The Impact of Corporate Governance, Risk Management and Corporate Reputation on Firm Value: An Indonesian Case

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ABSTRACT

Corporate governance has gained importance over the past decade due to the poor financial state of affairs of many companies. Good corporate governance (GCG) is perceived to increase firm value by reducing agency costs and by building investors' confidence. Moreover, good corporate governance is expected to reduce the risk of fraud and corporate collapse, and to create wealth by improving financial performance. Previous studies have addressed the role of good corporate governance mechanisms in increasing firm value in many countries, but there has been limited research done in the Indonesian case and also limited work on factors which may mediate the relationship between corporate governance and firm value. Working with theories of corporate governance derived from Calder (2008), this research elaborates corporate governance based on agency theory, stewardship theory and market theory, applied to some Indonesian financial and non-financial companies.

Thus the objective of this study is to investigate, for the Indonesian case, whether corporate governance mechanisms and risk management influence firm value and whether corporate reputation mediates the relationship between the variables. Indonesia is an emerging country in which many firms are trying to improve their reputation in order to increase their capital value, either through higher profits or through capital market mechanisms leading to increase firm value. The research is based on 36 listed finance and non-finance companies in Indonesia, with a research panel data period from 2007 to 2012. The data were collected during field visits and followed up by telephone discussions and email contacts.

The research identifies three key measurement issues underlying the conceptual framework. (1) Corporate governance mechanisms are measured, firstly, by three aspects of the audit committee: the number of audit committee members, the number of independents on the audit committee, and the number of audit committee members with financial expertise. Two relevant characteristics of the board of directors are highlighted: the number of independent board members and size of the board. We also use auditor quality and the extent of auditor change (auditor rotation) as aspects of corporate governance. (2) Risk management is measured by the variables of risk disclosure and

leverage. (3) Corporate reputation is measured by bond rating. The control variables used in the empirical model are industry sector and firm size. The purpose of the research is to provide insight into how corporate governance might improve firm value, protect the shareholders' interests and maximise shareholders' value.

There are two central findings from this study. Firstly, in terms of direct relationships between GCG variables and firm value as measured by Tobin's Q, three variables related to the audit committee (the number of independent audit committee members, audit quality (Big 4) and auditor change) have significant positive effects on firm value. Other aspects of GCG are not significant, and the results are quite different, and generally less significant, if firm value is measured by return on assets (ROA), although auditor change is still positive and significant. The results imply that the nature and quality of the audit committee are important factors influencing firm value in Indonesia.

Secondly, when other methods are used to investigate whether corporate reputation (measured by the bond rating) acts as a mediating variable between GCG variables and the firm value, we find that these three variables, plus the number of audit committee members, have a significant impact on firm value (measured by Tobin's Q) mediated by corporate reputation. This finding both confirms the impact of audit committee variables in contributing to firm value and the mediating role of corporate reputation.

The central limitation of this study is that it is based on a relatively small sample of observations – 216 firm-year observations over a six-year period – with only limited power to discriminate between competing hypotheses. With new data becoming available, further research to test these findings on a much larger sample would be valuable.

DECLARATION

"I, Amiril Azizah, declare that the PhD thesis entitled 'The Impact of Corporate Governance, Risk Management and Corporate Reputation on Firm Value: An Indonesian Case' is no more than 100,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work."

Signature:  Date: June 2020

Amiril Azizah

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AUC	Auditor Change
BDR	Bond Rating
BIG 4	Big 4 Auditor
BOD	Board of Directors
COSO	Committee of Sponsoring Organizations of the Treadway Commission
ERM	Enterprise Risk Management
GCG	Good Corporate Governance
IFRS	International Financial Reporting Standars
IND	Industry Sector
LEV	Leverage
NAC	Number of Audit Committee Members
NACI	Number of Independent Audit Committee Member
NACFE	Number of Audit Committee with Financial Expertise
NIB	Number of Independents Board Members
PEFINDO	PT Pemeringkat Efek Indonesia (Indonesian Credit Rating Agency)
RD	Risk Disclosure
ROA	Return on Assets
SB	Size of Board
SIZE	Firm Size
TQ	Tobin's Q

CHAPTER 1: INTRODUCTION

1.1 Background to the Research

This study elaborates the impact of corporate governance, risk management and corporate reputation on firm value in Indonesia. Utilising the corporate governance theory of Calder, the study argues that most companies give expression to the corporate governance mechanism in both financial and non-financial companies in Indonesia. It describes in detail how corporate governance models on agency theory, stewardship theory and market theory have been used to improve firm value.

Corporate governance is a system consisting of structures, procedures and mechanisms designed for the management of a company based on the principle of accountability that can increase the value of the company in the long run (Velnampy, 2013a). The corporate governance system leads to a collection of regulations and incentives that are used by management to direct and supervise the activities of the company. Therefore, good corporate governance can expand opportunities to increase profits and the value of the company in the long term for shareholders.

Increasing firm value can be achieved if shareholders and stakeholders can work together in making the right decisions to maximize capital and implement good corporate governance mechanisms. However, in reality the divergence between the interests of both parties often creates problems that are commonly referred to as agency problems. Agency problems arise due to the separation of ownership and the conflict of interest between the owner of the company (shareholders) and the management (company manager).

