 2001). Realizing a critical combination and influence of CG devices on corporate financial profit, a complete and thorough analysis is presented in the following section. Furthermore, considering that the present research uses the structure of agency hypothesis and the notion of agency dilemma as the foundation—including how CG

devices perform the task of managing these difficulties and the impact of these devices on corporate financial success—the subsequent sections exhibit the survey and discuss different CG devices associated with this research.

2.5.1 Internal Corporate Governance Mechanisms

In-house/ inside CG relates to the degree to which selective devices are involved with the policies and forms used by the corporations. The devices are widely interdependent in that progress relies on the comprehensive selection of all those elements. In-house CG devices are nonetheless simply an element of efficient and healthy CG, and thus in-house CG devices require to be adjusted and corresponding to outside governance devices. The in-house CG includes board size, board freedom and executive compensation, number of board meetings, financial policy, ownership concentration, and CEO duality (Daily and Dalton, 1992).

2.5.1.1 Board Size

It denotes the number of members on the corporate board including the CEO, the chairman of the company, and outside directors (Jensen and Meckling, 1976). The size of the board is an unending discussion. Researchers failed to reach any consensus on whether one size fits all. Some past studies asserted that the size of an effective corporate board must be 7-15 members (Ogbechie et al., 2009). But, another group of scholars has remarked that the optimum board should have 7- 8 members (mak & Kusandi, 2005 and Jensen, 1993) as a larger size involves extensive monitoring costs.

There is no definite guideline from BSEC regarding the size of the corporate board, and hence different companies set their board size based on the company's distinct features. So, the board size depends on the company level decision and company-specific features. Jensen (1993) found that with small board corporate performance is intensified and when board size goes above 7 to 8 numbers, corporate financial performance tends to decrease and the CEO becomes more empowered over the board activities. Ghabayen (2012) observed that companies with miniature boards operate efficiently if confronted with corporate boards composed of more directors. Lipton and Lorsch (1992) examined the sizes of corporate boards in the US setting and affirmed that the size of the corporate board

in the publicly traded companies is unreasonably big, heading to magnify losses to stockholders, a reduction in ambitious business possibilities and declines in employment. The contributors recommend that board size should be restricted to 7 or 8 directors and admitted that it is difficult for members of a corporate board to place their opinion and recommendations if more than 10 members on the board. Bennedsen et al. (2008) observed companies encourage the most substantial costs whenever board sizes are higher because a large board can influence corporate resolution, information, and understanding among members. In opposition, (Guest, 2009 and Dalton et al, 1998) asserted that a more comprehensive board can commence reliable decision-making because of the higher the number of members on the corporate board. The more widespread the knowledge of members, the higher would be the possibilities of escaping failure of the company.

A bulk of researches discovered an unfavorable association between the size of the board and corporate financial performance (Desoky & Mousa, 2012b; Hermalin & Weisbach, 2003; and Jensen, 1993). Yermack (1996) studied the relationship between the size of the board and the corporate financial performance of publicly listed companies in the United States. The study outcomes confirmed a meaningful adverse relationship among those variables. Bennedsen et al. (2008) conducted research on the association between the size of the board and corporate financial performance in Holland and Denmark. The outcomes revealed an adverse association between board size and corporate financial performance. Lasfer (2004) on the German setting using a large sample of publicly traded corporations and noticed an adverse relationship between the size of the board and corporate financial performance. Eisenberg et al. (1998) administered research on publicly traded 900 tiny corporations in the UK and affirmed that the size of the board and corporate financial performance were negatively associated (applying an accounting tool, ROE). Different research carried out using the Asian setting observed that size of corporate board was adversely associated with corporate financial performance (Haniffa & Hudaib, 2006 and Weir et al, 2002), resembling conclusions were noted while using Switzerland, Japan, and Canada settings (Mak & Kusandi, 2005; Adams & Mehran, 2003; and Loderer & Peyer, 2002).

Contrarily, an assertive association was evident between the size of the board and corporate financial performance in many studies. The examinations revealed a big size corporate board produced an improved corporate financial performance as different experiences and expertise were present in the board members, which supported more reliable decision making and surveillance of the CEOs (Goh et al, 2014 and Ho, 2005). Also, Bonn et al. (2005) examined the relationship between the size of the corporate board and corporate financial performance using a small sample of publicly-traded corporations in the USA during the period 1978-98. An assertive association was evident. Several inquiries produced comparable outcomes (Ghabayen, 2012; Fallatah & Dickins, 2012; Jackling & Johl, 2009; and Pfeffer, 1972). Ghabayen (2012) reviewed the impact of the size of the corporate board on corporate financial performance utilizing 102 publicly listed manufacturing companies in KSA. The researcher applied both the accounting measures, ROA and ROE, as corporate financial performance and noticed an essential assertive association. Chaghdari (2011) examined a small number of listed Malaysian companies and observed that the size of the corporate board has an insignificant negative relationship with corporate financial performance (ROA, ROE, and Tobin's Q). In a different research, Shukeri et al (2012) also detected a meaningful assertive relationship applying a large sample of publicly traded Malaysian corporations.

Dalton et al. (1999) insisted a bigger corporate board is worthwhile for good governance: the more extensive combined knowledge the bigger the board assembled, the excellent the corporate financial performance. Pfeffer (1973) recommended for a bigger board as it could operate a company more desirable through applying a variety of skills to reach acceptable corporate resolutions. The size of the corporate Board must have a substantial influence on the value of larger size companies. Consequently, bigger board sizes may produce a desirable value-maximizing outcome for those companies (Coles, et al., 2008). Goodstein et al. (1994) recommended that a more extended corporate board render more reliable passage for the outside circumstances of the company that alleviates ambiguities and magnifies opportunities to acquire numerous resources such as investment, deals, and supplies. Lipton and Lorsch (1992) and Jensen (1993) clarified that although more extended corporate boards essentially improve its principal roles, there is a lack of communication within the directors of the board that could adversely influence its

usefulness and financial success, which indicated that more extended boards could handle enormous challenges of high-priced agency problems, and thus large board are ineffective as opposed to more miniature corporate boards, so limiting the size of corporate board might drive higher performance (Yawson, 2006). Cheng (2008) announced an assertive association between the size of the corporate board and corporate monetary success applying the IRRC data set on corporate board members during the period 1996–2004. Cheng's (2008) conclusions suggest that bigger corporate boards have more moderate variability of financial performance. In periods of crisis, such as those faced by distressed companies, larger boards are efficient since they are required to avoid producing uncertain decisions (Farhat, 2014 and Chanchart et al., 2012). More extensive boards tend to afford an extended pool of experts, more comprehensive monitoring, and passage to a broader variety of records and support (Psaros, 2009 and Williams et al., 2005).

Nevertheless, Tomasic et al. (2003) claimed that more miniature boards expect higher cohesion and hence, more convenient to the chief executive officer to control all directors. Zahra and Pearce (1989) affirmed that the CEO cannot manage a more extended board as their authority is more fabulous and the directors could counter the irrational choices offered by the CEO. Refractory to that, it seems to be comfortable for the CEO to manage more extensive boards as the latter might work poorly (Jensen, 1993). More extensive boards lower viscidness and are more assorted, but this heterogeneity promotes debate and results in a broad range of decisions with the members of the board (Dalton et al, 1999). Opposed to smaller boards, the more comprehensive boards obtain diverse views, higher precise talents and get higher knowledge regarding the corporation and the situation of the industry as a whole (Farhat, 2014). Coles et al. (2004) opined that corporations may be served by a bigger board, the upshots of the investigation showed that there is an assertive connection amid the size of the board and corporate financial success largely supported by Tobin's Q, a market-based measure. While investigating in the U.S banking industry Adams and Mehran (2005) witnessed a statistically meaningful assertive association between corporate financial success and the size of the board. Opposed to the above, more extensive boards can adversely influence company value because of the presence of the power expense amid the directors of bigger boards, but more miniature boards are efficient and can bust up corporate financial success (Sonnenfeld, 2002 and Lipton & Lorsch,

1992). An inquiry confirmed the above outcomes by assuming an adverse association amid considerable size of board and company value. Differently, Yermack (1996) indicated that a miniature corporate BOD is efficient in making resolutions as there is hardly any agency problem amongst its directors. Using Tobin's Q and managing heterogeneity of factors, such as industry, firm size, growth potentials, and insider stock ownership in a big sample of US companies during 1984-91, Yermack (1996) and observed a significant positive association amid more miniature boards and corporate value. Also, Eisenberg et al. (1998) obtained identical outcomes while studying a sample of Finnish corporations.

Casio (2004) analyzed an association amongst the board size and several organizational issues, especially, the association amid the size of the board and corporate financial success. Associated outcomes produced because both more miniature and larger BODs were operated efficiently. Dahya et al. (2002) examined an association amid the size of corporate boards and the turnover of leading executives based on achievement taking a large sample of publicly-traded UK companies from 1988-96 and found an adverse connection. Guest (2009) chosen a very big sample of publicly listed UK companies to explore the association amid the size of the BODs and corporate financial success using three distinct achievement criteria (corporate financial success in terms of ROI, return on equity, & Tobin's Q). The author observed an adverse influence of the size of the BODs on those achievement criteria. O'Connell and Cramer (2010) studied publicly-traded companies of Irish Capital Market and observed that the size of the BODs board has a notable adverse influence on corporate financial success.

A similar result was evident in the study of Conyon and Peck (1998) taking several samples from the UK, Hollands, Denmarks, Italy, and France. Their findings indicate that the relationship is an inverse one. The Majority of the investigations relating to the influence of the size of BODs on corporate performance are inverse (for example, Yermack, 1996 and Lipton & Lorsch, 1992).

A notable adverse influence on Tobin's Q (But not on ROI) for corporate performance in Switzerland was observed by Loderer and Peyer (2002). Several scholars, such as Haniffa & Hudaib (2006) and Mak & Kusandi (2005) studied on Malaysian companies and

observed a meaningful adverse influence of BODs size on Tobin's Q. Contrarily, Beiner et al. (2006) noticed a positive influence while applying a large collection of publicly-traded companies in Switzerland. The size of the corporate board size influenced the sales margin adversely, but not the profitability of big companies in Canadian. Conyon and Peck (1998) reviewed a large sample of publicly-traded corporations in the UK from 1992-95. They noticed a notable adverse influence of board size on corporate profit and book to market value. About UK companies, Lasfer (2004) also observed a meaningfully adverse influence on Tobin's Q. Another study of Darrat et al. (2010) found the low collapse rate of complicated and technologically advanced companies, which have more extended boards with a higher proportion of inside BODs. Similarly, Fich and Slezak's (2008) observed more large-scale, but inadequate sovereign BODs with a nominal percentage of external members and more substantial ownership tie-up of nonexecutive stockholders have a higher chance of failure.

Contrarily, Dalton et al. (1998) confirmed wider BODs are undoubtedly associated with corporate financial success and there is an assertive relationship amid the size of corporate board and corporate economic success. The association amid the size of the corporate board and corporate economic success is more powerful as it is modified by the company size. Comparable outcomes were also witnessed in a few inquiries in the USA, for instance, Guest (2009); Coles et al. (2008); Cheng et al. (2008); and Eisenberg et al. (1998). However, many pieces of research in the US setting noticed a positive impact of the size of the corporate board on corporate financial achievements, for example, Adams and Mehran (2005) and Dalton et al. (1999).

Boone et.al. (2007) and Linck et.al. (2006) confirmed that board members' experiences should align with the experiences needed for a corporation as it is assumed that there should be a suitable size of the BODs for all corporations concerning their circumstances. However, these findings are not supported everywhere. Factors leading to the size of corporate boards were investigated by Linck et al. (2008); Coles et al. (2008); Guest (2008); Boone et al. (2007) Lehn et al. (2004). They affirmed that there is an association amid the size of the BODs and the size of the company. A few substitutes, for instance, corporate gearing, company lifetime, and technical diversification have been applied as a

means of intricacy and noted to produce an assertive influence on the size of the BODs (Guest, 2008; Coles et al., 2008; Linck et al., 2008; and Boone et al., 2007). Thus, depending on the above findings it can be suggested that the size of the corporate board can affect corporate success. Indications are ample that big corporations depend largely on debt capital can produce higher corporate value owing to the emergence of more comprehensive BODs (Coles et al., 2008).

As argued before, numerous investigations unveiled some selective company variables, such as Tobin's Q, profitability, and company size customarily regulate the size of the BODS (for instance, Guest, 2008; Coles et al., 2008; Linck et al., 2008; Boone et al., 2007; and Lehn et al., 2004).

Though many researches confirmed that companies benefit from bigger BODs for direction, policy formulation, and resource mobilization, hard to accept whether the corporate financial success will grow due to more comprehensive or more modest BODs or precisely, what will be the appropriate size of the BODs, and whether large boards are more assorted and less united. Therefore, the adverse association amid the corporate financial success and the size of the BODs is well-founded all over the world.

2.5.1.2 Board Independence

It is an important internal corporate governance mechanism (Sharma, 2017) and cares for the proportion of external members in corporate boards to ensure the clarity and accountability in decision making because the appearance of external members in the corporate board help reduce information asymmetry created by the insiders to take some undue facilities. Agency theory suggests that the appointment of independent members in the corporate board can enhance corporate financial success (Ramdani and Witteloostuijn, 2010). Many prior pieces of research examined the impacts of board independence on company financial success and found mixed results. But it is thought that firms appoint outside directors to make the board more effective so that it could reduce the agency problem resulting from the opportunistic behavior of the agents (Ghabayen, 2012 and Goh et al, 2014).

(Desoky and Mousa, 2012a) examined the connection amid board independence and company financial achievement measured as return on assets, return on equity, Tobin's Q taking a sample of publicly-traded Egyptian corporations and found a meaningful assertive association amid board independence and corporate financial performance. Likewise, Khan and Awan (2012) investigated the association between the percentage of outside members on the BODs and company financial success taking a sample of publicly listed companies on the Karachi Stock exchange. The findings exhibited that BODs with a large number of external directors are certainly associated with corporate financial achievement.

Connell and Cramer (2010) measured the relationship amid the number of external directors on the corporate boards and corporate financial achievement of listed companies in Ireland. The findings exhibited an assertive association between board independence and corporate economic success. Besides, some past studies (Uadiale, 2010; Kyereboah et al., 2006; Weiback, 1988; and Kosnik, 1987) also identified an assertive association amid the number of independent directors in the corporate boards and corporate financial performance.

On the contrary, several previous studies have noticed that the corporate boards having a large number of outside directors cannot function well (Ghabayen, 2012; Bhagat & Black, 2002; and Brickley et al., 1997). Kiel and Nicholson (2003) studied the association amid board independence and corporate economic achievement taking a large sample of Australian corporations and found a negative association. Furthermore, Hermalin and Weisbach (1991) observed no relationship between board independence and corporate economic achievement measured as ROA and ROE. However, the company with more independent members on the board does not indicate enhanced firm performance which requires monitoring over the activities of independent directors to bring positive value for shareholders. Moreover, they emphasized an excellent combination of executives and non-executive directors to pursue shareholders' interests. Non-executive directors are not full-time employees as is found in the case of executive directors who involves in the day-to-day operation of the organization. Hence the purpose of a non-executive director is to monitor the affairs of the corporation and the activities of executive directors. They also concluded in their study that the appearance of independent members on the corporate

board positively influences company financial achievement, and if no association or negative relationship is found with corporate economic success, the effectiveness of such self-governing members on the board is then subjected to question.

Rashid (2017) explored the position of self-governing members on corporate financial success taking 135 listed Bangladeshi companies as the sample. The findings revealed that the freedom of the corporate board is adversely connected with corporate financial success. Companies in Bangladesh are found with concentrated ownership, which poses some problems in assuring board independence as persons appointed as independent directors are either from the corporate family-based link or as payback of earlier favor. Hence, most independent directors are patrons of the governing family. In this context, board sovereignty is very hard to attain in Bangladesh, and thus the BODs waste the monitoring capacity over the affairs of the management. So, the relation amid board sovereignty and company financial achievement may be negative in developing economies. As board independence is not suitable enough to control the affairs of management in emerging economies, poor or inverse outcomes may be the results, and thus good performing companies may not appoint the required number of independent directors to achieve legitimacy or may remain noncompliant though badly operating corporations might lead to increasing the number of self-governing directors into the board as an attempt to enhance financial success (Bhagat & Black, 2002).

Earlier studies assert that good performing companies may appoint independent members on the board for legislative or other purposes (Prevost, Rao & Hossain, 2002), and badly functioning companies need autonomous members on the board to enhance corporate financial success (Bhagat & Black, 2002). Hence, to avoid endogeneity problems (problems in the independent variables as these tell different stories based on the firm categories), cross-sectional research may misrepresent the results (Hermalin & Weishbach, 2003). So, using the simultaneous equation approach may win endogeneity problems (Prevost et al., 2002).

Jamali et al. (2008) noted that the confluence of CG devices may be due to the obligations resulting from globalization or local environmental shifts in the corporate houses, but, the legislative provision to take self-governing members into the BODs should not be

combined with the qualification and skills of those members and the circumstances that produce them sovereign in other advanced economies. (Sobhan and Werner, 2003) noted that most independent directors are appointed with the hope that they will support the corporation getting the permissions or as compensation of earlier favor, and as such, when requiring expert opinion they depend on outside consultants or advisors. Usually, a board having a widespread representation of self-governing members seems to have independence is one aspect of agency theory, but the ability and willingness of the board to observe responsibly a firm signify real freedom (Dalton and Dalton, 2011).

The corporate sector in Bangladesh deviates prominently from advanced countries because of scattered stock holding, and companies appoint managers based the professional expertise, many of whom do not have managerial talents and ownership stake in the company. More revealing is that executives are appointed from the dominant/ controlling shareholder families or representatives of them in some way. As the executives have an ownership stake in the company, they can exercise significant control over the board (Rashid, 2015).

BSEC, a regulatory body, issued the Corporate Governance Notification (CGN) on comply or explain basis in 2006. It is also recognized as the CG Code of Best Practices, which acts as a guideline for the companies in Bangladesh to use sound CG systems. The CGN requires listed companies to select sovereign members in the ratio of 1:10 in line with the Anglo-American-style. The CGN has been updated in 2012 as a mandatory provision where it requires listed companies to select sovereign members in the ratio of 1:5. It can be mentioned here that the CG devices serve properly in Anglo-American countries as the jurisdiction of those countries profoundly relies on the clarity of enforcement of laws to protect shareholder's claims (Asian Development Bank, 2000) which, in opposition, found less effective in emerging economies like Bangladesh as important institutional capabilities have little capability to exert pressures on companies to ensure compliance (Rashid 2011). In Bangladesh, no guidelines concerning the duties and obligations of corporate board members are included in the Companies Act, 1994.

But, CG study presents a definite relationship amid the share of external directors and corporate economic achievement (for instance, Faleye et al., 2011). Baysinger and Butler (1985) studied a representative number of large US corporations from 1970-80 and found variations in economic achievement as a function of the board composition of those corporations. The outcomes imply that the share of sovereign external members on the board may have an assertive lagged influence on the normal yield on investment of the corporation related to the average income of the industry. These outcomes confirm that companies having increased sovereign outside members on their BODs at the commencement period experienced more excellent economic success in the late 1970s than other companies with weaker outside directors.

Different investigations have recommended that companies might offer more damaging performance with a higher number of sovereign members. For example, Yermack (1996) reports an adverse relationship amid the number of sovereign members on the board and Tobin's Q of the same period. While using other devices, for instance, operating income to sales or assets, and sales to assets, the researcher observed an insignificant relationship. The number of sovereign members on the board is an in-house appraisal that expects to influence company value positively (Agrawal and Knoeber, 1996), though the outcome was contrary to the expectation and the researchers did not disclose the achieved outcome. Weisbach (1988) considered the influence of the structure of the corporate board on the connection amid low-performing companies and the turnover of Chief Executive Officer. He observed that companies with sovereign outside members controlling boards are expected to replace the Chief Executive Officer based on corporate financial performance, held by return on equity and differences in earnings before interest and taxes than companies with insiders controlling BODs. Thus, sovereign BODs are expected to connect with corporate performance when it comes to salary and turnover of Chief Executive Officer (Dahya et al., 2002). Rosenstein and Wyatt (1990) infer that the capital market responds confidently and provides outstanding profits owing to the selection of independent members on the board. But, there is hardly any proof that sovereign members increase the corporate value or profitability, even the relationship might be adverse (Kaplan and Minton, 1994).

Diverse reasons have been presented to explain why an improvement in sovereignty on the BODs failed to ensure an increase in corporate performance. The presence of inside members on the board may increase the corporate value. Optimal BODs composed of insiders, sovereign and affiliated members can improve the board with diverse talents and expertise (Baysinger and Butler, 1985).

Vafeas (2003) studied the association amid nonexecutive directors' sovereignty and length of the tenure of boards. They recommend that nonexecutive members, those who served for a prolonged time habitually more than two decades lead to relaxed autonomy as they have a large stake in corporate equity. Moreover, nonexecutive directors become members on the board committees either nomination or remuneration committees. Cotter and Silvester (2003) investigated a sample of listed Australian companies and observed a connection amid entire board sovereignty, principal stockholders and a managerial stake in equity. The researchers noticed that the freedom is huge if there is a lack of dominant stockholders and weak administration. Ryan and Wiggins (2004) observed influential managers and ineffective boards direct towards useless procedures for management remuneration.

Brickley et al. (1994) examined the influence of external board members concerning the choice of takeover resistance. The study investigated the choice of poison pills takeover of many publicly listed US companies from 1984 to 1986. The assumption that the proportion of external directors on the board might reduce the chance of practicing poison pills if external directors serve the interest of stockholders. Another remarkable observation was that if the outside directors represent the majority of the board, then the return on the stock in the two-day around the publication of choosing the poison pills was positive. If the number of external directors was less than half of the board, then the opposite is witnessed.

ICAEW considered freedom as guidelines for the corporate board members in the United Kingdom and the United States in 2007. The principles set in the UK Corporate Governance Code, formerly known as the combined code, and the Sarbanes-Oxley Act of 2002 in the US founded originally on freedom in the face. Moreover, the study emphasized issues relating to freedom that could influence corporate actions. It is believed that the

improvement in the mobility of the corporate boardroom and objective decision-making and the usefulness of corporate board is adequately achieved with independent management. Nonetheless, board authority might have a harmful impact with huge stress on board independence. Thus the corporate boards in the USA are expected to perform a more effective controlling role because of the twofold board arrangement as against the UK boards where the CEO does not have a dual role as the board chairman. The aforementioned view is endorsed by the UK data relating to the influence of external directors on both corporate financial success (Vafeas and Theodorou, 1998) and different supervising duties (Franks et al, 2001). While, the appearance of nonexecutive directors gives corporate boards larger freedom in their choices and takes higher experiences, talents, wisdom, and industry connections (Baranchuk & Dybvig, 2009 ; and Haniffa & Hudaib, 2006). A large number of nonexecutive directors on corporate boards is related to the comfortable entry to information needed to produce reliable and quality choices that could surely transform corporate success (Nicholson and Kiel, 2007).

2.5.1.3 Audit Committee Size

The corporate audit committee is the presence of a board subcommittee comprising of a large number of nonexecutive or independent members accountable for facilitating and controlling accounting and auditing exercises (Cadbury Committee, 1992 and Collier 1992). There is enhanced pressure that corporate audit committees should be formed with independent nonexecutive directors only following a series of corporate collapse from 2001-08. The Combined Code 2003 affirms that an Audit Committee to establish by the corporate board with no fewer than 3 (three) members or 2 (two) members for smaller corporations and all of them must be nonexecutive independent directors. BODs must convince themselves that a minimum one member of that Committee holds up-to-date accounting and auditing knowledge.

The agency theory suggested some CG mechanisms to reduce agency costs associated with the detachment of ownership from control (Jensen and Meckling, 1976). Cadbury Report (1992) and succeeding changes following the agency model confirm that the audit committee concept has been introduced as a control mechanism to supports and advocates stockholders' interest. The interest of shareholders in achieved/ protected by strengthening

responsibility and improving corporate financial administration (Cadbury, 1992). From the viewpoint of the agency hypothesis, audit committees perform their monitoring functions efficiently if they are free from management control and the audit committees have the adequate accounting, monetary and professional experience, and effectively regulate the internal control systems and financial reporting and disclosure (Carcello et.al., 2006). Rainsbury et al. (2008) point out that the agency enigmas linked to moral hazard and adverse selection is expected to reduce with the presence of an audit committee as the expectation is too big from audit committees in implementing the CG mechanisms suitably (Rezaee, 2009), prudence is added to reduce such expectations (Turley & Zaman, 2007 and Spira, 2002). Moreover, the failure of Enron and WorldCom, and the lowering of the world economy modified those assumptions on the effectiveness audit committees, now the activities rely on various factors, which are not held in their authority (Kalbers and Forgarty, 1993). Nonetheless, Zhang et al. (2007) affirmed that corporate audit committees are acknowledged as an important CG device that is suggested to improve responsibility, clarity, and the quality of corporate financial reporting.

The structure and quality of board subcommittees compel executives to be responsible to perform corporate tasks efficiently, as affirmed by Vafeas (1999). Wild (1994) in his study on the nature of managerial answerability to stockholders before and after the formation of audit committees in the United States and fund that the share price responded positively to earning per share announced following the establishment of the independent audit committee. Contrarily, Klein (1998) reviewed whether there is any relationship amid the audit committee and board features with earnings management in the US corporations, and they observed no influence of a set of accounting and market measures with the proximity of an audit committee. Also, there is a shortage of proof to uphold the investigations and comments on the composition of board subcommittees (Vafeas and Theodorou, 1998). Vafeas and Theodorou (1998) examined the relationship amid audit committees and corporate financial success applying the market to book ratio of total assets and observed no connection amid the corporate financial success and structures of audit committees and also noticed that the share of nonexecutive members on corporate board does not have any association with corporate financial achievement.

Bedard and Gendron (2010) revisited a good number of prior researches on the formation, independence, and structure of audit committees and recognized their objectives, theoretical aspects, data assembling methods, and country context, and saw most of the studies concentrated on judging audit committee performance using quantitative data and presented a positive relationship with its efficiency.

There are some doubts about the usefulness of audit committees in developing corporate financial reporting standards, though the CG code in Bangladesh requires all public listed companies to select an audit committee. But, Ghafran and O'Sullivan (2013) evaluated current experimental studies venturing to examine various features relating to governance functions of audit committees. Proof on the capital market response to audit committee matters implies that shareholders and bondholders greet the appearance of audit committees and respond confidently if members are equipped with suitable knowledge and talent. Evidence is available that corporate regulators assume that frequent meetings of the audit committee means that the committees are functioning their responsibilities efficiently to suppress agency dilemmas (Raghunandan and Rama, 2007). Besides, the appearance of an audit committee is expected to connect with better financial reporting and disclosure plans (Beasley et al., 2009 and McDaniel et al., 2002).

2.5.1.4 Female Directorship

Board gender diversity refers to the share of women board members to the total board of directors. Gender diversity is a matter that has drawn attention from nearly all sectors and organizations be it private or public organizations. Universities admissions and parliament representation have also not been forgiven from the call for gender diversity requiring females to be given equal opportunities as their male counterparts. The call for female representation has also joined the boardroom in which companies are required to include females on their boards (Kılıc & Kuzey, 2016). It is thought that female board members can make diversity and new ideas to the board that can result in better financial performance of companies (Julizaerma & Sori, 2012).

Heterogeneity might push innovation and change. Most of the corporate boards are comprised of men members only. Now there is robust evidence of women members on the corporate board to obtain diverse opinions that might improve corporate financial success. Many studies have empirically investigated the influence of female directorship. Erhardt et al. (2003) explored the association amid demographic heterogeneity of corporate boards (the percentage of women as compared to men on boards) and corporate performance and observed that corporate performance is positively affiliated with board diversity. Using a sample of US companies, Carter et al. (2003) noted that board heterogeneity is related to enhance the financial performance. Taking a large sample of banks from Germany, France, Italy, Spain, the Netherlands, Sweden, Canada, the UK, and the USA, García-Meca et al. (2015) confirmed that gender diversity improves corporate financial performance. Besides, Hutchinson et al. (2015) noticed that there is a positive association between gender variations in corporate board and corporate financial performance. Contrarily, Rose (2007) did not get a significant relationship between women members on corporate boards and corporate financial performance of publicly traded companies in Denmark.

2.5.1.5 CEO duality

Executives can perform their duties more efficiently, and the board can control managers to accomplish corporate goals if management is separated from the board based on the agency hypothesis (Faleye, 2011). Thus the CEO and chairman positions are to be taken by separate persons to attain corporate goals by impartial and effective board decisions (Fama and Jensen, l983). Many studies confirmed that companies with the separate chairman and CEO positions could perform sound CG than companies with the CEO/ chairman duality (Finkelstein and Daveni, 1994). Boyd (1995) insisted that corporate financial performance is adversely related to the CEO/chairman duality. Also, Kula (2005) researched on a large sample of unlisted small firms in Turkey and stated that if the Chairman's job is separated from that of the GM, then corporate performance will improve. Kiel and Nicholson (2003) observed an adversarial connection while investigating the association between CEO/ chairman duality and corporate financial success in Australia. Lately, there is a growth in laws globally that demonstrate a necessity for separating the offices of the Chairman and CEO to ensure a fewer amount of corporate failure (Fan, 2004). Some recent inquiries have

reinforced that there are poor or no relationships amid CEO duality and corporate financial success (Shukeri et al., 2012; Yusoff & Alhaji, 2012; Lam & Lee, 2008; and Ho, 2005). Following the Cadbury Report, the detachment of the roles of chief executive officer and board chairman is an important element of CG reforms in the United Kingdom, the United States, and many advanced economies. Given the significance of the functions of the chairman, it is better to separate his functions from the functions of the CEO (Cadbury Report, 1992). It represents a significant consolidation of power when both these functions are united in one frame. The Cadbury Report supported the detachment amid the functions of the board chairman and chief executive officer to guarantee a balance of authority.

In the board discussions and decisions, the chief executive officer/ chairman duality has lately become a common problem. Jensen (1993) stated that the position of the chief executive officer should be secluded from the chairman for the board to be effective. The author opined that as the CEO provides information to the board and prepares the agenda in consultation with the Chairman, the CEO/ chairman duality may cause information asymmetry. Ogbechie et al. (2009); Sanda et al. (2003); and Bhagat & Black (2002) confirmed that companies are more valuable when the offices of the chief executive officer and board chairman are separated.

Conflicting findings are also evident. The agency problem is dropped amid the chief executive officer and board chairman if the same person keeps both positions simultaneously (Alexander et al, 1993).

Dahya et al. (2009b) reviewed the effect of dividing the functions of the chief executive officer and board chairman on corporate financial performance in a large sample of companies in the United Kingdom from 1986-97 and observed that splitting the united statuses of the chief executive officer and board chairman does not encounter complete progress in corporate success. Dahya, Garcia & Bommel (2009b) noticed no difference in corporate financial achievement between the united functions of the chief executive officer and board chairman, and other companies that divide the functions within the two positions.

Coles and Hesterly (2000) demonstrate that both detachment and duality of the chief executive officer and board chairman do not have any influence on corporate financial achievement and the connections rely on the structure of the board. Also, another research observed no influence due to the detachment of functions of the chief executive officer and board chairman on corporate financial performance (Conyon and Murphy, 2000). Using a sample of big US corporations, Brickley et al. (1997) explore the issues relating to CEO duality and found that corporate accounting performance is not associated with either the two positions are divided into the corporations or not. Similarly, Boyd (1995) observed no grounds to suggest that CEO duality damages stockholder wealth in the context of US corporations. Cosh and Hughes (1997), in their research on a sample of the big UK corporations, noted that the shareholder wealth declined sharply for corporations that merged both the roles.

Cadbury Committee compliance survey outcomes have been published by Dedman (2002). He found that in the biggest 500 corporations, the reports showed higher than 80 percent of corporations have the detachment of chief executive officer and chairman, and even, more than 70 percent of small corporations in terms of market capitalization have divided the roles of the two positions.

Research on Times best 1000 corporations in 1998 noticed that about three- fourths the interviewees separated the role of the CEO and board chair (Conyon, 1994). Dedman (2002) studied 300 nonfinancial corporations of the FTSE All-Share Index from 1989 to 1995 and located that there is an increase from 68 percent to 86 percent during 1989-94 in respect of the division of both the positions of CEO and chairman. Conyon and Peck (1998) examined the association amid executive remuneration and corporate performance and found no indication that corporations with CEO duality are giving unreasonable compensation. Usually, there is a notable improvement inside the corporations that comply with the CG codes of best practice relating to CEO duality, as the bulk of stock exchange-listed corporations divided the positions of the chief executive officer and board chairman.

2.5.1.6 Ownership Concentration

The sixth internal CG device is the concentration of ownership that shows the portion of ordinary shares owned by corporate board members based on the DSE shareholding pattern. It is an internal CG device as it dominates shareholders' participation in the corporate board and improves the monitoring ability of the company and hence reduces the agency conflicts (Jensen and Mackling, 1976). La Porta et al. (199) noted that company ownership structure in many states show concentrated ownership pattern where a controlling shareholder holds over 20 to 30 percent of the entity's outstanding share. It is noticed that the intense ownership and the power of dominant shareholdings are the standards of CG throughout the world. Substantial shareholdings may be the alternative means of lessening agency costs (La Porta et al., 1999) because a dominant shareholder might be motivated to control the management affairs, and hence reduce agency problems. Moreover, the appearance of big stockholders in the company may create pressure on managers as they have high economic incentives and sufficient voting power, which allows them to monitor management affairs. So, the presence of large stockholders will produce a positive influence on company value as they develop effective devices to control managers (Grossman and Hart, 1980). However, the excess use of power by controlling stockholders to benefit them might be harmful to the minority stockholders (Shleifer and Vishny, 1997). Hossain and Rahman, (2013) stated that the companies in Bangladesh are found to be concentrated ownership or dominated by large stockholders like a group of companies or the state. The management of companies is nothing but the expansion of powerful owners that result in board chairman, CEO, and administrative directors from the governing group in most Bangladeshi companies. It is reported in the study (Farooque et al., 2008) that the topmost five stockholders own over half of a company’s outstanding share. Imam & Malik (2007) stated that on average, one- third of the total shares held by the topmost three stockholders of 219 publicly traded companies from 12 sectors of the DSE. This portion becomes larger in engineering, textile, real estate, fuel & power, and pharmaceutical. Another study confirmed that firms in Bangladesh are not willing to come to the stock market to raise funds if they require as they fear losing control over the company (Haque et al., 2006). Hossain and Rahman (2013) mentioned that the uppermost

five and top ten stockholders own half and three-fourths of total outstanding shares respectively, while the highest or leading shareholder holds about one-fourth of the company's equity where the industrial sector is relatively higher than the banks and insurance companies. The concentration of ownership to a small group will positively influence a firm's value in Bangladesh as they have more incentive to control the activities of management, and hence reducing agency costs (Hossain and Rahman, 2013). The bi-directional association amid the extensive ownership concentration and company value confirms the necessity of the role of the founder family or the top-1 shareholder in Bangladesh.

Berle and Means (1932) observed an assertive relationship amid corporate financial performance and concentration of corporate ownership, though some other studies revealed an absence of relationship within the two variables (Singh & Gaur, 2009 and Demsetz and Lehn, 1985). Nonetheless, Shleifer and Vishny (1997) stated that concentrated ownership along with legitimate safety forms one of the two principal constituents advancing CG. Thus the big stockholders could give support to atomistic stockholders as they extend power and inspiration to stop executives from confiscation of assets. Thus the concentration of ownership is a critical factor promoting more useful CG as suggested in the agency theory (Omran, 2009; Siala et al., 2009). But, a high level of ownership consolidation provides a chance to control dominant stockholders and executives by warranting that minority stockholders are not associated with expropriation (Obiyo & Lenee, 2011 and Bolbol et al., 2003).

Regarding the critical review performed earlier on agency hypothesis, experimental data, and resource dependency hypothesis, no judgment has until arrived about the relationship amid the consolidation of ownership and corporate financial performance. Nonetheless, Shleifer and Vishney (1997) stated that financial performance is undoubtedly linked to a specific level of ownership concentration because of the fabulous inspiration for a wider assembly of stakeholders. Soliman (2012) announced comparable outcomes while confirming a strong relationship amid substantial stockholders and company value.

La Porta et al. (1999) studied 28 emerging economies and observed corporate ownership compositions remain unfamiliar to a large extent to minority stockholders. Moreover, Claessens et al. (2000) studied a large sample of corporations in Asia and the Middle East and observed that around 65 percent of the sample companies are controlling by a large shareholder. La Porta (1999) affirmed that ownership concentration is higher in Asian countries than in European countries.

In brief, the main components of governance are discussed in the literature review section. Several potential circumstances influencing corporate financial achievement have been discussed and the problem has referenced separate expectations regarding CG.

A large congregation of stocks leads to generate more increased stress on executives to act in different styles to maximize value. While depending the discussion, Shleifer and Vishny (1997); Gorton and Schmid (1996); Wruck (1989); and Morck et al. (1988) confirmed that an expansion in ownership concentration is associated with an improvement in corporate value, but beyond a particular level of application, the relationship may be adverse.

2.5.2 External Corporate Governance Mechanisms

2.5.2.1 Institutional Ownership

One of the external corporate governance mechanisms is institutional ownership that shows the proportion of equity shares held by other organizations such as banks and insurance companies based on the shareholding pattern of the DSE (Sharma, 2017). Institutions are arguably the most powerful group of investors. Both large and small firms are now, more often than not, the majority group of investors. Jensen and Meckling (1976) confirm that ownerships by various groups have diverse influences on corporate financial achievement.

Chen (2004) showed high leverage ratios in companies symbolize a red flag about the future financial problems. Therefore, institutional investors prefer companies that have a low leverage ratio. Butt and Hasan (2009) also noted that major shareholders have a negative and significant relationship with debt-to-equity ratio. Some other researchers in

different countries have observed the same results (Ganguli, 2013 and Céspedes et al., 2010). Asadi et al. (2011) revealed a notable adverse relationship amid ownership composition and capital structure in the Iranian context.

However, field-level data in Bangladesh setting reveals a different scenario, where institutional investors are not risk-averse, rather risk lovers. For example, ACI Ltd, Apex Footwear Ltd, Beximco Pharmaceuticals Ltd, Summit Power Ltd., BSRM Steel Mills Ltd, Monno Ceramic Industries Ltd, and a lot of other companies have high leverage, but a noticeable portion of their shares are held by institutional investors, even in some cases debt is many times higher than equity. So, it is wise to examine whether institutional investors in Bangladesh have a positive relationship with financial leverage as opposed to the literature.

Mohanty (2003) noted that institutional investors prefer to invest in better-governed firms. Sarkar and Sarkar (2012) found that the block holders (such as foreign and domestic institutions) are likely to involve in relational investing that benefits the firm in the long run.

Institutional investment is undoubtedly connected to corporate financial achievement that helps corporations to use sound CG devices and preserve the benefits of the stockholders (Tahir, 2015; Tornyeva and Wereko, 2012; Chen et al., 2008; and Cornett et al., 2007). Besides, many types of shareholders influence corporate financial performance in many ways. The ownership of organizational shareholders is classified into governmental, non-governmental, local, international, and financial institutions such as banks, insurance companies, venture capital funds, mutual funds, etc. Government and corporate ownerships have a meaningful adverse relationship with corporate financial achievement. However, corporate financial performance is positively associated with securities investment trust funds (Lee and Chuang, 2009). Fauzi and Musallam (2015) observed that the ownership of government finance firms is positively associated with corporate financial performance. This situation suggests that government-linked ownership improves corporate financial success. Thanatawee (2014) indicated that ownership by local institutional investors is positively associated with company value, while more leading

international institutional ownership is related to weaker firm value. Hence the existing research confirms that the higher institutional ownership, the better the corporate performance and value.

2.5.2.2 Financial Leverage

Financial leverage is an external corporate governance mechanism estimated as the proportion of assets to debt. (Rashid, 2017) noted that the choice of debt relies upon the independence of directors as some independent directors may have good links with banks and financial institutions or money providers require their spokespersons into the board structure as controlling agents in their favor. Besides, capital suppliers may create pressure to raise the number of independent members into the corporate board structure to enhance monitoring ability (Leftwich, Watts & Zimmerman, 1981). Thus a positive correlation is obvious amid the presence of independent members into the corporate board.

Modigliani-Miller (MM) proposes a capital structure theory, which portrays that a firm's value remains the same irrespective of the capital structure decisions in the absence of bankruptcy cost, transaction cost, and information asymmetry or taxes. This theory works in the environment of perfect capital market assumptions, which is almost absent in the real world. To eliminate the gap of MM theory, three influential theories expressly the trade-off hypothesis, peeking order hypothesis, and agency hypothesis have evolved. These theories explain the efficacy of utilizing internal funds (profits) and external funds (debt and equity) in corporate financing. The trade-off theory (Detthamrong et al., 2017), explained that companies seek an optimal level of debt into their capital structure that results from a balance of the interest tax benefit and the expense of expected financial crisis that grows with more debt funding. The pecking order theory recommends using internal funds instead of external funds and secured rather than unsecured securities (Mukhopadhyay & Chakraborty, 2017) according to the financing affiliated ranking. Agency theory proposed for an optimal capital structure that may be decided by segregating costs arising from agency problems between shareholders on one side and among shareholders and managers on the other (Shukeri et al., 2012).

The agency hypothesis holds that financial leverage is decided by agency costs arising from the struggles between principals and agents (Fama and Miller, 1972; Jensen and Meckling, 1976).

Agency conflicts arising due to the detachment between agents and shareholders can be alleviated in several ways through managing financial leverage into the corporate capital structure: First, by raising managerial ownership or by enhancing the share debt capital into the capital structure either by reducing the equity ownership or by broadening the portion of managerial equity ownership. Second, the use of debt capital to equity capital intensifies the risks of insolvency and gives signals to fight against the likely hazards connected to the insolvency cost (Grossman and Hart, 1982). Finally, debt in the capital structure produces a responsibility in the form of interest payments that assist to fix the free cash flow difficulty (Jensen, 1986).

Executives might be induced to choose a suboptimal level of leverage as it imposes restrictions on their discretion. If this happens, it will reduce shareholders' wealth as well as increase agency costs. The sub-optimal level of leverage means low or high leverage. The low the leverage, the low would be the bankruptcy cost and interest payment obligation (creates free-rider cash flow rights to managers). The high the level of leverage, the high would be the bankruptcy cost and interest payment obligation (may create cash flow problem). The use of a sub-optimal level of leverage raises a question about the power of CG as it is created to fight agency disputes and reduce agency costs.

Jiroporn et al. (2011) observed companies with weaker CG are more vulnerable to higher leverage. It can be argued that the role of debt capital is to reduce agency costs where larger leverage is substituted by more vulnerable governance devices to alleviate agency problems as posited by the substitution theory. Initially introduced by La Porta et al. (2000), the propositions of substitute theory portrays that the companies having ineffective CG mechanisms require to increase funds on conquering terms and build reliability with the signals in the market that shareholders wealth will not be expropriated. Hence the use of more debt could be the means to do so as it forces interest payments that reduce expropriation. So, the more vulnerable the corporate CG, the powerful the demand for

reliability devices and the higher the debt the company could take. Jensen (1986) opined debt outlines managerial duty to repay to lenders, and thus it assists managers to win the free-cash-flow difficulty. The risk of insolvency increases due to hold back payment of debt interest with debt capital, and as such managers apprehend possible deterioration of their respects. Consequently, managers are expected to perform harder and attempt to enhance corporate financial prosperity through higher profitability.

The impact of loan capital on corporate financial achievement is assorted as shown in many experimental examinations. Some inquiries, for example, Javed and Iqbal (2007); Al-khouri (2006); Dahya & McConnel (2005a); and Beiner et al. (2003) observed an assertive association amid corporate financial performance and debt to equity ratio. The researchers revealed that companies can practice a debt to equity plan as a useful device to mitigate disagreement between stockholders and bondholders and improve corporate performance. But, many past studies, such as Aljifri & Moustafe (2007); Haniffa & Hudaib (2006); Weir et al. (2002); Bohren & Odegaard (2001); Keasey (1999); and McConnell & Serveas (1995) observed a meaningful adverse association amid corporate financial achievement and ratio of debt to equity. So, loan fund forces more significant insolvency costs or debt agency costs. It also leads to greater corporate financial performance for many reasons.

For instance, the loan capital can set a boundary on managerial wrongdoing and reduce the agency conflict between stockholders and executives because it decreases the opportunistic nature of management (Jensen and Meckling, 1976). Loan capital may be practiced for signaling companies to repay lenders from the cash-flows, thus it assists to defeat free-cash-flow concerns (Jensen, 1986). Lastly, loan capital enhances the insolvency risk that can hurt the trustworthiness of corporate management, and the corporate managers will probably work hard to enhance corporate financial performance and profitability.

2.5.2.3 Regulatory Guidelines

The regulatory body performs a crucial role in influencing corporate financial achievement, and in minimizing the adverse impact of financial trouble in the economy that assists companies to survive for long (Erkens et al., 2012; Tam & Tan 2007; Beiner et

al., 2004; and Zhuang et al., 2000). Researches on CG and firm value were done in developing and developed economies. Many researchers studied on corporate governance, for example, Al-Malkawi et al. (2014); Francis et al. (2013); Claessens and Yurtoglu (2013); Morey et al. (2009); Kyereboah-Coleman and Biekpe (2006); Black et al. (2006a); Leng and Mansor (2005); Nenova (2003); and Black (2000).

Corporate regulations originated from various springs, such as Company Acts, Bankruptcy Acts, IAS & IFRS, and provision for corporate disclosure. Contemporary studies on CG imply that the scope of the statutory security of investors in a country is an essential determinant of the expansion of financial markets. La Porta et al. (2000) observed that shareholders and creditors' defense are not only essential to prevent confiscation by management or dominating stockholders within the legal arrangement. It is also necessary to know the heterogeneity in corporate ownership arrangement and the effectiveness in investment allocation.

La Porta et al. (2002) found proof of more expensive appraisal using Tobin's Q, of publicly traded companies in 27 affluent nations with the larger shelter of minority stockholders. The data indirectly showed the adverse consequences of expropriation of minority shareholders by dominating stockholders in various countries and the role of the law to limit such expropriation.

2.5.3 Firm-level Control Variables

Besides the explanatory variables, several control variables that were noted earlier in ascertaining corporate financial performance are included in this study. Company age and company size have been taken as two control variables for the present study to review their potential influences on corporate financial success. These variables were used in many studies while examining the association amid corporate financial performance and CG devices. Demsetz and Lehn (1985) suggested that governance features may vary, based on company size, and (Shivdasani, 1993) company age.

2.5.3.1 Firm Age

Aging leads to a decline in the performance of living organisms. A common problem that arises is whether firms that see a drop in their capacity to struggle as they get older (Loderer and Waelchli, 2010). Indeed, the issue of financial performance is different between younger and more experienced firms is a field of research that draws a great deal of attention amid scholars from wide range disciplines including economics, organizational studies, and finance. But, the research area has not reached maturity yet due to the ambiguity of existing theories and empirical findings. One reason for this fact is the inadequacy of information on company age in organizational data sets or surveys (Coad et al., 2013). It is also likely that a firm age-performance relationship depends on many institutional factors and is thus country-specific (Majumdar, 1997).

Experience and learning is a function of duration a firm had been in the same or related businesses. For listed firms, the relevant duration is period since incorporation or since listing. Firm's age uniqueness shapes managers' risks and decision-making dispositions respectively especially under conditions of uncertainty, and fast-paced change. Invariably research and development spending, decisions on new project investments, human resources development, and ultimately future performance are affected by age-related factors. An assumption in this work is that the uniqueness of firm age affects resource capabilities and recklessly limits the return on investments over time. This is a critical factor in the attainment of sustainable development as only profitable firms would be allowed to exhibit attentiveness, protect the environment, and use resources from it mindful of the needs of the future. While experienced companies may develop time proved ability to give entry barrier new to players and defend first-mover benefit, new companies get benefits since they do not clobber with untradeable resources. Inactivity develops with aging and it is expected that older firms would incur more overheads and show expensive CG devices (large board sizes). In this study, the company age has been determined by deducting year of incorporation from each subsequent year of the study.

2.5.3.2 Firm Size

Short and Keasey (1999) showed that company size can influence corporate financial performance in two ways, firstly big companies can produce capital internally and become open to outside sources of money that can promote any investment in productive schemes. Secondly, big companies can remove impediments to enhance their financial performance. Black, Jang, and Kim (2006) argued that the supervision and administration of big companies are too hard and they require quality CG devices. Managers in large companies have greater discretion as their agency costs are more visible that drives more expensive supervision (Jensen & Meckling, 1976). But, miniature companies must have more inexpensive supervision costs and a more modest comparable stake in inner control devices (exposure and data arrangements). Thirdly company size has a connection with CG devices, for instance, company size influences its compensation plans. Evidence from Gaver and Gaver (1993) present a meaningful assertive relationship amid company size and the volume of managerial remuneration. But Jensen and Murphy (1990) showed that the chief executive officers of big companies achieve more concise pay based stimuli than the chief executive officers in small companies.

The experimental literature reveals that company size is a significant variable around the features of the BODs. Board size and the number of external directors have a meaningful positive association, however, CEO/ chairman duality is adversely associated (Hossain et al., 2001). Using the Australian setting Welch (2003) examined the association between ownership composition and company size and noticed an adverse association. The outcome of the study confirms that companies can reduce the consolidation of ownership when they grow bigger, then stockholders might offer an added investment to have a large shareholding. He also observed a negative association amid company size and company financial performance measured by Tobin's Q.

In several experimental works total assets, total sales, market value, and the number of employees were used to measure company size. But, there is a lack of agreement in the literature on how to measure company size. Many researchers applied total assets as the proxy of company size, for instance, Khatap et al. (2011) ; Saliha & Abdessatar (2011);

Chen and Chang (2010) ; Chu (2009); Bhagat & Bolton (2008); Haniffa & Hudaib (2006); Mura (2006); Santalo & Diestre (2006); Padron (2005), Barontini & Caprio (2005); Deesomsak, (2004), Moeller et al.(2004); Gönenç & Arslan (2003); Carter et al. (2003); Blokdijk et al. (2003); Wiwattanakantang (2001); Harford (1999); Comment and Schwert (1995); Hermalin & Weisbach (1991); McConnell and Servaes (1990); Friend and Lang (1988); Morck et al. (1988); and Demsetz & Lehn (1985). The principal purpose of taking total assets as a measure of company size in the present study is that the outcomes will be similar to the preceding researches.

2.6 Descriptions of Dependent Variables: Tobin's Q and ROA

The association amid corporate financial performance and CG devices was the center of an enormous amount of experimental studies. Both market-based and accounting-based measures of corporate performance have been used in several works. Coles et al. (2004); Hayes et al. (2004); Cotter & Silvester (2003); Booth & Deli (1996); and Yermack (1996) have applied the price to book ratio, i. e. P/ B ratio (Tobin's Q) as a means of corporate performance. Though those investigations have practiced the P/B ratio that is the traditional model, the computation is implemented independently in those investigations, for example, Yermak (1996) has adopted market/ fair value divided by the replacement value of assets, but Booth and Deli have studied total assets' value as its denominator in their estimation. Consequently, those two investigations have taken comparable samples; the corporate performance is distinctive because of the choice of predictions where the value of assets, issues of identification, and evaluation of the Q elements, and systems of estimation are different.

2.6.1 Tobin's Q

Tobin initially introduced the market measure Tobin's Q in 1969 (Farhat, 2014). Subsequently, many papers have added to the improvement of that measure, for example, Perfect and Wiles (1994) examine the five estimators of Q, using their conclusions into account Chung and Pruitt (1994) published the computational difficulty in determining Q following Lindenberg and Ross (1981). They replaced the estimation of Q and clarified it holding that the replacement costs of assets like machinery, inventories, and plants are

similar to their book values. They checked Q values of their prototype and Lindenberg & Ross Tobin's Q model through research for ten-year cross-sectional measurements and observed the same results under both models (Farhat, 2014).

Additional research by DaDalt, Donaldson, and Garner (2003), contrasting the build of Q elements amid the simple method devised by Chung and Pruitt (1994), and the computationally expensive method employed by Perfect and Wiles (1994) supported that the simple approach is more superior (Farhat, 2014). They recommended that the difference in Q is associated to the differences within the company about financial features like leverage, liquidity and profitability.

2.6.2 Return on Assets (ROA)

The ROA ratio (return on assets) was questioned by some experts in the management literature, for instance, Dalton et al., (1998, p. 274). However, ROA is seen as a sound financial performance test to date and has been used extensively in governance research. Criticisms are due to the defective measurement of corporate profitability and assets and defend grounds for inner decision-making. One can understand that many of the scholars are expected to be associated with the industry group in cross-sectional studies wherever the problem can be resolved and handled by utilizing industry membership as a control variable.

2.7 Corporate Governance Codes

The set of devices leading sound CG decision making has been proposed in recent years through the enactment of governance codes all over the world. The corporate financial disgraces have made high-grade CG an essential tool for investors and other stakeholders. The scandals have occurred in countries starting codes of good governance to complement their business codes or corporate laws, and the majority of the codes are voluntary. The principles formed have given a complete structure for a huge number of nations to strengthen their particular systems of CG (Monks and Minow, 2004). The broad membership and CACG institutions suggested that those policies show the opinions of many countries for executing CG. CG devices are the most miniature standards on which affiliate nations may examine their practices and perform country-explicit drives (OECD, 1999).

Turnbull (1999) perceived that although the systems are important, their weaknesses require to be recognized. She asserts that these systems, which give ideas for codes of best practice, can be misleading. The codes tend to be representing that they are ethically right and reliable. She again pointed out that even if companies support these principles, there is still no confidence of the stockholders that the company is either suitable for investment or moral compliance. Hence, these principles should be interpreted as the least satisfactory systems as this will signal investors to the probability of better governance norms.

2.7.1 The OECD principles for effective corporate governance

The policies for efficient CG issued by the OECD in 1999 and updated in 2004 have been organized in five topics, which include: 1) assuring the foundation for an efficient CG structure, 2) the privileges of stockholders, 3) fair handling of all stockholders, 4) the use of stakeholders in CG, 4) disclosure and 5) the accountability of the BODs. The first topic, presented in the updated set of policies issued in 2004, discusses the CG structure and organizational frameworks. The issue was discussed independently in the updated set of policies and nations to encourage open and effective markets, the practice of law and explicitly explain the distribution of duties among various regulatory, supervisory, and execution officials (OECD, 2004). The principle requires a CG framework to be developed with a view of its impact on the overall market participants and the promotion of transparent and efficient markets. The policy mainly seems to strengthen responsibility amongst those organizations that hold a strong bearing on CG. A sharp division of accountabilities amongst officials is required to guarantee that the common interest is promoted.

The principles of sound CG accept the privilege of stockholders and strive to illustrate the interests to defend ownership, move or sell shares, receive appropriate data on the company on a routine manner, participate and vote at general meetings, elect members of the board and share in the profits of the corporation. Rooted in the rights of stockholders is the idea of ownership of the corporation by its stockholders. The prerogative of knowledge about the corporation is to help decision-makers control it. Share trading (selling/ buying)

means the understanding of control over the market for corporate control. The Anglo-Saxon view assists affiliated nations to reduce barriers to the transferability of shares and other limitations that limit the performance of the market for corporate control. The corporate board needs clear-cut systems that allow stockholders to elect BODs who will defend and advance their interests. In the traditional Anglo- Saxon approach of CG board members are considered as agents of stockholders. ON the whole, this system is regulated with the liberalist's view of CG in which stockholders are sovereign and authorized to exert final authority over companies. There is a weakness inherent in this system to introduce enormous rights that are not the same as efficient CG (Frederick, 1999).

2.7.2 CACG principles of effective corporate governance

The CG mechanisms are aimed at accomplishing several issues including an increase in financial performance and effectiveness of corporate enterprises in Commonwealth countries, increasing the capability to generate resources and employment, and assuring the long-term competitiveness of Commonwealth nations in the global market place, the stability and reliability of the Commonwealth financial sectors both nationally and globally (CACG, 1999).

These policies are also involved with the connection amid corporate entities and their diverse stakeholders, such as stockholders, managers, workers, employees, buyers, suppliers, labor unions, societies, and funds providers. The BODs are focused upon, in the CACG systems of CG, as the primary device for directing CG related matters. These policies consider the stockholders' mastery as the main recipients of corporate action and as a legal client. The points that appear into attention in the CACG policies are comparable to those granted under the OECD set of CG principles that are widespread in scope. As the one-tier corporate board policy is accepted in affiliated countries, the independence of corporate boards is of supreme value. The corporate boards should be a mix of executive and non-executive directors are reflective of this position. A leadership arrangement, as a significant feature underlying board effectiveness in the governance function, is also promoted (CACG, 1999).

2.7.3 Corporate governance codes in Bangladesh

In 2004, the CG approaches for good governance systems of publicly traded companies in Bangladesh have been promoted by the Bangladesh Enterprise Institute (BEI), a subscriber financed private institution (Ferdous, 2017). To develop the CG guidelines, the BEI and the patron agencies collectively formed a Taskforce on CG and the Working Group of BEI approved the Taskforce in drafting the CG guidelines. The President of BEI (a retired Foreign Secretary) chaired Working Group, which was constituted of eight members including market, forensic and legal experts, and this was in recognition of the growing importance of governance problems both in emerging and advanced economies and for promoting growth in national and regional capital markets. It is also in appreciation of the purpose of sound CG, the formation of capital, maximization of stockholder value, and strengthening privileges of investors. The administrative authorities presented the Code by taking into account the job that had been offered publicly by several areas through many task forces, committees, and commissions associated but not restricted to the UK, the USA, Malaysia, South Africa, OECD, and the CACG.

CG best practices are necessary for public companies in that it helps maximize stockholders value by active and effective control of corporate resources. The best practices as per the code are those works that link to the board, chairman, CEO, and engagement and the role of the audit committee. The BOD assumes the prime engagement of promoting the sustainable interest of the company compatible with its fiduciary duty to the stockholders. The BODs must give enough time to perform their duties and work on a completely informed footing while handling all stockholders equitably and the BODs of all publicly-traded companies must display a balance between independent nonexecutive directors and executive directors. All publicly-traded companies should as a matter of best practice divide the role of the chairman and the chief executive officer to ensure a balance of authority and responsibility.

2.8 Models of Corporate Governance

The CG framework of a country is established upon several factors: the statutory and regulative framework describing the powers and duties of all parties involved, but the CG requirements may differ from company to company and country to country. In each country, the CG structure has several features that differentiate it from structures in other countries. To date, researchers have recognized three models of corporate governance in capital markets, which are the Anglo-US plan, the German plan, and the Japanese plan.

The Anglo-US plan is defined by the dominance of the company by free persons and individual stockholders. Managers are accountable to the BOD and stockholders, the last being particularly involved in productive exercises and getting returns. It assures the movement and deployment of finances from the unproductive to the productive sectors. The Anglo-US plan is marked by the shareholding of individuals and institutional members representing the rights and obligations of management, directors, and stockholders (Jeffers, 2005).

According to Mallin (2006), the German plan is marked with a high ownership density that has mutual concerns with the company, and engages in its administration. Managers are accountable to a broader group of stakeholders in addition to stockholders, such as associations, suppliers, financial institutions, business associates, and so on. Ownership and control of publicly traded corporations are notably concentrated, stockholders taking the chance of checking in managerial functions. In this model of CG, a company is regarded as the combination of many interest groups attempted to establish the public interest objectives. From the classical period, German banks have been performing a vital part in corporate decision making. Exceptional attention is provided on the security of lenders, even at a limit where a bank might manage a company. In the model, the CG system provides data and supports employees to engage in various activities of the enterprise.

The Japanese model brings together industrial associations comprising of corporations with shared benefits and comparable procedures. The accountability of management shows itself as stockholders and keiretsu (a network of local suppliers and customers). Keiretsu

expresses a complicated model of collaboration and also opposition marked by the choice of protective tactics in unfriendly takeovers, decreasing the level of opportunism of bodies concerned and maintaining long term business relations. The unique pattern of governance is controlled by two types of statutory relations: one is confidence amid stockholders and unions, clients, suppliers, lenders, government, and the other is the ratio amid executives and stakeholders. The need for this model emerged from the experience that the activities of a corporation should not bother the connections among all those people (Jeffers, 2005).

2.9 Summary of Empirical Literature and Research Gap

The empirical examination of the association between CG mechanisms, financial leverage, and corporate financial performance has yet to provide a reliable causal link among these factors. A logical summing-up, based on the prior research, is that quality CG has a definite impact on financial leverage and firm performance, but other studies have found a negative association.

Several research gaps result from the investigation of the issues examined in this chapter. These include firstly, a lack of agreement on the influence of CG on corporate financial performance. Many investigations found an assertive relationship amid CG and corporate financial performance, though some other studies found a negative association amid the variables. Therefore, the results from the literature are mixed. Secondly, most of the studies have examined just a few of the CG variables like board size, board composition, and structure. Thirdly, most of the studies considered only the accounting-based performance measures. Fourthly, no comprehensive study has yet investigated the influences of CG mechanisms (both internal and external) on corporate financial performance. Fifthly, we found no room in the literature that examined the influences of SEC code of best practice on corporate financial performance. Table 2.1 is a summary of the empirical literature, their results, and research gaps and how the current study addresses these gaps.

Table 2.1: Summary of Empirical Literature Reviewed

1.	Baysinger B.D and Hoskisson R.R (1990)	Objective of the study: They planned to investigate the effect of NED on the firm financial performance measured as both market-based (Tobin's Q) and accounting-based (ROA and ROE) performance measures.
	Study Variables	The independent variable was NED (number of non-executive directors in the corporate board) while the dependent variable was firm financial performance measured as ROA, ROE, and Tobin's Q.
	Findings/results	They found that there is no link between board composition and performance when both relate to the same year. The effect of board independence is observed in case of discrete tasks such as replacing the CEO or defending against a takeover bid.
	Research Gaps	The research did not establish a clear correlation between board independence and firm financial performance.
	Addressing the gaps in the current study	The study is to examine the effect of all CG mechanisms on firm performance by using ROA and Tobin's Q
2.	Daily and Dalton (1992)	Objective the of study: This study examines the organizational agent/firm performance linkage focusing specifically on the role of founder chief executive officers (CEOs) and the composition of the boards of directors.
	Study Variables	The independent variable includes governance structure and the dependent variable is firm performance as measured by using ROA, ROE, and P/E ratios
	Findings/results	They found that CEOs of these successful entrepreneurial firms do not demonstrate a tendency to adopt inappropriate governance structures. This finding is contrary to related research which has found that stable small corporation founder CEOs are less likely to utilize prescribed governance structures, jeopardizing firm performance. The CEO's ability to sacrifice some measure of control by inviting outside direction

		may contribute to the overall high performance of this sample of firms. While no performance differences were apparent under either dual or independent board leadership, modest performance advantages were found with greater numbers and proportions of outside directors. These findings provide some support for the ability of founder and non-founder CEOs to relinquish the tight control and effectively guide the growth of the firm.
	Research Gaps	The study covers only nonfinancial companies but the extension of the area of study covering both financial and nonfinancial sectors could be more revealing and value additive in the corporate governance literature.
	Addressing the gaps in the current study	The study will consider panel data for all listed manufacturing companies at the DSE over a period of 2006-2017. So, cross sectional studies is possible between the sectors.
3.	Yermack, D.(1996)	Objective of the study: Board size and firm value in a sample of 452 large USA Industrial corporations.
	Study Variables	The independent variable was board size while the dependent variable firm's value proxy by using ROA and ROE
	Findings	The study found the evident that small boards of directors are more effective and those companies tend to achieve a higher market value
	Research Gaps	There is no conclusive evidence that small boards are more effective.
	Addressing the gaps in the current study	The current study is to examine the effect of all CG mechanisms on firm Performance.
4.	Hermalin and Weisbach (1996)	Objective of the study: To evaluate the effects of board composition and effects of direct incentives to firm performance
	Study Variables	The independent variable was the board composition while the dependent variable was the firm's value as measured by Tobin's Q and accounting measures

	Findings/results	The study found no relation between the number of independent directors on the board and firm performance. Besides, when the independent directors are in the member of any sub-committee of the board, the study found no relation between firm performance and the proportion of outsiders on committees focused on monitoring.
	Research Gaps	The study only used Tobin's Q as the sole measure of firm performance .It also relied on market equity values that may be overstated
	Addressing the gaps in the current study	In the study, we planned to use seven CG variables and one mediating variable (financial leverage). Firm performance is to be measured by using ROA, ROE, and Tobin's Q.
5.	Shleifer and Visny (1997)	Objective of the study: To investigate the relation between ownership concentration and the firm's value.
	Study Variables	Ownership concentration was an independent variable, while the dependent variable was the firm's value as measured by share market prices.
	Findings/results	The study showed that there is a positive association between the ownership concentration and the firm's value in most of the firm's in the US and the UK.
	Research Gaps	There is a contextual difference between the developed countries and the developing countries, and thus, the same studies cannot be extended to the developing nations.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm Performance by using ROA, ROE, and Tobin's Q in the context of Bangladesh, a developing country.
6.	Gompers et al. (2003).	Objective of the study: To investigate the effect of CG on the stock returns among 1500 large firms in USA between 1990 and 1999.
	Study Variables	G Index (24 CG variables) compiled from IRRC and stock returns $Q'it = at + btXit + ctWit + eit$,

	Findings/results	They found that the effectiveness of CG mechanisms on higher equity returns is positively correlated and also found that CG is strongly correlated with stock returns during the1990s in the US.
	Research Gaps	The study used a limited number of CG variables.
	Addressing the gaps in the current study	The study is to evaluate the effect of CG mechanisms on firm performance by using ROA, ROE, and Tobin's Q.
7.	Ashbaugh et at (2004)	Objective of the study: To investigate the effect of corporate governance on the COE.
	Study Variables	Financial information quality, ownership structure, shareholders rights, and board structure.
	Findings/results	There is a strong correlation between CG variables and COE. The well governed firms were the evident to enjoy reduction in COE.
	Research Gaps	The study only looked at COE as the performance measure.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm performance by using ROA and Tobin's Q.
8.	Huang (2004)	Objective of the study: To investigate the effect of firm-level shareholder rights on the COE.
	Study Variables	G Score as compiled by Gompers, et al.,,(2003)
	Findings/results	The weak shareholder rights resulted in higher COE, and change in CG score positively and significantly related to the change in COE.
	Research Gaps	The study only looked at COE as the performance measure and only considered the effects of firm-level shareholders' rights.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm performance by using ROA, ROE and Tobin's Q.

9.	Brown & Caylor (2006)	Objective of the study: To test the significance of CG metrics and firm performance as measured by Tobin's Q using ISS data for 2,327 firms.
	Study Variables	CG metrics (51governance metrics) and firm performance as measured by Tobin's Q.
	Findings/results	The authors identified five governance provisions that are linked to firm value.
	Research Gaps	The authors only used Tobin's Q as a metric for firm performance.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm performance by using ROA, ROE, and Tobin's Q.
10.	Black, et al. (2006)	Objective of the study: To identify the effect of CG on the firm value among 515 Korean companies based Korean Stock Exchange.
	Study Variables	Independent variable was the CGI and the dependent variables were Tobin's Q & ROA.
	Findings/results	Firms with high market values were found to adopt good governance practices. Besides, some firms used different governance practices based on their specific characteristics, and tend to adopt good governance rules.
	Research Gaps	The study omitted economic variables that predict both governance and share prices.
	Addressing the gaps in the current study	Seven corporate governance mechanisms will be used in the current study along with other means of performance measures i.e. the ROA, ROE, and Tobin's Q.
11.	Piot and Missonier-Piera (2007)	Objective of the study: To investigate the impact of firm-level CG on COD.
	Study Variables	Ratio of outside directors, compensation, and audit committee.

	Findings/results	All the three CG variables have a significant impact in reducing the COD. The effectiveness of CG variables causes the reduction of COD of sampled firms.
	Research Gaps	The study only considered COD as the only performance measure.
	Addressing the gaps in the current study	Besides, the current study will consider seven independent CG variables and will test the effectiveness of the same on firm performance by using ROA, ROE, and Tobin's Q.
12.	Ongore V.O and K'Obonyo (2011)	Objective of the study: To examine the impact of ownership structure on performance of listed companies in Kenya between 2006 and 2008.
	Study Variables	The independent variable was the ownership structure, while the dependent variable was firm performance measured by using ROA, ROE, and DY.
	Findings/results	The study found ownership structure affects firm performance, but government ownership negatively affects firm performance.
	Research Gaps	The study not only used the accounting based performance measures.
	Addressing the gaps in the current study	The study will not only consider the ownership structure but also seven CG independent variables. Besides, our study will consider both accounting-based and market-based performance measures.
13.	Lishenga (2012)	Objective of the study: To test the relationship between board activity and firm performance.
	Study Variables	CG mechanisms and firm performance as measured by Tobin's Q, EVA, and Cash Value Added (CVA).
	Findings/results	Board activity has a positive impact on firm value. Board meeting frequency increase with declining performance.
	Research Gaps	The study only considered internal CG mechanisms
	Addressing the gaps in the current study	Both the internal and external CG mechanisms will be considered.

14.	Ferdous (2018)	The objective of the study: The study examined the companies' level of compliance with the Code of Corporate Governance for Bangladesh. She used a quantitative approach aiming at understanding the degree of effectiveness at which regulatory provision can magnify the governance scenario of a company in Bangladesh.
	Study Variables	The independent variable of the study included Company age, Company size, Types of Company, Types of Auditors, while the dependent variable was compliance level with the Code of Corporate Governance.
	Findings/results	The study showed that the listed companies are on average, moderately compliant with the code, and the level of compliance is better when the code harmonized with other regulatory requirements.
	Research Gaps	The study was conducted for a relevant year sooner it could be done over many years to find the compliance trend. Besides, some other related variables could be addressed, such as the CEO tenure, audit committee size, and board independence.
	Addressing the gaps in the current study	The study is to evaluate the effect of CG mechanisms on firm performance by using ROA, ROE, and Tobin's Q.
15.	Sheikh et al. (2017)	The objective of the study: To investigate the effects of firm performance and corporate governance on the chief executive officer (CEO) compensation in an emerging market, Pakistan.
	Study Variables	The independent variables were firm performance and CG mechanisms, while the dependent variable was CEO compensation.
	Findings/results	They found that accounting-based performance is positively associated with CEO compensation than market-based performance. Besides, ownership concentration is positively associated with CEO compensation except for some collusion between management and the largest shareholders to get personal benefits. Unlike agency theory, CEO duality is negatively associated with CEO compensation when board size and board independence have no convincing relationship with CEO compensation.

	Research Gaps	To understand the CEO pay puzzle, the differences in institutional context need to be addressed. As market based performance and agency theory were found inconsistent in the study. This model could be checked elsewhere to justify the results.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm performance by using ROA, ROE, and Tobin's Q.
16.	Roy (2017)	Objective of the study: To examine the effects of ownership structure and capital structure on the adoption of CG practices.
	Study Variables	The independent variable was ownership structure and capital structure, while the dependent variable was CG index score and ROA.
	Findings/results	The firm ownership structure is positively associated with CG compliance, and CS was found to influence CG. Besides, greater CG compliance is positively associated with the firm's market capitalization.
	Research Gaps	The study was conducted on a few non-financial companies, but it could experiment on a large sample joining other industries.
	Addressing the gaps in the current study	The study is to evaluate the effect of all CG mechanisms on firm performance by using ROA, ROE, and Tobin's Q.
17.	Hossain and Rahman (2013)	Objective of the study: The study is conducted to investigate the development of CG regulations, practices and their contribution in a Bangladesh perspective.
	Study Variables	Descriptive studies
	Findings/results	The study found that Bangladesh stands far behind in CG practices than that of developed countries. Besides, the wholesale adoption of the Anglo-American model of CG is not entirely suitable for Bangladesh as it differs in terms of the social, economic, legal, and corporate environment from that of developed countries.

18.	Rashid (2015)	Objective of the study: The study investigated the corporate governance practices in Bangladesh under the light of two dominant models of corporate governance, such as the Anglo-American model and the German-Japanese model.
	Findings/results	The study revealed that CG characteristics in Bangladesh mostly aligned with the German-Japanese model, such as the concentration of ownership by banks and financial institutions, concentrated ownership leading to a high degree of control, a less liquid capital market, weak shareholder rights, and a powerful agency conflicts between controlling and minority shareholders. The current corporate governance practices presented six specific characteristics, which exhibited from the study: i) a weakly enforced legal and regulatory framework; ii) weak institutional control; iii) a lacuna of professionals to develop a sound corporate governance culture; iv) a predominance of individual investors; v) a dearth of foreign and institutional investors; and vi) limited transparency and weak disclosure practices.
	Research Gaps	There is no accountability structure for the directors on the board. In the case of State-Owned Enterprises (SOEs), if the Chairperson of the board is also a cabinet minister, then there is always a tendency to treat the SOE as a government department instead of a corporate entity.
19.	Ararat et al. (2017)	The objective of the study: The objective of the study was to construct a corporate governance index for examining the impact of corporate governance practices on firm value.
	Study Variables	Independent variable included governance variable (Board structure index, Ownership structure index, Board procedure index, Disclosure index, and Minority shareholder rights index) and non-governance variable (Age of the company, leverage, Inside ownership, Foreign ownership, State ownership, Business group, and firm risk) and dependent variable included market-based performance (Tobin's Q).

	Findings/results	They found a strong correlation between the score of corporate governance index and firm market value of Turkish listed firms.
	Research Gaps	There might be some study to check-i) the channels through which governance affects market value, and ii) the effects of governance at the business group-level, rather than firm-level, on firm value.
	Addressing the gaps in the current study	Our study will check the effectiveness of CG mechanisms (channels) on firm performance measured by using both accounting-based performance and market-based performance.
20.	Chauhan et al. (2016)	They examined the effects of firm-level corporate governance practices on firm performance for publicly traded Indian firms where founder ownership is concentrated.
	Study Variables	They constructed a scale to measure corporate governance at the firm level and tested its effects against the firm performance measured by using ROA and Tobin's Q. Besides, the Founder owner's concentration has been used as a moderating variable.
	Findings/results	They found that firm-level corporate governance is positively associated with firm performance and becomes stronger when the founder owner's concentration is high. Besides, they found that founder-owner concentration minimizes the related party transaction (as it increases the cost to the founder-owner) and hence improve firm value.
	Research Gaps	The sample size has been limited to generalize the study results, and the effect of capital structure has not been tested.
	Addressing the gaps in the current study	Our study will check the effectiveness of CG mechanisms (channels) on firm performance measured by using both accounting-based performance and market-based performance.
21.	Rashid (2015)	This study focused on presenting an overview, development, and process of current corporate governance practices in Bangladesh. This study disclosed the role of key institutional forces while reinforcing the existing corporate governance practices in Bangladesh.

	Findings/results	They found that the corporate governance practices in Bangladesh are still in infancy. However, the country is trying to adopt many international corporate governance best practices for institutional legitimacy, the weak institutional enforcement regime, along with the absence of an effective check and balance, poses serious challenges to the firm-level corporate governance practices in Bangladesh. He also commented that the absence of isomorphism pressures to regulate the firms leads to many incidences to noncompliance.
22.	Rashid (2016)	He investigated the influence of managerial ownership on firm agency cost among the listed firms in Bangladesh.
	Study Variables	The independent variable was managerial ownership measured by the percentage of share owned by company directors/executives, while the dependent variable was firm agency cost measured by the expense ratio, Q-free cash flow interaction, and asset utilization ratio. Besides, the study used several control variables, such as institutional ownership, individual ownership, CEO duality, debt ratio, liquidity, firm age, firm size, dividend yield, firm growth, and firm risk.
	Findings/results	The study found that managerial ownership reduces the agency cost only when the study used the asset utilization ratio as a measure of agency cost. The convergence of interest is evident with high and low levels of managerial ownership. Overall the findings of the study revealed that there is a non-linear relationship between managerial ownership and agency cost.
23.	Rashid (2018)	The study endeavored to explore the effects of board independence on firm economic performance among the listed firms in Bangladesh.
	Study Variables	Board independence was the independent variable while the accounting and market-based performance was the dependent variable. This study used a simultaneous equation approach to control the endogeneity problem.
	Findings/results	He found that board independence and economic performance do not influence each other, but boar size has a significant effect on board

		independence and firm performance. There is a requirement for the regulatory bodies to appoint outside directors on the board to make it independent and accountable. This is in line with global best practices, but board independence is still a dream in Bangladesh.
	Research Gaps	The board independence and agency cost may be examined.
	Addressing the gaps in the current study	Our study will examine the effectiveness of CG mechanisms (channels) on firm performance measured by using both accounting-based performance and market-based performance.
24.	Ducassy and Guyot (2017)	This study sought to understand the leading role played by the block holders and their governance mechanism in the French context.
	Study Variables	The independent variable was ownership structure included one block holder with the majority non-controlling shareholders and multiple block holder, while the dependent variable was Tobin's Q.
	Findings/results	They found that controlling shareholder has a positive influence on firm value.
	Research Gaps	The effects of Institutional shareholding and govt. ownership on firm performance can be checked in the same context, or the former can be extended in the developing countries context like Bangladesh.
25.	Fuzi et al. (2016)	The study examined the effectiveness of board independence on firm performance.
	Study Variables	The independent variable was the proportion of independent directors, while the dependent variable was the firm performance as measured using ROI, ROA, and Tobin's Q.
	Findings/results	The result of the study revealed that the proportion of independent directors has a mixed effect on firm performance. Although the companies included in their study composed of the highest number of independent directors, it would not assure to enhance firm performance. They suggested that the existence of independent directors on the board should be monitored to bring positive shareholder value.

	Research Gaps	The association between the quality of independent directors and firm performance may be examined. Whether the effects of independent directors on firm performance was mediated or moderated by ownership concentration may be checked.
	Addressing the gaps in the current study	Our study will check the effectiveness of CG mechanisms (channels) on firm performance measured by using both accounting-based performance and market-based performance.
26.	Leung et al (2014)	They investigated whether the relationship between the corporate board committee independence and firm performance is moderated by the concentration of the family ownership.
	Study Variables	The independent variable was the corporate board and board committees, while the dependent variable was firm performance. Besides, family ownership was used as a moderating variable.
	Findings/results	They found no significant association between the independence of the corporate board and board committees and firm performance in the family firms, but board independence was positively associated with firm performance in non-family firms. Besides, it was revealed from their study that the proportion of independent directors in family firms is lower than that of non-family firms, but the representation of independent directors on the committee was found indifferent.
	Research Gaps	The efficiency of independent directors and firm performance
27.	Jiraporn et al. (2011)	They investigated to see the effects of corporate governance quality on the firm-level of leverage. Motivated by agency theory, as agency theory argues that capital structure is determined by agency costs that arise from conflicts of interest, they examined how the capital structure is influenced by corporate governance quality.
	Study Variables	The independent variables were Gov-score and ISS-score while the dependent variable was leverage (book leverage and market leverage). Moreover, the study used many control variables to reduce the endogeneity problem between the firms.

	Findings/results	They found a robust inverse association between leverage and governance quality. Firms with poor governance are significantly more levered, which signals that leverage is replaced by corporate governance in addressing agency conflicts. They documented negative association that is consistent with the substitution hypothesis (La porta et al., 2000) which further posits that firms with poor governance, in an attempt to raise capital on attractive terms, need to establish a reputation for not expropriating shareholder wealth. One way to do so is to carry more debt as fixed interest payments reduce what is left for expropriation. The weaker the firm's governance, the stronger the need for reliability mechanism, and thus the firm should carry more debt. In their study, they also commented that the overall quality of corporate governance has a tangible impact on crucial decisions like capital structure choices.
	Research Gaps	Does leverage affect firm performance?
	Addressing the gaps in the current study	Our study attempts to examine the effects of CG mechanisms on firm performance taking the financial leverage as mediator.
28.	Elsayed (2007)	The study investigated the causal effects of the leadership structure on firm performance by providing empirical evidence from a sample of Egyptian listed firms.
	Study Variables	The independent variable was CEO duality and the dependent variable was firm performance.
	Findings/results	The study found that CEO duality is negatively correlated with the firm performance, which supports the propositions of the agency theory.
	Research Gaps	Does CEO quality (experience, education, awards and training) affect firm performance?
	Addressing the gaps in the current study	Our study attempts to examine the effects of CG mechanisms on firm performance.

29.	Auyong and Ten (2018)	The study gauged the effect of gender diversity and independence on firm financial performance in Malaysia.
	Study Variables	The independent variable was the number of female directors and the status of board independence, while the dependent variable was firm performance.
	Findings/results	Gender diversity is positively associated with firm financial performance, but the effect of board independence was found insignificant.
30.	Hu and Izumida (2008)	They investigated the causal relation between the ownership concentration and corporate performance.
	Study Variables	The independent variable was ownership concentration, while the dependent variable was firm financial performance, and the control variable was gender diversity. Besides, financial leverage was used as a transmission variable.
	Findings/results	The study found a significant positive correlation between the ownership concentration and firm financial performance but failed to detect the effect of changes in the level of ownership on firm performance.
	Research Gaps	The effect of Ownership concentration on board independence can be tested.
	Addressing the gaps in the current study	Our study attempts to examine the effects of CG mechanisms on firm performance.
31.	Paligorova and Xu (2012)	The study explored the pyramidal firms (ownership control direct and indirect) and their motivations for the use of debt financing.
	Study Variables	The independent variables are pyramid firms and non-pyramid firms, measured as control of one firm over another, while the dependent variable is capital structure.