Velnampy (2013a) noted that managers, as part of management, do not always act in accordance with the interests of company owners, but act in pursuit of their own interests. Therefore, a process is needed where the role of monitoring and controlling can direct the objectives accordingly. The formation of a board of commissioners and an audit committee are among the ways in which the owner of the company ensures that the manager of the company works according to the appropriate governance mechanism.

Good corporate governance (GCG) has been perceived to be an important factor for improving firm value, as it assures the credibility of a firm's operations. GCG mandates that a company is well controlled and directed through some mechanisms aimed at generating shareholders' value and protecting the shareholders' interests. Maximising the

shareholders' value is becoming the most important aim of GCG (Lazonick and O'sullivan, 2000).

Many arguments and theories have been proposed to explain how GCG might increase value. Agency theory asserts that the main duty of GCG is to reduce the agency problems caused by the separation of the ownership and control of firms, which consequently minimises the agency costs. As these agency costs are reduced, investors' confidence about the quality of the controls and the credibility of the management is maintained at a high level, which then induces investors to invest their funds in firms in which GCG is implemented. Agency costs are minimised through GCG, as it reduces the asymmetric information which then lowers the external monitoring costs and further decreases the cost of capital. From the point of view of stewardship theory, GCG, especially the board of directors' monitoring mechanisms, is a resource for a firm to establish networks and increase its adaptability and knowledge (Hung, 1998).

After many cases that occurred regarding the mechanism of corporate management, the issue of the corporate governance system is now the centre of attention. Large-scale corporate failures, financial scandals and crises that hit various countries increased discourses about, and demands for, corporate governance that had so far been neglected. Weak independent oversight and too much executive power can be the cause of the collapse of a company. In Indonesia, the issue of corporate governance emerged after a prolonged crisis since 1998, as a result of the financial crisis in Asia in 1997. Since then, both the government and investors have paid more attention to corporate governance practices. These events made the role and application of good corporate governance more important. Cases that occur due to the weak implementation of good corporate governance in Indonesia's companies, especially in financial and non-financial sectors, cause a decline in the value of companies.

Actually, corporate governance issues appeared since companies (in the corporate context) were first formed. There are two philosophies underlying the company's corporate concept; these are that the power to manage the company comes from ownership, and that the owner(s) should be able to exercising authority accordingly with the value of their investment (Tricker, 1994).

However, previous research in this field has not produced a consistent result with regard to the relationship between GCG and firm value. Some studies have provided

evidence that GCG has a positive correlation with performance (Brown and Caylor, 2006, Zahra and Pearce II, 1989, Park and Shin, 2004), while some found no relationship or even a negative relationship between GCG mechanisms and performance (Bhagat and Black, 2002, Kim and Lim, 2010, Kiel and Nicholson, 2003). Many factors have been proposed as the causes of these varied results and have been researched, but with mixed results. Theoretically, GCG is an important mechanism for improving investors' trust, protecting the minority shareholders and creating good relationships between the workers, creditors and stakeholders. It is an essential requirement for sustainable economic growth (Maher and Andersson, 1999). In addition, it also contributes to the efficiency of management and consequently increases firm performance (Claessens, 2006).

In addition, most previous studies assume that the relationship between GCG mechanisms and firm value is a direct relationship, without considering other factors, which may mediate the relationship between the mechanisms and firm value. From the management literature, it can be learned that good control and governance will improve a firm's reputation, which consequently improves its investors' performance and increases the firm's value. Corporate reputation is an intangible asset that is a value driver (Iwu-Egwuonwu, 2011). Corporate reputation is essential for creating competitive advantage for a firm, as it has the power to maintain its loyal customers, attract new customers, as well as to recruit qualified employees which are the shareholders' value drivers (Tischer and Hildebrandt, 2014). Two important aspects of GCG are its transparency and prevention of moral hazards, which link directly to corporate reputation (Ljubojevic and Ljubojevic, 2008). Ljubojevic and Ljubojevic (2008) argue that reputation is maintained through GCG, as a company should maintain its credibility by avoiding being labelled as untrustworthy by its shareholders and stakeholders. Failure to practise GCG may jeopardize a company's reputation, which consequently contributes to the ruin of its firm value. Therefore, it can be hypothesised that corporate reputation may mediate the relationship between GCG and firm value.

Moreover, selecting proper GCG mechanisms in studies becomes important and cannot be conducted randomly. GCG is a very broad and abstract concept. Larcker et al. (2007) argue that studies into GCG should ensure whether the measures for GCG used in a study are measuring the same underlying concepts or not, as multiple indicators used to

represent corporate governance might contain large measurement errors which may produce biased results. Most previous studies focused on the BOD mechanisms or the audit committee, without dedicating enough attention to other important mechanisms, such as risk management. Gordon et al. (2009) argue that risk management has been overlooked in corporate governance studies. They contend that risk management is an important aspect, which interacts with other corporate governance mechanisms, especially the BOD and the audit committee, in generating firm value. Additionally, they argued that monitoring by the BOD would contribute to the effectiveness of risk management, as this would strengthen the monitoring and controls in place.

Separation of status between owner and company manager raises problems commonly called agency problems, which happen between company owners or shareholders on the one hand, with management as the manager on the other. A management position that is very dominant in a company makes management often fall out of the specified limit and forget the essence of the existence of management, namely improving the welfare of the owner of the company. Research done on companies in America showed that the old principles of corporate management, which should be the basis of behaviour of the board of directors, are much forgotten in implementation (Tearney, 2003).