	Findings/results	They found that pyramid firms used more debt than that of non-pyramid firms.
32.	Mak and Kusandi (2005)	The study investigated the impact of corporate governance mechanisms on firm value of Singapore and Malaysian firms.
	Study Variables	The independent variables are board structure and ownership structure, while the dependent variable is firm financial performance.
	Findings/results	They found a little relationship between the corporate governance mechanisms and Tobin's Q. Besides, board size is negatively associated with firm performance in small firms, which is in line with some prior studies (Yermack, 1996; Eisenberg et al,1998).
33.	Farooque et al. (2012)	They investigated the relationship between ownership structure on firm performance in Bangladesh context.
	Study Variables	The independent variable is ownership structure while the dependent variable is firm performance.
	Findings/results	They found that ownership structure does not have any impact on firm performance rather performance seems to have a negative impact on ownership. Besides, other governance mechanisms and control variable have a significant impact on firm performance.
34.	Uchida (2011)	The study investigated whether corporate board downsizing contributes to increased shareholder value in Japan.
	Study Variables	The independent variable was board size, while the dependent variable was firm value.
	Findings/results	He found that firms that downsize their boards do not show performance improvements, indicating that board downsizing does not necessarily raise shareholder value.
	Research Gaps	Revising Agency theory: Evidence of Board size and Agency Cost from Bangladesh.
	Addressing the gaps in the current study	Our study attempts to examine the effects of CG mechanisms on firm performance.

2.10 The Research Framework

The conceptual framework seeks to link CG with firm performance. The agency theory explains the internal, while for external CG mechanisms, social theory, political theory, and the trade-off theory looks at how regulatory and leverage effect on firm performance. The application of the individual theories in previous empirical studies has provided mixed evidence. The independent variables in the study are the models of CG variables and they include Board size, Board independence, Board audit committee size, CEO duality, Female directors, Ownership concentration, Institutional shareholding, financial leverage, and regulatory guidelines. The dependent variable includes firm performance as measured by Tobin's Q and ROA. Financial leverage is considered as the mediating variable between CG and firm performance.

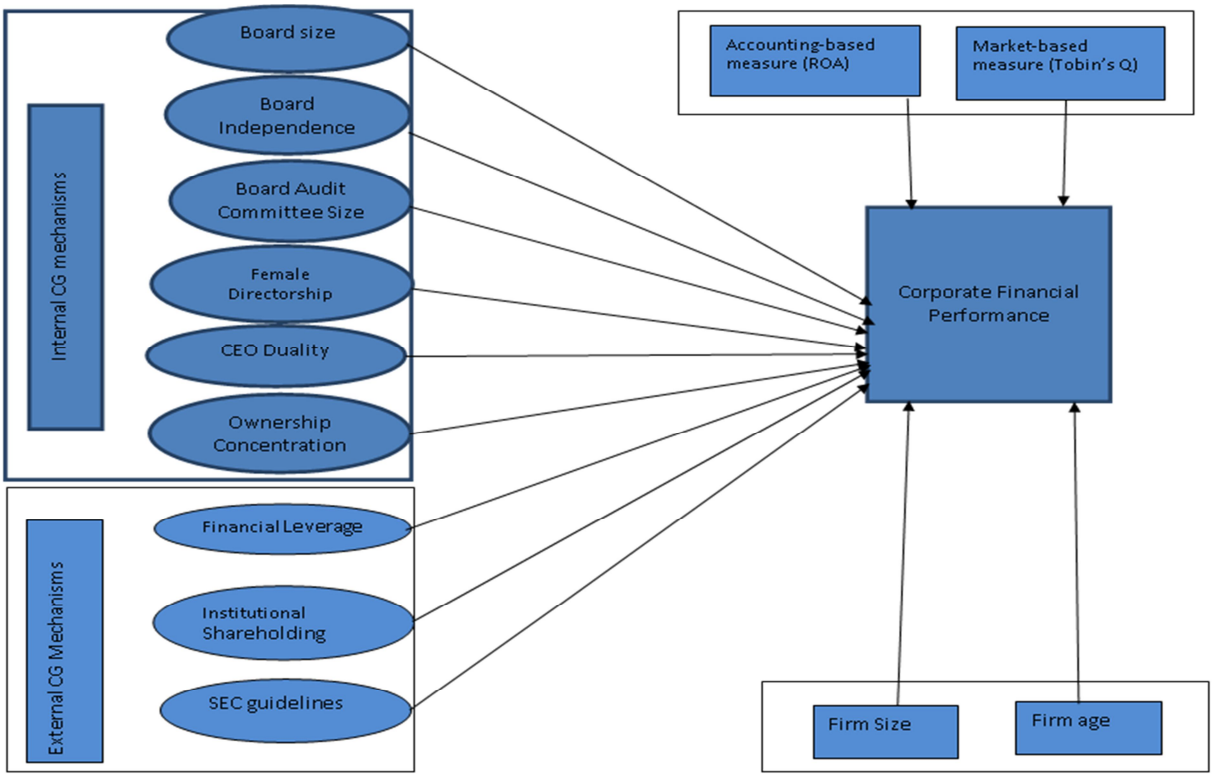

Figure 2.1: Shows the conceptual model.

2.11 Research Hypotheses

In this section, we provide a brief survey of related studies on corporate governance and corporate financial performance. We then develop the theoretical arguments on the relationships between corporate governance mechanisms (both internal and external) and corporate financial performance. Subsequently, we propose testable hypotheses.

Recent studies on CG in emerging markets reveal (Rashid, 2018; Ararat et al., 2017; Roy, 2017; Ducassy and Guyot, 2017; Lozano, 2016; Fuzi, 2016; Chauhan et al., 2016;Leun, 2014; Bhaumik and Selaraka, 2012; Chaghadari and Chaleshtori, 2011; Bhagat and Bolton, 2008; and Rose, 2007; and Haniffa and Hudaib, 2006) that firms with better CG mechanisms may avail greater access to low-cost finance, low agency conflicts, high firm performance and in turns can protect shareholders interest. It is also evident that the CG mechanism is less effective when a country experiences a weak governance system (Rashid et al., 2018). Shleifer and Vishny in their seminal work on CG in 1997 mentioned that the CG deals with how company financers assure themselves of getting a fair return on their investment. Strong CG leads to higher profitability, and as a result, higher firm performance and value. This makes firms more attractive to investors leading to high growth and more employment. Besides, CG is associated with a less financial crisis.

The 1997-1998 Asian Financial Crisis caused many crisis-hit countries to focus on creating and developing better CG practices (Detthamrong et al., 2017). They have been trying to reduce their vulnerability to economic shocks and improve their CG practices. Thus companies must create a culture of consciousness, transparency, and accountability, which will end in long term value creation and sound financial health of the firm. Against the above backdrop, the study endeavors to develop some hypotheses regarding the relationship between corporate governance and corporate financial performance.

2.11.1 Association between internal corporate governance mechanisms and corporate financial performance measured as ROA and Tobin's Q.

2.11.1.1 Board Size

Board size plays an important role in the directors' ability to oversee and control managers (Detthamrong et al., 2017 and Anderson et al., 2004). A large board is more likely to provide better access to various resources than a small board. A board with diverse experience and knowledge would probably have more useful learning and sensible decision-making ability, thereby resulting in better firm performance. However, the empirical findings on the relationship between board size and firm performance are mixed. Yermack (1996) noted a negative association between board size and firm performance in a sample of 452 large U.S. industrial corporations over the period 1984 and 1991. Coles et al. (2008) mentioned that firm performance increases with board size for complex firms. However, Jackling and Johl (2009) found that board size has a positive impact on firm performance in India. Eisenberg et al. (1998) reported a negative relationship between board size and firm performance in a sample of firms in Finland. Similarly, Mak and Kusnadi (2005) found a negative relationship between board size and firm value, measured by Tobin's Q, for a sample of Malaysian and Singaporean firms.

From an agency theory perspective, a larger board is better able to monitor management as more people will be reviewing the management's actions that reduce agency cost arising from the separation between management and shareholders and thus improve firm performance (Rashid, 2014 and Kiel & Nicholson, 2003). It is a general notion that board size is positively related to firm performance. Therefore, the current study proposes that:

$H_{01.1}$: There is no positive association between Board size and firm performance.

$H_{a1.1}$: H_0 is not true.

2.11.1.2 Board Independence

The agency theory suggests that independent directors have a positive role to play in enhancing firm performance (Leun, 2014). An independent director (also known as an outside director) plays an important role in overseeing firms' management affairs

(Detthamrong et al., 2017). Therefore, the level of board independence may attract investors (Muniandy and Hillier, 2015). Past studies that examined board independence and firm performance noted mixed results. On the one hand, Agrawal and Knoeber (1996) found that board independence has a negative effect on firm value, measured by Tobin's Q, in the US. On the other hand, Jackling and Johl (2009) find that board independence has a positive impact on firm performance for Indian firms. Likewise, Muniandy and Hillier (2015) report that board independence has a positive influence on firm performance in South Africa. In the context of Malaysia, Haniffa and Hudaib (2006) find that board independence does not affect firm performance. Consistent with the literature, we argue that the presence of capable independent directors on the board would improve firm performance. Therefore, this study hypothesizes that:

$H_{01.2}$: There is no positive association between Board independence and firm performance.

$H_{a1.2}$: H_0 is not true.

2.11.1.3 Audit Committee Size

Audit Committee is the single most important board subcommittee owing to its specific role in protecting the interest of shareholders in relation to financial oversight and control (Mallin, 2007). An audit committee provides additional protections against deception and ensures that they meet essential standards and best practices (Detthamrong et al., 2017). An audit committee member should have the required qualifications to perform his/ her duties. An enhanced audit committee reduces an information asymmetry catastrophe and improves monitoring of management and hence ensures better CG practices (Aldamen et al., 2012). An audit committee primarily oversees a firm's financial reporting process. The committee meets regularly with firms' internal financial managers and outside auditors to review firms' financial statements, internal accounting controls, and audit processes (Klein, 2002). The role of the audit committee is to ensure the quality of corporate financial reporting. However, the presence of an audit committee does not significantly affect the probability of financial statement fraud (Beasley, 1996). We argue that firms with competent audit committees are more likely to have lower chances of encountering major accounting scandals, thereby lowering the chances of having unexpected poor firm performance.

Therefore, this study expects a positive relationship between audit committee size and firm performance. However, Aldamen et al. (2012) found a negative effect of the audit committee on firm performance. In summary, this study proposes the following hypothesis:

$H_{01.3}$: There is no positive association between Audit committee size and firm performance.

$H_{a1.3}$: H_0 is not true.

2.11.1.4 Female Directorship

Diversity leads to innovation and creativity. Almost all boards are basically comprised of male directors. In recent years, there is a strong argument for adding more female directors on the board to obtain different points of view, which might enhance firm performance (Detthamrong et al., 2017). The effect of women directorship has been empirically investigated in many studies. Erhardt et al. (2003) examined the relationship between demographic diversity of boards (the percentage of women as compared to men on boards) with firm performance and found that board diversity is positively associated with firm performance. Carter et al. (2003) found that board diversity is associated with improved financial value for a sample of firms in the US. García-Meca et al. (2015) showed that board gender diversity improved firm performance in a sample of banks in Canada, France, Germany, Italy, the Netherlands, Spain, Sweden, the UK, and the US. Moreover, Hutchinson et al. (2015) found that gender diversity in the corporate board is positively associated with firm performance. On the other hand, Rose (2007) found an insignificant association between female directors and firm performance of publicly traded companies in Denmark. Consistent with the literature, the current study proposes that:

$H_{01.4}$: There is no positive association between Female directorship and firm performance.

$H_{a1.4}$: H_0 is not true.

2.11.1.5 CEO duality

The BSEC Code of Corporate Governance 2018 made it mandatory that the position of the Chairperson of the Board and the Managing Director (MD) or Chief Executive Officer (CEO) of corporate entities shall be filled by different individuals. Consistent with the BSEC Code of CG, we argue that CEO duality affects firm performance. More specifically, we expect firms with non-CEO duality to perform better than firms with CEO duality. But, CEO duality may improve the speed of decision making that might be essential during rapidly changing market environments (Detthamrong et al., 2017). Rash decisions may be substandard or even badly chosen under some circumstances. CEOs who are also chairmen of boards can apply more control over their firms, which tend to decrease firm value. Besides, CEO duality has been pointed out as one of the key reasons for firm failures, such as Enron and WorldCom. Earlier studies that examined the influence of CEO duality on firm performance have exhibited contradicting results. Boyd (1995) found that the impact of CEO duality on firm performance depends on environments. Haniffa and Hudaib (2006) found a negative association between CEO duality and firm performance in Malaysia. Chen et al. (2005) found the relationship between CEO duality and performance was negative for firms in Hong Kong during the period 1995–1998. Similarly, Bhagat and Bolton (2008) showed that CEO duality is negatively associated with performance in US firms. In summary, this study proposes the following hypothesis.

$H_{01.5}$: There is no positive association between CEO duality and firm performance.

$H_{a1.5}$: H_0 is not true.

2.11.1.6 Ownership Concentration

The agency theory suggests separation of ownership and control provides opportunities for managers to make decisions for their interests that might hurt firm performance (Detthamrong et al., 2017). The closer alignment of managerial interest influenced by their share ownership may enhance firm performance. The controlling shareholders face strong incentives to monitor managers and maximize firm value. Ownership concentration control can reduce the agency problem between shareholders and managers (Maury, 2006). Concentrated ownership can increase managerial monitoring and thus improve firm

performance (Agrawal and Knoeber, 1996). Bhaumik and Selarka (2012) find ownership concentration reduces the owner-manager agency conflict but it may induce principal-principal conflicts. The negative impact due to massive family dominance on the firm can be even more when family members hold executive positions in the firm. In the above case, the main agency problem is not the manager- shareholder conflict but rather the risk of intrusion by the dominant or controlling shareholder at the expense of minority shareholders.

A study on a sample of Thai firms (Wiwattanakantang 2001) finds that the ownership concentration is positively associated with firm performance. However, Prowse (1992) finds no association between ownership concentration and firm performance among Japanese firms. Mak and Kusnadi (2005) report a similar result for firms in Malaysia and Singapore. In sum, this study proposes the following hypothesis.

$H_{01.6}$: There is no positive association between Ownership concentration and firm performance.

$H_{a1.6}$: H_0 is not true.

2.11.2 Association between external corporate governance mechanisms and corporate financial performance measured as ROA and Tobin's Q.

2.11.2.1 Institutional Ownership

Shleifer and Vishny (1986) in addition to Pound's (1988) theorizations and finally, the experiential explorations by McConnell and Servaes (1990) recommended that shareholders are separate and pursue different plans. Jensen and Merkling (1976) also noted that equity ownerships by different groups have different influences on firm financial performance. So it is essential to explore the effect of segmented institutional investors on firm performance and in turn, firm value. In recent past institutional investors have graced the main actor in financial markets. Their increasing interest in CG is witnessed by the expanding amount of corporate equity they control. Escalating their holdings in all global financial markets, institutional investors play a vital role in CG, and usually on corporate management. It is evident from the USA financial market that corporate equity holdings of

institutional investors rose from 17.5 percent in 1970 to 51 percent at the end of 2004 (Chen, Harford, and Li, 2007). Consequently, more importance is given to institutional investors in business literature, mainly linking to the study of their association with corporate financial performance.

McConnell and Servaes (1990) found a positive correlation between institutional ownership and firm value. Pound (1988) investigates the influence of institutional ownership on firm performance and proposes three hypotheses on the relationship between institutional ownership and corporate performance: *efficient- monitoring* hypothesis, *conflict-of-interest* hypothesis, and *strategic alignment* hypothesis. The *efficient-monitoring* proposition states that institutional investors have more excellent expertise and can monitor corporate management at a lower cost than can small discrete let alone shareholders. As a result, this evidence foretells a positive association between institutional ownership and corporate financial performance. The *conflict-of-interest* hypothesis proposes that given other profitable business relationships with the company, institutional investors are compelled to vote their shares with corporate management as voting against management may significantly change the firm's business relationship with the present management, whereas voting with the management results in no obvious punishment. The *strategic-alignment* theory asserts that institutional shareholders and managers find it mutually beneficial to cooperate. Hence, the *conflict-of-interest* proposition and the *strategic-alignment* proposition both foresee an adverse association between institutional ownership and corporate financial performance. Heard and Sherman (1987) also claimed that the twin exercises of investment and business ties could produce a conflict of interest for these institutions.

Based on the efficient-monitoring proposition, this study proposes the following hypothesis:

$H_{02.1}$: There is no positive association between institutional ownership and firm performance.

$H_{a2.1}$: H_0 is not true.

2.11.2.2 Financial Leverage

Modigliani and Miller (1958) demonstrated that corporate capital structure is irrelevant while finding a company value. However, research (Agrawal and Knoeber, 1996) suggested that the use of debt capital can enhance firm financial performance though effecting more careful monitoring by creditors. Corporate finance literature has reported mixed outcomes about the influence of financial leverage on company financial performance, i.e., financial leverage has no, positive, and insignificant influence on company performance (Detthamrong et al., 2017). Antoniou et al. (2008) observed that the relationship between financial leverage and performance is negative. Cai and Zhang (2011) point out that a shift in a corporate financial leverage negatively influences stock price. Vithessonthi and Tongurai (2015) using a sample of Thai companies affirmed that financial leverage is negatively associated with company financial performance. This evidence is compatible with the view that the costs of financial distress are larger than the benefits of financing. On the other hand, Margaritis and Psillaki (2010) discovered that financial leverage has a positive influence on company performance. Furthermore, Berger and Bonaccorsi di Patti (2006) showed that high financial leverage or a low gearing ratio is associated with better corporate financial performance. While Connelly et al. (2012), found no association between financial leverage and company financial performance. If the use of debt capital influences a company's creditors to observe the company's investing, operating and investing activities more thoroughly and frequently, a company with higher leverage would be more likely to invest in good projects with sound fundamentals through rigorous investment screening and do better than companies with lower leverage (Detthamrong et al., 2017). Therefore, this study proposes the following hypothesis.

$H_{02.2}$: There is no positive association between financial leverage and firm performance.

$H_{a2.2}$: H_0 is not true.

2.11.2.3 SEC Guidelines

It is noted that CG plays a significant role to discipline a company to keep competitive with global corporations (Ehikioya, 2009 and Iwasaki, 2008). The CG guidelines issued by the government agencies and some other international bodies, if adopted, help a company

and country to pull foreign direct investments. Also, it augments investor's protection and safeguard corporate entities from scandals. Thus, there is no one-size-fits-all approach to attain effective governance system (Black et al, 2014 and Bhagat & Bolton, 2008). The governance practices vary across nations (Anderson & Gupta, 2009; Doidge et al., 2007 and Shleifer & Vishny, 1997) because of the institutional development background of the country (Peng & Jiang, 2010; Judge et al., 2008 and North, 1990).Hence, government regulating bodies strive to come up with governance codes based on the international best practices which suit their socio-economic and cultural context. We know BSEC issues CGN in 2006 on comply or explain basis and then make it mandatory in 2012 to ensure good governance at firm level management. Therefore, this study proposes the following hypothesis.

$H_{02.2}$: There is no positive association between SEC guidelines and firm performance.

$H_{a2.2}$: H_0 is not true.

2.11.3 Association between firm-level control variables and corporate financial performance measured employing ROA and Tobin's Q.

2.11.3.1 Firm Age

Experience and knowledge are related to the age of a company. For listed companies, the appropriate span is the period since the incorporation or listing. Company age affirms risk and decision-making perspectives of managers especially under uncertainty and unexpected change. Continually research and development spending, decisions on investments in new projects, human resources development, and ultimately future performance are influenced by age-related factors. An assumption in this work is that firm age uniqueness affects resources, capabilities, and carelessly determines the returns on investments over time. This is a crucial factor in the achievement of sustainable development as only profitable companies would be placed to exhibit attention to protect the environment and use of resources from their intellectual needs for the future.

While old companies may develop time tested ability to prudently prevent new competitors, and have the first-mover advantages, new companies may be benefited as they are not connected to untradeable resources. Laziness develops with age, and it is assumed

that more experienced companies would incur more overheads and exhibit costly corporate governance practices (large board sizes). In this study, company age was outlined by subtracting year of incorporation from each sequential year in the study.

Also, the increase in age influences profits because of the cumulative experience of companies, the age of purchasing and negotiating skills, and the experience curve force companies to achieve economies of scale. So we expect more experienced/ older companies are more profitable as offering the licensing method allows significant experience in prophesied market capabilities that can produce higher profitability (Majumdar 1997). Several studies have been conducted on the association between age and profitability and found a negative relationship between these two variables, similar to Majumdar (1997), who found that older companies in India are more productive but less profitable. But other studies on this topic have observed a non-significant relationship between age and profitability, such as Stierwald (2010). Coad et al., (2010) studied the impact of company age on financial performance in Spanish manufacturing companies during the period 1998-2006. They noticed companies improve with their age, and claimed that aging companies are witnessed to have steadily increasing levels of productivity, higher profits, larger size, lower debt ratios, and higher equity ratios. Furthermore, older firms are better able to convert sales growth into the subsequent increase in productivity and profits. The age of microfinance institutions has a positive impact on their performance, such as efficiency, sustainability, and profitability. However, more experienced companies might choose effective corporate governance mechanisms inseparable to the younger firms, which in turn enables companies to reduce agency costs arising due to the separation of ownership from control (Jensen and Mackling, 1976). Therefore, this study proposes the following hypothesis.

$H_{03.1}$: There is no association between firm age and firm financial performance.

$H_{a3.1}$: H_0 is not true.

2.11.3.2 Firm Size

The size of a company cannot be overruled in deciding the value of the company. Larger companies are inclined to becoming a maximized value than smaller companies (Ghafoorifard et al., 2014). Most companies are planned to expand the size of their business operations for them to grow either in revenue and the number of employees or the size of facilities (Pervan & Visic, 2012). The size of a company is measured in different ways such as asset, employment, sales, and market capitalization. This study measured company size as the natural logarithms of its total assets. Ghafoorifard et al. (2014) reviewed some literature pertaining to the association between the firm size and firm financial performance, such as Akbas and Karaduman (2012); Dogan (2013); Kipesha (2013); Becker et al. (2010); and Abiodun (2013). The brief reviews of these literatures are-

Akbas and Karaduman (2012) have studied the effect of company size on the profitability of the firms operating in the manufacturing sector, listed in ISE during 2005-11. The results of the study revealed that company size has a positive effect on profitability.

Dogan (2013) examined the impact of size, age, liquidity, and leverage on profitability for 200 companies listed in the Istanbul Stock Exchange during 2008-11. The results indicated a positive effect of both size and liquidity on corporate profitability. While a negative impact on age and leverage on profitability is also evident in some studies.

Kipesha (2013) examined the impact of size and age on company performance in Tanzania Microfinance Institutions. The results indicated both company size and age have an impact on microfinance performance in Tanzania in terms of efficiency, sustainability, profitability, and revenue generation capacity.

Becker et al. (2010) studied the effect of company size on profitability in the manufacturing sector in the USA for the period 1987-2002 and found a statistically significant negative relationship exists between total assets, total sales, number of employees, and profitability.

According to Abiodun (2013) observed that the size of a company plays an important role in deciding the kind of relationship it experiences within and outside its working environment. The bigger the company, the greater the influence it holds on its

stakeholders. Again, the growing influences of conglomerates and multinational corporations in today's global economy are suggestive of role size operates within the corporate environment.

The size of the company is also an important variable used in many disclosure studies. Focusing on the relation between disclosure and size, Hossain (2008) argued that large companies disclose more information and allocate larger resources for the production of this information. So many prior studies have concluded the existence of a positive relationship between size and firm financial performance (Ibrahim, 2012).

Therefore, this study proposes the following hypothesis.

$H_{03.2}$: There is no association between firm size and firm financial performance.

$H_{a3.2}$: H_0 is not true.

2.11.4 Association between corporate governance mechanisms and corporate financial performance measured as ROA and Tobin's Q.

To attain this objective, the study developed a series of hypotheses on corporate governance mechanisms together with firm-level control variables that might have some sorts of influence on corporate financial performance, as proposed in the agency theory and corporate governance literature. At this stage, the current study seeks to investigate the association between corporate governance mechanisms (both internal and external) along with the firm-level control variables and financial performance by producing an inclusive OLS regression model. As all the CG mechanisms are loaded in a single model, the effects may be weaker or stronger than that of the earlier hypotheses developed for attaining the previous objectives (objectives 1-3). Thus the current study develops a series of hypotheses to meet the requirements of the study objective four. Therefore, this study proposes the following hypotheses:

$H_{04.1}$: There is no association between board size and firm financial performance.

$H_{a4.1}$: H_0 is not true.

$H_{04.2}$: There is no association between board independence and firm financial performance.

$Ha_{4.2}$: H_0 is not true.

$H_{04.3}$: There is no association between audit committee size and firm financial performance.

$Ha_{4.3}$: H_0 is not true.

$H_{04.3}$: There is no association between female directorship and firm financial performance.

$Ha_{4.3}$: H_0 is not true.

$H_{04.4}$: There is no association between CEO duality and firm financial performance.

$Ha_{4.4}$: H_0 is not true.

$H_{04.5}$: There is no association between ownership concentration and firm financial performance.

$Ha_{4.5}$: H_0 is not true.

$H_{04.6}$: There is no association between institutional ownership and firm financial performance.

$Ha_{4.6}$: H_0 is not true.

$H_{04.7}$: There is no association between financial leverage and firm financial performance.

$H_{a4.7}$: H_0 is not true.

$H_{04.8}$: There is no association between firm size and firm financial performance.

$H_{a4.8}$: H_0 is not true.

$H_{04.9}$: There is no association between SEC Guidelines and firm financial performance.

$H_{a4.9}$: H_0 is not true.

$H_{04.10}$: There is no association between firm age and firm financial performance.

$H_{a4.10}$: H_0 is not true.

$H_{04.11}$: There is no association between firm size and firm financial performance.

$H_{a4.11}$: H_0 is not true.

CHAPTER THREE

CORPORATE GOVERNANCE FRAMEWORK IN BANGLADESH

CORPORATE GOVERNANCE FRAMEWORK IN BANGLADESH

3.1 Introduction

Bangladesh is an emerging economy located in the South Asia region. The CG scenario in Bangladesh is at an early stage and it is seriously affected by some forces such as legal, political, and socio-economic factors, and different actors (Dartey-Baah & Amponsah-Tawiah, 2011; Chahine & Safieddine, 2011; Mallin, 2010; Silveira & Saito, 2009; La Porta et al., 1997; and Demirguc-Kunt & Ross, 1996). The CG practices in Bangladesh are less developed than those of the developed countries, such as the Anglo-American affiliated countries, Germany, and Japan. Prowse (1999) noted that emerging economies are significantly unique in their institutional, regulatory, and legal environment. This section presents an overview of the CG structure in Bangladesh.

3.2 Socio-Cultural, Political, and Economic Perspectives of Corporate Governance in Bangladesh

3.2.1 Socio-Cultural Context

On December 16, 1971, Bangladesh emerged as an independent nation after nine months-long battle against Pakistan. The official name of the country is the People's Republic of Bangladesh and situated in the South-East-Asian region. The country is bordering mostly with Indian and some parts of it with Myanmar, and on its southern part, stands the Bay of Bengal, the biggest bay in our planet. The British East India Company was one of the earliest trading concerns in this region and used the Bay of Bengal as a route. Chaudhury (1978) mentioned that in 1634 onwards, the Mughal emperor allowed the company to enjoy complete trading facilities in this region, and in 1717, the company received a waiver from customs duties. Even today, this Bay is very significant as the largest part of the export and import between Bangladesh and the rest of the world is center-rounded along with this Bay. Moreover, many businesses, particularly Chittagong Ship Breaking Yard, the second-largest ship-breaking yard in the world, are based on this Bay.

Bangladesh is a densely populated country in the world with a total population of 164.64 million (approx.) in 2017 (BBS report, 2018) of which approximately 75 percent of the total populations live in the villages. But the fact is that rural areas of Bangladesh remain disadvantageous and underprivileged to the people of the country as most of the living facilities and economic advantages are city-centric, such as communication, infrastructure, commercial, and banking, etc.

Education in Bangladesh is under the aegis of two ministries mainly the Ministry of Education and Ministry of Primary and Mass Education. Ministry of Primary and Mass Education is entrusted with formulating and executing policies and strategies on primary education in Bangladesh. Besides, the same ministry is responsible to administer and run the state-funded school at the local level. In Bangladesh, the government waives education charges for its inhabitants for both primary and high school levels. The government of Bangladesh gives the highest attention to assure quality education at all levels and makes it the top priority of the country, while the donor agencies, such as ADB, IDB, and World Bank are also assisting the country to increase the literacy rate and quality of education. The education systems in Bangladesh are of three-tiered, such as primary, secondary, and tertiary. At present, the total number of universities in Bangladesh is 151, of which 45 universities are in the public sector, 103 universities are in the private sector, and 3 are foreign universities (http://www.ugc.gov.bd/, Accessed on May 16, 2019). Around 98percent of the total population of the country speaks in Bengali though English is exercised extensively both in speaking and writing (BBS report, 2018). Most of the official matters, reports, announcements, disclosures, and other official information are published/ communicated both in Bengali and English.

In Bangladesh, people give the most priority on their family and make it the prime focus of their social and cultural life. It is a common picture in the context of Bangladesh that people live here with a strong family bonding and some family includes several generations and maintaining a strong network among the family members. Furthermore, the people, who do not live in a village, maintain a home in a village, where their relative (particularly parents) lives. Besides, people residing in the towns and cities for their bread and butter maintain a link to their people, who reside in a village, and they strive to arrange

at least one tour per the calendar year to meet their family members. The all-inclusive approach is that family ties are common and people better serve the interest of the community rather than their interests and preferences. It is common practice in Bangladesh that parents are the central focus in a family, they formulate major policies and guidelines for the rest of the family members and kids are supposed to take suggestions from parents regarding their education and marriage. However, some anomalies are noticed as some people are observed to take their decision without consulting with their parents, which are thought to be as a result of the international cultural wave. Culturally, Bangladesh is very rich where people are regarded because of their age and social status, while family status and standards are profoundly appreciated. But incorporate prevailing culture is found with corruption (Mir and Rahman, 2005), which are caused by low levels of income earned by government officials (Belal, 2001). Besides, it is opined that corruption becomes chronic problems in all spheres in the public sectors in Bangladesh (Belal, 2004, Transparency International, 2010 and Islam, 2010). The print and electronic media generally act for reporting this issue to draw the attention of the policymakers for adopting governance mechanisms to combat corruption. Though, the government of Bangladesh passed and promulgated the Anti-Corruption Act, 2004.

3.2.2 Political Perspectives

In Bangladesh, the development of the CG framework and the legislative evolution transpired concurrently. The CG practices in Bangladesh are not a sudden case, rather it is routed to the British colonial regime and since then it has been reforming. The Indian Sub-Continent (India, West Pakistan, now it is Pakistan, and East Pakistan, now it is Bangladesh) was under the British colonial rule for almost 200 years (1757-1947), but it is noticed that the CG practices during that period were marked with poor industrialization with concentrated ownership and autocratic management practice. Corporate cultures during the British period are prevalent even today. Farooque et al. (2007a) mentioned that CG practices were disrupted due to some deep-seated causes, such as, bureaucratic delaying tactics and political control eventually appeared in the bureaucracy (which reasoned the corruption institutionalized in the bureaucracy), hostile environment for entrepreneurship, and limiting the development of a sound capital market. In August 1947, India was allowed to be independent and was separated into two countries, India and

Pakistan. But Pakistan was separated into two provinces, East Pakistan (now it is Bangladesh) and West Pakistan (now it is Pakistan). Bangladesh got independence in 1971, and in the early stage of freedom, the county was caught with intense poverty, overpopulation, damaged corporate and socio-economic infrastructure, deficit foreign exchange reserve, inept public sector, and poor governance structure.

Following some decades of independence, the government of Bangladesh has failed to promote an efficient capital market or affirm some reform policies due to a lack of skilled manpower and sufficient natural resources (Ahluwalia & Mahmud, 2004 and World Bank, 2009). Thus, the global community raised a big question over the prospects of the country and treated it as a 'Bottomless Basket' (Faaland & Parkinson, 1976).

Following independence, the country had struggled to develop its economy by attracting foreign investment. The government of Bangladesh initiated several corporate reformation programs along with the reformulation of firm-level strategies to fight against the economic downturn since 1972 (Ferdous, 2013). The major initiatives include- a) denationalization public enterprises, b) encouraging public companies and foreign investors, while progressively controlling the growth of the public sector, c) improving import management, and introducing investment and export incentives, (d) improving the efficiency of public sector industrial enterprises through financial restructuring, and changes in pricing policies (Palit, 2006).

Thus, the continuous initiatives of the government in connection with different local and international agencies and associations have been useful in reducing the negative view on the potentialities of Bangladesh (Ferdous, 2013). However, perpetual political uncertainty and lack of good governance seem to have acted as significant challenges to the country. Some past studies (Imam, 2010 and Islam, 2010) noted that some factors, such as improper use of political power, random policy reforms, and unethical practices over the affairs of the company reasoned to create a faithless and volatile business environment. They further reprimanded that transparency, accountability, and disclosure are some of the areas where less attention has been given by the governments of Bangladesh, even when the government authorities make decisions to improve the situation, which are often blocked by different political agendas.

3.2.3 Economic Perspectives

Since the birth of the country, the strength of its economy was the public enterprises (Sarker, 2011). The government started to follow a socialistic economic model, and almost all the industrial enterprises were nationalized and taken under state control. Moreover, any forms of private and foreign investments were restricted by preventing foreign direct investment, large-scale industrial ownership, or even international joint ventures in the private sector (Bhaskar & Khan, 1995 and Ahmed, 2000). But, after a few years, it was clear that public sectors transformed into loss-making businesses due to fraud, manipulation, misappropriation, confiscation, political interference, bureaucratic procrastination, managerial incompetence, over-staffing, poor working culture, etc.(Farooque et al., 2007a and Belal, 2004). Taking a lesson from the defect of nationalization order along with the global trends toward privatization, the government of Bangladesh began to support the market economy. Nonetheless, some past studies (Belal, 2004; Hossain & Ming-Yu, 2002 ; and Bhaskar & Khan, 1995) noted that corporate sectors in Bangladesh remained highly inefficient and unproductive. Therefore, the government put the highest priority on the development of export-oriented firms led by the private sectors in Bangladesh. Besides, the succeeding governments have undertaken different policies and action, such as attracting investments from both local and foreign sources to achieve accelerate economic growth, empowering the country's Stock Exchange for controlling capital market and developing special economic zone aimed at foreign investors (Sarkar, 2011; Belal & Owen, 2007; and Belal, 2004). Therefore, the strategies and policies adopted by the government of Bangladesh since the independence created positive effects on the economic growth of the country as the average GDP growth in Bangladesh from 1994 to 2017 reached 5.47 percent and in the fiscal year 2016-17, the average GDP stood at 7.28 percent.

The main reason for recent GDP growth in Bangladesh attributed to the regular contribution of the industrial sectors. It is observed that export earnings in Bangladesh reached to $34.01 Billion in 2017.

Moreover, cheap labor costs and proactive initiatives of the government in the country have attracted massive foreign investments since 1980. Thus, CG becomes the burning issues in the context of Bangladesh as the country is experiencing the international wave of merger, acquisition, integration, competition, and deregulation in the corporate sectors. Bangladesh has already made commendable progress in the field of poverty reduction, fertility rate, literacy rate, and some other health indices, etc.

Despite achieving a healthy economic growth and several progresses in some other cases, the country has still a long walk to go for attaining sustainable economic growth through attracting and utilizing of the foreign investment, creating domestic savings, generating more employment, and adopting sustainable technologies (Sarkar, 2011; Salman, 2009; and Bhaskar & Khan, 1995). The current study realizes that the country should pay proper attention to solve some problems, such as, infrastructural deficiencies, bureaucratic procrastination and legislative and socioeconomic obstacles, which may create impediments to the sound and sustainable economic health of the country.

Some past studies commented that the economic growth (the nature and pattern of the growth) of the country is subject to a big question as they thought that the GDP growth rate is still anemic in respect to the growth rate of most of the neighboring countries (Ferdous, 2013; Bays, 2010; Rahman et al., 2008; and Hossain et al., 1994). Hence, it is believed that the sound economic growth rate would be the one which would further help in poverty reduction, employment generation, and disparity & discrepancies eradication.

3.3 Regulatory Framework and Key Institutions for Corporate Governance in Bangladesh

The development of CG in Bangladesh is in early stage. In 1954, Dhaka Stock Exchange was established, which is the milestone in corporate activity in Bangladesh. During the liberation war, the activities of DSE remained suspended and soon after the independence, the activities of DSE again suspended as Bangladesh adopted socialism as the economic and political framework to ensure the so-called economic justice or distributive justice. Socialism was constitutionally accepted as one of the four fundamental principles of the

state. Government of Bangladesh nationalized all firms and industries through an order 'the Bangladesh Government Nationalization Order, 1972 along with suspended the application of companies Act 1913. However, socialism and the nationalization policy in Bangladesh did not succeed. It is assumed that the major public failure in Bangladesh was in the state-owned enterprises (SOEs) due to manipulation, corruption, appropriation, mismanagement, maladministration, ineffective monitoring systems, and thereby massive accumulated losses (World Bank, 1995, p. 89) which accounted for approximately 30 percent of annual project aid (Uddin & Hopper, 2003). Following the year 1975, Bangladesh again entered into the market economy and adopted the privatization policy for greater economic benefits, better-quality firm performance, and the capital market development. The DSE restarted its operation in1976 only with nine (9) listed companies.

Following the entrance to the market economy, the growing need in adoption of corporate governance practices in Bangladesh in line with the international best practices was coerced by some international donor agencies, such as, World Bank, IMF, and ADB. Thus, in mid-1990s, with the support of donor agencies, a good number of reforms initiatives were undertaken (Uddin & Choudhury, 2008 and Uddin & Hopper, 2003). In 1993, Securities and Exchange Commission of Bangladesh (SECB) was formed as a corporate regulator (a statutory body under the aegis of ministry of finance) under the 'Securities and Exchange Commission Act 1993' to control and enforce the securities laws and legislations. The Companies Act 1913 was annulled and the Companies Act 1994 was put into practice. The Chittagong Stock Exchange (CSE) was established in 1995, the country's second stock market, to capture the increased trading of securities in the market. While these reform initiatives were in process and the stock market was growing gradually, Bangladesh stock market experienced a sever turmoil in 1996 (Rashid, 2015). Thus, pressure from donor agencies to implement reform initiatives for corporate governance along with stock market turmoil in 1996 boosted up the corporate governance debate in Bangladesh. Besides, a couple of reforms were initiated with the financial assistance of The World Bank and ADB. In 1997, World Bank initiated for the 'Private Sector Infrastructure Development Project' of U.S. $235 million (World Bank, 2005).In addition,

The ADB assisted to take initiatives for an orderly growth of the capital market and supported to set up the institutional infrastructure required to sustain the capital market's long-term progress including the institutional reform within the SECB (Asian Development Bank, 1997), such as automation of the stock exchanges and altering the capital market laws and regulations (Uddin & Choudhury, 2008), incorporating the various initiatives to improve the various supervisory capabilities of SECB and Stock Exchanges, the market intermediaries, and Investment Corporation of Bangladesh (ICB), such as market monitoring and surveillance systems, improve information compiling and train staff in investigating and prosecuting securities violations (Asian Development Bank, 1997, 2000 and 2008).World Bank released a grant amounting to US $ 200,000 in 1999 for the improvement of accounting and auditing standards in Bangladesh along with the adoption of international accounting standards (IASs) in Bangladesh. Besides, ADB provided technical and financial assistance to SECB in order to confirm a smooth transition to the use of IASs (Mir & Rahaman, 2005). Most projects goals have been implemented, for example, DSE launched screen based trading in mid-1998, all price share index which was started on 16 September, 1986, was modified later conforming to the IFC regulation. Central Depository Bangladesh Limited (CDBL) was established as a public limited company on August 20, 2000, following the distress of trading of fake shares (SECB, 2004). Credit Rating Companies Rules 1996 was enacted and hence all listed companies were coerced to have credit rating in case of initial public offerings (IPO), right and bonus issues, and issue of debt instruments. First Credit Rating Company started its operations in April 2002.In addition, to develop the investors' consciousness in the capital market, SECB categorized the listed companies as A, B, G, N, and Z, based on profit–loss, status of annual general meeting (AGM), and commercial operational status of the companies. The declaration of Corporate Governance Notification (CGN) is a big step of corporate governance reform in Bangladesh. Bangladesh Institute of Capital Market was established in 2008 (SECB, 2009) due to train the capital market participants and intermediaries, the chronological development of corporate governance in Bangladesh is presented in Table 3.1.