Furthermore, Van den Berghe and DeRidder (2012) mention corporate governance as one aspect that has become the basis for the economic fundamentals of a country. Bad corporate governance, not only harms the company, but will also damage national economic performance and even financial global stability. Economic crises faced by countries in Asia, Russia and other countries are clear evidence of the importance of good corporate governance. Although conditions are different, the causes of the crises faced have the same characteristics, being caused by distortions in company management structure causing inefficient economic decisions. The longer this occurs, the worse situation companies are in and this causes chaos on the stock exchange.

Finance and management literature have documented many contributors to firm value, which to some extent cannot be isolated from each other. Aguilera, Filatotchev and Jackson (2008) contend that the relationship between GCG mechanisms and firm value should be put in the environmental and organisational context where the GCG is implemented. GCG mechanisms may interact with other factors, which consequently

create value. However, in certain contexts, some GCG mechanisms may not produce a positive relationship with firm value. For example, in countries where block-holders or family control is dominant, the role of the independent board and audit committee could be reduced, as the block-holders have more access to closely monitor their managers by increasing their ownership (SetiaAtmaja, 2009). Hence, studies on the impact of GCG mechanisms should pay attention to the context in which they are implemented. Studies in different countries may also generate different results, as most studies are undertaken in developed countries in which shareholder protection regulations are relatively strong and block-holders are rarely found. Therefore, studies into the relationship between GCG and firm value in developing countries are essential.

Hence, this study is aimed at filling the abovementioned gaps by investigating the effect of corporate governance mechanisms and risk management on firm value, as well as the role of reputation in mediating this relationship. The study provides empirical evidence of this relationship in the Indonesian context as a developing country. Indonesia has experienced high economic growth which has caused many firms to seek external funds through the capital market mechanisms. To attract investors and creditors, many firms have improved their governance in order to boost their reputations (Ghofar and Sardar, 2013). Purmerend (2012) recorded that there had been a dramatic improvement in the GCG practices in Indonesia during 2006-2009. He also recorded that there was a direct positive relationship between the numbers of firms which complied with the corporate governance codes, as promoted by the National Committee on Governance (NCG) and the performance of the firms' stock prices, indicating an increase in investors' confidence due to the reduced risks. Hence, the interaction between GCG, risk management, corporate reputation and firm value could be clearly observed in such a context.

1.2 Research Questions

The background to this thesis has discussed some important issues. First, the relationship between GCG mechanisms and firm value is still inconclusive. Second, the inconclusive result of the research in this area could be caused by the existence of different contexts and environments in which GCG is implemented. Moreover, GCG mechanisms work either as complementary methods, or through substitution. Third,

previous research has neglected the role of risk management as one of the important mechanisms for GCG mechanisms. Fourth, the relationship between GCG mechanisms and firm value may not be a direct relationship, as the management literature argues that reputation is an important factor in creating firm value, while the implementation of GCG mechanisms are contended to improve firm value. In this case, a firm's reputation has a role as a mediating variable. Therefore, this study is expected to provide answers to the following important research questions:

i. Does good corporate governance mechanisms have a relationship with firm value?
ii. Does good risk management have a correlation with firm value?
iii. Does a good reputation have a relationship with firm value?
iv. Does the good reputation of a firm mediate the relationship between good corporate governance and firm value?
v. Does the good reputation of a firm mediate the relationship between risk management and firm value?

1.3 Research Objectives

Based on these research questions, the objective of this research is to investigate whether GCG mechanisms, risk management and reputation have a positive relationship with firm value, as well as whether corporate reputation mediates the relationship between both variables (corporate governance mechanisms and risk management) and firm value in an Indonesian context. Indonesia is an emerging country in which many firms are trying to improve their reputations in order to increase their capital through money and/or capital market mechanisms. Hence, the indirect effect of reputation is expected to be clearly observed in such a situation. In detail, the objectives of the study are:

i. To examine the impact of corporate governance mechanisms on firm value.
ii. To investigate the effect of risk management on firm value.
iii. To examine the impact of corporate reputation on firm value.
iv. To examine whether corporate reputation mediates the relationship between corporate governance mechanisms and firm value.

v. To examine whether corporate reputation mediates the relationship between risk management and firm value.

1.4 Contribution to Knowledge and Statement of Significance

This study extends the literature in the area of corporate governance by adding more knowledge about, and furnishing evidence regarding, the impact of corporate governance mechanisms and risk management on firm value in Indonesia. This study also contributes to extending the knowledge about the mediating role of corporate reputation on the relationship between GCG mechanisms and firm value. Most previous studies assume a direct relationship between GCG mechanisms and firm value. However, the management literature asserts that reputation could mediate the relationship between GCG mechanisms and firm value. Additionally, the risk management aspects, as a part of GCG, are overlooked by previous studies, which limits our knowledge about their role in improving reputation and value.

1.4.1 Contribution to knowledge (academic contribution)

Firm value, as the ultimate goal of a firm, is driven by many factors. Knowing the drivers may contribute to the improvement of firm value's enhancement. GCG mechanisms are hypothesised as factors that may improve firm value. This study can contribute to the knowledge on the importance of GCG mechanisms and how they can help create firm value in Indonesia. Furthermore, this study can also improve understanding of the process of the creation of firm value. Considering the fact that enhancing firm value is the ultimate goal of any firm, an investigation into some new factors contributing to the creation of firm value will enhance the literature in the areas of corporate governance and corporate finance. This study tests some variables which are overlooked by previous studies, especially the risk management variables.