Table 3.1: Shows the Evolution of Corporate Governance in Bangladesh

1954	Establishment of Dhaka Stock Exchange, the apex capital market in Bangladesh
1972	i) Nationalization of major industries (through the Bangladesh Government Nationalization Order 1972) ii) Bangladesh Bank Order,1972
1977	Restart of the market economy
1993	Establishment of Bangladesh Securities and Exchange Commission to regulate the activities of DSE and CSE
1994	Amendment of Companies Act
1995	Establishment of Chittagong Stock Exchange, the second stock market in Bangladesh
1997	Bankruptcy Act 1997
1998	Automation of stock exchanges
1999	Adoption of IASs for internationalization the accounting practices
2000	i) Introduction of Central Depository Bangladesh Limited (CDBL) ii) Establishment of BEI
2002	Initiate credit rating for initial public offerings
2004	Comprehensive Code of Corporate Governance for Bangladesh by BEI
2006	i) Promulgation of Corporate Governance Notification (CGN) ii) Adoption of Labor Act,2006
2008	Establishment of Bangladesh Institute of Capital Market
2009	Amendment of Labor Act, 2006
2012	Revised Corporate Governance Notification (CGN)
2018	Revised Corporate Governance Notification (CGN)

In Bangladesh, corporate governance systems are managed and monitored by some specific bodies, such as Bangladesh Bank (BB), the Registrar of Joint Stock Companies, Bangladesh Securities and Exchange Commission (BSEC), Stock Exchanges, ICAB, and ICMAB. In this stage of the thesis, the current study provides a brief review of these regulatory bodies and institutions, which are actively participating in the formulation of the CG framework for Bangladesh.

3.3.1 The Registrar of Joint Stock Companies and Firms (RJSC

The Companies Act, 1994 states that companies are required to get registered from the Registrar of the Joint Stock Companies (RJSC), and hence it is the sole authority to grant registration of a company in Bangladesh. Besides, the Companies Act, 1994 allows the RJSC to complete the winding-up processes and dissolve bankrupt companies and also voluntarily winding-up. While applying for a registration, a new company must seek the prior consent of BSEC for registration (Solaiman, 2006). But the practice is difficult as it involves delaying tactic, and thus getting registration for a new company within a reasonable time in Bangladesh is somewhat difficult. It is evident that getting registration within a reasonable time frame all companies are to pay a bribe, otherwise, it may require more extended time, even some months and years to get the same (Karim, 1995, p. 91). Bribery is comprehensive in practice and acceptable to most of the officials, and there is severe corruption among government executives and police (Index of Economic Freedom, 2011).

RJSC can exercise coercive power on the registered companies in Bangladesh in case of non-compliances of the requirements of the Companies Act 1994, though the RJSC requires the professional ability to know accounting and auditing violations (World Bank, 2003). The Companies Act 1994 declares that all companies must submit a file including a copy of annual reports along with the audited accounts to the RJSC, which enables the stockholders of publicly-traded corporations to investigate any company's file by paying a modest charge. Being a lawful body, RJSC can punish companies for negligence in submitting their annual reports. But the actual scenario reported some issues of non-compliances as RJSC fails to exercise pressure on the companies to file and present their

annual audited financial statements (Karim, 1995; World Bank, 2003). Besides, RJSC is observed to perform a very small role in the regulation of the securities market (Solaiman, 2006). The RJSC is accountable to the Ministry of Commerce.

3.3.2 Bangladesh Bank

The apex regulatory body of Bangladesh's financial system is the central bank named Bangladesh Bank, which was established in Dhaka as a body corporate vide the Bangladesh Bank Order, 1972 (P.O. No. 127 of 1972) with effect from December 16, 1971 (https://www.bb.org.bd/aboutus/index.php). Besides, BB acts as a banker of the government. The government of Bangladesh appoints the Board members of BB. BB issues prudential guidelines and directives for bank and non-bank financial institutions. The major functions of BB include-

1. Formulation and execution monetary and credit policies;
2. Administration and surveillance of banking and non-banking financial companies, promotion of national financial markets;
3. Management of foreign exchange reserves in the country;
4. Circulate currency notes;
5. Management and guidance of the payment systems;
6. Act as a banker to the People's Republic of Bangladesh;
7. Prevent money laundering;
8. Assemble and provide credit information;
9. Implement of the foreign exchange control Act; and
10. Arrange deposit insurance schemes.

In recent times, the central bank has updated a good number of its strategies to strengthen financial market-related governance standards, for instance, i) provision regarding the audit committee, ii) provisions regarding independent directors in the Banking Companies Act 1991 and iii) rules regarding disclosure by the banks.

3.3.3 Bangladesh Securities and Exchange Commission

The BSEC is a regulatory body of the country's capital markets and brokerage houses, which works under the supervision of the Ministry of Finance in Bangladesh. The BSEC can exert notable direction over the listed companies in Bangladesh to enforce schemes, rules, norms, and systems as part of sound corporate governance practices. BSEC has been formed with the delegation of authority to regulate the affairs of the country's capital markets and intermediaries, such as stock exchanges, sub-brokers & dealers, stockbrokers, merchant banks, portfolio managers, share transfer agents, trustees of trust deeds, managers of issues, intermediaries, and underwriters of the stock markets.

The BSEC takes appropriate steps to validate the issuance of securities; protects the rights of shareholders; supports efficient capital market; monitors and forbids the unfair trade practices in stock markets; conducts inquiry and reviews pertaining to all illegal exercises; carries audits and examinations of any issuer or merchant of securities, the securities exchanges, and intermediaries, and any self-regulatory organization in the capital market; and on the whole, governs the affairs of stock exchanges or any other securities market (SECB, 2006).

3.3.4 Stock Exchanges and Capital Markets

Bangladesh's capital market is relatively small than other capital markets in the South Asia region. It consists of Dhaka Stock Exchange and Chittagong Stock Exchange. These exchanges can exercise significant control over the actions of companies to force them to follow the systems, practices, standards, and routines as part of sound CG practices. In the case of refusal, they can delist the company from the stock exchanges. The stock market development in Bangladesh is at an early stage. Despite exerting a series of actions, the market growth of DSE is insignificant to date. There was a continuous growth in the stock market from 1986 to1995.

In 1996, the capital market of Bangladesh underwent serious turmoil in both DSE and CSE prompting large amounts of losses of atomistic investors (Ferdous, 2018) due to a speculative bubble. It was evident that the index crash in both DSE and CSE began following the removal of the 'lock-in' system on July 8, 1996, and the purposeful entry of

foreign institutional investors (Solaiman, 2006). Also, the association of the local agents, brokers, and the company directors were noticeable to engage in insider trading, deceitful actions, and market manipulations that may have attached to the unusual changes of share price and hence steering to the index crash in both DSE and CSE (Asian Development Bank, 2005). Though both the acts 'Securities and Exchange Ordinance 1969' and 'Prohibition of Insider Trading Regulation 1995, have been devised to protect manipulations, insider trading, and fraudulent exercises along with a provision for long sentence (including civil obligation, penalties, and imprisonment). But the fact is that the BSEC was not fully equipped to cope with such a situation. Following the index crash in 1996, the BSEC formed a probe committee to identify the evidence of these wrongdoings. The committee found the involvement of two DSE members and an honorable BSEC member collaborated with some foreign investors that led to the stock market crash in 1996 (Solaiman, 2006). Moreover, the capital market of Bangladesh experienced several corporate scams (such as, Oriental Bank, Modern Food, and SABINCO) due to having some irregularities and deficiencies in the course of discharging their daily business functions and activities, which further led the massive governance failure of the associated corporate houses. Mention could be made here that the Bangladesh Bank, the central bank of the country, placed a series of allegations (such as faulty lending practices, loan sanction without risk analysis, and non-existence of credit report of the borrower) against the Oriental Bank in 2002. Afterward, the Bangladesh Bank, in 2006, dismissed the board of Oriental Bank and took over its complete control and deputed an executive director of Bangladesh Bank as the bank's administrator (Rahman, 2008). The failure of Modern Food Product Limited was thought to the incapability of the regulatory bodies as the information furnished in the company's prospectus was not thoroughly checked and verified (Ferdous, 2013 and Sobhan et al., 2003), and afterward, realizing the losses of the investors, BSEC decided to seize the approval and asked the company to reimburse the pre-IPO money. Soon after the recovery of the stock market collapse held in 1996, the capital market of the country again experienced another severe stock market index crashes in 2011 causing serious economic effects on the investors, particularly to the let alone investors (Ferdous, 2017; Rashid, 2017 and Ahsan, 2011). Following these incidents, the government of the

country formed a probe committee headed by Mr. Ibrahim Khalid to figure out the true causes behind the crash. After having an investigation, the committee announced the findings of their investigation and disclosed the report, where the committee mentioned that it was an organized crime like the earlier scam in 1996 but the severity of the losses is more extensive. The committee also disclosed that many parties, such as BSEC officers, policymakers, members of the parliament, businessmen, and the stock exchange officers were involved in the manipulation market (Ferdous, 2013 and Rashid, 2017). But the investigation committee came into a consensus that the BSEC is responsible for this crisis. The Committee thought that as a regulator of the stock exchanges, it was the responsibility of the BSEC to examine and check these kinds of wrongdoings and unethical activities (Byron & Rahman, 2011a and Byron, 2011). BSEC promised to take action against the delinquents, but no action has yet been taken them. In 2012, BSEC opened a unit with the responsibility of monitor CG practices of corporate entities and discharged some supervisory members found associated in the swindle. But, the main actors of the swindle are yet to be executed and punished (Ferdous, 2013).

3.3.5 Professional Accounting Bodies

In Bangladesh, the accounting profession is controlled by the two professional accounting bodies, the one is the Institute of Chartered Accountants of Bangladesh (ICAB) and the second one is the Institute of Cost and Management Accountants of Bangladesh (ICMAB). ICAB got the affiliation of the International Accounting Standards Board (IASB) in 1983. ICAB issues separate Bangladesh Accounting Standards (BASs) and Bangladesh Standards on Auditing (BSAs). Both the accounting bodies are self-governing institutions and under the patronage of the Ministry of Commerce.

So far, ICAB has issued and ratified twenty-nine (29) BASs based on forty-one (41) IASs and all the eight (introduced so far) International Financial Reporting Standards (IFRSs) as Bangladesh Financial Reporting Standards (BFRSs). But, BASs are heavily aligned with the European “concept and/or principles” as opposed to the U.S. “rules-based” accounting standards (see Hoque, 2007, p. 25). ICAB also recommended thirty-one (31) BSAs based on thirty-five (35) ISAs and four (4) Bangladesh Auditing Practice Statements (BAPSs)

based on thirteen (13) International Auditing Practice Statements (IAPSs). ICAB is the sole power to regulate the accounting profession in Bangladesh. However, it does not have direct authority (exert coercive pressure) on firm governance (as shown by the dotted line in Figure 1).

As a professional body, ICAB exercises regulating influence on companies as it produces professional accountants who work as auditors at inside the firm as internal auditors and as external (independent) auditors to ensure that the internal control function works well and efficiently. The listed companies have to comply with the financial reporting systems of professional accounting bodies under the provisions of various laws and legislations. Section 212 of Companies Act, 1994, provides only the members of the ICAB (chartered accountants) to perform auditing of corporate financial affairs to assure that the financial statements and disclosures adhere to all IASs as adopted by ICAB. Therefore, there is a very small role of the members of ICMAB (cost and management accountants) in company auditing.

3.4 Legal Environment

In Bangladesh, the corporate statutory structure is comprised of many Acts, Ordinances, and various legal devices, such as notifications, regulations, orders, rules, and circulars that are published by the People's Republic of Bangladesh, BSEC, stock exchanges, and other associated governmental agencies. The Companies Act 1994 is the principal statute of corporate governance in Bangladesh. Also, many announcements, directives, orders, and guidelines issued by SECB and stock exchanges are supposed to be the statutes for corporate governance in Bangladesh (Figure 3.1).

Bangladesh is a natural law affiliated country and its statutory system has not developed overnight, rather the existing legal and judicial system emerged during the British regime, approximately 200 years ago (Panday and Mollah, 2011). It is noted that the emergence of legal systems in Bangladesh has gone through many stages and the legal system today is supposed to have resulted from a system composed of both English law and Indo-Mughal law, though the legal system of the country significantly differs from English Law because of the differences exists in respect of socio-cultural values and ethical guidelines (Panday

and Mollah, 2011). Besides, the British Companies Act 1844 has been considered as a basis during the formulation of the Companies Act 1994, which provides legal guidance and framework to all companies working in Bangladesh. Also, it reasons and justifies the relationship between the firm and its stakeholders, audit procedures, disclosure procedures, clarity, and the power of the courts on the companies (BEI, 2004).

Thus, CG practices in Bangladesh has been grounded from some acts and regulations, such as, the Companies Act, 1994, which oversees the affairs of the companies working in Bangladesh; the Securities and Exchange Commission Act, 1993, which enacted the Securities and Exchange Commission (the regulatory body of the county's capital markets); the Securities and Exchange Ordinance, 1969, which promulgates some provisions about the investor's protection; the Financial Institutions Act, 1993, which provides guidelines to the non-bank financial institutions; the Bangladesh Bank Order, 1972, which provides frameworks to the central bank of the country; the Income Tax Ordinance, 1984, which issues provisions for disclosure, audit, penalties, and violations of fiscal and revenue matters; the Bankruptcy Act, 1997, which issues guidelines relating to the settlement of disputes; Factories Act, 1965, which outlines the provisions regarding the affairs of the industries; Industrial Relation Ordinance, 1969; and Employment of labor Act, 1965, which passes some provisions relating to the employee and employment.

The judicial systems of Bangladesh are well-organized, which aligns with the system developed by British rulers, but the independence of the judiciary systems of Bangladesh is questionable (Panday and Mollah, 2011) as the administrative arm of Government is found to exercise authority over the judiciary.

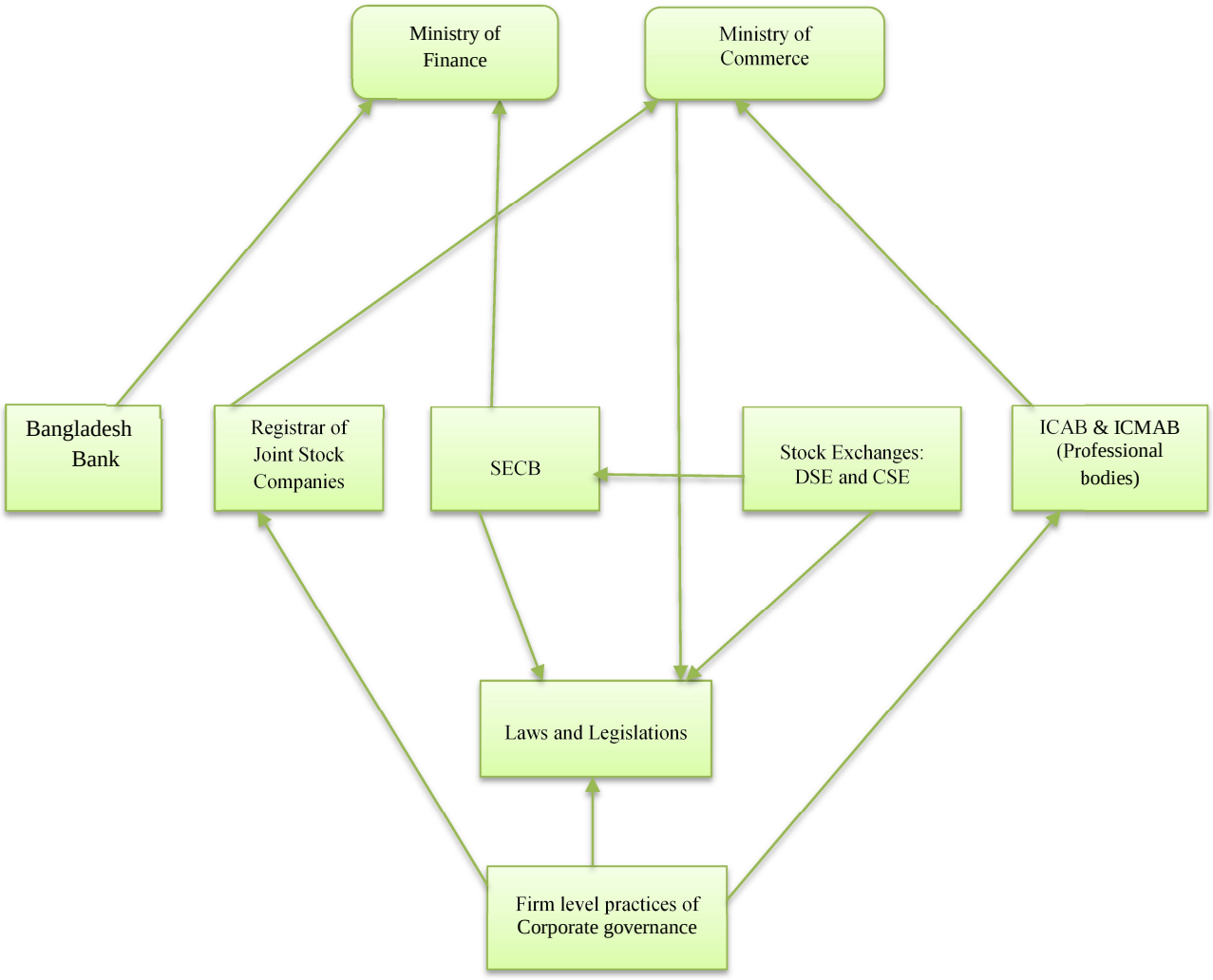

Figure 3.1: Key Legal Institutions and their influences on Firm-Level Corporate Governance Practices, Source: partly adapted from Rashid (2015).

3.5 Ownership Structure

Most Bangladeshi companies have concentrated ownership or controlled by dominant shareholders like founder family, corporate group, and government (Hossain and Rahman, 2013). But it differs significantly from the companies in Anglo-American countries as the corporate ownership structure of those countries is controlled by atomistic shareholders. Controlled by family ownership is noticed in most Bangladeshi companies (Rashid, 2015), and hence corporate management is nothing but the extension of dominant owners, which allows CEO, executive directors, and chairman from the dominant family in most Bangladeshi companies. It is evident (Farooque et al., 2008) that, on average, the top five

shareholders own more than half of a company's outstanding shares. Imam and Malik (2007) found, on average, one-third of the shares held by the top three shareholders of DSE listed companies. The percentage becomes larger in real estate, fuel and power, engineering, textile, and pharmaceutical sectors. Another study revealed that Bangladeshi companies are not willing to come to the stock market for their needed funds as they are afraid of losing control over their companies (Haque et al., 2006). Hossain and Rahman (2013) stated that the average shareholdings of the top five and top ten shareholders are 50 percent and 60 percent respectively, while the top one shareholder owns around a quarter of the firm's equity where the industrial sector is comparatively higher than the banks and insurance companies. The concentration of ownership to a small group will have a positive influence on firm value in Bangladesh as they have more dominance over the management and also an incentive to monitor the affairs of management and hence reduce agency conflicts (Hossain and Rahman, 2013).

The dominance of family shareholdings or concentration to a few hands leads to high inequality or power distance between the insiders (concentrated owners) and outsiders (atomistic shareholders). The Companies Act 1994 in Bangladesh does not provide any guidance about the limit of terminal share ownership, and thus, it is very tough for non controlling shareholders to manage a requisite number of votes to bring changes into the company's management (Rashid, 2011). It is observed that the owner-directors tend to exert influence on the company's decision making process and set the governance mechanisms based on their preferences (ADB, 2009). It is seen that owners-directors are dominant in most of the company in Bangladesh (Siddique, 2010).

The concept of institutional investors emerged following the establishment of Investment Corporation of Bangladesh (ICB) in 1976, but like Anglo-American countries, the institutional investors do not own the majority stakes in the listed companies in Bangladesh. The average institutional investment of companies in Bangladesh is 18.33 percent, while this percentage is too high in Anglo-American countries where the average standard is 60 percent (Farrar 2005, p. 339).

The excess family dominance in most Bangladeshi firms discourages institutional investors to exercise control on behalf of their customers over the companies to excel performance, provide voluntary information, and to comply with the code of corporate governance. This is because they cannot adequately minimize the gap between ownership and control in the context of Bangladesh. Hence the institutional investors in Bangladesh reduce their activities as secondary market traders, not equity associates (Uddin & Choudhury, 2008). The presence of foreign institutional investors in the capital markets in Bangladesh is limited in number (Solaiman, 2006). Private institutional reserves in Bangladesh do not significantly channel to the capital market.

3.6 Company Classification

The BSEC was founded to protect the interest of investors in securities, strengthen the stock markets and publish instructions on those matters or associated issues thereunder (https://www.sec.gov.bd/home/mission). For providing an understanding to the investors to enable them to have better investment decisions, the BSEC classifies the listed companies based on some criteria, such as compliance with the corporate governance best practices, the pattern of holding AGM, and the dividend payment practices to the investors. BSEC categorizes the listed companies according to 'A' 'B' 'G' 'N' or 'Z' categories. The companies are included in the A category based on their capacity to hold AGM regularly and announcing dividends at the rate at least 10percent in the preceding year. The companies are included in the B category that is found to hold AGM periodically but declares dividends less than 10percent. The companies that fail to arrange AGM periodically and declare any dividend belong to the 'Z' category (World Bank, 2009). The N category is other corporations that are not newly established, but lately enlisted, and 'G' denotes Greenfield corporations recently launched and listed in the stock exchanges. But, there are no G companies listed on the DSE or CSE now (Ferdous, 2017).

CHAPTER FOUR

METHODOLOGY

METHODOLOGY

4.1 Introduction

This section provides the research methodology that covers the intellectual orientation, research plan, target population, data collection, operationalization of the study variables, validity and reliability tests, data analysis, and presentation.

4.2 Research Philosophy

Research methods are influenced by philosophical bearings. Developing a philosophical view requires the researcher to make some core assumptions the researcher make several core assumptions concerning two dimensions of research, say-1) the sociological dimension, and 2) scientific dimension. Positivism and phenomenology exist as the two philosophical approaches forming the foundation of knowledge upon which assumptions and choices of a study are based in other words a subjective (phenomenology / interpretive) approach or an objective (positivism) approach (Hughes and Sharrock, 1997). These truth-seeking approaches are guided by hypotheses relating to ontology (reality), epistemology (knowledge), human character (pre-fixed or not), and methodology (Easterby-Smith et. al., 1991). The two main paradigms that guide research in social sciences are the positivist and phenomenology.

The positivist paradigm provides an understanding with a numerical approach to analyze phenomena (Smith, 1998). The approach hypothesizes that an objective reality remains, which is not affected by human behavior and is, therefore, not created out of the human mind. The positivists search for facts and issues regarding social phenomena with a little emphasis on the subjective states of individuals. This philosophy believes that universal scientific propositions are true only if they have been verified by empirical tests. The current study places emphasis on the facts, fundamental laws, reduces phenomena to the simplest elements, formulates research hypotheses and tests them. It also looks for the relationship between cause and effect. This paradigm involves operationalizing the concepts so that they can be tested and demonstrated by taking a big sample (Saunders et al., 2007).

The phenomenological paradigm focuses on the immediate experience and description of things as they are not what the researcher thinks they are. This approach involves gathering a considerable volume of valuable data based on the value of learning the experiences and circumstances of a comparably modest number of subjects (Veal, 2005). This paradigm believes that deep insights and foresightedness into this complex world are lessened if such complexity is abridged to a huge number of law like generalizations. Therefore, it becomes a crying need to explore the situation to find the facts. Besides, it becomes very essential to discover the patented meanings of guiding and motivating people's actions to understand these (Cooper and Schindler, 2008). This approach indicates that reality is subjective, multiple and mentally formed by individuals. It is believed that the application of multiple and flexible methods are effective and useful for studying a small sample thoroughly over time and warrants the sample as opposed to absolute truth. The researcher endeavors to concentrate on the thing those being researched, explore the findings at the end with an emphasis on understanding the situation or phenomenon under the research process (Crossan, 2003).

This study is inclined to a positivist research philosophy because it was based on the existing body of knowledge, the researcher reviewed literature from earlier related studies, a conceptual framework was developed, and scientific processes were followed in hypothesizing fundamental laws from which observations were deduced to determine the truth or falsify the stated hypotheses. The study tested propositions empirically. The positivist approach also relies on taking large samples hence the researcher studied the entire population to generalize the findings. During conducting social science research, researchers are required to justify and explain the reasons for selecting the research philosophy adopted for the study. The roles and responsibilities carried out by the researcher during the course of discharging research functions sparked scientific research according to interconnected paradigmatic assumptions and beliefs about the nature and state of reality. Hussey & Hussey (1997) and Patton (1990) noted that research philosophy has two paradigms, one is a positivistic paradigm and the other one is an interpretive paradigm, which forms the basis of social science research and explains the links between ontological, epistemological and methodological assumptions.

4.3 Research Design

Research design is the blueprint to guide a research study to ensure that it discusses the research problem. The research design has three distinctive branches, that is, descriptive research design, exploratory research design, and the causal research design. The research design that has been used is the descriptive cross-sectional design. The descriptive study involves the description of phenomena related to a subject population and explains the questions of a topic connected to who, what, when, where, and how. It provides an appraisal of the size of a population that has those characteristics. Discovery of the relationship among the different variables is possible to identify if the variables are independent. If the variables are not independent, determine the magnitude of the strength of the relationship. Cross-sectional studies provide a snapshot at one point in time (Cooper and Schindler, 2008).

This study, therefore, plans to adopt a descriptive cross-sectional research design. According to this method, the current study plans to collect data and assess the hypothesized relationship among the different variables. Descriptive research design helps to answer the questions regarding the current status of the subject under study (Mugenda and Mugenda, 2003), while a cross-sectional survey suggests elements that are measured at a single point in time and that the study made use of the entire population as opposed to a sample. A cross-sectional descriptive survey was used to describe characteristics or features and analyze their frequency, distribution, and observable phenomena. It is mentioned that cross-sectional studies provide a framework for the researchers to measure the magnitude of the relationship among the different variables prevail at some point in time (Nachmias and Nachmias, 2004).

A descriptive cross-sectional design enabled the researcher to discover any relationship between CG mechanisms and corporate financial performance of companies listed at the DSE listed in Bangladesh. The current study selects the research design based on the nature of data and the analysis required to carry out. Similar research design has been adopted by Aduda and Musyoka (2011), where they examined the relationship between executive compensation and corporate financial performance taking samples of Kenyan banks.

In this section, the current study plans to discuss some key methods of data analysis as it could be potentially employed these methods later to address our research questions and test our hypotheses. Remember that the objective of the study is to see the effectiveness of corporate governance mechanisms on the corporate financial performance, and hence, the unit analysis of the study is individual firm and seeks to explore the effects of CG mechanisms on the corporate financial performance.

Since the firm is an artificial being and the decision making authority is vested to persons associated with the firm (say, its owners, directors, managers, and employees). Thus, behavioral aspects must be considered to analyze and understand the firm as it is operated by the human being. In this context, the current study looks at how the social theory can provide it some guidance. Social theory has four paradigms including functionalist, interpretive, radical humanist and radical structuralism (Detthamrong et al., 2017). The functionalist paradigm tries to portray a rational explanation of social phenomena and behaviors and becomes very influential in mainstream academic finance and academic sociology. Besides, the functionalist paradigm focuses on the importance of gaining an understanding regarding demand, supply, order, equilibrium and the stability in the society along with how these can be managed. Thus, the functionalist paradigm is concerned with the governance, regulation, and control of social affairs. Ardalan (2008) mentioned that financial markets are considered as a place of reality that can be explained and understood in terms of causes and effects.

There are two main branches of research methodologies, first, the quantitative methodology, the second, the qualitative methodology (Detthamrong et al., 2017). The current study plans to adopt the quantitative approach as a quantitative method is better suited to empirically address the research questions than that of the qualitative method. It can be noted here that the qualitative method is better at addressing some research questions e.g., “why” and “how”.

The current study plans to test the research hypotheses presented in Chapter Two and the main objective of the study is that there is an association exists between the CG mechanisms and the corporate financial performance by estimating OLS regression. It can be mentioned here that the second approach (the qualitative method) is not capable enough to test the research hypotheses.

Therefore, the current study develops a series of multiple OLS regression model based on the objectives of the study to empirically test the relationship between CG mechanisms and the firm financial performance.

4.4 Target Population and Sampling

Any study could be conducted using data either from primary sources or secondary sources or both based on the objective of the study. The current study used secondary data extracted from annual reports under the scope of the study. It is observed that not only internal monitoring mechanisms but also some factors and specific industry regulations may affect the manager's discretion which in turn may affect the firm performance (Booth et. al., 2000). Thus, it can be inferred that the effectiveness of corporate governance mechanisms may be poor where the regulatory interventions are more stringent, particularly financial sectors and public utilities. Therefore, the current study plans to consider manufacturing companies as the regulatory interventions on these sectors are lenient, which facilitates to sharply identify the effects of CG mechanisms on corporate financial performance. The study follows the DSE industry classification to select manufacturing companies over the period 2006 to 2017, a twelve years period. This period is momentous because the market supervisory body of Bangladesh (the Securities and Exchange Commission of Bangladesh, hereafter 'the Commission') promulgated the CG Guidelines in 2006 on 'comply or explain' basis. Following its extensive adoption by listed firms irrespective of their size, and considering the limitations of the guidelines, the Commission issued revised CG guidelines on 3 July 2012 on a 'comply' basis. So, we can empirically test the effects of the adoption of CG guidelines by the listed companies in Bangladesh splitting the study period between 2008 to 2012 and 2013 to 2017. Primarily,

we find 150 manufacturing companies listed at DSE, but the annual reports are available for only 82 companies. The sample companies of the study cover approximately 68 percent of the total market capitalization of all manufacturing companies in 2017. Thus, it can be argued that the sample companies are representative as Chauhan et al. (2016) conducted a study with the sample representing, on average, 55.49percent of the total market capitalization of all manufacturing companies in 2013. For the sake of better analysis, the study skips some firm-year observations with the negative book value of equity. Therefore, the final sample of the study stands at 984 firm-year observations for those 82 companies over the period 2006-2017. Since this study uses 10 variables of which 6 independent variables, 1 mediating variable and 3 dependent variables for all the 12 years. Thus this research has utilized 82×10×10=8200 data points.

Table 4.1: Shows Summary of Sector-wise population & sample, and amount of market capitalization of listed manufacturing companies in Bangladesh

Name of the sectors	**Population (Total number of companies under each sectors in 2017)**	**Total number of companies in the sample.**	**percent of sample of each strata to total sample**	**Total Market Capitalization (In millions)**	**Sample (percentof population)**
Cement	7	5	6.09percent	131,445.60	108057.87 (82.20percent)
Ceramics	5	3	3.65percent	26,212.99	5840.26 (22.28percent)
Paper & Printing	2	1	1.21percent	1,012.70	1,012.70 (100 percent)
Engineering	36	17	20.73percent	190,624.16	53,397.51 (28.01percent)
Jute	3	3	3.65percent	1,546.90	1546.9 (100percent)
Textile	50	20	24.39percent	126,340.68	34348.69 (27.18percent)
Pharmaceuticals & Chemicals	28	15	18.29percent	501,852.83	401734.44 (80.05percent)
Tannery Industries	6	5	6.09percent	27,434.30	22235.09 (81.04percent)
Food & Allied	18	13	15.85percent	247,194.42	237150.15 (95.94percent)
Total	**155**	**82**	**100.00**	**1,253,664.58**	**865323.6 (69.02percent)**

Source: *DSE Monthly Review, June 2017, Vol. 32, No. 06*

Table 4.2: Shows the list of Companies included in the study

S.L No.	Name of Company	Name of Sector	Acronym
1.	Aramit Cement Limited	Cement	*ARAMITCEM*
2.	Confidence Cement Ltd.	Cement	*CONFIDCEM*
3.	Heidelberg Cement Ltd.	Cement	*HEIDELBCEM*
4.	Lafarge Surma Cement Ltd.	Cement	*LHBL*
5.	Meghan Cement Mills Ltd.	Cement	MEGHNACEM
6.	Mono Ceramics Industries	Ceramics	MONNOCERA
7.	Standard Ceramics Industries	Ceramics	STANCERAM
8.	Fu-Wang Ceramics Industries	Ceramics	FUWANGCER
9.	Hakkani Pulp & Paper Mills	Paper & Printing	HAKKANIPUL
10.	Aftab Automobiles	Engineering	*AFTABAUTO*
11.	Aziz Pipes Ltd.	Engineering	AZIZPIPES
12.	Bangladesh Lamps Ltd.	Engineering	*BDLAMPS*
13.	Eastern Cables Ltd.	Engineering	*ECABLES*
14.	Mono Jute Staffers Ltd.	Engineering	MONNOSTAF
15.	Singer Bangladesh Ltd.	Engineering	*SINGERBD*
16.	Atlas Bangladesh Ltd.	Engineering	*ATLASBANG*
17.	Bangladesh Autocars Ltd.	Engineering	BDAUTOCA
18.	Quasem Drycells Ltd.	Engineering	*QUASEMIND*
19.	Renwick jainswar & co	Engineering	*RENWICKJA*
20.	National Tubes Ltd.	Engineering	*NTLTUBES*
21.	BD Thai Aluminum Ltd.	Engineering	*BDTHAI*
22.	Anwar Galvanizing Ltd.	Engineering	*ANWARGALV*
23.	Kay & Que (Bangladesh)	Engineering	*KAY&QUE*
24.	Rangpur Foundry Ltd.	Engineering	*RANFOUNDRY*

S.L No.	Name of Company	Name of Sector	Acronym
25.	S. Alam Cold Rolled Steels	Engineering	*SALAMCRST*
26.	National Polymar Industries	Engineering	*NPOLYMAR*
27.	Jute Spinners Ltd.	Jute	JUTESPINN
28.	Northern Jute manufacturing Ltd.	Jute	NORTHERN
29.	Sonali Aansh Industries	Jute	SONALIANSH
30.	Al-Haj Textile Mills limited	Textile	*AL-HAJTEX*
31.	Stylecraft Limited	Textile	*STYLECRAFT*
32.	Rahim Textile Mills Ltd.	Textile	*RAHIMTEXT*
33.	Saiham Textile Mills Ltd.	Textile	*SAIHAMTEX*
34.	Modern Dying & Screening Printing	Textile	MODERTEX
35.	Desh Garments Ltd.	Textile	DSHGARME
36.	Dulmia Cotton Spinning Mills	Textile	DULAMIACOT
37.	Tallu Spinners Mills Ltd.	Textile	*TALLUSPIN*
38.	Apex Spinning & Knitting Mills	Textile	*APEXSPINN*
39.	Mithun Knitting & Dying	Textile	*MITHUNKNIT*
40.	Delta Spinners Ltd.	Textile	*DELTASPINN*
41.	Sonargoan Textiles Mills Ltd.	Textile	*SONARGAON*
42.	Prime Textile Spinners Milss	Textile	*PRIMETEX*
43.	Altex Industries Ltd.	Textile	*ALLTEX*
44.	Anlima Yarn Dying Ltd.	Textile	*ANLIMAYARN*
45.	H.R. Textile Ltd.	Textile	*HRTEX*
46.	CMC Kamal Textile Mills Ltd.	Textile	CMCTEX
47.	Safko Spinners Mills Ltd.	Textile	SAFKOSPINN
48.	Square Textile Ltd.	Textile	*SQUARETEXT*
49.	Metro Spinners Ltd.	Textile	*METROSPIN*

S.L No.	Name of Company	Name of Sector	Acronym
50.	Ambee Pharma Ltd.	Pharmaceuticals	*AMBEEPHA*
51.	Beximco Pharmaceuticals Ltd.	Pharmaceuticals	*BXPHARMA*
52.	GlaxoSmithkline (CSK) Bangladesh	Pharmaceuticals	*GLAXOSMITH*
53.	ACI Ltd.	Pharmaceuticals	*ACI*
54.	Reneta Ltd	Pharmaceuticals	*RENETA*
55.	Reckitt Benckiser (BD) Ltd.	Pharmaceuticals	*RECKITTBEN*
56.	Pharma Aids Ltd.	Pharmaceuticals	*PHARMAID*
57.	Kohinoor Chemicals Company	Pharmaceuticals	*KOHINOOR*
58.	The IBN SINA Pharmaceuticals	Pharmaceuticals	*IBNASINA*
59.	Beximco Synthetics Ltd	Pharmaceuticals	*BEXSYNTH*
60.	Libra Infusion Ltd.	Pharmaceuticals	*LIBRAINFU*
61.	Orion Infusion Ltd.	Pharmaceuticals	*ORIONINFU*
62.	Square Pharmaceuticals Ltd	Pharmaceuticals	*SQUARPHARMA*
63.	Imam Button Industries Ltd.	Pharmaceuticals	*IMAMBUTTON*
64.	Keya Cosmetics Ltd.	Pharmaceuticals	*KEYACOSM*
65.	Apex Tannery Ltd.	Tannery	*APEXTAN*
66.	Bata Shoe Company ltd.	Tannery	*BATASHOE*
67.	Apex Footwear Ltd.	Tannery	*APEXFOOT*
68.	Samata Leather Complex Ltd.	Tannery	*SAMATALETH*
69.	Legacy Footwear Ltd.	Tannery	*LEGACYFOOT*
70.	Olympic Industries Ltd.	Food & Allied	*OLYMPICIND*
71.	Apex Foods Ltd.	Food & Allied	*APEXFOOD*
72.	Bangas Ltd.	Food & Allied	*BANGAS*
73.	British Americal Tobaco Bangladesh Company	Food & Allied	*BATBC*
74.	Gemini Sea Food Ltd.	Food & Allied	*GEMINIFOOD*

S.L No.	Name of Company	Name of Sector	Acronym
75.	National Tea Company Ltd.	Food & Allied	*NTC*
76.	Zeal Bangla Sugar Mills Ltd.	Food & Allied	*ZEALBANGLA*
77.	Agriculture Marketing Company (pran)	Food & Allied	*AMC*
78.	Fu Wang Food Ltd.	Food & Allied	*FUWANGFOOD*
79.	Meghna Pet Industries Ltd.	Food & Allied	*MEGHNAPET*
80.	Meghna Condensed Milk Ltd	Food & Allied	*MEGHNACO*
81.	Beach Hatchery Ltd.	Food & Allied	*BEACHHATCH*
82.	Fine Foods Ltd.	Food & Allied	*FINEFOOD*

4.5 Data Collection

The current study used secondary data taken from the annual reports under the scope of the study. The current study used return on assets (ROA) and Tobin's Q as a financial performance measure developed from the review of financial statements of the sample companies. Besides, financial leverage was measured through the review of the same financial statements. The study period ranges from 2006 to 2017. This period is momentous because the market supervisory body of Bangladesh (the Securities and Exchange Commission of Bangladesh, hereafter 'the Commission') promulgated the CG Guidelines in 2006 on 'comply or explain' basis. Following its extensive adoption by listed firms irrespective of their size, and considering the limitations of the guidelines, the Commission issued revised CG guidelines on 3 July 2012 on a 'comply' basis. So, we can empirically test the effects of the adoption of CG guidelines by the listed companies in Bangladesh separating the study period from 2006 to 2012 and 2013 to 2017.

4.6 Operationalization of Variables

The study has three variables of interest. The independent variables include board size, board independence, audit committee size, female directorship, CEO duality, ownership concentration, and institutional ownership, financial leverage, and SEC guidelines. The dependent variable is the firm performance as measured by Tobin Q and ROA, while the firm age and firm size are the variables.

Table 4.3: Summary of Research Variables

Variables	Indicators	Measure
CORPORATE GOVERNANCE (INDEPENDENT VARIABLE)		
Corporate Governance	Board Size (BDSIZE)	A number of directors sitting in the corporate board, which includes executive directors, non-executive directors and the chairperson of the company.
	Board Independence (B DIND)	The proportion of the outside directors to the total number directors sitting in the corporate board.
	Audit Committee Size (BDAUDIT)	Total number of members in the firm's audit committee.
	Female directorship (BDWOMEN)	It is a dummy variable which takes a value 1(one) if there is any female directors in the corporate board and 0(zero) otherwise.
	CEO duality(CEODUAL)	CEO duality is a dummy variable which takes a value of 0(zero) if the CEO is also the chairperson of the board of directors, and 1(one) otherwise (Detthamrong et al., 2017).
	Ownership concentration (OWNCON)	The percentage of common stock held by sponsor directors as per the DSE shareholding pattern.
	Institutional Shareholding	The percentage of the equity shares held by the institutional investors as per the DSE shareholding pattern.
Financial Leverage		
Leverage		**Total liabilities to total assets**
FIRM PERFORMANCE (DEPENDENT VARIABLE)		
Several studies found in literature measured corporate financial performance using accounting-based proxy variables, such as return on equity (ROE) and return on assets (ROA), and market-based measure, such as Tobin's Q to capture the effectiveness of CG mechanisms (Rashid et al., 2010 and Rashid, 2010). It is found that accounting-based performance measures are entangled		

Variables	Indicators	Measure
With some problems as accounting profit can be manipulated because it is calculated following the management guideline, and managers may prefer a particular accounting methods to improve the performance (Deegan, 2005 and Rashid, 2013) as they are sometimes found with opportunistic behavior to take the advantage of information asymmetry with manipulation of accounting numbers (Healy 1985). Thus, this study plans to use ROA along with Tobin's Q to measure corporate financial performance.		
Return on Assets (ROA)	Ratio of operating income (EBIT) to total assets	This ratio shows how profitable a company is relative to its total assets $ROA = \frac{Operating\ income}{Total\ assets}$
Tobin's Q	Ratio of market value to book Value of assets.	Market value of the assets is determined as- Market value of the equity plus book value of the assets minus book value of the equity. Several researchers in the field of corporate governance and corporate finance used this techniques to determine the firm's financial performance, such as Maniruzzaman and Hossain (2019); Omran et al. (2008); Davies et al. (2005); Deb and Chaturvedula (2003); Cho (1998); Agrawal and Knoeber (1996); Hermalin & Weisbach (1991); McConnell & Servaes (1990); and Morck et al. (1988).