Two risk management variables, which are risk disclosure and leverage, are investigated to see if they are determinants of firm value. Risk has become an important factor to be managed, as business has become more volatile. Risk management disclosure is assumed to reflect the quality of risk management practised by a firm. Moreover, this disclosure of risk management shows how transparent a firm is in doing its business. As mentioned before in the introduction, transparency is one of the most important aspects

of GCG, which is argued to be the driver of firm value, as well as an important maintenance tool for a firm's reputation.

Additionally, as the previous studies have produced inconsistent results relating to the relationship between GCG and firm value, this study will contribute to the literature about GCG by extending the knowledge of how GCG creates value. Most studies in the field assume that the relationship between the GCG mechanisms and firm value is a direct relationship. This study investigates whether reputation mediates the relationship between GCG and firm value. From the management literature it can be found that reputation is an essential determinant of firm value. It can be hypothesised that GCG will add value as it improves a firm's reputation.

This study also contributes to widening the knowledge with regards to GCG practices in developing countries, specifically Indonesia. Indonesia was one of the countries which experienced the worst effects of the Asian economic crisis in 1998, which was assumed to be caused by the lack of implementation of GCG. However, it has adopted the Organization for Economic Co-operation and Development's (OECD) GCG code of conduct. Furthermore, the research related to the relationship between corporate governance mechanisms and firm performance in emerging countries, such as Indonesia, is still limited. Therefore, by undertaking research in Indonesia, it can be clearly observed whether GCG contributes to the value creation as asserted by previous studies.

1.4.2. Significant contribution (practical contribution)

This study is of significant practical importance for the following reasons: for business practitioners, the study contributes to widening the knowledge of how firm value is created, as well as the need to implement corporate governance mechanisms and good risk management practises, especially the transparency principles. As it is found that corporate governance mechanisms and risk management have a positive relationship with firm value, implementing GCG and risk management is a must for a firm, especially in Indonesia. Although most firms in Indonesia are dominated by block-holders who have direct access to private information, the implementation of GCG and risk management is still essential as they are found to have a positive relationship with the value and reputation of firms. The results also show that GCG mechanisms are important to ensure the good reputation of firms. Hence, the management of a firm should ensure the

implementation of GCG and risk management to maintain and improve the firm's reputation, which consequently will improve its value.

The results are also important for regulators to make policies in regards to GCG mechanisms and risk management. The regulators in Indonesia should strengthen the policies for GCG mechanisms and risk management, especially those concerning disclosure. Disclosure is at the heart of the transparency principle, which is argued to be the weakness of GCG's implementation in Indonesia. However, the study finds that by implementing GCG and risk management disclosure, firms may improve their reputations and value.

1.5. Definition of Key Terms

The concept of good corporate governance (GCG) used in this study relates to the good practices of how a firm is controlled and directed. The corner theory of the concept stems from agency theory which asserts there is a conflict between owners and managers, as well as between the majority and minority shareholders. Hence to ensure the protection of the shareholders (especially the minority shareholders) from the opportunistic behaviour of managers or the majority shareholders, a firm should implement better GCG practices, which include the principles of fairness, accountability, transparency and responsibility.

Risk management is the concept of how a firm mitigates the uncertainty it faces in doing business. The Institute of Chartered Accountants describe risk as an event that affects the performance of a firm (Collier, 2009). In recent times, risk management has been a key governance issue. In the UK corporate governance framework, the objective of balancing profit maximisation is to reduce risk.

The concept of corporate reputation in this study relates to the image of a firm from the perspective of its stakeholders. The perspective of the bond rating agencies about the image of a firm is reflected in the rating they give to a firm and is used as an indicator of its corporate reputation.

Firm value refers to the concept and techniques that have been developed to find the best way to assess the effectiveness of a firm. Performance measurement is commonly used to refer to the system by which the effectiveness of a firm is assessed. Based on the

theory, performance refers to the measurement of the efficiency and the effectiveness (Neely et al., 2005).

1.6 Organisation of the Thesis

This thesis consists of seven chapters. Chapter 1 presents a brief introduction to the background of the study, the aims of the research, the research problems and the contributions of the research. Chapter 2 provides the literature review, the theories of corporate governance, agency theory, agency cost and legitimacy theory, and the empirical literature on corporate governance mechanisms, risk management, corporate reputation and firm performance. The review of the literature also covers corporate governance mechanisms and firm performance with the mediate relationship being corporate reputation, and their relationships with risk management and corporate reputation, leading to the performance of firms. Chapter 3 presents a review of the fundamental theories including the stewardship theory, agency theory and market theory. The theoretical framework and the hypotheses are then developed based on the literature review. Chapter 4 presents the methodology, including the measurement of the variables, the data sample and justifications. Chapter 5 contains the research results for the relationships between the corporate governance mechanisms, risk management and firm performance, with corporate reputation used as the mediating variable. These results include the descriptive statistics, some of the statistical tests and data analysis. Chapter 6 presents a discussion of the research findings and implications of the results and findings from the previous empirical studies reviewed in Chapter 2. The final chapter, Chapter 7, presents a summary of the study, the limitations of the research and also the potential areas for further research.