4.7 Data Analysis

The data obtained on the CG mechanisms were analyzed using both descriptive statistics (mean, standard deviation, skewness and kurtosis) and inferential statistics (simple regression analysis and multiple regression analysis). Besides, this study uses Pearson's Product Moment Correlation Matrix to identify the nature and magnitude of the associations between the variables used in this study. Descriptive statistics such as frequencies and percentages were computed for organizational data. Mean scores were computed for the binary type of questions. Pearson's correlation analysis was used to measure the degree of the linear relationship between the variables of the study. To investigate the interactions between variables, OLS multiple regression analysis was used.

4.8 Models' Specifications

Table 4.4: Summary of Research Objectives, Hypotheses, Analytical Methods, Statistical test and Interpretation

Objectives	Hypotheses	Analytical methods	Interpretation
Firstly, the current study endeavors to identify the effects of internal corporate governance mechanisms (such as BDSIZE, BDIND, BDAUDIT, BDFEMALE, CEODUAL, OWNCON) on corporate financial performance measured as Tobin's Q and ROA developing a OLS regression model, where we load all the internal CG mechanisms in a regression model to see the influence on the corporate financial performance.			
Investigating the impact of internal CG mechanisms on the corporate financial performance.	Hypothesis (1.1-1.6) There is no association between internal CG mechanisms and the corporate financial performance among the manufacturing companies listed at DSE.	OLS Multiple Regression Model for evaluating the impact of internal CG mechanisms on the corporate financial performance: $\mathbf{Y_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_j Control_{it} + \varepsilon_{it}}$	Relationship exists if β_1, β_2, β_3, β_4, β_5, and β_6 are significant
Secondly, the current study tries to identify the effects of external CG mechanisms namely institutional ownership, financial leverage, and the BSEC revised guidelines-2012 on the corporate financial performance measured as ROA and Tobin's Q and by producing an OLS regression model.			
Examining the effect of external CG mechanism on firm performance.	Hypothesis(2.1-2.3): There is no significant relationship between external CG mechanisms and corporate financial performance among the listed manufacturing companies on the DSE.	OLS Multiple Regression model for investigating the effects of external CG mechanisms on the corporate financial performance: $\boldsymbol{Y_{it} = \alpha + \beta_1 \times INS_{it} + \beta_2 \times LEV_{it} + \beta_3 SECCODE_{it} + \beta_j Control_{it} + \varepsilon_{it}}$	Relationship exists if β_1, β_2, and β_3 are significant

Thirdly, the current study endeavors to identify the effects of firm-level control variables namely firm age and firm size on the corporate financial performance measured as ROA and Tobin's Q and by developing an OLS regression model.			
Examining the effect of firm level control variables on corporate financial performance.	Hypothesis (3.1-3.2) There is no significant relationship between Firm level control variables and corporate financial performance among the listed manufacturing companies on the DSE.	OLS Multiple Regression model for investigating the effects of firm level control variables on the corporate financial performance: $Y_{it} = \alpha + \beta_1 \times FAGE_{it} + \beta_2 \times LNFSIZE_{it} + Control_{it} + \varepsilon_{it}$	Relationship exists if β_1 and β_2 are Significant
Fourthly, we load all the variables used in the study in a OLS regression model to see the influence on the corporate financial performance			
Determining the effect of all corporate governance variables along with firm level control variables on corporate financial performance.	Hypothesis (4.1-4.11) There is no association between all corporate governance variables along with firm level control variables and corporate financial performance among the listed manufacturing companies at the DSE.	OLS Multiple Regression model : Firm performance = f (CG, Capital Structure) $Y_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_7 \times INS_{it} + \beta_8 \times LEV_{it} + \beta_9 \times SECCODE_{it} + \beta_{10} \times FAGE_{it} + \beta_{11} \times LNFSIZE_{it} + \beta_j Control_{it} + \varepsilon_{it}$	Relationship exists if β_1, β_2, β_3, β_4, β_5, β_6, β_7, β_8, β_{10}, β_{10} and β_{11} are significant

4.9 Analysis of the Data

To analyze the data collected largely from the annual reports of the DSE listed manufacturing companies, the current study used The Statistical Package for Social Sciences (SPSS). More details about this investigation are explained in the following sections.

4.9.1 Regression Model's Appropriateness

This research planned to use the OLS regression model to analyze the data. It is observed that OLS is popularly and largely used in regression analysis, particularly in social science research. Besides, an OLS formula is very simple and handy that facilitates smooth data analysis (Stock and Watson, 2003). Some assumptions are required to meet to test the data adaptability and compatibility for the classical regression model before conduction data analysis as referred by Brooks (2002), which are-

1. No relationship exists between independent variables.
2. There is a linear relationship between dependent variables and independent variables.
3. Errors are thought to be normally distributed, and errors have zero mean.
4. The variance of the error is constant over all values of it.
5. The errors are independent of one another.

The current study conducted different tests namely multicollinearity, normality, linearity, homoscedasticity, outliers, and autocorrelation to see whether data used in this study is suitable or not to meet the regression model's appropriateness requirement.

Table 4.5: Presents Suitability Tests for the data, Definitions and conditions, and Detecting Procedures

The problem	**Definition**	**Detecting test**
Multicollinearity	Multicollinearity happens when independent variables in a regression model are correlated. This correlation is a problem because independent variables should be independent. If the degree of correlation between variables is high enough (more than 80percent), it can cause problems when we fit the model and interpret the results.	The Pearson correlation matrix
Normality	An assessment of the normality of data is a prerequisite for many statistical tests because normal data is an underlying assumption in parametric testing.	The data are normal if Shapiro-Wilk Test and Kolmogorov-Smirnov[a] Test score is more than .05. Besides, Normal Q-Q plot shows the pattern of data normality.
Linearity	Linear regression needs the relationship between the independent and dependent variables to be linear.	Standardized residuals as a function of standardized predicted values. Influence of linearity is tested by Cook's Distance test and Mahalanobis Distance test of linearity.
Heteroskedasticity	Heteroscedasticity (also spelled heteroskedasticity) refers to the circumstance in which the variability of a variable is unequal across the range of	Homoscedasticity was tested by the use of Levene's Test.

	values of a second variable that predicts it. If errors have a constant variance, they are homoscedastic; otherwise, they are heteroscedastic.	
Autocorrelation	Autocorrelation can also be referred to as lagged correlation or serial correlation, as it measures the relationship between a variable's current value and its past values. When computing autocorrelation, the resulting output can range from 1 to negative 1, in line with the traditional correlation statistic. An autocorrelation of +1 represents a perfect positive correlation (an increase seen in one time series leads to a proportionate increase in the other time series). An autocorrelation of negative 1, on the other hand, represents perfect negative correlation (an increase seen in one time series results in a proportionate decrease in the other time series). Autocorrelation measures linear relationships; even if the autocorrelation is minuscule, there may still be a nonlinear relationship between a time series and a lagged version of itself (https://www.investopedia.com/terms/a/autocorrelation.asp).	Independence of error terms was assessed through the Durbin-Watson test.

4.9.2 Analytical procedures

After conducting the fitness test of the regression model, the current study planned to investigate the relationship between corporate governance mechanisms and the corporate financial performance using data of 82 DSE listed manufacturing companies over a period 2006-2017. It is noticed that several past studies in the corporate governance literature (see for Example- Jaafar & El-Shawa, 2009; Omran et al., 2008; Silveira & Barros, 2007; Brick et al., 2006; and Agrawal & Knoeber, 1995) used the OLS regression model where corporate governance variables were independent variables and performance-related measures were dependent variables. In line with the past studies, this study plan to use the OLS regression model where CG related variables are considered as independent variables and the performance measures (ROA and Tobin's Q) are used as dependent variables. Besides, this study also plans to use some control variables, such as firm age and firm size.

4.10 Summary

In this chapter, the study objectives and research questions are presented, research paradigm is considered, and the research method used is described (mainly a quantitative method), sample selections, dependent and independent, and control variables are introduced, research hypotheses are presented, and data analysis techniques with the analytical procedures are explained. The next chapter analyzes the research findings and presents the discussion of the results from quantitative data.

CHAPTER FIVE

RESULTS AND DISCUSSION

RESULTS AND DISCUSSION

5.1 Introduction

In this section, this study endeavors to present the results of data analysis based on the objectives of the research. The main objective of this study is to investigate the effects of CG devices on the corporate financial performance of DSE listed manufacturing companies in Bangladesh. Both descriptive (such as minimum, maximum, mean, standard deviation, kurtosis, and skewness) and inferential statistics (Multiple OLS regression) are used to analyze the data with the help of the Statistical Program for Social Sciences (SPSS), version 22. The current study conducted different tests namely multicollinearity, normality, linearity, homoscedasticity, outliers, and autocorrelation to see whether data used in this study is suitable or not to meet the regression model's appropriateness requirement. Correlations were also conducted between various study variables and multiple regressions are used to test the hypotheses of the study.

5.2 Test of Statistical Assumptions

The present study carried out different tests to see whether the data used in this study meet the requirements for the linear regression model's appropriateness. To analyze data using the OLS regression model, some assumptions are required to meet that are- First; no relationship exists between independent variables. Second, there is a linear relationship between dependent variables and independent variables. Third, errors are considered as normally dispersed, and the mean value is zero. Fourth, the variance of the error is constant over all values of it. Fifth, the errors are free of one another. Therefore, the current research conducted the required number of tests, such as-

a) Shapiro-Wilk test to see whether data used in this study are normally distributed as this test has the power to detect the departure from the normality due to either kurtosis or skewness or both. A test score ranges from zero to one and the score is higher than .05 indicating that the data is normally distributed (Razali and Wah, 2011).

b) ANOVA test of linearity to see whether a linear relationship exists between a pair of variables. The linearity test aims at identifying the association between the independent variables and dependent variables are linear or not. The linearity test is a requirement in the correlation and linear regression analysis. ANOVA test score ranges from zero to one and the score is higher than .05 indicate that there is linear relationship exists between the independent and the dependent variables (Razali and Wah, 2011).

c) Durbin-Watson test to see the independence of error terms, which further implies that whether observations are independent or not. Durbin-Watson test score ranges from 0(zero) to 4(four) and the score remains between 1.5 and 2.5 assumes that observations are independent.

d) Levene's test to examine the Homoscedasticity, which demonstrates a situation in which the error term (say, the "noise" or arbitrary trouble in the association between the dependent and independent variables) is the same across all values of the independent variables. If the Levene statistic is significant at $\alpha = 0.05$ then the data groups do not have identical variance.

e) Variance Inflation Factors (VIF) and its reciprocal, tolerance to examine the Multicollinearity, which is an occurrence in which a predictor variable in a multiple regression model can be linearly predicted from the others with a considerable degree of precision. Multicollinearity creates an impediment to identifying the actual contribution of the predictor variables to the variance in the dependent variables (https://en.wikipedia.org/wiki/Multicollinearity).

The following table shows the threshold levels for the respective test statistics. To test multicollinearity both the variance inflation factor (VIF) and its reciprocal (Tolerance) values are listed, the later in comments. The results indicate that the suppositions of regression are met and then the data are subjected to more numerical study together with hypotheses testing as conferred in the next subsections.

Table 5.1: Shows number of specific test conducted to check the assumptions of OLS model and their threshold levels.

S.L No.	Test Conducted	Threshold levels
1.	Normality *(Shapiro-Wilk test)*	p > 0.05
2.	Cook's Distance Test for Linearity	p <0.05
3.	Independence *(Durbin-Watson test)*	1.5- 2.5
4.	Homogeneity *(Levene test)*	p > 0.05
5.	Collinearity *VIF (Tolerance test)*	VIF 10 max

To see whether the data are normally distributed or not, the study conducted a Shapiro-Wilk test as this test has the power to detect the departure from the normality due to either kurtosis or skewness or both. A test score ranges from zero to one and the score is higher than .05 indicating that the data is normally distributed (Razali and Wah, 2011). The actual readings of the study show a score above 0.05 that assumes the data used for the study is normally distributed.

Besides, the current study conducts the ANOVA test of linearity to see whether a linear relationship exists between a pair of variables. The linearity test aims at identifying whether the association between the independent variables and dependent variables is linear or not. The linearity test is a requirement in the correlation and linear regression analysis. ANOVA test determines both the linear and nonlinear elements of a couple of variables, and if the F value for the nonlinear component is below 0.05, then nonlinearity is significant. All actual computed readings of the study were above 0.05, which indicates that there is a linear relationship exists between the predictor variable and the dependent variable.

The study further conducted the Durbin-Watson test to see the independence of error terms, which further implies that whether the observations are independent or not. Durbin-Watson test score ranges from 0 (zero) to 4 (four) and the score remains between 1.5 and 2.5 assumes that observations are independent. The actual readings of the study show that all the value remain between 1.81 and 2.21, which support the independence of error terms.

Furthermore, the study conducts Levene's test to examine the Homoscedasticity describes a situation where the error term (say, the "noise" or arbitrary trouble in the association between the response and experimental variables) is the same across all values of the experimental variables. If the Levene statistic is significant at $\alpha = 0.05$, then the data groups not have identical variances. The test is not significant as $\alpha = 0.05$ confirming homogeneity. Variance Inflation Factors (VIF) and their reciprocal, tolerance to examine Multicollinearity (also called collinearity), a phenomenon in which one predictor variable in a multiple regression model can be linearly predicted from the others with a substantial degree of accuracy. Multicollinearity creates an impediment to identifying the actual contribution of the predictor variables to the variance in the dependent variables. The multicollinearity assumption has a VIF threshold value of 10 maximum (Gatwirth et al., 2009). In the current study, tolerance varied from 0.60 to 0.80, and thus, its reciprocal, the VIF, is between one and two ways under the verge.

5.3 Descriptive Statistics

The current study conducts Descriptive Statistics to demonstrate mean, median, standard deviation, maximum, minimum, skewness, and kurtosis to know the nature of data before running the OLS regression. The table presents descriptive statistics for the pooled cross-sectional data. The average ROA for all firms is 8.92 percent along with a median of 7.51 percent. There is a bit fluctuation observed in ROA from 2006 to 2017, and there is an upward trend noticed from 2006 to 2009, while it seems a bit downward trend from 2009 to 2014, and again it moves upward. Thus ROA shows no steady trend from 2006 to 2017.

5.3.1 Time series pattern of the study variables

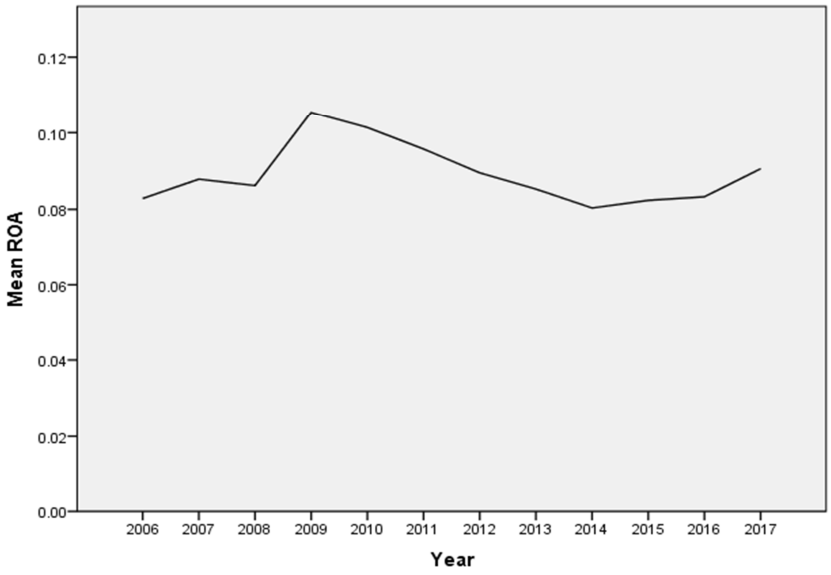

Figure 5.1: Shows the time series pattern of ROA from 2006 to 2017.

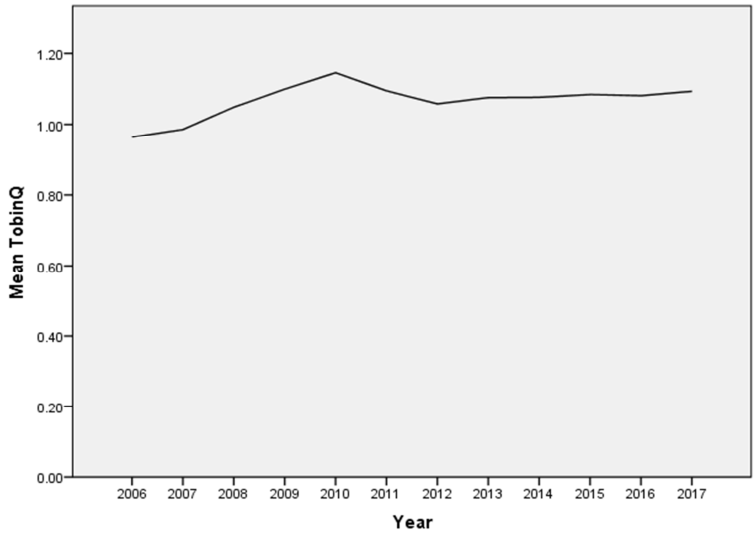

Figure 5.2: Shows the time series pattern of Tobin's Q from 2006 to 2017.

The average board size of the study is 7.1556, while the median is 7.00. The Graph shows that the mean value of board size remains relatively stable over the periods from 2006 to 2017, though it slightly increases from 2012 to 2017.

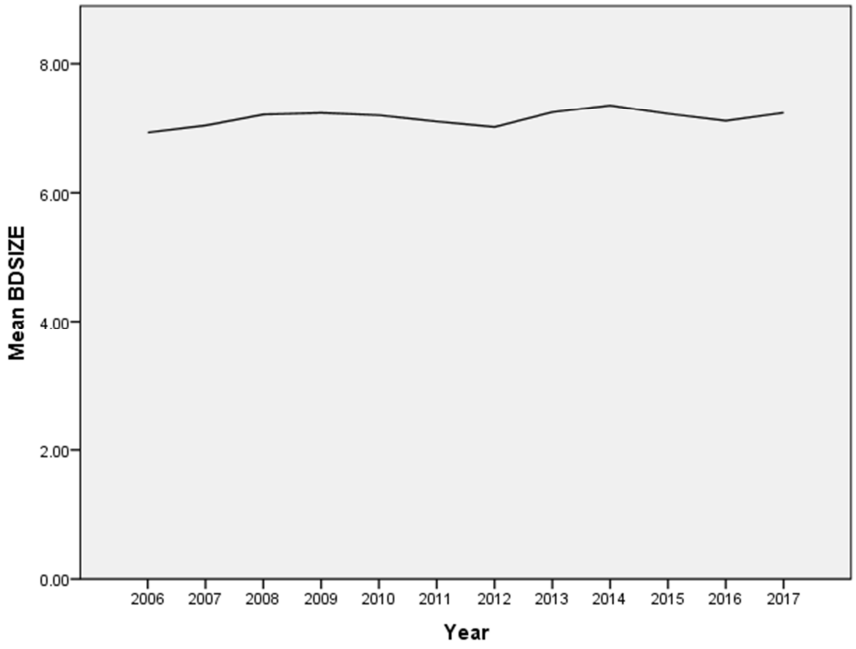

Figure 5.3: Shows the time series pattern of Board Size from 2006 to 2017.

The average number of board members of the sample companies is 1.3943 with a median of 1. The time-series pattern of the number of independent directors of the sample companies shows that the number of nonexecutive directors increases from 2011 onwards. Thus there is an impact of BSEC CODE in this regard. BSEC issued CG guidelines in 2006 on a 'comply or explain' the basis and revised the same in 2012 on a mandatory basis. The revised guideline on corporate governance for listed companies was released on August 30, 2012, and is effective as mandatory from December 31, 2020. It needs publicly traded companies to keep at least one-fifth of corporate board members as independent members. The number of independent directors in manufacturing companies shows an increasing trend from 2012 onwards, which signals revised CG guidelines influence the growing trend of the number of independent directors of the manufacturing companies in Bangladesh.

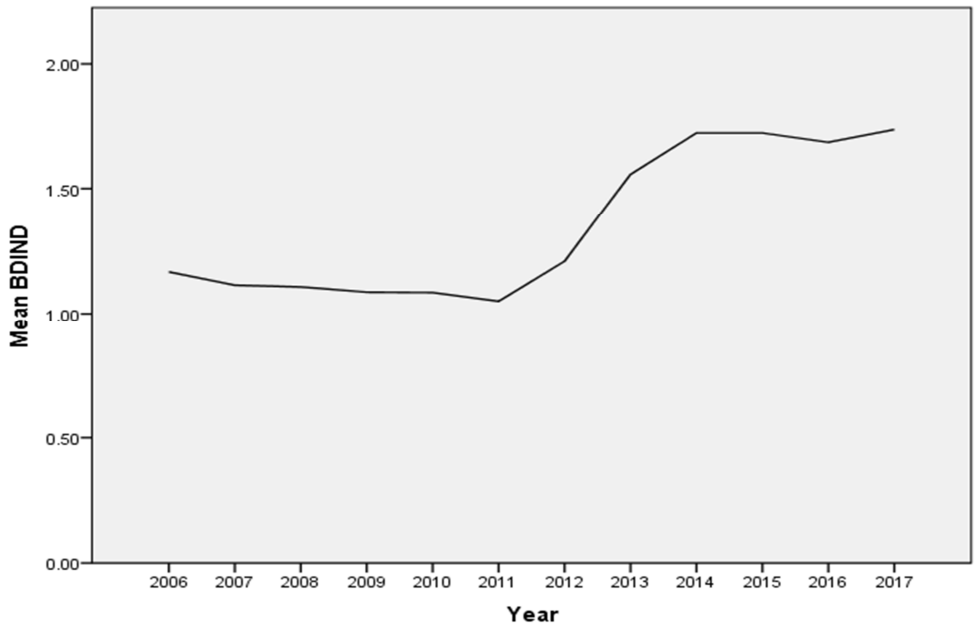

Figure 5.4: Shows the time series pattern of Board Independence from 2006 to 2017.

This study uses several central tendency measures that are:

a) Mean shows the most typical value in a set of value,

b) Standard error demonstrates the accuracy within a set of values,

c) Skewness indicates the pattern of symmetry (data set is symmetry if it looks the same to the right and left of the center point),

d) Kurtosis represents whether the data are peaked or flat in comparison to a normal distribution (Cooper and Schindler, 2008).

The current study fixes some measures of corporate governance namely Board Size (BDSIZE), Board Independence (BDIND), Audit Committee Size (BDAUDIT), Female Directorship (BDWOMEN), CEO Duality (CEODUAL) and Ownership Concentration (OWNCON), Institutional Ownership (INS), Financial Leverage (LEV), and the BSEC Guidelines among the DSE listed manufacturing companies in Bangladesh.

Table 5.2: Shows the Descriptive Statistics results of the main variables included in the model

Variables	Mean	Median	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
ROA	.0892	.0751	.10169	-.40	.76	1.289	2.511
Tobin's Q	1.0673	1.0552	.11570	.51	1.52	.343	2.851
BDSIZE	7.1556	7.0000	.86434	2.00	14.00	.441	-.333
BDIND	1.3943	1.0000	.66433	1.00	5.00	1.906	3.049
BDAUDIT	3.2187	3.0000	.85776	1.00	6.00	.168	2.063
BDWOMEN	.6524	1.0000	.49116	.00	3.00	-.356	-.614
CEODUAL	.7564	1.0000	.42945	.00	1.00	-1.197	-.569
OWNCON	44.7615	47.6000	6.69749	.12	82.91	-.071	.080
INS	17.4666	7.8700	7.98879	.02	60.57	1.104	1.301
LEV	.6072	.5498	.41166	.01	4.48	3.674	5.041
LNFSIZE	6.9285	2.9200	.48003	2.90	10.75	.042	-.159
FAGE	2.9131	2.9957	.47382	.00	3.71	-1.214	2.486

Variable description		
ROA	*Return on Assets*	The ratio of earnings before interest and taxes to total asset
ROE	*Return on equity*	The ratio of earnings before interest and taxes to equity
Tobin's Q	*Market value to book Value ratio of the assets.*	Market value of assets is calculated as market value of equity plus book value of assets minus book value of equity

BDIND	*Board independence*	The ratio of number of independent directors to the number of all directors.
BDSIZE	*Board Size*	Total number of board members in the corporate board.
BDAUDIT	*Audit committee size*	Number of members in the audit committee
BDWOMEN	*Female representations*	BDWOMEN is a dummy variable, which takes a value 1(one) if there is any female representation in the board and zero (0) otherwise.
OWNCON	*Ownership Concentration*	The proportion of the common stock held by sponsor director as per the DSE shareholding pattern.
INS	*Institutional Shareholding*	The proportion of the common stock held by banks, insurance companies, and other organization as per the DSE shareholding pattern.
LEV	*Financial leverage*	Total liabilities to total assets
FSIZE	*Firm Size*	The natural logarithm of total asset (Ferdous, 2013)
FAGE	*Firm Age*	The natural logarithm of the number of years since the firm was listed (Ferdous, 2013)
CEODUAL	*CEO duality*	CEODUAL is a dummy variable which takes a value of 0(zero) if the CEO is also the chairperson of the board of directors, and One (1) otherwise (Ferdous, 2013).

5.4 Correlation Analysis

Table 5.3: Presents Correlations coefficient matrix

Variables	ROA	ROE	Tobin's Q	BDSIZE	BDIND	BDAUDIT	BDWOMEN	CEODUAL	OWNCON	INS	LEV	LNFSIZE	FAGE	SECCODE
ROA	1													
ROE	.323**	1												
Tobin's Q	.207**	.176**	1											
BDSIZE	.139**	.009	.078*	1										
BDIND	.079*	-.046	.033	.307**	1									
BDAUDIT	.180**	.059	.036	.153**	.203**	1								
BDWOMEN	.014	-.027	.055	.009	-.131**	-.153**	1							
CEODUAL	-.008	.059	.120**	.048	.016	.010	.222**	1						
OWNCON	.271**	.244**	.154**	.174**	.051	.137**	.018	.067*	1					
INS	-.030	-.020	-.029	-.029	-.035	.039	.020	.026	-.025	1				
LEV	-.362**	.020	.078*	-.036	.025	-.113**	-.158**	-.128**	.111**	.006	1			
LNFSIZE	.271**	.045	-.253**	.336**	.121**	.196**	-.021	.095**	.030	.003	-.210**	1		
FAGE	.179**	.165**	.217**	.132**	.187**	.022	-.029	.056	.099**	-.004	.006	.093**	1	
SECCODE	-.039	.040	.095**	.021	.383**	.098**	.099**	.157**	-.022	.018	-.087**	.207**	.377**	1

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

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

5.5 Ordinary least square (OLS) results

In this stage, this study strives to analyze the association between CG mechanisms and corporate financial performance using multiple OLS regression model based on the objectives of the study. This study mentioned the objective of the study in chapter one. The main objective of the study is to examine the association between CG mechanisms and corporate financial performance. Therefore, the current study developed some specific objectives to attain the main objectives that are:

1) Investigating the relationship between internal CG mechanisms (board size, board independence, audit committee size, female directorship, CEO duality, ownership concentration) and corporate financial performance;

2) Examining the association between external CG mechanisms (such as institutional ownership, financial leverage, and SEC guidelines) and corporate financial performance;

3) Identifying the impact of company-level control variables (firm age and firm size) and corporate financial performance; and

4) Examining the relationship between corporate governance mechanisms (both internal and external) and corporate financial performance.

Thus this study, in turn, developed the research hypotheses into four groups in chapter two to examine the association between internal CG mechanisms and the corporate financial performance, the association between external CG mechanisms and the corporate financial performance, the association between both internal & external CG mechanisms and corporate financial performance as well as the association between corporate-level control variables and corporate financial performance. The research hypotheses of the study (in a summary) are listed in table 5.4.

Table 5.4: Shows the hypotheses of the study based on the objective.

Objective-1(one): Relationship between internal corporate governance mechanisms and corporate financial performance is measured. Now, this study proposes the following hypotheses:
1. The relationship between board size and corporate financial performance
$H_{01.1}$: There is no relationship between board size and corporate financial performance $H_{a1.1}$: H_0 is not true.
2. The relationship between board independence and corporate financial performance
$H_{01.2}$: There is no relationship between board independence and corporate financial performance $H_{a1.2}$: H_0 is not true.
3. The association between board audit committee size and corporate financial performance
$H_{01.3}$: There is no association between audit committee size and corporate financial performance $H_{a1.3}$: H_0 is not true.
4. The association between female directorship in the corporate board and corporate financial performance
$H_{01.4}$: There is no relationship between female directorship and corporate financial performance $H_{a1.4}$: H_0 is not true.
5. The association between CEO duality and corporate financial performance
$H_{01.5}$: There is no association between CEO duality and corporate financial performance $H_{a1.5}$: H_0 is not true.
6. The association between ownership concentration and corporate financial performance
$H_{01.6}$: There is no association between ownership concentration and corporate financial performance $H_{a1.6}$: H_0 is not true.

Objective-2 (two): Association between external corporate governance mechanisms (institutional ownership, financial leverage, and the SEC revised guidelines-2012) on corporate financial performance. Now, this study proposes the following three hypotheses:
1. The relationship between institutional ownership and corporate financial performance.
$H_{02.1}$: There is no association between ownership concentration and corporate financial performance $H_{a2.1}$: H_0 is not true.
2. The association between financial leverage and corporate financial performance.
$H_{02.2}$: There is no association between financial leverage and corporate financial performance $H_{a2.2}$: H_0 is not true.
3. The association between SEC guidelines and corporate financial performance.
$H_{02.3}$: There is no association between SEC guidelines and corporate financial performance $H_{a2.3}$: H_0 is not true.
Objective-3 (three): Association between company-level control variables and corporate financial performance. Now, this study proposes the following two hypotheses:
1. The association between company age and corporate financial performance.
$H_{03.1}$: There is no association between company age and corporate financial performance $H_{a3.1}$: H_0 is not true.
2. The association between company size and corporate financial performance.
$H_{03.2}$: There is no association between company size and corporate financial performance $H_{a3.2}$: H_0 is not true.
Objective-4 (four): Association between both internal and external CG mechanisms and corporate financial performance. Now, this study proposes the following eleven hypotheses:
1. Relationship between board size and corporate financial performance
$H_{04.1}$: There is no relationship between board size and corporate financial performance $H_{a4.1}$: H_0 is not true.

2. Relationship between board independence and corporate financial performance
$H_{04.2}$: There is no relationship between board independence and corporate financial performance $Ha_{4.2}$: H_0 is not true.
3. Association between audit committee size and corporate financial performance
$H_{04.3}$: There is no association between audit committee size and corporate financial performance $H_{a4.3}$: H_0 is not true.
4. Association between female directorship and corporate financial performance
$H_{04.4}$ There is no association between female directorship and corporate financial performance $H_{a4.4}$: H_0 is not true.
5. Association between CEO duality and corporate financial performance
$H_{04.5}$: There is no association between CEO duality and corporate financial performance $H_{a4.5}$: H_0 is not true.
6. Association between ownership concentration and corporate financial performance
$H_{04.6}$:There is no association between ownership concentration and corporate financial performance $H_{a4.6}$: H_0 is not true.
7. Association between institutional ownership and corporate financial performance
$H_{04.7}$:There is no association between institutional ownership and corporate financial performance $H_{a4.7}$: H_0 is not true.
8. Relationship between financial leverage and corporate financial performance
$H_{04.8}$:There is no association between financial leverage and corporate financial performance $H_{a4.8}$: H_0 is not true.

9. Association between SEC guideline and corporate financial performance
$H_{04.9}$:There is no association between SEC guideline and corporate financial performance $H_{a4.9}$: H_0 is not true.
10. Association between company age and corporate financial performance
$H_{04.10}$:There is no association between company age and corporate financial performance $H_{a4.10}$: H_0 is not true.
11. Association between company size and corporate financial performance
$H_{04.11}$:There is no association between company size and corporate financial performance $H_{a4.11}$: H_0 is not true.

5.6 OLS Multiple Regression Summary for Dependent Variable

The current study seeks to examine the impact of independent variables on the dependent variable rather than recognize whether independent variables are capable of predicting the independent variables, and for this reason, our independent variables are explanatory, not predictors. We are interested to see the level of influence of independent variables on dependent variables. If any independent variable cannot explain the dependent variables, we would try to identify the causes about the context and facts. The current study applies the OLS regression model to regress the association between explanatory variables and dependent variables. The reason for using the OLS Regression model is that there is a multicollinearity problem among the explanatory variables as the level of collinearity remains below 0.5, which further indicates that multicollinearity will not disturbt the capacity to explain the dependent variables along with the linearity pattern of the regression model.

The study applies the OLS regression model to empirically examine the hypotheses based on each stratum.

5.6.1 Relationship between internal CG variables and corporate financial performance

This study led the OLS multiple regression analysis and observed that some internal CG mechanisms, such as board independence (beta value is .069 and p-value is .037), audit committee size (beta value is .119 and p-value is .000), female directorship (beta value is .070 and p-value is .022), CEO duality (beta value is .008 and p-value is .822), and ownership concentration (beta value is .222 and p-value is .000) are positively associated with corporate performance measured as ROA, though the association between CEO duality and corporate financial performance is statistically insignificant. But board size (beta value is -.050 and p-value is .135) and corporate financial performance is negatively associated, but the association is not statistically significant. Besides, the performance of all sectors under the manufacturing categories is significantly associated with ROA except the engineering and pharmaceutical sectors.

Table 5.6 shows that all the internal CG mechanisms are not in the same direction. Some CG mechanisms namely board size (beta value is .142 and p-value is .000), audit committee size (beta value is .061 and p-value is .035), CEO duality (beta value is .074 and p-value is .015), and ownership concentration (beta value is .146 and p-value is .000) are positively associated with corporate financial performance measured as Tobin's Q, but the other mechanisms, such as board independence (beta value is -.038 and p-value is .200) and female directorship (beta value is -.019 and the p-value is .499) are negatively associated, and the association is statistically insignificant.

5.6.1.1 Firm performance measured as ROA

The following OLS regression model was developed to examine the effects of internal corporate governance mechanisms namely board size, board independence, audit committee size, female directorship, CEO duality, and ownership concentration on the corporate financial performance in terms of return on assets (ROA).

$$ROA_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_j Control_{it} + \varepsilon_{it}$$

$BDSIZE_{it}$ is the board size for ith company at time t.

$BDIND_{it}$ is the board independence for ith company at time t.

$BDAUDIT_{it}$ is the audit committee size for ith company at time t.

$\times BDWOMEN_{it}$ is the female directorship for ith company at time t.

$CEODUAL_{it}$ is the CEO duality for ith company at time t.

$OWNCON_{it}$ is the ownership concentration for ith company at time t.

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1, β2, β3, andβ4 are the regression co-efficient

εit is the error terms

Table 5.5: Shows OLS multiple regression results between internal CG mechanisms and ROA

OLS multiple regression model for ROA				**Collinearity statistics**	
	Beta	t	**Sig.**	**Tolerance**	**VIF**
(Constant)		-8.014	.000		
dummy06	.124	2.945	.003	.438	2.285
Year07	.134	3.236	.001	.457	2.189
Year08	.102	2.507	.012	.469	2.134
Year09	.138	3.429	.001	.481	2.078
Year10	.126	3.167	.002	.491	2.036
Year11	.109	2.761	.006	.496	2.014
Year12	.051	1.323	.186	.516	1.939
Year13	.017	.448	.655	.534	1.871
Year14	-.007	-.174	.862	.539	1.855
Year15	-.018	-.465	.642	.542	1.843
Year16	-.011	-.303	.762	.544	1.838
Cement	-.103	-2.933	.003	.632	1.582
Ceramics	-.092	-2.943	.003	.800	1.250
Paper	-.072	-2.341	.019	.834	1.199
Engineering	-.086	-1.923	.055	.386	2.591
Jute	-.150	-4.700	.000	.770	1.299
Textile	-.250	-5.869	.000	.429	2.333
Pharmaceuticals	-.046	-1.087	.277	.436	2.295
Tannery	-.084	-2.383	.017	.633	1.580
BDSIZE	-.050	-1.496	.135	.687	1.456
BDIND	.069	2.090	.037	.718	1.393
BDAUDIT	.119	3.721	.000	.764	1.308
BDWOMEN	.070	2.288	.022	.826	1.211
CEODUAL	.008	.226	.822	.691	1.447
OWNCON	.222	7.550	.000	.900	1.111
F statistics	12.036				
Sig.	000[b]				
R Square	.254				

5.6.1.2 Firm performance measured as Tobin's Q

The following OLS regression model has been developed to examine the effects of internal corporate governance mechanisms namely board size, board independence, audit committee size, female directorship, CEO duality, and ownership concentration on corporate financial performance measured as Tobin's Q.

$$Tobin's\ Q_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_j Control_{it} + \varepsilon_{it}$$

$BDSIZE_{it}$ is the board size for ith company at time t.

$BDIND_{it}$ is the board independence for ith company at time t.

$BDAUDIT_{it}$ is the audit committee size for ith company at time t.

$BDWOMEN_{it}$ is the female directorship for ith company at time t.

$CEODUAL_{it}$ is the CEO duality for ith company at time t.

$OWNCON_{it}$ is the ownership concentration for ith company at time t.

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1, β2, β3, andβ4 are the regression co-efficient

εit is the error terms

Table 5.6: Shows OLS multiple regression results between internal CG mechanisms and Tobin's Q

OLS multiple regression model for Tobin's Q				**Collinearity statistics**	
	Beta	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)		34.232	.000		
dummy06	-.365	-9.587	.000	.438	2.285
Year07	-.319	-8.562	.000	.457	2.189
Year08	-.171	-4.645	.000	.469	2.134
Year09	-.041	-1.118	.264	.481	2.078
Year10	.082	2.289	.022	.491	2.036
Year11	-.028	-.780	.436	.496	2.014
Year12	-.107	-3.035	.002	.516	1.939
Year13	-.065	-1.871	.062	.534	1.871
Year14	-.062	-1.802	.072	.539	1.855
Year15	-.035	-1.037	.300	.542	1.843
Year16	-.039	-1.136	.256	.544	1.838
Cement	.029	.917	.360	.632	1.582
Ceramics	-.072	-2.543	.011	.800	1.250
Paper	-.059	-2.130	.033	.834	1.199
Engineering	.012	.289	.773	.386	2.591
Jute	-.146	-5.081	.000	.770	1.299
Textile	-.153	-3.974	.000	.429	2.333
Pharmaceuticals	.063	1.651	.099	.436	2.295
Tannery	-.017	-.548	.584	.633	1.580
BDSIZE	.142	4.670	.000	.687	1.456
BDIND	-.038	-1.282	.200	.718	1.393
BDAUDIT	.061	2.117	.035	.764	1.308
BDWOMEN	-.019	-.676	.499	.826	1.211
CEODUAL	.074	2.445	.015	.691	1.447
OWNCON	.146	5.499	.000	.900	1.111
F statistics	22.886				
Sig.	000[b]				
R Square	.393				

5.6.2 Association between external corporate governance mechanisms and corporate financial performance

At this stage, this study strives to measure the effects of external CG mechanisms, such as institutional ownership (beta value is -.104 and p-value is .000), financial leverage (beta value is -.339 and p-value is .000), and SEC guidelines (beta value is -.175 and p-value is .009) on corporate financial performance measured as ROA, the accounting-based measure. Table 5.7 shows that all external CG mechanisms are negatively associated with ROA, and the association between them is statistically significant.

Based on Tobin's Q, the market-based measure, the OLS regression results in table 5.8 shows that some external CG mechanisms, such as financial leverage (beta value is .045 and p-value is .097) and SEC CODE (beta value is .017 and the p-value is .796) are positively associated, but the association between financial leverage and Tobin's Q is statistically significant at 10% level and association between SECCODE and Tobin's Q is statistically insignificant, while institutional ownership (beta value is -.083 and p-value is .002) is negatively associated with Tobin's Q, and the relationship is statistically significant.

5.6.2.1 Firm performance measured as ROA

$$ROA_{it} = \alpha + \beta_1 \times INS_{it} + \beta_2 \times LEV_{it} + \beta_3 SECCODE_{it} + \beta_j Control_{it} + \varepsilon_{it}$$

At this stage, we developed an OLS multiple regression model to investigate the effects of external corporate governance mechanisms, such as institutional ownership, financial leverage, and the SEC guidelines on the corporate financial performance measured as Tobin's Q. Besides, some control variables are included in this model specifically, the year dummy and industry dummy.

$\mathbf{INS_{it}}$ is the institutional ownership for ith company at time t.

$\mathbf{LEV_{it}}$ is the financial leverage for the ith company at time t.

$\mathbf{SECCODE_{it}}$ is regulatory guidelines from SEC

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1, β2, β3, andβ4 are the regression co-efficient

εit is the error terms

Table 5.7: Shows OLS multiple regression results between external CG mechanisms and ROA

OLS multiple regression model for ROA				**Collinearity statistics**	
	Beta	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)		-1.895	.058		
dummy06	.050	1.328	.185	.521	1.919
Year07	.061	1.638	.102	.530	1.886
Year08	.028	.753	.452	.536	1.865
Year09	.048	1.311	.190	.542	1.845
Year10	.024	.664	.507	.544	1.838
Year12	.039	1.071	.284	.535	1.869
Year13	.016	.433	.665	.539	1.857
Year14	-.009	-.249	.803	.542	1.845
Year15	-.014	-.382	.703	.544	1.838
Year16	-.006	-.159	.874	.545	1.835
Cement	-.079	-2.431	.015	.690	1.449
Ceramics	-.134	-4.451	.000	.797	1.255
Paper	-.082	-2.903	.004	.907	1.103
Engineering	-.202	-5.457	.000	.528	1.894
Jute	-.157	-5.314	.000	.830	1.205
Textile	-.276	-7.335	.000	.513	1.948
Pharmaceuticals	-.096	-2.573	.010	.525	1.906
Tannery	-.099	-3.186	.001	.748	1.338
INS	-.104	-3.666	.000	.910	1.099
LEV	-.339	-12.022	.000	.910	1.099
SECCODE	-.175	-2.605	.009	.162	6.184
F statistics	18.167				
Sig.	000[b]				
R Square	.303				

5.6.2.2 Firm performance measured as Tobin's Q

At this stage, we developed the following OLS multiple regression model to examine the effects of external corporate governance mechanisms, such as institutional ownership, financial leverage, and the SEC guidelines on the corporate financial performance measured as ROA. Besides, some control variables are included in this model, specifically, the year dummy and industry dummy.

$$\boldsymbol{Tobin's\ Q_{it} = \alpha + \beta_1 \times INS_{it} + \beta_2 \times LEV_{it} + \beta_3 SECCODE_{it} + \beta_j Control_{it} + \varepsilon_{it}}$$

$\boldsymbol{INS_{it}}$ is the institutional ownership for ith company at time t.

$\boldsymbol{LEV_{it}}$ is the financial leverage for the ith company at time t.

$\boldsymbol{SECCODE_{it}}$ is regulatory guidelines from SEC

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1, β2, β3, andβ4 are the regression co-efficient

εit is the error terms

Table 5.8: Shows OLS multiple regression results between external CG mechanisms and Tobin's Q

OLS multiple regression model for Tobin's Q				**Collinearity statistics**	
	Beta	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)		41.135	.000		
dummy06	-.323	-8.971	.000	.521	1.919
Year07	-.274	-7.669	.000	.530	1.886
Year08	-.117	-3.305	.001	.536	1.865
Year09	.003	.086	.932	.542	1.845
Year10	.123	3.482	.001	.544	1.838
Year12	-.090	-2.524	.012	.535	1.869
Year13	-.046	-1.301	.194	.539	1.857
Year14	-.048	-1.347	.178	.542	1.845
Year15	-.025	-.722	.471	.544	1.838
Year16	-.034	-.956	.339	.545	1.835
Cement	.095	3.046	.002	.690	1.449
Ceramics	-.047	-1.630	.103	.797	1.255
Paper	.004	.131	.896	.907	1.103
Engineering	.031	.876	.381	.528	1.894
Jute	-.138	-4.834	.000	.830	1.205
Textile	-.103	-2.831	.005	.513	1.948
Pharmaceuticals	.113	3.158	.002	.525	1.906
Tannery	.001	.036	.971	.748	1.338
INS	-.083	-3.053	.002	.910	1.099
LEV	.045	1.662	.097	.910	1.099
SECCODE	.017	.259	.796	.162	6.184
F statistics	22.616				
Sig.	000[b]				
R Square	.351				

5.6.3 Association between firm-level control variables and corporate financial performance

At this stage, we tried to attain the research objective-3 by developing OLS regression models. The table 5.9 shows that firm age (beta value is .226 and p-value is .000) and firm size (beta value is .280 and p-value is .000) is positively associated with the firm's financial performance measured as ROA and the associations are statistically significant, while in Table 5.10 shows that firm age (beta value is .120 and p-value is .000) and firm size (beta value is -.398 and p-value is .000) are associated with Tobin's Q in different direction, however, the associations with Tobin's Q are statistically significant.

5.6.3.1 Firm performance measured as ROA

$$\boldsymbol{ROA_{it} = \alpha + \beta_1 \times FAGE_{it} + \beta_2 \times LNFSIZE_{it} + Control_{it} + \varepsilon_{it}}$$

$\boldsymbol{FAGE_{it}}$ is the firm age for the ith company at time t.

$\boldsymbol{LNFSIZE_{it}}$ is the firm size for ith company at time t.

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1&β2are the regression co-efficient

εit is the error terms

Table 5.9: Shows OLS multiple regression results between firm-level control variables and ROA

OLS multiple regression model for ROA				**Collinearity statistics**	
	Beta	**T**	**Sig.**	**Tolerance**	**VIF**
(Constant)		-5.489	.000		
dummy06	.121	2.880	.004	.477	2.094
Year07	.131	3.166	.002	.492	2.034
Year08	.098	2.384	.017	.505	1.982
Year09	.127	3.127	.002	.515	1.943
Year10	.111	2.765	.006	.524	1.910
Year11	.086	2.151	.032	.530	1.886
Year12	.039	.973	.331	.536	1.866
Year13	.017	.420	.674	.540	1.853
Year14	.002	.048	.962	.542	1.844
Year15	-.006	-.144	.886	.544	1.838
Year16	-.003	-.085	.933	.545	1.835
Cement	-.072	-2.058	.040	.694	1.441
Ceramics	-.107	-3.382	.001	.843	1.186
Paper	-.041	-1.365	.173	.919	1.088
Engineering	-.149	-3.753	.000	.540	1.852
Jute	-.163	-5.126	.000	.834	1.199
Textile	-.233	-5.761	.000	.518	1.929
Pharmaceuticals	-.038	-.944	.345	.533	1.877
Tannery	-.073	-2.187	.029	.758	1.318
FAGE	.226	6.623	.000	.729	1.371
LNFSIZE	.280	8.691	.000	.816	1.225
F statistics	10.507				
Sig.	000[b]				
R Square	.187				

5.6.3.2 Firm performance measured as Tobin's Q

$$Tobin's\ Q_{it} = \alpha + \beta_1 \times FAGE_{it} + \beta_2 \times LNFSIZE_{it} + Control_{it} + \varepsilon_{it}$$

$FAGE_{it}$ is the firm age for the ith company at time t.

$LNFSIZE_{it}$ is the firm size for ith company at time t.

$Control_{it}$ is the control variables used in the study

β0 is the intercept, β1&β2are the regression co-efficient

εit is the error terms

Table 5.10: Shows OLS multiple regression results between firm-level control variables and Tobin's Q

OLS multiple regression model for Tobin's Q				**Collinearity statistics**	
	Beta	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)		39.703	.000		
dummy06	-.341	-9.024	.000	.477	2.094
Year07	-.291	-7.809	.000	.492	2.034
Year08	-.136	-3.698	.000	.505	1.982
Year09	-.012	-.340	.734	.515	1.943
Year10	.105	2.897	.004	.524	1.910
Year11	-.013	-.374	.709	.530	1.886
Year12	-.094	-2.646	.008	.536	1.866
Year13	-.051	-1.436	.151	.540	1.853
Year14	-.048	-1.343	.180	.542	1.844
Year15	-.025	-.715	.475	.544	1.838
Year16	-.033	-.945	.345	.545	1.835
Cement	.087	2.779	.006	.694	1.441
Ceramics	-.071	-2.486	.013	.843	1.186
Paper	.001	.046	.963	.919	1.088
Engineering	.017	.485	.628	.540	1.852
Jute	-.144	-5.030	.000	.834	1.199
Textile	-.110	-3.025	.003	.518	1.929
Pharmaceuticals	.109	3.057	.002	.533	1.877
Tannery	-.010	-.341	.733	.758	1.318
FAGE	.120	3.912	.000	.729	1.371
LNFSIZE	-.398	-13.748	.000	.816	1.225
F statistics	23.965				
Sig.	000[b]				
R Square	.343				

5.6.4 Association between CG mechanisms (both internal and external, control variables) and corporate financial performance

At this stage, the current study strived to measure the impacts of corporate governance mechanisms (both internal and external) and corporate financial performance measured as ROA (return on assets) and Tobin's Q by developing OLS regression model, where we load all the independent variables together to see the impacts of corporate governance mechanisms on corporate financial performance. Table 5.11 shows that board size (beta value is .027 and p-value is .501), board independence (beta value is .085 and p-value is .039), audit committee size (beta value is .013 and p-value is .732), ownership concentration (beta value is .276 and p-value is .000), institutional ownership (beta value is .051 and p-value is .202), firm age (beta value is .171 and p-value is .000), and firm size (beta value is .198 and p-value is .000) are positively associated with corporate financial performance measured as ROA, but the associations are not significant in case of board size, audit committee size, and institutional ownership. In contrast, the association between some other corporate governance mechanisms, such as female directorship (beta value is -.105 and p-value is .004), CEO duality (beta value is -.069 and p-value is .080), financial leverage (beta value is -.093 and p-value is .010), and SEC guidelines (beta value is -.224 and p-value is .004) are negatively associated with ROA. These findings also show that some corporate governance mechanisms, such as board size, audit committee size and institutional ownership are not significantly associated with ROA. Besides, all year dummies are positively associated with ROA except the year-10. All industrial sectors under the DSE manufacturing companies' category are negatively associated with ROA.

Based on market-based measure (Tobin's Q), table 5.12 shows that corporate governance mechanisms, such as board size (beta value is .192 and p-value is .000), audit committee size (beta value is .040 and p-value is .264), CEO duality (beta value is .053 and p-value is .166), ownership concentration (beta value is .251 and p-value is .000), financial leverage (beta value is .015 and p-value is .665), SEC guidelines (beta value is .063 and p-value is .411), and firm age (beta value is .061 and p-value is .127) are positively associated, while some other corporate governance mechanisms, specifically, board independence (beta value is -.078 and p-value is .051), female directorship (beta value is -.098 and p-value is .005), institutional ownership (beta value is -.016 and p-value is .689), and firm size (beta

value is -.511 and p-value is .000) are negatively associated. These findings also show that board size, board independence, female directorship, ownership concentration, and firm size are statistically significant. Besides, Table 5.12 also reveals that all year dummy is negatively associated with Tobin's Q except the year-10. All industrial sectors under manufacturing categories listed in the Dhaka Stock Exchange are negatively associated with Tobin's Q except the Cement and Pharmaceutical sectors.

5.6.4.1 Firm performance measured as ROA

$$Y_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_7 \times INS_{it} + \beta_8 \times LEV_{it} + \beta_9 \times SECCODE_{it} + \beta_{10} \times FAGE_{it} + \beta_{11} \times LNFSIZE_{it} + \beta_j Control_{it} + \varepsilon_{it}$$

$BDSIZE_{it}$ is the board size for ith company at time t.

$BDIND_{it}$ is the board independence for ith company at time t.

$BDAUDIT_{it}$ is the audit committee size for ith company at time t.

$\times BDWOMEN_{it}$ is the female directorship for ith company at time t.

$CEODUAL_{it}$ is the CEO duality for ith company at time t.

$OWNCON_{it}$ is the ownership concentration for ith company at time t.

INS_{it} is the institutional ownership for ith company at time t.

LEV_{it} is the financial leverage for the ith company at time t.

$SECCODE_{it}$ is regulatory guidelines from SEC

$Control_{it}$ is the control variables used in the study

$FAGE_{it}$ is the firm age for the ith company at time t.

$LNFSIZE_{it}$ is the firm size for ith company at time t.

β_0 is the intercept, β_1, β_2, β_3,β_4, β_5, β_6,β_7, β_8, β_9, β_{10}, and β_{11} are the regression co-efficient

ε_{it} is the error terms

Table 5.11: Shows OLS multiple regression results between firm CG mechanisms (both internal and external) and ROA

OLS multiple regression model for ROA				**Collinearity statistics**	
	Beta	**t**	**Sig.**	**Tolerance**	**VIF**
(Constant)		-1.083	.279		
dummy06	.031	.792	.429	.648	1.543
Year07	.022	.549	.584	.607	1.648
Year08	.010	.225	.822	.533	1.876
Year09	.048	1.128	.260	.557	1.795
Year10	-.009	-.218	.827	.551	1.814
Year12	.088	2.015	.044	.538	1.857
Year13	.033	.778	.437	.552	1.812
Year14	.012	.286	.775	.544	1.837
Year15	.002	.038	.970	.548	1.826
Year16	.013	.297	.766	.555	1.803
Cement	-.317	-6.341	.000	.406	2.465
Ceramics	-.259	-6.227	.000	.589	1.697
Paper	-.143	-4.076	.000	.825	1.212
Engineering	-.353	-6.010	.000	.295	3.393
Jute	-.116	-3.233	.001	.783	1.277
Textile	-.494	-7.701	.000	.247	4.044
Pharmaceuticals	-.239	-4.037	.000	.290	3.444
Tannery	-.215	-4.901	.000	.530	1.885
BDSIZE	.027	.673	.501	.615	1.627
BDIND	.085	2.072	.039	.606	1.650
BDAUDIT	.013	.343	.732	.736	1.358
BDWOMEN	-.105	-2.931	.004	.788	1.269
CEODUAL	-.069	-1.755	.080	.662	1.510
OWNCON	.276	7.122	.000	.675	1.482
INS	.051	1.277	.202	.630	1.586
LEV	-.093	-2.594	.010	.793	1.261
SECCODE	-.224	-2.867	.004	.166	6.032
FAGE	.171	4.194	.000	.611	1.638
LNFSIZE	.198	5.152	.000	.691	1.448
F statistics	14.453				
Sig.	000[b]				
R Square	.426				

5.6.4.2 Firm performance measured as Tobin's Q

$$Tobin's\ Q_{it} = \alpha + \beta_1 \times BDSIZE_{it} + \beta_2 \times BDIND_{it} + \beta_3 \times BDAUDIT_{it} + \beta_4 \times BDWOMEN_{it} + \beta_5 \times CEODUAL_{it} + \beta_6 \times OWNCON_{it} + \beta_7 \times INS_{it} + \beta_8 \times LEV_{it} + \beta_9 \times SECCODE_{it} + \beta_{10} \times FAGE_{it} + \beta_{11} \times LNFSIZE_{it} + \beta_j Control_{it} + \varepsilon_{it}$$

$BDSIZE_{it}$ is the board size for ith company at time t.

$BDIND_{it}$ is the board independence for ith company at time t.

$BDAUDIT_{it}$ is the audit committee size for ith company at time t.

$\times BDWOMEN_{it}$ is the female directorship for ith company at time t.

$CEODUAL_{it}$ is the CEO duality for ith company at time t.

$OWNCON_{it}$ is the ownership concentration for ith company at time t.

INS_{it} is the institutional ownership for ith company at time t.

LEV_{it} is the financial leverage for the ith company at time t.

$SECCODE_{it}$ is regulatory guidelines from SEC

$FAGE_{it}$ is the firm age for the ith company at time t.

$LNFSIZE_{it}$ is the firm size for ith company at time t.

$Control_{it}$ is the control variables used in the study

β_0 is the intercept, β_1, β_2, β_3,β_4, β_5, β_6,β_7, β_8, β_9, β_{10}, and β_{11} are the regression co-efficient

εit is the error terms

Table 5.12: Shows OLS multiple regression results between firm CG mechanisms (both internal and external) and Tobin's Q

Model-4$_b$ OLS regression model for Tobin's Q				**Collinearity statistics**	
	Beta	**T**	**Sig.**	**Tolerance**	**VIF**
(Constant)		27.208	.000		
dummy06	-.240	-6.235	.000	.648	1.543
Year07	-.275	-6.915	.000	.607	1.648
Year08	-.158	-3.726	.000	.533	1.876
Year09	-.012	-.299	.765	.557	1.795
Year10	.105	2.524	.012	.551	1.814
Year12	-.128	-3.021	.003	.538	1.857
Year13	-.063	-1.512	.131	.552	1.812
Year14	-.079	-1.880	.061	.544	1.837
Year15	-.050	-1.195	.233	.548	1.826
Year16	-.049	-1.173	.241	.555	1.803
Cement	.009	.189	.850	.406	2.465
Ceramics	-.035	-.877	.381	.589	1.697
Paper	-.099	-2.889	.004	.825	1.212
Engineering	-.021	-.373	.709	.295	3.393
Jute	-.055	-1.565	.118	.783	1.277
Textile	-.165	-2.646	.008	.247	4.044
Pharmaceuticals	.020	.346	.730	.290	3.444
Tannery	-.015	-.343	.731	.530	1.885
BDSIZE	.192	4.850	.000	.615	1.627
BDIND	-.078	-1.959	.051	.606	1.650
BDAUDIT	.040	1.117	.264	.736	1.358
BDWOMEN	-.098	-2.816	.005	.788	1.269
CEODUAL	.053	1.387	.166	.662	1.510
OWNCON	.251	6.644	.000	.675	1.482
INS	-.016	-.400	.689	.630	1.586
LEV	.015	.433	.665	.793	1.261
SECCODE	.063	.822	.411	.166	6.032
FAGE	.061	1.529	.127	.611	1.638
LNFSIZE	-.511	-13.703	.000	.691	1.448
F statistics	16.424				
Sig.	000[b]				
R Square	.457				

5.7 Discussion of Findings

The current study examines the association between CG mechanisms and corporate financial performance using the multiple OLS regression model. The analysis uses data extracted from the annual reports of DSE listed firms in Bangladesh over a period from 2006 to 2017, twelve years. This study is premised on the agency theory. Measuring the corporate financial performance, this study uses two established performance measures in the corporate finance literature, which are, Tobin's Q (market-based performance measure) and ROA (accounting-based performance measure). Besides, this thesis tries to hypothesize the links between the internal CG mechanisms (namely board size, board independence, audit committee size, female directorship, CEO duality, and ownership concentration), the external CG mechanisms (such as institutional ownership, financial leverage, and SEC guidelines), and firm-level control variables (namely firm age and firm size). But, based on the context and the real-world situation, all CG mechanisms are assumed to link with the enhancement of corporate financial performance except CEO duality, which is thought to involve with the decrease of corporate financial performance. This study planned to discuss the relationship between the independent variables and dependent variables based on the full model, where all independent variables are loaded in a single model to see their effects on the dependent variable. Hence, the following discussion is based on the regression table-5.11 & table-5.12.

5.7.1 Board size and corporate financial performance

Following the market-based (Tobin's Q) performance measure, the association between board size and the corporate financial performance is positive. This finding do not support the findings of some earlier studies, such as Guest (2009); Coles et al. (2008); Cheng et al. (2008); Sakawa & Watanable (2007); Hanifa & Hudaib (2006); Ferris et al.(2003); Bhagat & Black (2002); Vefeas (1999a); Kelin (1998); Conyon & Peck (1998); and Yermack (1996). But this finding supports the findings of some other earlier studies, which are Mangena &Tauringana (2008); Henry (2008); Beiner et al. (2006); Adams & Mehran (2005). These findings also support the theoretical arguments that people believe corporate board with larger number of members is more capable of adding value to the firm than the

smaller board. Larger board connects more human resources, which further enables the company to formulate and implement suitable strategies to achieve corporate objectives. Besides, larger board helps the company to have greater access to the environment, which again helps it to take the advantages of opportunities and overcome the threats emerged from the environment (Goodstein et al., 1994). On the other hand, the association between the board size and ROA (accounting-based measure) is negative and statistically insignificant. These findings are supported by some past studies, such as Guest (2009); Mangena & Chamisa (2008); Shabbir & Padget (2005); Kiel & Nicholson (2003); Ho & Williams (2003), and Eisenberg et al. (1998). However, these findings differ from some preceding studies (Mangena & Tauringana, 2008; Hanif & Hudaib, 2006; and Sanda et al., 2005). The theoretical argument behind the negative association between board size and corporate financial performance is that larger board connects more human resources, which produces increasing monitoring cost. Thus, the larger board is less effective in increasing corporate financial performance.

5.7.2 Board Independence and Corporate Financial Performance

After analyzing the relationship between board independence and the corporate financial performance based on Tobin's Q (a market-based performance measures) using an OLS regression model, it is observed that the relationship between board independence and the corporate financial performance is negative and the relationship is statistically significant at 10percent level. This finding does not support the Cadbury view. Besides, it contradicts with many corporate governance codes and guidelines. Bringing into consideration of theoretical arguments and justifications, corporate policy makers set corporate governance guidelines outlining the requirements of independent directors into the corporate board aiming at insuring the broader level of monitoring abilities of the corporate board to restrain the managers/agents from showing the self-interested or opportunistic behaviors so that managers may not able to exploit their benefits at the cost of the investors and all level of stakeholders (Jensen & Meckling, 1976 and Fama & Jensen, 1980) , thus the presence of independent directors into the corporate board can create impact on the firm's performance (Weir et al., 2020).

On the other hand, when performance is measured based on accounting-based measure (ROA), finding shows that the effect of board independence on the corporate financial performance is positive and statistically significant at 5percent level. This finding is not consistent with the findings of some past studies (for example, Fich & Ahivdassani, 2006; Haniffa & Hudaib, 2006; Bhagat & Black, 002 and Weir & Laing, 2000) as they investigated the effects of board independence on the corporate financial performance and findings show that the association between board independence and the corporate financial performance is negative. The finding of this study supports the theoretical premises of agency theory as it is thought that the presence of outside directors into the corporate board enhances the monitoring abilities of the board, which further limit the agents to show self-interested behavior through creating information asymmetry (Jensen and Meckling, 1976). Realizing the theoretical arguments and real world context, the BSEC (a regulatory body of the stock exchanges), in 2006, issued corporate governance guidelines requiring the independent directors into the corporate board in a ratio 1:10, and later, it revised the CG guidelines in 2012 requiring the independent directors into the corporate board in the ratio of 1:5. Some past studies do not find any association between the board independence and ROA, such as, Haniffa & Hudaib (2006); Mehran (1995); and Hermalin & Weisbach (1999), whereas, some past studies noted negative relationship between the board independence and ROA, such as Abdullah (2007); Bhagat & Black (2002); Weir et al. (2002) and Agrawal & Knoeber (1996). However, this finding is also aligned with findings of some previous literature, such as, Ho & Williams (2003); Rodriguez & Anson (2001); Yermeck (1999); Daily & Dalton (1992) and Pearce & Zahra (1992).

5.7.3 Audit committee and corporate financial performance

This study examined the effects of board audit committee size on the corporate financial performance based on Tobin's Q, a market-based performance measure, and the finding reveals that the association between audit committee size and corporate financial performance is positive, though the association is not statistically significant. This situation indicates that the audit committee size has no impact on corporate financial performance. This finding is consistent with some previous articles, such as Aldamen et al. (2012); Mangena & and Chamisa (2008); Weir et al. (2002); Weir & Laing (2000); and Vefeas & Theodorou (1998).

Likewise, based on ROA, an accounting-based performance measure, the finding of the study reveals that the association between the board audit committee size and the corporate financial performance is positive and the level of relationship is not statistically significant. It is believed that the presence of audit committee in the corporation augments the monitoring abilities of the board through creating creditability, accountability and transparency, which are further linked to the removal of information asymmetry and value maximization of the firm as managers are held responsible and accountable for their deeds to the board (Weir et al., 2002). Thus, the presence of the audit committee in the corporate board is supposed to reduce the agency cost, which further reinforces the survival capacity of the firm (Mendez & Garcia, 2007) as well as it is connected to the better governance quality.

5.7.4 Female directorship and corporate financial performance

This study analyzed the effects of female directorship on the corporate financial performance based on both Tobin's Q, a market-based performance measure, and ROA, an accounting-based measure. The finding reveals that the association between the presence of female directors into the corporate board and Tobin's Q is negative and statistically significant at 1 percent level. This finding does not support the findings of some prior studies (Hutchinson et al., 2015; Garcia-Meca et al., 2003; and Erhardt et al., 2003) as they noticed that gender diversity is positively associated with corporate financial performance.

5.7.5 CEO duality and corporate financial performance

This study analyzed the effects of CEO duality on the corporate financial performance based on Tobin's Q, a market-based performance measure, and the finding reveals that the association between CEO duality and corporate financial performance is positive but the association is not statistically significant, which further indicate that the CEO has no impact on the corporate financial performance. However, this positive association between CEO duality and firm performance does not support the premise of CEO role duality, which leads to agency problems and poor firm performance. Some past studies evident that when the position of chairman and CEO are separated, the firms are more valuable and it

enables the monitoring abilities of the corporate board (for example-Haniffa & Hudaib, 2006; Sanda et al., 2005; Vefeas & Theodorou, 1998; Yermack, 1996; Jensen, 1993; Hermalin & Weisbach, 1991; and Rechner & Dalton, 1991).

Besides, when this study analyzed the effects of CEO duality on the corporate financial performance based on ROA (an accounting-based performance measure), it is observed that the relationship between the CEO role duality and firm performance is negative and statistically significant at 10percent level. This finding supports the theoretical premises of the agency theory as it is thought that the monitoring abilities of the company are enhanced if the positions of chairman and CEO of a firm are filled by the different individuals, which derives the improved firm performance. Daily and Dalton (1992) noted that CEO duality bears the sign of the poor quality of governance systems. Besides, agency theory portrays that CEO duality is bad for the company as it comprises the monitoring and control of the CEO (Peng et al., 2007). In contrast, the stewardship theory proposes that CEO duality may be good for the company because of the unity of command it presents and enables the CEO to apply prudence and quick action for the sake of the interest of the company. Indeed, it is recommended that CEO role duality is recognized in the market as a poor practice because it makes the CEO more authoritative and powerful, which further may drive him to exercise opportunistic behavior through creating information asymmetry.

5.7.6 Ownership concentration and corporate financial performance

The current study investigated the effects of ownership concentration on corporate financial performance using a multiple OLS regression model. The findings of the study based on both Tobin's Q (a market-based performance measure) and return on assets (an accounting-based performance measure) show that the relationship between the ownership concentration and corporate financial performance is positive and highly significant at 1percent level. These findings also signal that ownership concentration can significantly affect the value of the firm in the context of manufacturing companies in Bangladesh. This finding supports some past studies, such as Maniruzzaman & Hossain (2019a); Bhaumik & Selarka (2012); Maury (2006); and Wiwattanakantang (2001). But some other studies

report a negative association between the ownership concentration and corporate financial performance, such as Mak & Kusandi (2005) and Prowse (1992). It is argued that ownership concentration is an important internal CG mechanism that enables the owners to influence and control the management to protect their interests (Madhani, 2017). When ownership is scattered, the control of the owners tends to be weak due to poor shareholder monitoring. Let alone shareholders are likely to be disinterested in monitoring as they would bear all the cost of monitoring hence enjoy a small portion of the benefits, which drives no monitoring efforts (Gillan, 2006 and Walsh & Seward, 1990). But, in the case, when ownership of a firm is concentrated, the majority of shareholders would play a significant role to monitor the affairs of management (Zhuang, 1999). The concentrated ownership pattern is found common in most of the countries (La Porta et al., 1999), and also in Bangladesh as family houses and institutions, as the initiators have ample ownership in firms.

5.7.7 Institutional ownership and corporate financial performance

This study analyzed the effects of institutional ownership on the corporate financial performance based on both the market-based performance measure (Tobin's Q) and the accounting-based performance measure (return on assets). The finding based on Tobin's Q shows that the relationship between institutional ownership and corporate financial performance is negative, though it is statistically insignificant. This situation suggests institutional ownership has negative effects on corporate financial performance. In contrast, the finding based on the ROA shows that the association between the institutional ownership and corporate financial performance is positive and insignificant, which further signals that institutional ownership fails to create an impact on the corporate financial performance. This finding differs from Masry (2016) as they found that the involvement of institutional ownership in monitoring and controlling activities could minimize agency problems and maximize the corporate financial performance in the context of developing economies. Moreover, institutional investors normally invest in equity securities, thus they have an influence on management activities directly throughout their ownership and indirectly by means of trading their stocks (Gillan and Stark, 2003). Some prior studies

argued that the participation of big shareholders in controlling or monitoring activities help resolve agency problems (Jiang & Yamada, 2011; Noe, 2002; Huddart, 1993; and Admati et al., 1994).

5.7.8 Financial leverage and corporate financial performance

This study analyzed the effects of financial leverage on the corporate financial performance based on both the market-based performance measure (Tobin's Q) and the accounting-based performance measure (return on assets) using a multiple OLS regression model. The finding based on Tobin's Q indicates that the relationship between the financial leverage and firm performance is positive and statistically insignificant, which signals that the financial leverage cannot create an influence on corporate financial performance. Besides, the finding based on ROA shows that the relationship between financial leverage and the corporate financial performance is negative and statistically significant at 1 percent level, which further signals that the financial leverage affects the firm performance negatively in the context of Bangladesh. Some past studies noticed that the relationship between financial leverage and corporate financial performance is negative (Chechet & Olayiwola, 2014 and Bokhari & Khan, 2013). This study also supports agency theory because, during the time of determining the capital structure of a company, the relative cost of debt and equity is considered (Myers and Majulf, 1984). A one percent decline in equity to total capital can result in up to ten percent an overall increase in the profitability for US firms excluding the extreme scenarios where leverage levels may result in overall firms' bankruptcy (Berger & Di Patti, 2006). The agency theory applicability is further supported in the studies of Margaritis & Psillaki (2010) and Berger & Bonaccorsi (2006). Capital structure is negatively related to return on asset and return on capital employed. However, some studies found a positive association between the financial leverage and the corporate financial performance (Fosu, 2013; Shubita & Alsawalhah, 2012; Sen & Heng, 2011; Chowdhury & Chowdhury, 2010).

5.7.9 SEC guideline and corporate financial performance

After analyzing the association between SEC revised guidelines and the corporate financial performance based on the market-based performance measure (Tobin's Q), it is revealed that the relationship between SEC revised guidelines and the corporate financial performance is positive but insignificant, which further indicates that SEC revised guidelines have no impact on the corporate financial performance. On the other hand, the current study also strives to identify the relationship between the same two variables based on the accounting-based performance measure (ROA). The finding shows that the relationship between the regulatory guidelines and the corporate financial performance is negative and highly significant at 1 percent level. Thus this finding explained that the SEC revised guideline is not only failed to create an impact on corporate financial performance rather negatively impact the firm performance.

It is noted that CG plays a significant role to discipline a company to make it competitive with global firms (Ehikioya, 2009 and Iwasaki, 2008). The CG guidelines issued by the government agencies and some other international bodies, if adopted, help the firm in specific and country to attract foreign investments. Besides, it augments investors' protection and safeguards from corporate scandals. Therefore, it is mentioned that there is no one-size-fits-all approach to attaining an effective governance system (Black et al, 2014 and Bhagat & Bolton, 2008). The governance practices vary across nations (Anderson & Gupta, 2009; Doidge et al., 2007 and Shleifer & Vishny, 1997) because of the institutional development background of the country (Peng & Jiang, 2010; Judge et al., 2008 and North, 1990). Hence, regulating government bodies strive to come up with governance codes based on the international best practices which suit their socio-economic and cultural context. We know BSEC issues CGN in 2006 on comply or explain the basis and then make it mandatory in 2012 to ensure good governance at firm-level management. The empirical results show that the revised CG guidelines of 2012 have failed to add any value to corporate board attributes and thus firm performance as measured by both Tobin's Q and ROA. We have not found any previous study in corporate governance literature that

focuses on the effects of corporate governance mechanisms on firm performance in light of the revised CG guidelines. Hence we have conducted this study and the empirical results lead us to an academic debate on the effectiveness of mandatory CG guidelines of 2012.

5.7.10 Firm age and corporate financial performance

To see the effects of firm age on the corporate financial performance based on both market-based performance measure (Tobin's Q) and accounting-based based performance measure (ROA), this study developed the OLS regression model. The finding based on Tobin's Q shows that the relationship between firm age and corporate financial performance is positive but statistically insignificant, which further signals that firm age does not have any impact on the firm performance. On the other hand, the accounting-based performance measure indicates that the relationship between firm age and ROA is positive and statistically significant, which means that firm age has effects on corporate financial performance. The difference in the findings based on the performance measures in the context of Bangladesh is revealing. It is believed that older firms have better financial performance because of their experiences as they can enjoy the benefits of "learning by doing" (Coad et al., 2013 and Vassilakis, 2008). Also, younger companies are prone to "liabilities of newness" which refer to several poorly understood factors leading to higher failure rates (Stinchcombe, 1965). Besides, aging can hurt the corporate financial performance because of "inertia effects", which could lead the firms to become rigid and unresponsive to the rapidly changing business environment in which they operate (Barron et al., 1994).

5.7.11 Firm size and corporate financial performance

To see the effects of firm size on corporate financial performance based on both market-based performance measure (Tobin's Q) and accounting-based based performance measure (ROA), this study developed the OLS regression model. Finding based on Tobin's Q reveals that the relationship between firm age and corporate financial performance is negative and statistically significant at 1percent level, which further signals that firm size negatively impact the firm performance. This finding supports some past studies (for

example-Maniruzzaman & Hossain, 2019a; Haniffa & Hudaib, 2006; Al-Khouri, 2006; Durnev & Kim, 2005; and Weir et al., 2002) as they found a negative association between the firm size and the corporate financial performance. Besides, this finding does not support some past studies, such as Carter et al. (2003) and Yermeck (1996).

On the contrarily, finding based on ROA reveals that the relationship between firm age and corporate financial performance is positive and statistically significant at a 1 percent level, which further signals that firm size has impacted corporate financial performance. This finding is supported by some past studies, such as Maniruzzaman & Hossain (2019a); Shubita & Alsawallhah (2012); Akbas & Karaduman (2012); Saliha & Abdessatar (2011); Lee (2009); Jonsson (2007); Bozec (2005); and Weir & Laing (2000); and Majumdar (1997).

This positive association between firm size and corporate financial performance may be argued that big firms have more competitive power when compared to small firms in fields requiring competition. Also, big firms able to take advantage of the opportunities and can meet the threats coming from the environment.

CHAPTER SIX

SUMMARY AND POLICY IMPLICATION

SUMMARY AND POLICY IMPLICATION

6.1 Introduction

Over the last couple of decades, corporate governance has evolved as a deep-seated problem in financial directives and literature. As a discipline, corporate governance has been scrutinized at a growing rate since the 1990s, and publicly traded companies have started to put some guidelines for running smoothly, developing performance, promoting more enhanced disclosure, maximizing stockholders' return. This chapter includes the theoretical aspects along with objectives, scope, sampling, data sources, conceptual framework, and methodological issues in brief and then the core findings of the study followed by policy implications and directions for future research in this field of knowledge.

Corporate finance literature conferred mixed results of the relationship between CG mechanisms and corporate financial performance. Most of the past empirical works have focused on the association between corporate governance structure and company financial performance. Against the backdrop, this research has strived to examine the association between CG mechanisms (both internal and external) and corporate financial performance. The population of this study has included all the DSE listed manufacturing companies in Bangladesh over a period of twelve years from 2006-17. Bangladesh Securities and Exchange Corporation (BSEC), the chief regulator of the Bangladesh capital market, promulgated the corporate governance code in 2006 and revised later in 2012. Hence, we planned to recognize the impacts of CG mechanisms on corporate financial performance by dividing the study period into two tales, the first one from 2006 to 2011 and the other one from 2012 to 2017.

Primarily, we have found 150 manufacturing companies listed on DSE, but the annual reports are available for 82 companies only. Again, for the sake of more meticulous investigation, the study has dropped some firm-year observations having negative book values of their equity. Therefore, the final sample stands at 984 firm-year observations for those 82 manufacturing companies over the period 2006-2017. Hence, our study has

utilized 82×10×10=8200 data points. We have used the quantitative method to explore the relationship between corporate governance mechanisms and corporate financial performance based on Tobin's Q (a market-driven model) and ROA (an accounting assessment). The study used the OLS regression model to analyze data and present the results in line with the existing literature. The study has formulated several research hypotheses based on theoretical insights as well as exiting empirical works to attain the objectives of this research. The research has taken academic support of the agency theory and several other CG mechanisms.

The study thoroughly examined relevant literature on CG mechanisms and some specific issues relating to governance, for example, the applicability of associated theories and how corporate financial performance is influenced by CG mechanisms. The methodology section explained the research paradigm, research design, and research approach applied to investigate the impacts of corporate governance mechanisms (both internal and external) on the corporate financial performance in light of research objectives and hypotheses. The study has also explained why Bangladesh is a unique case and reasonable ground for our research.

Bangladesh, a South-East-Asian country, emerged as an independent nation after a long nine months battle against Pakistan in 1971. It is a densely populated country with approximately three-fourths of its total population lives in rural areas. But the rural areas in Bangladesh still remained disadvantageous and underprivileged as most of the living facilities and economic advantages are citycentric, such as communication, infrastructure, commercial, and banking, etc.

Corporate governance practices in Bangladesh are rooted in the British colonial regime. The CG practices during the colonial period (1757-1947) were marked with poor industrialization, concentrated ownership, and autocratic management practice. Even the poor corporate culture during the British period is prevailing today due to bureaucratic delaying tactics, political control over the bureaucracy, the institutionalization of corruption in the bureaucracy, hostile environment for entrepreneurship development, and underdeveloped capital market.

The Bangladesh government has initiated a number of corporate reform plans, for instance, denationalization of public enterprises, encouraging foreign direct investment, improving import and export management, and introducing investment and export incentives. The continuous initiatives of the government along with different local and international agencies have become somewhat successful in reducing the negative image of the potentialities of Bangladesh. However, perpetual political uncertainty and lack of good governance seem to have acted as significant challenges to the country. Some earlier studies (Imam, 2010 and Islam, 2010) have noted that some factors, such as improper use of political power, random policy reforms, and unethical practices over corporate affairs have created a faithless and volatile business and corporate environment. They further reprimanded that the government of Bangladesh has given attention to some areas, such as transparency, accountability, and disclosure, even when the government authorities make decisions to improve the situation, those decisions are often defeated by different political agendas.

Bangladesh was one of the poorest countries in the world since its liberation. But the common people of this country have changed the economic status of Bangladesh with their continuous effort and hard work. In just four and a half decades, the economy of the country has been transformed into a lower-middle-income country and subsequently, converted into a fast-growing emerging economy. The transformation from an agrarian economy to an export-oriented emerging trade and investment destination with a continued average economic growth of over 5.84 percent from 1994 to 2018 and touching the extent of 7.90 percent in 2018, the highest growth rate in the history of Bangladesh (BBS report, 2018). Goldman Sachs mentioned that Bangladesh's economy as ‘the miracle of the East’ and branded Bangladesh in its ‘Next 11’ list after the BRIC countries. The government of Bangladesh has adopted a vision to change the country into an information-driven medium-income marketplace by 2021, and a peaceful, prosperous, and developed country by 2041 (Star Online Report, 2016). But the actual scenario of the country does not prove the same because Bangladesh has continued to be a poor country despite the healthy growth rate (Sobhan, 2016). Hence, the governance status of the economy comes to light. The growing speed of globalization, liberalization, and stock market failure along with a list of recent financial disgraces in Bangladesh, and many questionable corporate failures,

for instance, Hallmark Group, Bismillah Group, Destiny group, Oriental Bank, Modern Food Ltd, Adamjee Jute Mills Ltd (the largest jute mills in the world) along with two severe stock market crashes, one in 1996 and the other in 2010-11 have sparked the debate on the conflict of interest between stockholders and corporate management as well as dominant shareholders and minority shareholders, and also the governance practice for viable industrial development and sustainable economic growth. The increasing call for sound governance mechanisms has drawn the ethos after the events aforementioned. Hence, Bangladesh is a unique case and natural ground for research on the impact of internal and external CG mechanisms on corporate financial performance.

6.2 Summary of main findings

We have developed several hypotheses based on research objectives. The FIRST objective of the study was to examine the effects of internal corporate governance mechanisms, particularly board size, board independence, audit committee size, female directorship, CEO duality, and ownership concentration on corporate financial performance. The SECOND objective of the study was to explore the effects of external corporate governance mechanisms, specifically institutional ownership, financial leverage, and SEC guidelines on corporate financial performance. The THIRD objective of the study was to examine the effects of firm-level control variables, expressly firm age and firm size on the corporate financial performance. The FOURTH objective of the study was to examine the effects of corporate governance mechanisms both internal and external on the corporate financial performance. Hence, this study has aimed to provide a detailed review based on the variables used in this research under different objectives of the study.