1.7 Summary

As discuss above, the good corporate governance (GCG) mechanism has been perceived to be an essential aspect to increasing firm value, as it assures the credibility of a firm's operations. However, although many studies have focused on the direct relationship factors that correlate to firm performance, none has considered the aspects of corporate governance mechanisms and risk management, which have a relationship with firm value, while using the mediating variable of reputation. Therefore, this study will

investigate the relationship that corporate governance mechanisms have with firm performance, through corporate reputation. Moreover, we examine if risk management has an effect on corporate reputation and leads to improved firm value. This study also considers corporate reputation as the moderating variable for increased firm value.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents a review of the literature on agency theory, the concept of corporate governance, the element of corporate governance mechanisms, risk management, corporate reputation, and firm value. Theoretically, the growing importance of corporate governance is attributable to its ability to increase a firm's value as the result of reduced agency problems, thus enhancing investors' confidence in the practice of the firm's affairs (Ulhøi, 2007). Good corporate governance practices influence company value by honestly managing the firm, reducing risk of fraud and avoiding corporate collapse (Plessis et al., 2005). The other element is risk management, which may have correlation on firm value. The correlation between corporate reputation and firm value is also important in corporate governance.

As discussed in Chapter 1, although much research had investigated the impacts of corporate governance on company value in developed countries, this is still poorly understood in the Indonesian context, where such research is rarely undertaken. Therefore, in order to provide the understanding of the underlying concepts of corporate governance in the Indonesian context, this chapter presents a critical review of the literature pertaining to corporate governance. Moreover, the relationship with firm performance in developing countries, focusing on corporate governance mechanisms, risk management and firm value by using the role of corporate reputation as a mediating variable in the relationships. A discussion of these factors is presented in this chapter, as follows.

Section 2.2 discusses the comprehensive concepts of agency theory. Section 2.3 discusses the concept of corporate governance. Section 2.3.1 presents a definition of corporate governance. Section 2.3.2 presents material on corporate governance structure, principles and mechanisms. Section 2.3.2.1 presents the audit committee, while Section 2.3.2.2 discusses board of directors. Section 2.3.2.3 presents external auditors and audit quality, while Section 2.3.2.4 discusses auditor rotation or auditor change. Section 2.3.3 presents corporate governance in Indonesia. Section 2.4 discusses the risk management concepts, and Section 2.5 highlights corporate reputation concepts. Section 2.6.1 discusses firm performance and firm value concepts and 2.6.1 discusses book value.

Section 2.7 discusses the relationships between corporate governance and firm value. Section 2.8 discusses corporate governance practice in other emerging countries. Section 2.9 discusses corporate governance in developed countries. Section 2.10 summaries the literature review and identifies literature gaps that motivate this study, and Section 2.11 summarises this chapter.

2.2 Agency Theory

Agency theory deals with the relations between principals and interested parties or agents for the management process in the company (Jensen and Meckling, 1976). Daily et al. (2003) argued that two elements could influence agency theory: firstly that the theory is a simplifying, conceptual one that reduces the corporation to the two participants of managers and shareholders; and, secondly, that agency theory suggests that employees or managers in organizations can be self-interested.

Agency theory is one of the economic theories derived by Modigliani and Miller (1958), which was later expanded by Jensen and Meckling (1976). It highlights how different interests help the owner of the firm and management. The principal theory discusses the relationship of the internal parties of the company, from the owner to managers, with the agents undertaking the management of the firm on the owners' behalf. Agency theory is a necessity in the modern corporation, which has wide ownership and managerial actions are needed to increase shareholder return (Armstrong, 1991).

Prior studies argued that the purpose of agency theory is to decrease agency loss (Eisenhardt, 1989). Shareholders' purpose is to maximise the return on investment. However, the agents as managers want their interests to be accommodated as much as possible as a reflection of the firm's performance. Agency theory presumes that individuals pursue their personal interests (Tourish et al., 2010). Shareholders principally are expected to be interested only in the financial part of the firm to raise the value of dividends (Easterbrook, 1984). The managers, as agents, are expected to get adequate compensation financially and gains from the relationship (Fama, 1980). These different perspectives can lead to conflict or loss of motivation if shareholders seek an increase in shareholder returns and restrictions on the benefits received by the managers (agents) (Donaldson and Davis, 1991). Agency theory formulates a model of conflict between shareholder and manager, arguing that the disclosure of information provided by

management may fall into two types, which are opportunistic or signalling motives (Beaver, 2002).

Theoretically, the implication of agency theory is that the CEO acts as a duality to maintain the interests of shareholders and harmonizes the interests of management by providing compensation for salaries for a long period (Donaldson and Davis, 1991). The aim is to harmonize the interests of management with shareholders to avoid losses (Donaldson and Davis, 1991). Agency theory assumes that the contract is inadequate and does not fully determine the nominal role for every contingency and possible relationship (Aoki, 1990). Consequently, a conflict of interest arises between the parties involved, and there is a need to resolve this conflict with company regulation to achieve the company goals (Donaldson and Davis, 1991)

The application of agency theory to the organization of company may shape its corporate structure and role of capital markets (Davis and Thompson, 1994). The efficiency of operation in the capital markets and the residual value claim held by stakeholders have implications for the stock market price (Davis and Thompson, 1994). Moreover, efficiency in the capital market and stock market can help as choice mechanisms to discipline the corporate governance structure and impact the stock price. According to previous studies, agency theory includes the discussion of ownership and control, which increase corporate performance (Jensen and Meckling, 1976). However, agency theory still has inconclusive results and different arguments. In contrast, the increased level of insider ownership reduces company performance (Demsetz and Lehn, 1985). Based on agency theory, this study uses the variables of corporate governance mechanisms including the audit committee, the board of director, audit quality and auditor change or auditor rotation.