6.2.1 Board Size

First, the effect of board size on corporate financial performance has been measured to attain research objectives ONE and FOUR, where the board size acts as an internal corporate governance mechanism. To measure the research objective ONE, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the inquiry unfolds that board size is positively associated with the corporate financial performance measured as Tobin's Q and the association is significant at 1 percent level,

but the same association is negative and insignificant measured as ROA. So, the associations using two measures are in two different directions. The findings based on Tobin's Q are consistent with some earlier studies, for example, Maniruzzaman & Hossain (2019a); Mangena & Tauringana (2008); Henry (2008); Beiner et al. (2006); and Adams & Mehran (2005), but the findings based on ROA are compatible with some other prior studies and opposes the assumptions of agency theory, for instance, Guest (2009); Coles et al. (2008); Cheng et al. (2008); Sakawa & Watanabel (2007); Haiffa & Hudaib (2006); Bhagat & Block (2002); Vefeas (1999); Klein (1998); Conyon & Peck (1998); and Yermack (1996) as they noticed that tiny board size is more effective than large board size.

In addition, this study has developed two multiple regression models (one for Tobin's Q and the other for ROA), and the analysis shows that board size is positively associated with both Tobin's Q and ROA, but the relationship is only significant for Tobin's Q at 1 percent level that suggests board size can contribute to the attain objective four when the performance is measured based on Tobin's Q. These findings matched with some earlier studies, for instance, Maniruzzaman & Hossain (2019a); Mangena & Tauringana (2008); Henry (2008); Beiner et al. (2006); and Adams & Mehran (2005). Besides, these findings do not support the findings of some other earlier studies, for example, Guest (2009); Mangena & Chamisa (2008); Coles et al. (2008); Cheng et al. (2008); Sakawa & Watanabel (2007); Haiffa & Hudaib (2006); Ho & Williams (2003); Kiel & Nicholson (2003) Bhagat & Block (2002); Vefeas (1999); Klein (1998); Conyon & Peck (1998); Eisenberg et al. (1998); and Yermack (1996). It is believed that a smaller board is more useful for greater corporate performance and can make the company more profitable and valuable to the stakeholders (Kholief, 2008 and Beiner et al., 2003). Lipton & Lorsh (1992) commented that the perfect board size should be composed of 8 or 9 members or 10 as a maximum, while Jensen (1993) thought that the effective board size should be comprised of 7 or 8 members. The mean board size in Bangladesh is around 7 members. It is also important to note that the findings of the study present a negative association (see regression table-5.5) between the board size and the corporate financial performance based on ROA, which turned into positive in the regression table-5.11. This situation suggests the effects of board size on the corporate financial performance based on ROA are influenced by the presence of some other variables.

6.2.2 Board Independence

Second, the effect of board independence on corporate financial performance has been measured to get an understanding of the research objectives ONE and FOUR, where board independence acts as an internal corporate governance mechanism. To measure the research objective ONE, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the examination reports that the relationship between board independence and corporate financial performance is negative based on Tobin's Q, however, the association is not statistically significant. The same association is positive and significant at 1 percent level when the performance is measured based on ROA. So, the associations are in different directions. The findings based on Tobin's Q are consistent with some past studies and differs significantly from the propositions of agency theory, for instance, Toledo (2010); Coles et al. (2008); Bhagat & Bolton (2008); Abdullah (2007); Beiner et al. (2003) Weir et al. (2002); Bhagat & Black (2002); Klein (1998); and Agrawal &Knoeber (1996), where the findings based on ROA are compatible with some other earlier studies, for example, Muniandy & Hillier (2015); Leun (2014); Jackling & Johl (2009); Ho & Williams (2003); Rodriguez & Anson (2001); Yermack (1999); Daily & Dalton (1992); and Pearce & Zahra (1992).

In addition, for measuring the research objective four, the current study has developed two multiple regression models (one for Tobin's Q and the other for ROA), and the investigations show that based on Tobin's Q, the relationship is negative and statistically significant at 10 percent level, but based on ROA, the same relationship is positive and significant at 1 percent level. These findings seem revealing for two reasons: first one, the association between board independence and the corporate financial performance based on Tobin's Q is found negative and insignificant for objective one when we developed regression model with internal CG mechanisms only, the same association is negative but statistically significant due to the presence of some other factors, particularly the presence of external CG mechanisms and the firm-level control variables. The other one, the effects of board independence on corporate performance based on ROA remained positive and significant in both situations, which indicates that the effects of board independence on corporate financial performance are not affected by the external CG mechanisms. The

positive relationship is supported by some preceding studies, such as Muniandy & Hillier (2015); Leun (2014); Jackling & Johl (2009); Ho & Williams (2003); Rodriguez & Anson (2001); Yermack (1999); Daily & Dalton (1992); and Pearce & Zahra (1992). Besides, this positive association between board independence and the corporate financial performance based on ROA is supported by the agency theory and with the key recommendations of the Cadbury report. This positive relationship indicates that the market perceives the presence of independent directors on the corporate board as a positive governance practice as the presence of board independence can improve board decisions (Ferdous, 2013). This work is supported by Maniruzzaman & Hossain (2019a) as they found that there is a significant positive association between board independence and corporate financial performance measured as ROA.

6.2.3 Audit Committee Size

Third, the effect of audit committee size on corporate financial performance has been measured to have an understanding of the research objectives ONE and FOUR, where the audit committee size acts as an internal corporate governance mechanism. To measure the research objective ONE, we developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveals that the association between the audit committee and the corporate financial performance is positive based on both Tobin's Q and ROA, and the relationship is statistically significant at 5 percent and 1 percent level respectively. These findings indicate that the audit committee has an effect on corporate financial performance based on both measures. These findings support the theoretical arguments of agency theory along with some preceding studies, such as Mendez & Garcia, 2007 and Weir et al., 2002.

On the other hand, the regression results (regression table-5.11 and table-5.12) reveal that the effects of audit committee size on corporate financial performance are also positive but insignificant, which further indicates that the audit committee has no impact on the corporate financial performance. These findings are more revealing in the literature as the effect of audit committee size changes due to the presence of some other variables in the regression model. These findings support many earlier studies, such as Aldamen et al. (2012); Mangena & and Chamisa (2008); Weir et al. (2002); Weir & Laing (2000); and

Vefeas & Theodorou (1998). Besides, these findings throw challenges to the arguments of agency theory. Thus, these results indicate that the effectiveness of audit committee size on corporate financial performance depends on some other external CG mechanisms.

6.2.4 Female Directorship

Fourth, the effect of female directorship on corporate financial performance has been measured to gain an understanding of research objectives ONE and FOUR, where female directorship acts as an internal corporate governance mechanism. To measure the research objective ONE, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveals that the relationship between the female directorship and the corporate financial performance is negative based on Tobin's Q, and the relationship is not statistically significant, but the same relationship is positive and significant at 5 percent level when the performance is measured based on ROA. So, the associations are in different directions based on Tobin's Q and ROA.

But for objective four, this research developed two regression models, one for Tobin's Q and the other for ROA, and the results show that the effects of female representation in corporate board are negative and significant at 1 percent level based on both Tobin's Q and ROA, which indicate that female directorship in corporate board creates negative effect on the corporate financial performance. These findings suggest external CG mechanisms may moderate the association between female directorship and the corporate financial performance measured as Tobin's Q. These findings do not support many previous studies such as García-Meca et al. (2015), Hutchinson et al. (2015); Erhardt et al. (2003); and Carter et al. (2003) as they found gender diversity in the corporate board is positively associated with firm performance.

6.2.5 CEO duality and corporate financial performance

Fifth, the effect of CEO duality on corporate financial performance is measured to gain an understanding of the research objectives ONE and FOUR, where the CEO duality acts as an internal corporate governance mechanism. To measure the research objective ONE, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveals that the relationship between the CEO duality and the

corporate financial performance is positive based on both Tobin's Q and ROA, but the relationship is significant at 5 percent level for only Tobin's Q, which suggests that CEO duality has a positive effect on corporate financial performance in the presence of internal CG mechanisms. These findings are different from our theoretical arguments and in some preceding studies, such as, such as Haniffa & Hudaib (2006); Sanda et al. (2005); Vefeas & Theodorou (1998); Yermack (1996); Jensen (1993); Hermalin & Weisbach (1991); and Rechner & Dalton (1991).

On the other hand, for measuring the objective four, this study developed two regression models, one for Tobin's Q and the other for ROA, and the results show that the effects of CEO duality in the corporate board are positive and insignificant based on Tobin's Q, but the same association is negative and significant at 10 percent level based on ROA. The findings based on Tobin's Q vary from the theoretical arguments of agency theory, but the findings based on ROA change with the research hypothesis we develop in chapter two along with some past studies, such as Haniffa & Hudaib (2006); Sanda et al. (2005); Vefeas & Theodorou (1998); Yermack (1996); Jensen (1993); Hermalin & Weisbach (1991); and Rechner & Dalton (1991).

The findings based on ROA support the theoretical assumptions of the agency theory as it is thought that the monitoring abilities of the company are enhanced if the posts of chairman and CEO are filled by separate persons. Indeed, it is recommended that CEO role duality is recognized in the market as poor governance practice as it makes the CEO more authoritative and powerful.

6.2.6 Ownership concentration and corporate financial performance

The current study investigated the effects of ownership concentration on corporate financial performance using a multiple OLS regression model. The findings of the study based on both Tobin's Q and ROA show that the relationship between the ownership concentration and corporate financial performance is positive and highly significant at 1 percent level. These findings also signal that ownership concentration can significantly affect the firm value of manufacturing companies in Bangladesh. These findings support some past studies, such as Maniruzzaman & Hossain, (2019a); Bhaumik & Selarka,

(2012); Maury (2006); and Wiwattanakantang (2001). But some other studies report a negative association between the ownership concentration and corporate financial performance, such as Mak & Kusandi (2005) and Prowse (1992). It is argued that ownership concentration is an important internal CG mechanism that enables the owners to influence and control management to protect shareholders' interests (Madhani, 2017). When ownership is scattered, the control of the owners tends to be weak due to poor monitoring. Let alone shareholders are likely to be disinterested in monitoring as they would bear all the cost of monitoring hence enjoy a small portion of the benefits, which drives low monitoring exercises (Gillan, 2006 and Walsh & Seward, 1990). But, when ownership of a company is concentrated, the majority of shareholders would play a significant role to monitor the affairs of management (Zhuang, 1999). The concentrated ownership pattern is found common in most countries (La Porta et al., 1999), and also in Bangladesh as family and institutions have ample ownership.

6.2.7 Institutional ownership and corporate financial performance

Seventh, the effect of institutional ownership on corporate financial performance is to gain an understanding of the research objectives TWO and FOUR, where the institutional ownership acts as an external corporate governance mechanism. To attain the research objective TWO, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the investigation reveals that the relationship between the institutional ownership and the corporate financial performance is negative based on both Tobin's Q and ROA, and the relationship is significant at 5 percent and 1 percent level respectively, which reveal that institutional ownership has negative effects on the corporate financial performance.

On the other hand, for objective FOUR, we have developed another two regression models, one for Tobin's Q and the other for ROA, and the regression results show that the effect of institutional ownership on corporate financial performance based on Tobin's Q is negative and insignificant, while based on ROA, the same association is positive but insignificant. Thus the relationships between the institutional ownership and the corporate financial performance are not in the same direction. These findings indicate that institutional ownership does not create an impact on corporate financial performance.

These findings differ from Masry (2016) as the author found that the involvement of institutional ownership in monitoring and controlling corporate activities minimize agency problems and maximize corporate performance in the developing country context. Moreover, institutional investors usually invest in equity securities, thus, they have the ability to influence management activities directly through their ownership and indirectly by means of trading their stocks (Gillan and Stark, 2003). Some earlier studies argued that the participation of big shareholders in controlling or monitoring activities help resolve agency problems (Jiang & Yamada, 2011; Noe, 2002; Huddart, 1993; and Admati et al., 1994).

6.2.8 Financial Leverage

Eighth, the effect of financial leverage on corporate financial performance has been measured to get an understanding of the research objectives TWO and FOUR, where financial leverage acts as an external corporate governance mechanism. To measure the research objective TWO, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveal that the effect of financial leverage on the corporate financial performance is positive and insignificant based on Tobin's Q, but the effects of financial leverage on the corporate financial performance is negative and statistically significant at 1 percent level based on ROA that reveal financial leverage has the mixed effects on corporate financial performance.

On the other hand, for objective FOUR, we developed two regression models, one for Tobin's Q and the other for ROA, and the results reveal statistically significant positive effect of financial leverage on the corporate financial performance at 10 percent level based on Tobin's Q, while the effects of financial leverage based on ROA is negative and statistically significant at 1 percent level. These findings indicate that the effect of financial leverage on corporate financial performance relies on some other factors.

Several preceding studies mentioned that the relationship between financial leverage and corporate financial performance is negative, such as Chechet & Olayiwola (2014) and Bokhari & Khan (2013). This study supports agency theory because the relative cost of debt and equity is considered while designing capital structure (Myers and Majulf, 1984).

A one percent decline in equity to total capital can result in up to ten percent overall increase in the profitability for US companies until the extreme situation, where leverage levels may lead to bankruptcy (Berger & Di Patti, 2006). Capital structure is negatively related to return on asset and return on capital employed. However, many studies found a positive association between the financial leverage and the corporate financial performance (Fosu, 2013; Shubita & Alsawalhah, 2012; Sen & Heng, 2011; Chowdhury & Chowdhury, 2010).

6.2.9 SEC Guidelines

Ninth, the effect of SEC guidelines on corporate financial performance is measured to reach an understanding of the research objectives TWO and FOUR, where SEC guideline acts as an external corporate governance mechanism. To attain research objective TWO, we have developed two OLS regression models, one is Tobin's Q and the other for ROA, and the inquiry reveals that the effect of SEC guidelines on the corporate financial performance is positive and statistically insignificant based on Tobin's Q, but the effects of SEC guideline on the corporate financial performance is negative and statistically significant at 10 percent level based ROA that suggests financial leverage has mixed effects on corporate financial performance.

On the other hand, for research objective FOUR, we developed two regression models, one for Tobin's Q and the other for ROA, and the results disclose that the effect of SEC guideline on the corporate financial performance is positive and statistically insignificant based on Tobin's Q, while the effects of SEC guideline, based on ROA, on the corporate financial performance is negative and statistically significant at 1 percent level. These findings are different in the direction that suggests the effect of SEC guidelines on corporate financial performance depends on some other factors. Thus these findings testimony that the SEC revised guideline is not only failed to create an impact on corporate performance, but also negatively influence corporate financial performance.

The CG guidelines issued by the government agencies and some other international bodies, if adopted, help attract foreign investments. In addition, it augments the investors' protection and safeguards the company from scandals. The governance practices vary

across nations (Anderson & Gupta, 2009; Doidge et al., 2007 and Shleifer & Vishny, 1997) because of the experience of institutional development (Peng & Jiang, 2010; Judge et al., 2008 and North, 1990). Hence, government regulators strive to come up with a governance code based on the international best practices that suit the country's socio-economic and cultural context. We know BSEC issues CGN in 2006 on comply or explain basis and then make it mandatory in 2012 to ensure good governance at firm-level management. The empirical results show that the revised CG guidelines of 2012 have failed to add any value to corporate board attributes and thus corporate financial performance as measured by both Tobin's Q and ROA. We have not found any previous study in corporate governance literature that focuses on the effects of corporate governance mechanisms on corporate financial performance in light of the revised CG guidelines. Hence we have conducted this study and the empirical results lead us to an academic debate on the effectiveness of mandatory CG guidelines of 2012.

6.2.10 Firm Age

Tenth, the effect of company age on corporate financial performance is measured to reach an understanding of the research objectives THREE and FOUR, where, in both cases, company age acts as a firm-level control variable. To attain research objective THREE, the current study developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveals that the effect of company age on the corporate financial performance is positive and significant at 1 percent level based on both Tobin's Q and ROA, which indicate that company age has positive effects on the corporate financial performance.

On the other hand, for measuring the research objective FOUR, this study developed another two regression models, one for Tobin's Q and the other for ROA, and the results reveal that the effect of company age on corporate financial performance, based on both Tobin's Q and ROA, is positive and statistically significant only for ROA at 1 percent level. It is believed that older companies have better financial performance because of their experiences as they can enjoy the benefits of "learning by doing" (Coad et al., 2013 and Vassilakis, 2008). In addition, younger companies are prone to "liabilities of newness"

which refer to a number of poorly understood factors leading to higher failure rates (Stinchcombe, 1965). Besides, aging can have a negative impact on corporate financial performance because of "inertia effects", which could lead firms to become rigid and unresponsive to the rapidly changing business environment in which they operate (Barron et al., 1994).

6.2.11 Firm Size

Eleventh, the effect of company size on corporate financial performance is measured to reach an understanding of the research objectives THREE and FOUR, where company size acts as a firm-level control variable. To attain research objective THREE, we developed two OLS regression models, one for Tobin's Q and the other for ROA, and the analysis reveals that the effect of company size on the corporate financial performance is negative and significant at 1 percent level based on Tobin's Q, but the effects of company size on the corporate financial performance is positive and statistically significant at 1 percent level based on ROA, which suggests company size has mixed effects on corporate financial performance.

On the other hand, for attaining research objective FOUR, we developed another two regression models, one for Tobin's Q and the other for ROA, and the results that reveal the effect of company size on the corporate financial performance is negative and statistically significant at 1 percent level based on Tobin's Q. This finding supports some past studies, for example, Maniruzzaman & Hossain (2019a); Haniffa & Hudaib (2006); Al-Khouri (2006); Durnev & Kim (2005); and Weir et al. (2002). They found a negative association between company size and corporate financial performance. Besides, these findings do not support many previous studies, such as Carter et al. (2003) and Yermack (1996). While the effects of company size on the corporate financial performance based on ROA is positive and statistically significant at 1 percent level. These findings are supported by some other prior studies, such as Maniruzzaman & Hossain (2019a); Shubita & Alsawallhah (2012); Akbas & Karaduman (2012); Saliha & Abdessatar (2011); Lee (2009); Jonsson (2007); Bozec (2005); and Weir & Laing (2000); and Majumdar (1997).

6.3 Implications of the study and the summary table showing outcomes

In early 2006, the Bangladesh Securities and Exchange Commission (BSEC) a regulatory body issued the Corporate Governance Notification (CGN) on a 'comply or explain' basis. It is also known as the Corporate Governance Code of Best Practices, which acts as a guideline for the companies in Bangladesh. CGN requires all DSE listed firms in Bangladesh to comply with the corporate governance guidelines. These CG guidelines further help the companies to set corporate governance devices aiming at accelerating the corporate performance as sound CG mechanisms could protect the interests of stockholders and all levels of stakeholders. The existing literature in line with the corporate governance issues is often focused on the context the developed countries like the US and UK, where the developing country context remained relatively untouched and unexamined. The compliance with the code and guidelines of CG in Bangladesh is still in the choice, comply or justify, but some country made it as a legal requirement to comply with the CG codes and guidelines, such as the US corporate governance codes are legal requirements that must be followed by the companies. The corporate governance code was updated and revised in 2012 and issued for mandatory compliance. The socio-economic and cultural context in Bangladesh significantly differs from that of the developed countries in the world. This research uses secondary data collected from the annual reports of publicly traded manufacturing companies in Bangladesh to examine the effects of CG mechanisms (both internal and external) on corporate financial performance. Nonetheless, the findings of the study are mixed. The outcomes show that the relationship between governance mechanisms and firm performance is a complicated thing. They, therefore, raise questions about the efficiency of a system that imposes prescribed governance structure on companies because such an approach generates problems when trying to assess the effectiveness of those mechanisms. These results add to the policy debate concerning the suitability of different governance mechanisms and the extent of their substitutability. It appears that widespread compliance with the Code of Best Practice makes it difficult to assess its effectiveness. Greater flexibility and a recognition that the mix of governance mechanisms may vary according to firm-specific circumstances offer a possible answer. It may be that a greater understanding of the process of the governance mechanisms is one way ahead.

Based on the results of Chapter five, several implications are obvious. First, the findings suggest that the percentage of independent directors has a significant impact on corporate financial performance measured as ROA in Bangladeshi listed companies, which is consistent with the recommendation of the SEC guidelines to include more independent directors on corporate boards. This positive relationship implies that the presence of independent directors on corporate boards is positive corporate governance practice as their presence could improve the board's effectiveness. Several past empirical studies reported a positive relationship between independent directors and corporate financial performance. The appointment of independent directors on corporate board contributes to the decision-making and the monitoring role in the board meetings. It may also be possible that their knowledge and skills improve the effectiveness of the board, and subsequently, corporate performance.

Second, the findings suggest that ownership concentration has a significant influence on corporate performance measured by Tobin's Q and ROA. Greater ownership of the directors appears to be connected with their aggression. The entrenchment/ aggression hypothesis explains that directors with high shareholding are capable of using it as a protection against any disciplinary action taken by minority / atomistic shareholders. This implies that greater shareholding help directors concentrate on maximizing their monopoly, such as assured employment with attractive salaries to the loss of other shareholders. This is because they hold sufficient polling power to adequately protect them against any disciplinary motion. This situation also suggests that director ownership is assessed differently by different parties. As mentioned earlier, the ROA is preferred by directors as it reflects the current values, whereas Tobin's Q predicts future growth opportunities, and is preferred by prospective and current investors. Third, it is assumed that a large board is possibly related to the improvement of corporate financial performance measured as Tobin's Q. Also, a large board is likely to be associated with more experience and knowledge, which helps the board make decisions based on reliable input. Theoretically, this indicates that the market perceives larger boards as more effective. This is because larger boards offer greater access to the external environment, which reduces guesswork and facilitates holding critical resources, such as finance, raw materials, and contracts. Based on accounting measures (ROA), the findings suggest that

board size has no impact on corporate financial performance rather larger board is linked to poor corporate financial performance as it increases the monitoring cost that in turn reduces the company value. Fifth, evidence shows a positive relationship between the audit committee and company performance measure as both Tobin's Q and ROA, but its impact on corporate financial performance changes with the influences of other corporate governance mechanisms. This suggests that the influence of the audit committee on corporate financial performance is not independent or free from the influences of other corporate governance mechanisms. These findings are very interesting because the effects of the audit committee are mediated or moderated by some other CG mechanisms. To identify the causal effects of CG mechanisms on the audit committee size could be very interesting in the corporate governance literature. Sixth, in theory, the role duality allows a charismatic CEO to have a stronger opinion on the objectives of the firm without opposition from the excessive board, and it facilitates decisions that could be made quickly, and that could improve firm performance. But the empirical works reviewed about role duality exhibited conflicting results in most of the developed and developing countries. The finding is contrary to the expectation of role duality that it would lead to agency problems, which in that way may lead to poor firm performance. Also, empirically it does not support the recommendations of corporate governance codes that the roles of CEO and chairman should be separated. The negative coefficient, however, suggests that the market perceives CEO duality as a bad practice. The arguments of agency theory believe that CEO duality negatively influences the role of the board in monitoring and assessing the performance of managers. Seven, it seems that even more debt does not influence firm performance and its value. Agency theory suggests that debt is a good mechanism to make the managers more disciplined. It implies that firms forego projects with positive net present values because they have excessive debt. This under-investment means that firms with growth opportunities will present a negative relationship between debt and firm value.

The results show that there is a relationship between governance mechanisms and performance but it is a complex one. Some internal corporate governance mechanisms are found very effective in value-maximizing, but some mechanisms cannot influence alone as the presence of external corporate governance mechanisms makes them sometimes

stronger or weaker in their relationship with corporate financial performance. This is the new look for the researchers and policymakers in designing corporate governance policy. The study did not examine the influence of external CG mechanisms on the relationship between internal CG mechanisms and corporate financial performance. Besides, some internal CG mechanisms cannot influence the value of the organization. Given these results, it is not clear how far compliance with the SEC Code of Corporate Governance serves stockholders' interests. It may be, however, that the board governance structure recommended in the Code is appropriate but, because of a lack of information about the non-executive directors about their expertise and independence, inappropriate appointments are being made.

If general rules are unsuitable, it suggests that the company-specific situation should be adopted. In other words, a particular governance structure may be appropriate for one firm, but not for another. For example, CEO duality may have a positive impact on a company if the person is dynamic and talented, but a negative one if the person is autocratic. How the shareholders are expected to differentiate between the two situations is not clear. Although the initial SEC Governance Code was flexible in the notion that flexibility should be a part of the governance system, the rigid nature of the Code does little to encourage such an approach. These results give importance to the demand for more extended elasticity in knowing how governance mechanisms impact on particular situations.

6.4 Research Limitations

The findings of empirical research are important and the present study is not different, still, it might have some limitations that should be addressed properly.

The choice of the sample size and plan for the period study was not candid as some companies are taken or dropped over the period. Industry sectors were defined as per the DSE manufacturing companies' category and grouped accordingly into eight sectors excluding the financial or banking sector. Although control for different biases in sample design has been taken care of, it is yet not perfect and different approaches could have given mixed results. The variation in company governance is not observable due to the Combined Code and other regulations.

The study considers both internal and external CG mechanisms as explanatory variables and does not consider the mediating role.

OLS regression model has been applied in this research to exhibit the results, but other regressions, such as the Ridge regression model, 2SLS, 3SLS, and fixed effects estimation could be used.

The findings of this research have, therefore, been interpreted based on the above limitations. These limitations could be possible research avenues in the future.

6.5 Future Research Avenues and Improvements

This section presents the potential avenues for future research and improvements need. First, as mentioned earlier, the research has essentially examined the association between corporate governance mechanisms and corporate financial performance. Future studies and further work could investigate the mediating effects of external corporate governance mechanisms on the association between internal corporate governance mechanisms and corporate financial performance.

Second, most studies in this field largely focused on listed companies, so extending the studies to smaller companies could be another area for investigation as more diversity in governance is possible in smaller companies than the larger companies complying with the SEC Corporate Governance Code. Third, given the current international financial crisis and its association with director pay and bonuses, it will be exciting for future research to focus on the relationship between the directors (i.e., CEO, executive, non-executive, and independent) pay and company financial performance. Fourth, more research is needed on BODs, not only on the effects of board structure and composition on company performance. More controversial, however, is defining board effectiveness in large corporations and the most important factors that drive the adoption of specific board structures, mechanisms, and practices. We could measure of board effectiveness that includes the operations/processes to characterize boards.

We could study the influences of ownership configuration, such as executive/board ownership, concentration, institutional ownership, etc., organizational characteristics, such as type, industry, age, leverage, growth, etc., board member characteristics, such as education, experience, reputation, etc., and general board characteristics, such as leadership, experience, diversity, etc. on the board effectiveness. A satisfactory answer to these questions will enhance our understanding of several board practices and dynamics and, also, help identify 'gaps' in governance.

Fifth, future research can re-examine the relationship between corporate governance and corporate financial performance by expanding the sample size and over a longer period to include the period after 2017. Such a study can estimate both balanced and un-balanced panels to avoid continuation bias. Furthermore, to improve this study, different control variables such as dividends and EPS could be used. Also, firm size could be measured differently as the book-to-market values rather than using total assets. Besides, it could compose the sample of all the companies throughout the period even the dropped out, merged, disappeared, and taken over companies to test the role of corporate governance in these failure companies. It can also consider only financial companies or both financial and non-financial companies to determine whether the current findings are fine-tuned or articulate to different sample specifications. Finally, future studies can choose different research methodologies, such as qualitative and event study research designs to explore the association between corporate governance and company financial performance.

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APPENDICES

APPENDICES

Appendix A

Appendices for chapter 4

Appendix Ch.4.1 Table shows the process of finalizing the sample and List of companies survived over twelve years with its industry

Sampling Criteria: The company must be listed at DSE on or before 2006 to be included in the sample of the study. Besides, data must be available required for the study.				
No.	**Name of the Company**	**Survival Status 2006-2017**	**Is the company eligible to be included in the study?**	**Acronym**
1.	Aramit Cement Limited	Established on or before 2006	Yes	ARAMITCEM
2.	Confidence Cement Ltd.	Established on or before 2006	Yes	CONFIDCEM
3.	Heidelberg Cement Bangladesh Ltd.	Established on or before 2006	Yes	HEIDELBCEM
4.	Lafarge Holcim Bangladesh Limited	Established on or before 2006	Yes	LHBL
5.	Meghna Cement Mills Ltd.	Established on or before 2006	Yes	MEGHNACEM
6.	M.I. Cement Factory Limited	*Established after 2006*	No	MICEMENT
7.	Premier Cement Mills Limited	*Established after 2006*	No	PREMIERCEM
8.	Fu-Wang Ceramic Industries Ltd.	Established on or before 2006	Yes	FUWANGCER
9.	Monno Ceramic Industries Ltd.	Established on or before 2006	Yes	MONNOCERA
10.	RAK Ceramics (Bangladesh) Ltd.	*Established after 2006*	No	RAKCERAMIC
11.	Shinepukur Ceramics Limited	*Established after 2006*	No	SPCERAMICS
12.	Standard Ceramic Industries Ltd.	Established on or before 2006	Yes	STANCERAM
13.	Agricultural Marketing Company Ltd. (Pran)	Established on or before 2006	Yes	AMCL(PRAN)

14.	Apex Foods Limited	Established on or before 2006	Yes	APEXFOODS
15.	Bangas Ltd.	Established on or before 2006	Yes	BANGAS
16.	British American Tobacco Bangladesh Company Limited	Established on or before 2006	Yes	BATBC
17.	Beach Hatchery Ltd.	Established on or before 2006	Yes	BEACHHATCH
18.	Emerald Oil Industries Ltd.	*Established after 2006*	No	EMERALDOIL
19	Fine Foods Limited	Established on or before 2006	Yes	FINEFOODS
20.	Fu Wang Food Ltd.	Established on or before 2006	Yes	FUWANGFOOD
21.	Gemini Sea Food Ltd.	Established on or before 2006	Yes	GEMINISEA
22.	Golden Harvest Agro Industries Ltd.	*Established after 2006*	No	GHAIL
23.	Meghna Condensed Milk Industries Ltd.	Established on or before 2006	Yes	MEGCONMILK
24.	Meghna Pet Industries Ltd.	Established on or before 2006	Yes	MEGHNAPET
25.	National Tea Company Ltd.	Established on or before 2006	Yes	NTC
26.	Olympic Industries Ltd.	Established on or before 2006	Yes	OLYMPIC
27.	Rahima Food Corporation Ltd.	Data not found	No	RAIHAMFOOD
28.	Rangpur Dairy & Food Products Ltd.	*Established after 2006*	No	RDFOOD
29.	Shyampur Sugar Mills Ltd.	Data not found	No	SHYAMPSUG
30.	Zeal Bangla Sugar Mills	Established on or before 2006	Yes	ZEALBANGLA
31.	Jute Spinners Ltd.	Established on or before 2006	Yes	JUTESPINN
32.	Northern Jute Manufacturing Co. Ltd.	Established on or before 2006	Yes	NORTHERN
33.	Sonali Aansh Industries Limited	Established on or before 2006	Yes	SONALIANSH

34.	ACI Limited	Established on or before 2006	Yes	ACI
35.	ACI Formulations Limited	*Established after 2006*	No	ACIFORMULA
36.	The ACME Laboratories Limited	*Established after 2006*	No	ACMELAB
37.	Active Fine Chemicals Limited	*Established after 2006*	No	ACTIVEFINE
38.	AFC Agro Biotech Ltd.	*Established after 2006*	No	AFCAGRO
39.	Ambee Pharmaceuticals Ltd.	Established on or before 2006	Yes	AMBEEPHA
40.	Beacon Pharmaceuticals Limited	*Established after 2006*	No	BEACONPHAR
41.	Beximco Pharmaceuticals Ltd.	Established on or before 2006	Yes	BXPHARMA
42.	Beximco Synthetics Ltd.	Established on or before 2006	Yes	BXSYNTH
43.	Central Pharmaceuticals Limited	*Established after 2006*	No	CENTRALPHL
44.	Far Chemical Industries Limited	*Established after 2006*	No	FARCHEM
45.	Global Heavy Chemicals Limited	*Established after 2006*	No	GHCL
46.	GlaxoSmithKline(GSK) Bangladesh Ltd.	Established on or before 2006	Yes	GLAXOSMITH
47.	The IBN SINA Pharmaceutical Industry Ltd.	Established on or before 2006	Yes	IBNSINA
48.	Imam Button Industries Ltd.	Established on or before 2006	Yes	IMAMBUTTON
49.	JMI Syringes & Medical Devices Ltd.	*Established after 2006*	No	JMISMDL
50.	Keya Cosmetics Ltd.	Established on or before 2006	Yes	KEYACOSMET
51.	Kohinoor Chemicals Company (Bangladesh) Ltd.	Established on or before 2006	Yes	KOHINOOR
52.	Libra Infusions Limited	Established on or before 2006	Yes	LIBRAINFU

53.	Marico Bangladesh Limited	*Established after 2006*	No	MARICO
54.	Orion Infusion Ltd.	Established on or before 2006	Yes	ORIONINFU
55.	Orion Pharma Ltd.	*Established after 2006*	No	ORIONPHARM
56.	Pharma Aids	Established on or before 2006	Yes	PHARMAID
57.	Reckitt Benckiser(Bd.)Ltd.	Established on or before 2006	Yes	RECKITTBEN
58.	Renata Ltd.	Established on or before 2006	Yes	RENATA
59.	Salvo Chemical Industry Limited	*Established after 2006*	No	SALVOCHEM
60.	Square Pharmaceuticals Ltd.	Established on or before 2006	Yes	SQURPHARMA
61.	Wata Chemicals Limited	Data not found	No	WATACHEM
62.	Apex Footwear Limited.	Established on or before 2006	Yes	APEXFOOT
63.	Apex Tannery Limited	Established on or before 2006	Yes	APEXTANRY
64.	Bata Shoe Company (Bangladesh) Ltd.	Established on or before 2006	Yes	BATASHOE
65.	Fortune Shoes Limited	*Established after 2006*	No	FORTUNE
66.	Legacy Footwear Ltd.	Established on or before 2006	Yes	LEGACYFOOT
67.	Samata Leather Complex Ltd.	Established on or before 2006	Yes	SAMATALETH
68.	Alif Industries Limited	*Established after 2006*	No	AIL
69.	Al-Haj Textile Mills Limited	Established on or before 2006	Yes	AL-HAJTEX
70.	Alif Manufacturing Company Ltd.	Data not found	No	ALIF
71.	Alltex Industries Ltd.	Established on or before 2006	Yes	ALLTEX
72.	Anlimayarn Deying Ltd.	Established on or before 2006	Yes	ANLIMAYARN
73.	Apex Spinning & Knitting Mills Ltd.	Established on or before 2006	Yes	APEXSPINN

74.	Argon Denims Limited	*Established after 2006*	No	ARGONDENIM
75.	C & A Textiles Limited	*Established after 2006*	No	CNATEX
76.	CMC Textile Mills Ltd.	Established on or before 2006		CMCTEX
77.	The Dacca Dyeing & Manufacturing Co.Ltd.	*Established after 2006*	No	DACCADYE
78.	Delta Spinners Ltd.	Established on or before 2006	Yes	DELTASPINN
79.	Desh Garmants Ltd.	Established on or before 2006	Yes	DSHGARME
80.	Dragon Sweater and Spinning Ltd.	*Established after 2006*	No	DSSL
81.	Dulamia Cotton Spinning Mills Ltd.	Established on or before 2006	Yes	DULAMIACOT
82.	Envoy Textiles Limited	*Established after 2006*	No	ENVOYTEX
83.	Evince Textiles Limited	*Established after 2006*	No	ETL
84.	Familytex (BD) Limited	*Established after 2006*	No	FAMILYTEX
85.	Far East Knitting & Dyeing Industries Limited	*Established after 2006*	No	FEKDIL
86.	Generation Next Fashions Limited	*Established after 2006*	No	GENNEXT
87.	Hamid Fabrics Limited	*Established after 2006*	No	HFL
88.	H.R.Textile Ltd.	Established on or before 2006	Yes	HRTEX
89.	Hwa Well Textiles (BD) Limited	*Established after 2006*	No	HWAWELLTE
90.	Maksons Spinning Mills Limited	*Established after 2006*	No	MAKSONSPIN
91.	Malek Spinning Mills Ltd.	*Established after 2006*	No	MALEKSPIN
92.	Matin Spinning Mills Ltd.	*Established after 2006*	No	MATINSPINN
93.	Metro Spinning Ltd.	Established on or before 2006	Yes	METROSPIN
94.	Modern Textile Mills Ltd.	Established on or before 2006		MODERTEX
95.	Mozaffar Hossain Spinning Mills Ltd.	*Established after 2006*	No	MHSML

96.	Mithun Knitting and Dyeing Ltd.	Established on or before 2006	Yes	MITHUNKNIT
97.	Nurani Dyeing & Sweater Limited	*Established after 2006*	No	NURANI
98.	Pacific Denims Limited	*Established after 2006*	No	PDL
99.	Prime Textile Spinning Mills Ltd.	Established on or before 2006	Yes	PRIMETEX
100.	Paramount Textile Limited	*Established after 2006*	No	PTL
101.	Rahim Textile Mills Ltd.	Established on or before 2006	Yes	RAHIMTEXT
102.	Regent Textile Mills Limited	*Established after 2006*	No	REGENTTEX
103.	R.N. Spinning Mills Limited	*Established after 2006*	No	RNSPIN
104.	Safko Spinnings Mills Ltd.	Established on or before 2006	Yes	SAFKOSPINN
105.	Saiham Cotton Mills Limited	*Established after 2006*	No	SAIHAMCOT
106.	Saiham Textile Mills Ltd.	Established on or before 2006	Yes	SAIHAMTEX
107.	Shasha Denims Limited	*Established after 2006*	No	SHASHADNIM
108.	Shepherd Industries Limited	*Established after 2006*	No	SHEPHERD
109.	Simtex Industries Limited	*Established after 2006*	No	SIMTEX
110.	Sonargaon Textiles Ltd.	Established on or before 2006	Yes	SONARGAON
111.	Square Textile Ltd.	Established on or before 2006	Yes	SQUARETEXT
112.	Stylecraft Limited	Established on or before 2006	Yes	STYLECRAFT
113.	Tallu Spinning Mills Ltd.	Established on or before 2006	Yes	TALLUSPIN
114.	Tosrifa Industries Limited	*Established after 2006*	No	TOSRIFA
115.	Tung Hai Knitting & Dyeing Ltd.	*Established after 2006*	No	TUNGHAI
116.	Zaheen Spinning Limited	*Established after 2006*	No	ZAHEENSPIN
117.	Zahintex Industries Limited	*Established after 2006*	No	ZAHINTEX
118.	Hakkani Pulp & Paper Mills Ltd.	Established on or before 2006	Yes	HAKKANIPUL
119.	Khulna Printing & Packaging Ltd.	*Established after 2006*	No	KPPL

120.	Aftab Automobiles Limited	Established on or before 2006	Yes	AFTABAUTO
121.	Anwar Galvanizing Ltd.	Established on or before 2006	Yes	ANWARGALV
122.	Appollo Ispat Complex Limited	*Established after 2006*	No	APOLOISPAT
123.	Atlas Bangladesh Ltd.	Established on or before 2006	Yes	ATLASBANG
124.	Aziz Pipes Ltd.	Established on or before 2006	Yes	AZIZPIPES
125.	Bangladesh Building Systems Ltd.	*Established after 2006*	No	BBS
126.	BBS Cables Limited	*Established after 2006*	No	BBSCABLES
127.	Bangladesh Autocars Ltd.	Established on or before 2006	Yes	BDAUTOCA
128.	Bangladesh Lamps Limited	Established on or before 2006	Yes	BDLAMPS
129.	Bd.Thai Aluminium Ltd.	Established on or before 2006	Yes	BDTHAI
130.	Bengal Windsor Thermoplastics Ltd.	*Established after 2006*	No	BENGALWTL
131.	Bangladesh Steel Re-Rolling Mills Ltd	*Established after 2006*	No	BSRMLTD
132.	BSRM Steels Limited	*Established after 2006*	No	BSRMSTEEL
133.	Deshbandhu Polymer Limited	*Established after 2006*	No	DESHBANDHU
134.	Eastern Cables Ltd.	Established on or before 2006	Yes	ECABLES
135.	Golden Son Ltd.	*Established after 2006*	No	GOLDENSON
136.	GPH Ispat Ltd.	*Established after 2006*	No	GPHISPAT
137.	IFAD Autos Limited	*Established after 2006*	No	IFADAUTOS
138.	Kay & Que (Bangladesh) Ltd.	Established on or before 2006	Yes	KAY&QUE
139.	KDS Accessories Limited	*Established after 2006*	No	KDSALTD
140.	Monno Jute Stafflers Ltd.	Established on or before 2006	Yes	MONNOSTAF
141.	Nahee Aluminum Composite Panel Ltd.	*Established after 2006*	No	NAHEEACP

142.	Navana CNG Limited	*Established after 2006*	No	NAVANACNG
143.	National Polymer Industries Ltd.	Established on or before 2006	Yes	NPOLYMAR
144.	National Tubes Limited	Established on or before 2006	Yes	NTLTUBES
145.	Olympic Accessories Limited	*Established after 2006*	No	OAL
146.	Oimex Electrode Limited	*Established after 2006*	No	OIMEX
147.	Quasem Industries Ltd.	Established on or before 2006	Yes	QUASEMIND
148.	Rangpur Foundry Ltd.	Established on or before 2006	Yes	RANFOUNDRY
149.	Renwick Jajneswar & Co (Bd) Ltd.	Established on or before 2006	Yes	RENWICKJA
150.	Ratanpur Steel Re-Rolling Mills Ltd	*Established after 2006*	No	RSRMSTEEL
151.	S. Alam Cold Rolled Steels Ltd.	Established on or before 2006	Yes	SALAMCRST
152.	Shurwid Industries Limited	*Established after 2006*	No	SHURWID
153.	Singer Bangladesh Limited	Established on or before 2006	Yes	SINGERBD
154.	Western Marine Shipyard Limited	*Established after 2006*	No	WMSHIPYARD
155.	Yeakin Polymer Limited	*Established after 2006*	No	YPL

Appendix Ch.4.2 table shows Summary of Sector-wise population & sample, and amount of market capitalization of listed manufacturing companies in Bangladesh.