2.2.1 Agency costs

Agency costs can be situated within the neoclassical theory derived from Adam Smith (1776), and explain the existence of conflicts between individuals and agents. The agency cost arises because the owner does not manage the company himself. Agency costs that often occur are related to the following three factors: monitoring cost on behalf of the principal, bonding by the agent costs and residual costs (Jensen and Meckling, 1976, Urban, 2015).

First, monitoring costs are costs incurred by the owner in controlling management behaviour. The owner controls costs to prevent detrimental managerial behaviour. Also, they include various kinds of costs including management fees, contract fees and compensation systems.

Secondly, there are bond costs which relate to the certainty of the agent. The agents can act as expected by the owner, for example, they can streamline costs and maximize owner's utility, including costs incurred for financial reporting per period.

Thirdly, residual costs arise from the manifestation of agent problems that cannot be reduced by monitoring mechanisms, for example, residual losses from interest payments that have increased (Urban, 2015). This is not in accordance with the actions of the owner. The cause of agency costs arises because of an incompatibility between the interests of the agent and the owner, which can reduce the welfare of the principal (Jensen and Meckling, 1976, Watts and Zimmerman, 1986). The control of agency costs, to create an optimal capital structure, can be achieved by minimizing the costs arising from the existence of conflicts between owners and managers.

2.3 Legitimacy Theory

The importance of GCG and the link to reputation can also be seen from the perspective of legitimacy, which is a generalised perception that the actions of an entity are proper, desirable or appropriate within the norms, values and beliefs of society (Suchman 1995). Legitimacy theory is one element of the financial approach, which is established by governance codes within an institutional framework. This theory relates to the expectation of the structure or action in the company and that they are consistent with broader social norms, even in changing circumstances. Prior studies have argued that the type of company that responds appropriately to governance codes in changing circumstances is effective in sustaining their legitimacy (Enrione et al. 2006, 2004, Hooghiemstra and van Ees 2011). The sustainability relates to a generalized assumption that the firm's actions and responses will be appropriate (Suchman 1995). Legitimacy theory of the code of corporate governance generally considers that it is best practice to estimate good management of the company. The relationship of good governance with good performance has different results depending on the variable selection and the endogeneity controlled (Reders et al. 2010; Bianchi 2011 ; Enrione et al. 2006). A prior study argued

that governance codes are perceived as constituting myths of rationality, as the purpose of legitimacy is different from that of the efficiency of the company (Meyer and Rowan 1977). On the other hand, legitimacy is more focused on the organization and the audiences (Suchman 1995). Legitimacy relates to the relationship between the organisation and audience. This implies that companies need to make sure the audience perceives in action and the structure necessary to properly. The legitimacy theory relates in this study to the reputation of companies, as mentioned in the literature review, and reputation has an advantage to the competitiveness of the company. The opinion of the company relates to the good reputation of the firm which leads to firm value. In this study, the variable of bond rating as measure by corporate reputation.

2.4 The Concept of Corporate Governance

2.4.1 Definition of corporate governance

The theory of corporate governance arises out of agency theory and has been continuously developing. Recently, corporate governance theory has been influenced by many theories including stakeholder, stewardship, resource dependency, transaction cost, political, contingency and institutional theories (Hung, 1998, Abdullah and Valentine, 2009). These have enriched and developed the concept of corporate governance from the agency perspective to include shareholder value. Hence, corporate governance is seen not only as a control mechanism, but also as a value-creation mechanism. Consequently, corporate governance mechanisms is not only protecting shareholder interests, but also is creating and enhancing sustainable shareholdings and firm values (Rezaee, 2009).

Theoretically, corporate governance can have a positive impact on the development of the company and the capital market, which has an effect on increasing economic growth in a country (Maher and Andersson, 2000). Poor management problems will have a negative effect on agency costs. These include fraud in manipulating money, taking company property for personal needs and management being paid a large amount of compensation from the company (Mueller, 2006). Good corporate governance is expected to minimize these agency costs through the implementation of sound principles.

Corporate governance laws reduce agency costs and improve management control to enhance long-term shareholder value (Bhojraj and Sengupta, 2003). The structure of corporate governance is dependent on certain aspects, such as society, community, law,

and the business economy (Carroll, 1999). According to Rezaee (2009), the corporate governance structure is built on three interconnected aspects, including principles, functions, and mechanisms.

Corporate governance has been defined in many ways in different literature; hence the concept needs to be clarified differently according to a specific context (Farrar 2008). For example, corporate governance generally interprets the role that explains the rights and ownership as shareholders, as managers, and interested parties both internally and externally (Cadbury, 1992). Good corporate governance (CGC) can avoid problems for the firm and also has some advantages. An effective corporate governance system within an individual company and across the economy as a whole helps to provide a degree of confidence that is necessary for the proper functioning of the market economy (Aguilera and Cuervo-Cazurra, 2004). As a result, the cost of capital is lower, and firms are encouraged to use resources more efficiently, thereby underpinning growth (Drever, 2007). GCG practices have become more critical for daily business in the world (Mallin, 2001). Prior research has shown that generally, good corporate governance practice will be able to improve company value (Klapper and Love, 2004, Gompers et al., 2003, Black et al., 2006, Black, 2001, Drobetz et al., 2004, Bauer et al., 2004).

Good corporate governance will be able to improve the quality of the company that is superior to the company, which ultimately can improve the performance of the company (Benjamin, 2014). With regards to accounting literature, a good corporate reputation can result in an enormous amount of wealth and goodwill. Furthermore, Ljubojevic and Ljubojevic (2008) suggested that corporate governance is necessary for maintaining an attractive investment climate, which is characteristic of highly reputable and competitive companies. One of the most critical strategic and enduring assets of any corporation is a good reputation, which impacts on firm performance (Hammond and Slocum, 1996).

GCG also promotes management's commitment to ethical accounting, and principled business practices influence a firm's reputation and market value. Wang and Smith (2008) classified the components of corporate ethical behaviour that produce company reputation as including proper treatment of employees, care for the environment, and honest financial reporting. Management theory states that company reputation has a relationship with financial performance, risk level and businesses that

effectively direct their management reputation efforts receive tangible economic benefits (Wang and Smith, 2008). Other benefits such as increases in wealth for shareholders also indicate that high-reputation firms experience superior financial performance and lower cost of capital and lower risk (Wang and Smith, 2008). Besides, Wang and Smith shown that highly reputable firms will be more profitable in several dimensions, including industry-adjusted sales, total assets, and return on assets (ROA) (Wang and Smith, 2008). Herath and Freeman (2012) noted that GCG is influenced by efficient risk management and effective internal control.

According to Geiger (cited in Farrar 2008, p. 415), the OECD principles of GCG are as follows:

1. There is a link between corporate governance and investment and economic growth. It is not only the quantity of investment which matters. It is how efficiently this is allocated and monitored. Corporate governance has a crucial impact on all three.
2. The law components influence how we mobilise capital by defining property rights and quarantining credible information.
3. Corporate governance as a whole is seen as a constituent element of equity risk. Bad corporate governance signals information asymmetry and high probability of expropriation of shareholder value.
4. A McKinsey study of July 2002 showed the average premium that the overwhelming majority of investors will be willing to pay for companies with good corporate governance.
5. The market can only make the best decisions regarding allocation of capital if there is proper disclosure. Effective monitoring depends on sound procedure, clear lines of authority, and incentive schemes.
6. Globalisation affects the principles of good corporate governance because of the:
    - growing importance of the private sector;
    - growing international institutional investment;
    - growing international independence; and
    - changing patterns of competition.

In accordance with the above review of corporate governance principles, Rezaee summarises the factors influencing good of corporate governance as follows:

> The process affected by a set of legislative, regulatory, legal, market mechanism, listing standards, best practices, and efforts of all corporate governance participants, including the company's directors, officer, auditors, legal counsel and financial advisor, which creates a system of checks and balances with the goal of creating and enhancing enduring and sustainable shareholder value, while protecting the interest of other stakeholders. (Rezaee, 2009)

Furthermore, corporate governance is influenced by external factors, including both regulatory laws and the effects of corporate participants to create efficient quality investment. Additionally, GCG requires the implementation of different regulations, market mechanisms, legal systems, and cultures depending on the country context of the firm. Razaee's definition explains GCG as including shareholder value to improve wealth by reducing agency problems. Another aspect of GCG is the stakeholder; it is becoming essential to maximize stakeholder return, thus enhancing company performance.

In 2006, the OECD released the updated principles of sound corporate governance that include a code of conduct. The code of corporate governance in Indonesia is based on the five standard principles of the OECD, which are transparency, accountability, responsibility, independence and fairness. Here transparency means that information is fully disclosed, accessible and accurate, and hence there is no room for management to conceal relevant information including financial situation, performance and governance of the company. Accountability relates to the willingness and liability of the management to be entrusted with the shareholders' funds, and for being responsible in providing the sustainability of firm performance. Thirdly, responsibility involves fulfilling the requirements of regulations and rules, in order to support the goal of a company in maintaining the business for a long period. Next, independence is related to how a company manages its activities without intervention from others. Lastly, the fairness principle mandates that in conducting its activities, a company should pursue the fulfilment of the interests of shareholders and stakeholders equally, and treat them ethically.

2.4.2 Corporate governance structures, principles and mechanisms

Corporate governance mechanisms have two aspects: internal and external, which are essential for controlling management activities in the company (Walsh and Seward, 1990). Internal mechanisms are related to the monitoring of general operations, thereby creating sustainable stakeholder value (Walsh and Seward, 1990). These consist of the BOD, particularly independent directors, the audit committee, management, internal control, and internal audit functions. Previous research suggested that internal corporate governance is essential for achieving GCG practices and protecting the interests of shareholders (Walsh and Seward, 1990), as described below.

Internal corporate governance mechanisms refer to the independent control mechanisms that ensure that managerial, as well as supervisory and appropriately functioned in the firm (Florackis, 2005, Kuo et al., 2011). The elements of internal corporate governance mechanisms involve internal governance structures and internal controls (Weir et al., 2002). An internal control mechanism is used in the corporate environment to ensure the reliability of financial reporting and the efficiency and effectiveness of management.