Name of the sectors	**Total number of Companies in the sector in 2017 (Population)**	**Total number of Companies in the sample (Sample Size)**	**Percentage of sample of each strata to total sample**	**Total Market Capitalization (In millions)**	**Sample (%of population)**
Cement	7	5	6.09%	131,445.60	108057.87 (82.20%)
Ceramics	5	3	3.65%	26,212.99	5840.26 (22.28%)
Paper & Printing	2	1	1.21%	1,012.70	1,012.70 (100 %)
Engineering	36	17	20.73%	190,624.16	53,397.51 (28.01%)
Jute	3	3	3.65%	1,546.90	1546.9 (100%)
Textile	50	20	24.39%	126,340.68	34348.69 (27.18%)
Pharmaceuticals & Chemicals	28	15	18.29%	501,852.83	401734.44 (80.05%)
Tannery Industries	6	5	6.09%	27,434.30	22235.09 (81.04%)
Food & Allied	18	13	15.85%	247,194.42	237150.15 (95.94%)
Total	**155**	**82**	**100.00**	**1,253,664.58**	**865323.6 (69.02%)**

Appendix Ch.4.3 table shows list of Companies included in the study

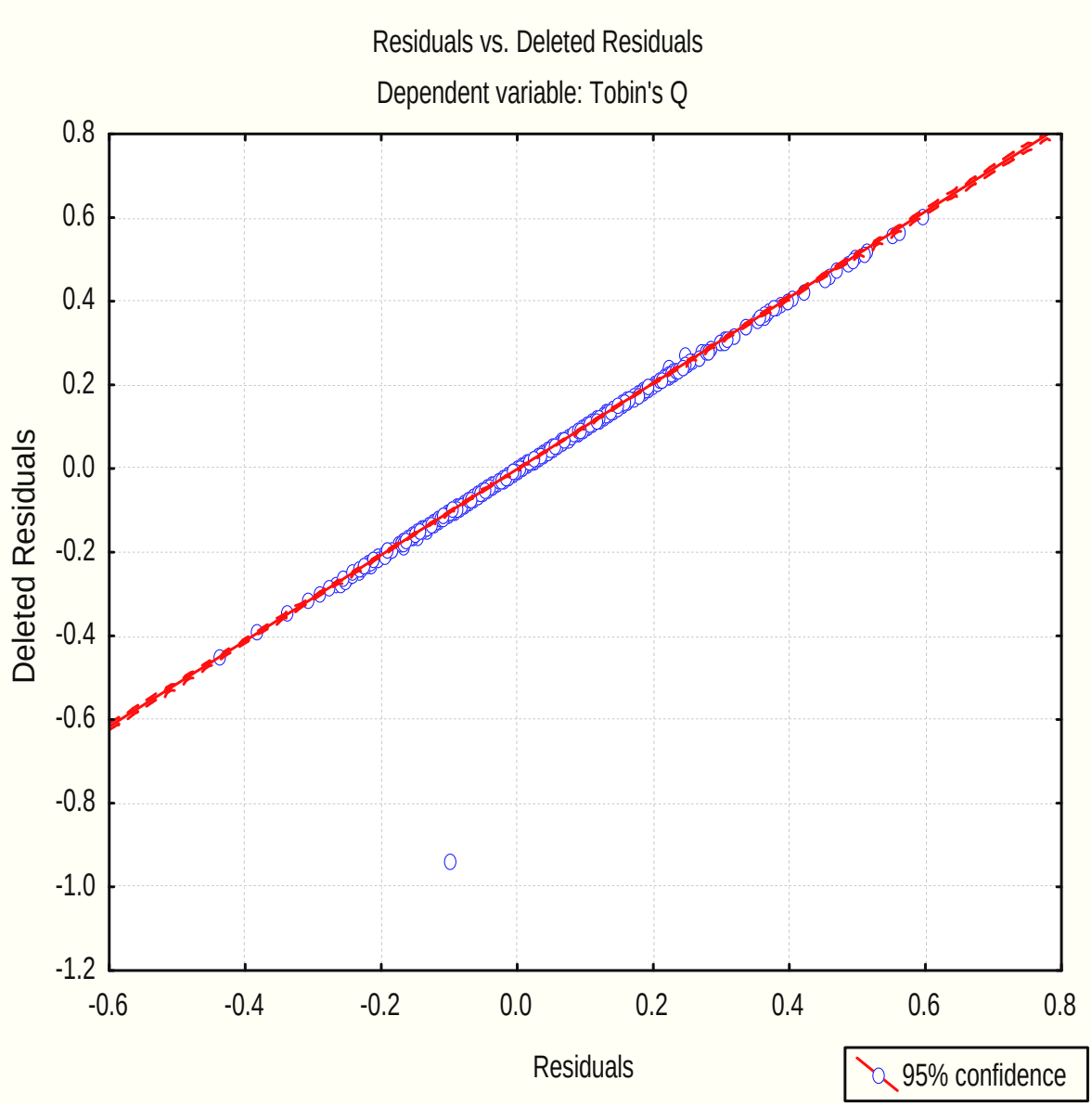
S.L No	Name of Company	Name of Sector	Acronym
1.	Aramit Cement Limited	Cement	ARAMITCEM
2.	Confidence Cement Ltd.	Cement	CONFIDCEM
3.	Heidelberg Cement Ltd.	Cement	HEIDELBCEM
4.	Lafarge Surma Cement Ltd.	Cement	*LHBL*
5.	Meghan Cement Mills Ltd.	Cement	MEGHNACEM
6.	Mono Ceramics Industries	Ceramics	MONNOCERA
7.	Standard Ceramics Industries	Ceramics	STANCERAM
8.	Fu-Wang Ceramics Industries	Ceramics	FUWANGCER
9.	Hakkani Pulp & Paper Mills	Paper & Printing	HAKKANIPUL
10.	Aftab Automobiles	Engineering	*AFTABAUTO*
11.	Aziz Pipes Ltd.	Engineering	AZIZPIPES
12.	Bangladesh Lamps Ltd.	Engineering	*BDLAMPS*
13.	Eastern Cables Ltd.	Engineering	*ECABLES*
14.	Mono Jute Staffers Ltd.	Engineering	MONNOSTAF
15.	Singer Bangladesh Ltd.	Engineering	*SINGERBD*
16.	Atlas Bangladesh Ltd.	Engineering	*ATLASBANG*
17.	Bangladesh Autocars Ltd.	Engineering	BDAUTOCA
18.	Quasem Drycells Ltd.	Engineering	QUASEMIND
19.	Renwick jainswar & co	Engineering	RENWICKJA
20.	National Tubes Ltd.	Engineering	NTLTUBES
21.	BD Thai Aluminum Ltd.	Engineering	BDTHAI
22.	Anwar Galvanizing Ltd.	Engineering	ANWARGALV
23.	Kay & Que (Bangladesh)	Engineering	KAY&QUE
24.	Rangpur Foundry Ltd.	Engineering	RANFOUNDRY
25.	S. Alam Cold Rolled Steels	Engineering	SALAMCRST
26.	National Polymar Industries	Engineering	NPOLYMAR
27.	Jute Spinners Ltd.	Jute	JUTESPINN
28.	Northern Jute manufacturing Ltd.	Jute	NORTHERN
29.	Sonali Aansh Industries	Jute	SONALIANSH

S.L No	Name of Company	Name of Sector	Acronym
30.	Al-Haj Textile Mills limited	Textile	AL-HAJTEX
31.	Stylecraft Limited	Textile	STYLECRAFT
32.	Rahim Textile Mills Ltd.	Textile	RAHIMTEXT
33.	Saiham Textile Mills Ltd.	Textile	SAIHAMTEX
34.	Modern Dying & Screening Printing	Textile	MODERTEX
35.	Desh Garments Ltd.	Textile	DSHGARME
36.	Dulmia Cotton Spinning Mills	Textile	DULAMIACOT
37.	Tallu Spinners Mills Ltd.	Textile	TALLUSPIN
38.	Apex Spinning & Knitting Mills	Textile	APEXSPINN
39.	Mithun Knitting & Dying	Textile	MITHUNKNIT
40.	Delta Spinners Ltd.	Textile	DELTASPINN
41.	Sonargoan Textiles Mills Ltd.	Textile	SONARGAON
42.	Prime Textile Spinners Milss	Textile	PRIMETEX
43.	Altex Industries Ltd.	Textile	ALLTEX
44.	Anlima Yarn Dying Ltd.	Textile	ANLIMAYARN
45.	H.R. Textile Ltd.	Textile	HRTEX
46.	CMC Kamal Textile Mills Ltd.	Textile	CMCTEX
47.	Safko Spinners Mills Ltd.	Textile	SAFKOSPINN
48.	Square Textile Ltd.	Textile	SQUARETEXT
49.	Metro Spinners Ltd.	Textile	METROSPIN
50.	Ambee Pharma Ltd.	Pharmaceuticals	AMBEEPHA
51.	Beximco Pharmaceuticals Ltd.	Pharmaceuticals	*BXPHARMA*
52.	GlaxoSmithkline (CSK) Bangladesh	Pharmaceuticals	GLAXOSMITH
53.	ACI Ltd.	Pharmaceuticals	*ACI*
54.	Reneta Ltd	Pharmaceuticals	*RENETA*
55.	Reckitt Benckiser (BD) Ltd.	Pharmaceuticals	*RECKITTBEN*
56.	Pharma Aids Ltd.	Pharmaceuticals	*PHARMAID*
57.	Kohinoor Chemicals Company	Pharmaceuticals	KOHINOOR
58.	The IBN SINA Pharmaceuticals	Pharmaceuticals	*IBNASINA*
59.	Beximco Synthetics Ltd	Pharmaceuticals	*BEXSYNTH*

S.L No	Name of Company	Name of Sector	Acronym
60.	Libra Infusion Ltd.	Pharmaceuticals	*LIBRAINFU*
61.	Orion Infusion Ltd.	Pharmaceuticals	*ORIONINFU*
62.	Square Pharmaceuticals Ltd	Pharmaceuticals	*SQUARPHARM*
63.	Imam Button Industries Ltd.	Pharmaceuticals	*IMAMBUTTON*
64.	Keya Cosmetics Ltd.	Pharmaceuticals	*KEYACOSM*
65.	Apex Tannery Ltd.	Tannery	*APEXTAN*
66.	Bata Shoe Company ltd.	Tannery	*BATASHOE*
67.	Apex Footwear Ltd.	Tannery	*APEXFOOT*
68.	Samata Leather Complex Ltd.	Tannery	*SAMATALETH*
69.	Legacy Footwear Ltd.	Tannery	*LEGACYFOOT*
70.	Olympic Industries Ltd.	Food & Allied	*OLYMPICIND*
71.	Apex Foods Ltd.	Food & Allied	*APEXFOOD*
72.	Bangas Ltd.	Food & Allied	*BANGAS*
73.	British Americal Tobaco Bangladesh Company	Food & Allied	*BATBC*
74.	Gemini Sea Food Ltd.	Food & Allied	*GEMINIFOOD*
75.	National Tea Company Ltd.	Food & Allied	*NTC*
76.	Zeal Bangla Sugar Mills Ltd.	Food & Allied	*ZEALBANGLA*
77.	Agriculture Marketing Company (pran)	Food & Allied	*AMC*
78.	Fu Wang Food Ltd.	Food & Allied	*FUWANGFOOD*
79.	Meghna Pet Industries Ltd.	Food & Allied	*MEGHNAPET*
80.	Meghna Condensed Milk Ltd	Food & Allied	*MEGHNACO*
81.	Beach Hatchery Ltd.	Food & Allied	*BEACHHATCH*
82.	Fine Foods Ltd.	Food & Allied	*FINEFOOD*

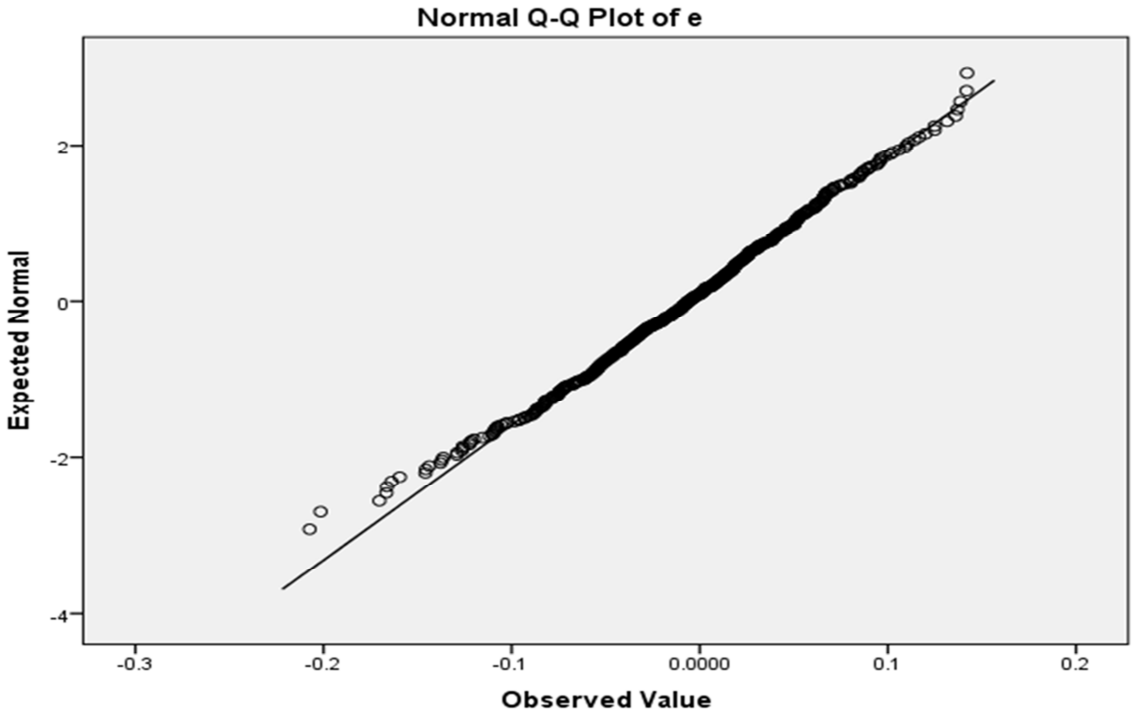
Appendix Ch.4.4 Graphs pertaining to the pattern of data of the study variables

Appendix Ch.4.5.1 Graph shows Residuals vs. Deleted Residuals when dependent variable is Tobin's Q



Appendix Ch.4.5.1 Graph shows Residuals vs. Deleted Residuals when dependent variable is ROA

Appendix Ch.4.5.2 Graph shows Normal Probability Plot of residuals



Appendix Ch.4.5.3 Shows Kolmogorov and Sharpio-Wilki test score

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	Df	Sig.
E	.024	574	.200*	.995	574	.095

*. This is a lower bound of the true significance.

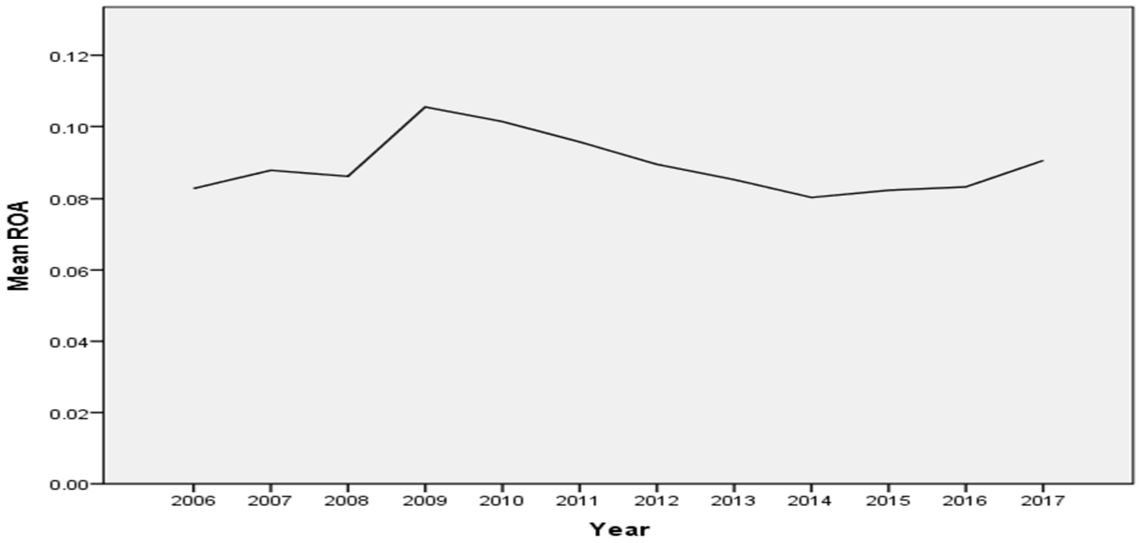
a. Lilliefors Significance Correction

Appendix B

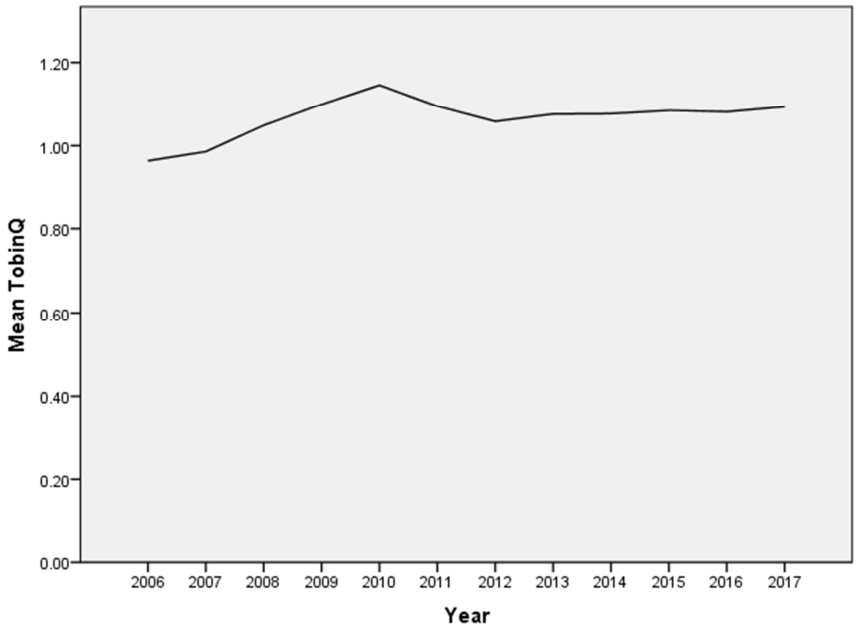
Appendices for chapter 5

5.1 Time series pattern of the study variables

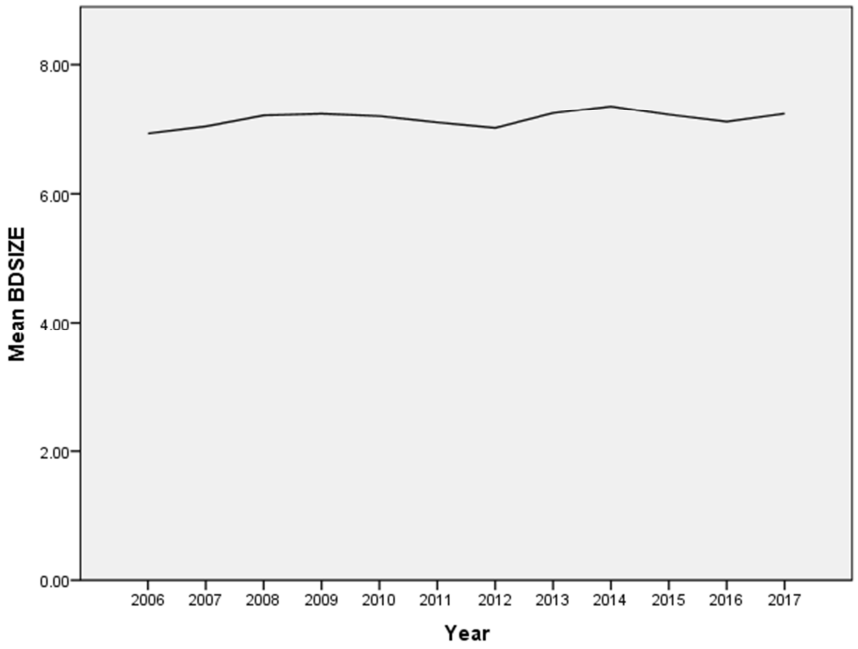
Appendix Ch.5.1.1 Figures show the time series pattern of ROA from 2006 to 2017.



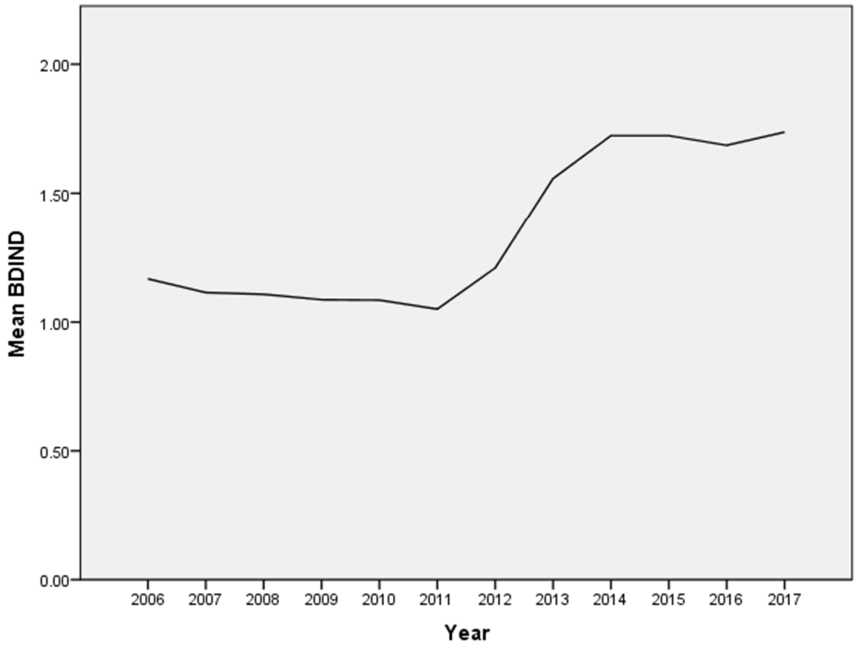
Appendix Ch.5.1.2 Figures show the time series pattern of Tobin's Q from 2006 to 2017.



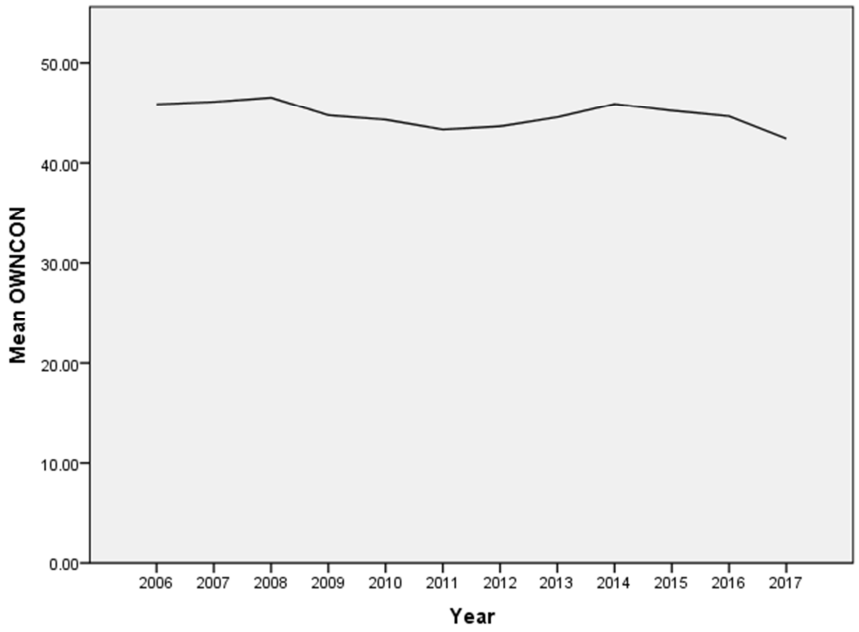
Appendix Ch.5.1.3 Figures show the time series pattern of board size from 2006 to 2017.



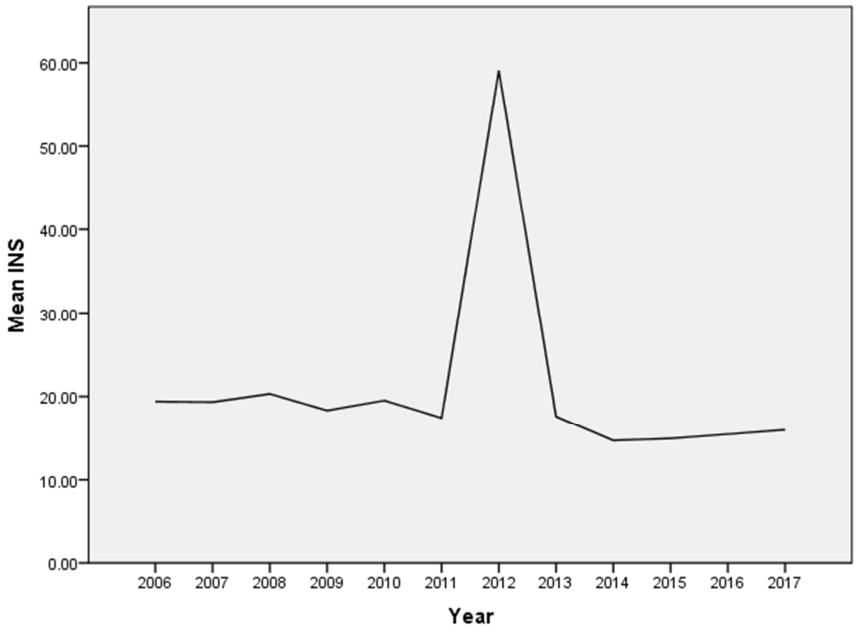
Appendix Ch.5.1.4 Figures show the time series pattern of board independence from 2006 to 2017.



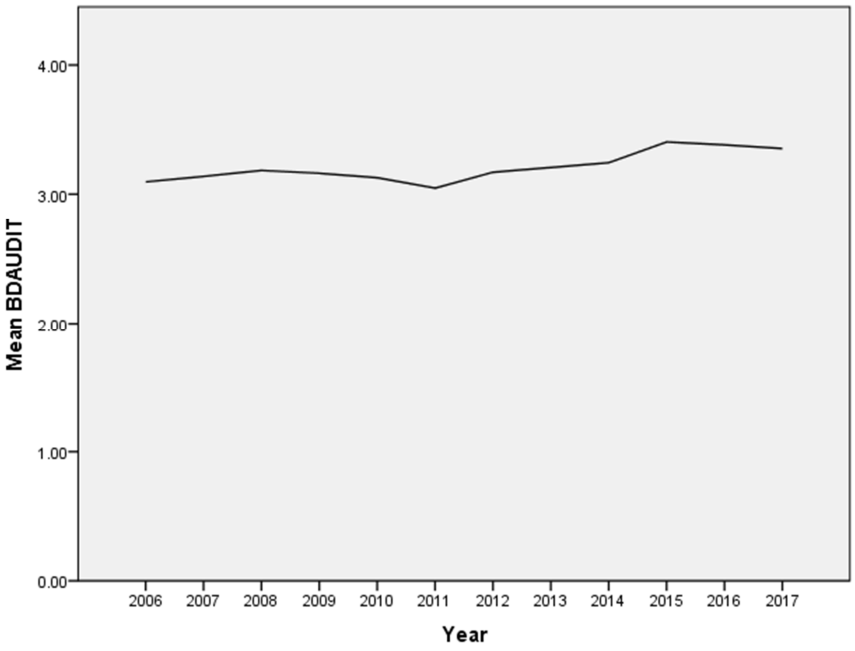
Appendix Ch.5.1.5 Figures show the time series pattern of Ownership Concentration from 2006 to 2017.



Appendix Ch.5.1.6 Figures show the time series pattern of Institutional Ownership from 2006 to 2017.



Appendix Ch.5.1.7 Figures show the time series pattern of Audit Committee size from 2006 to 2017.



Appendix Ch.5.2 Table shows Descriptive Statistics of the Study Variables and Description of the Variables

Variables	Mean	Median	Std. Deviation	Minimum	Maximum	Skewness	Kurtosis
ROA	.0892	.0751	.10169	-.40	.76	1.289	2.511
Tobin's Q	1.0673	1.0552	.11570	.51	1.52	.343	2.851
BDSIZE	7.1556	7.0000	.86434	2.00	14.00	.441	-.333
BDIND	1.3943	1.0000	.66433	1.00	5.00	1.906	3.049
BDAUDIT	3.2187	3.0000	.85776	1.00	6.00	.168	2.063
BDWOMEN	.6524	1.0000	.49116	.00	3.00	-.356	-.614
CEODUAL	.7564	1.0000	.42945	.00	1.00	-1.197	-.569
OWNCON	44.7615	47.6000	6.69749	.12	82.91	-.071	.080
INS	17.4666	7.8700	7.98879	.02	60.57	1.104	1.301
LEV	.6072	.5498	.41166	.01	4.48	3.674	5.041
LNFSIZE	6.9285	2.9200	.48003	2.90	10.75	.042	-.159
FAGE	2.9131	2.9957	.47382	.00	3.71	-1.214	2.486

Variable description		
ROA	*Return on Assets*	The ratio of earnings before interest and taxes to total asset
ROE	*Return on equity*	The ratio of earnings before interest and taxes to equity
Tobin's Q	*Market value to book Value ratio of the assets.*	Market value of assets is computed as market value of equity plus book value of assets minus book value of equity
BDIND	*Board independence*	The ratio of number of independent directors to the number of all directors.
BDSIZE	*Board Size*	Total number of board members in the corporate board.
BDAUDIT	*Audit committee size*	Number of members in the audit committee
BDWOMEN	*Female representations*	BDWOMEN is a dummy variable which takes a value 1(one) if there is any female representation in the board, and zero (0) otherwise.
OWNCON	*Ownership Concentration*	The proportion of the common stock held by sponsor director as per the DSE shareholding pattern
INS	*Institutional Shareholding*	
LEV	*Financial leverage*	Total liabilities to total assets
FSIZE	*Firm Size*	The natural logarithm of total asset
FAGE	*Firm Age*	The natural logarithm of the number of years since the firm was listed
CEODUAL	*CEO duality*	CEODUAL is a dummy variable which takes a value of 0(zero) if the CEO is also the chairperson of the board of directors, and One (1) otherwise.

Appendix Ch.5.3 Table shows Correlation Matrix of the Study Variables

Variables	ROA	ROE	Tobin's Q	BDSIZE	BDIND	BDAUDIT	BDWOMEN	CEODUAL	OWNCON	INS	LEV	LNFSIZE	FAGE	SECCODE
ROA	1													
ROE	.323**	1												
Tobin's Q	.207**	.176**	1											
BDSIZE	.139**	.009	.078*	1										
BDIND	.079*	-.046	.033	.307**	1									
BDAUDIT	.180**	.059	.036	.153**	.203**	1								
BDWOMEN	.014	-.027	.055	.009	-.131**	-.153**	1							
CEODUAL	-.008	.059	.120**	.048	.016	.010	.222**	1						
OWNCON	.271**	.244**	.154**	.174**	.051	.137**	.018	.067*	1					
INS	-.030	-.020	-.029	-.029	-.035	.039	.020	.026	-.025	1				
LEV	-.362**	.020	.078*	-.036	.025	-.113**	-.158**	-.128**	.111**	.006	1			
LNFSIZE	.271**	.045	-.253**	.336**	.121**	.196**	-.021	.095**	.030	.003	-.210**	1		
FAGE	.179**	.165**	.217**	.132**	.187**	.022	-.029	.056	.099**	-.004	.006	.093**	1	
SECCODE	-.039	.040	.095**	.021	.383**	.098**	.099**	.157**	-.022	.018	-.087**	.207**	.377**	1

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

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

Appendix Ch.5.4 Model summary and ANOVA tables of the OLS regression model used in the study

Appendix Ch.5.4.1 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective one (ROA).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.519[a]	.269	.237	.08166	.269	8.375	27	615	.000	1.08

a. Predictors: (Constant), Year11, BDWOMEN, OWNCON, Year10, Tannery, Paper, Year12, Ceramics, Year13, Year09, Jute, Year14, Pharmaceuticals, CEODUAL, Year08, BDAUDIT, Year15, Cement, Year07, BDSIZE, Textile, Year16, BDIND, dummy06, Engineering

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.508	27	.056	8.375	.000[b]
	Residual	4.101	615	.007		
	Total	5.609	642			

a. Dependent Variable: ROA

b. Predictors: (Constant), Year11, BDWOMEN, OWNCON, Year10, Tannery, Paper, Year12, Ceramics, Year13, Year09, Jut, Year14, Pharmaceuticals, CEODUAL, Year08, BDAUDIT, Year15, Cement, Year07, BDSIZE, Textile, Year16, BDIND, dummy06, Engineering

Appendix Ch.5.4.2 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective on (Tobin's Q).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.630[a]	.397	.371	.09177	.397	15.017	27	615	.000	1.10

a. Predictors: (Constant), Year11, BDWOMEN, OWNCON, Year10, Tannery, Paper, Year12, Ceramics, Year13, Year09, Jute, Year14, Pharmaceuticals, CEODUAL, Year08, BDAUDIT, Year15, Cement, Year07, BDSIZE, Textile, Year16, BDIND, dummy06, Engineering

b. Dependent Variable: Tobin's Q

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.414	27	.126	15.017	.000[b]
	Residual	5.179	615	.008		
	Total	8.594	642			

a. Dependent Variable: Tobin's Q

b. Predictors: (Constant), Year11, BDWOMEN, OWNCON, Year10, Tannery, Paper, Year12, Ceramics, Year13, Year09, Jute, Year14, Pharmaceuticals, CEODUAL, Year08, BDAUDIT, Year15, Cement, Year07, BDSIZE, Textile, Year16, BDIND, dummy06, Engineering

Appendix Ch.5.4.3 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective two (ROA).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.552[a]	.305	.285	.07901	.305	15.921	23	836	.000	1.09

a. Predictors: (Constant), SECCODE, Tannery, Paper, Ceramics, Jute, Cement, LEV, Pharmaceuticals, INS, dummy06, Year16, Year09, Year15, Engineering, Year12, Year07, Year10, Year14, Year13, Year11, Textile

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.286	23	.099	18.167	.000[b]
	Residual	5.219	836	.006		
	Total	7.505	859			

a. Dependent Variable: ROA

b. Predictors: (Constant), SECCODE, Tannery, Paper, Ceramics, Jute, Cement, LEV, Pharmaceuticals, INS, dummy06, Year16, Year09, Year15, Engineering, Year12, Year07, Year10, Year14, Year13, Year11, Textile

Appendix Ch.5.4.4 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective two (Tobin's Q).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.593[a]	.351	.333	.09447	.351	19.674	23	836	.000	1.35

a. Predictors: (Constant), SECCODE, Tannery, Paper, Ceramics, Jute, Cement, LEV, Pharmaceuticals, INS, dummy06, Year16, Year09, Year15, Engineering, Year12, Year07, Year10, Year14, Year13, Year11, Textile

b. Dependent Variable: Tobin' s Q

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.038	23	.176	22.616	.000[b]
	Residual	7.460	836	.009		
	Total	11.498	859			

a. Dependent Variable: Tobin's Q

b. Predictors: (Constant), SECCODE, Tannery, Paper, Ceramics, Jute, Cement, LEV, Pharmaceuticals, INS, dummy06, Year16, Year09, Year15, Engineering, Year12, Year07, Year10, Year14, Year13, Year11, Textile

Appendix Ch.5.4.7 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective three (ROA).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.432[a]	.187	.169	.08522	.187	10.507	21	962	.000	1.60

a. Predictors: (Constant), LNFSIZE, Year11, Tannery, Paper, Ceramics, Year10, Jute, Year12, Year13, FAGE, Year09, Engineering, Year14, Year08, Cement, Year15, Pharmaceuticals, Year07, Year16, Textile, dummy06

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1.602	21	.076	10.507	.000[b]
	Residual	6.986	962	.007		
	Total	8.588	983			

a. Dependent Variable: ROA

b. Predictors: (Constant), LNFSIZE, Year11, Tannery, Paper, Ceramics, Year10, Jute, Year12, Year13, FAGE, Year09, Engineering, Year14, Year08, Cement, Year15, Pharmaceuticals, Year07, Year16, Textile, dummy06

Appendix Ch.5.4.8 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective four (Tobin's Q).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.586[a]	.343	.329	.09476	.343	23.965	21	962	.000	1.29

a. Predictors: (Constant), LNFSIZE, Year11, Tannery, Paper, Ceramics, Year10, Jute, Year12, Year13, FAGE, Year09, Engineering, Year14, Year08, Cement, Year15, Pharmaceuticals, Year07, Year16, Textile, dummy06

b. Dependent Variable: Tobin's Q

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.519	21	.215	23.965	.000[b]
	Residual	8.639	962	.009		
	Total	13.158	983			

a. Dependent Variable: Tobin's Q

b. Predictors: (Constant), LNFSIZE, Year11, Tannery, Paper, Ceramics, Year10, Jute, Year12, Year13, FAGE, Year09, Engineering, Year14, Year08, Cement, Year15, Pharmaceuticals, Year07, Year16, Textile, dummy06

Appendix Ch.5.4.5 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective four (ROA).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.620[a]	.426	.356	.07503	.385	13.223	29	613	.000	1.40

a. Predictors: (Constant), OWNCON, Year09, Jute, Tannery, Year16, Ceramics, Paper, Cement, Year13, Year15, LEV, Year10, CEODUAL, Year11, Pharmaceuticals, FAGE,Year08, BDAUDIT, Year12, BDSIZE, BDWOMEN, INS, Year07,Textile, LNFSIZE

Year14, BDIND, dummy06, Engineering

b. Dependent Variable: ROA

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.159	29	.074	14.453	.000[b]
	Residual	3.451	613	.006		
	Total	5.609	642			

a. Dependent Variable: ROA

b. Predictors: (Constant), OWNCON, Year09, Jute, Tannery, Year16, Ceramics, Paper, Cement, Year13, Year15, LEV, Year10, CEODUAL, Year11, Pharmaceuticals, Year08, BDAUDIT, Year12, LNFSIZE, BDSIZE, BDWOMEN, INS, FAGE, Year07,Textile, Year14, BDIND, dummy06, Engineering

Appendix Ch.5.4.6 Table shows Model summary and ANOVA of Regression Matrix of the Study Variables pertaining to the study objective three (Tobin's Q).

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.632[a]	.457	.371	.09175	.399	14.061	29	613	.000	1.99

a. Predictors: (Constant), OWNCON, Year09, Jute, Tannery, Year16, Ceramics, Paper, Cement, Year13, Year15, LEV, Year10, CEODUAL, Year11, Pharmaceuticals, FAGE ,Year08, BDAUDIT, Year12, BDSIZE, LNFSIZE ,BDWOMEN, INS, Year07, Textile, Year14, BDIND, dummy06, Engineering

b. Dependent Variable: Tobin's Q

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.197	29	.179	21.471	.000[b]
	Residual	7.962	954	.008		
	Total	13.158	983			

a. Dependent Variable: Tobin's Q

b. Predictors: (Constant), OWNCON, Year09, Jute, Tannery, Year16, Ceramics, Paper, Cement, Year13, LEV, Year10, FAGE ,Year11, CEODUAL, Year08, BDAUDIT, Year12, Pharmaceuticals, Year14, BDWOMEN, INS, BDSIZE, Year07, BDIND, LNFSIZE Textile, Year15, dummy06, Engineering