External corporate governance mechanisms refer to aspects from outside the company and which are controlled by the capital market (Porta et al., 1999). Moreover, the managing from the market is one of the keys of external corporate governance mechanisms (Jensen, 1988). Previous researchers found that external mechanisms can replace internal mechanisms in the company (John et al., 1998). Moreover, prior studies argued that external mechanisms could not stand independently of each other, and there are interrelationships in corporate governance (Rediker and Seth, 1995). This implies that internal mechanisms can be changed by external mechanisms in appropriate corporate governance environments. This is consistent with a previous study that found that internal mechanisms can be changed to external mechanisms with the same purpose (Coles et al., 2001). There are many components in corporate governance mechanisms. This study focuses in four elements corporate governance mechanisms which are: the audit committee, board of director, audit type (audit quality) and auditor change or auditor rotation.

2.3.2.1 Audit committee

The audit committee can be represented by a committee that works professionally and independently, and which functions to oversee and ensure GCG practices (Rezaee, 2009). The function of an audit committee can create a reliable financial reporting process, an effective internal control structure, audit functions that can be trusted, information on the existence of reports and a code of ethics created that can support those who have interests in the company (Rezaee, 2009). Referring to this definition, an audit committee has several functions and responsibilities. First is monitoring the mechanisms for shareholders to avoid accounting scandals by controlling the accuracy of financial reporting. Some previous accounting scandals include Enron, World Com, Paramalat, and in Australia HIH and One Tel. Secondly, the audit committee has to monitor accounting practices and accounting policy to avoid financial risk. Thirdly, the audit committee is responsible for hiring the external auditor; and fourthly, the audit committee has to understand the internal auditing processing and practices (Rezaee, 2009).

The audit committee has been recognized as part of corporate governance, and the function of the audit committee is to assist the board of directors in their oversight role. This role includes reviewing the financial data, internal control, and ensuring the independence of external auditors. According to the concept of corporate governance by Keong (2002), the audit committee members should come from the members of the board of directors in the companies, of which there must be a minimum of three directors. The members have to be independent, and two of the board members have to be qualified in accounting or have financial management expertise (DeFond et al., 2005). Independence refers to independence from management and freedom from the body of controlling shareholders. The function of the audit committee is to investigate the problems and to help the management operation. Moreover, the duty is to invite the directors for meetings to control whether company functions have been done properly.

An active audit committee can increase the credibility of the financial reporting process by controlling the selection of the financial accounting policy (McMullen, 1996). Prior studies found that the audit committee, as part of corporate governance practice, can increase the monitoring of management and reduce information asymmetry problems (Aldamen et al., 2012). There are three main characteristics of audit committees, which

are the number audit committee members, the number of independent audit committee members, and the number of audit committee members with financial expertise.

The first category is the numbers of audit committee members who come from outside directors and non-executives. Based on the agency theory, the benefit of the number of members is that it reduces the conflicts between internal managers and other shareholders (Fama and Jensen, 1983a).

The second category of the audit committee characteristics is the number of independent members. Prior studies argued that the independence of the audit committee member is more effective for monitoring the financial reporting of companies (Carcello and Neal, 2003a). Independency of the audit committee also helps control the activities of managers; therefore, financial reporting will be more accurate and reliable (Cohen et al., 2011). Furthermore, independent members of the firm help decrease the possibility of bankruptcy of the company (Lennox and Park, 2007). Additionally, the independency of audit committee members has a positive impact on audit quality, leading to improve firm performance (Nuryanah and Islam, 2011). Good level of the independent the audit committee better monitoring of firm thus influence processing the quality of the financial reporting (Bronson et al., 2009).

The third category is the numbers of audit committee members who have financial expertise in terms of education and experience. The members of the audit committee should be qualified in accounting or financial management, and experience of accounting matters. A previous study found that Enron and WorldCom companies collapsed because of lack of knowledge of board directors (Lanfranconi and Robertson, 2002). Moreover, another study supports the argument that financial expertise from the audit committee has a negative correlation with financial reporting restatement and fraud (Abbott et al., 2002). Moreover, the Certified Public Accounting (CPA) reports that the audit committee could increase the quality of financial reports in the firm (McMullen and Raghunandan, 1996). According to Yunos (2011), the financial expertise of an audit committee in Malaysian companies enhances accounting conservatism, which refers to the quality of financial reports. Accounting experts in an audit committee carry out strong monitoring on activities of firm, thus increase conservatism (Krishnan and Visvanathan, 2008). The experience of board members also provides more effective monitoring and less misreporting (Krishnan and Visvanathan, 2008). Other advantages are that having audit

committee members with knowledge in accounting and finance influences the good market value of the firm. There is also a positive share price reaction when a firm announces new members of audit committees who have financial expertise (Davidson et al., 2004). Lastly, an audit committee with financial expertise will be more effective in financial reporting and will enhance firm value (Davidson et al., 2004).

2.3.2.2 Board of directors

Corporate governance functions are essential aspects of corporate governance structure, which include board of director (BOD) compliance, internal audits, external audits, and advisory and monitoring functions (Davidson et al., 2005). Generally, these corporate governance functions support the governance mechanisms in the corporate governance system to ensure the efficiency and effectiveness of the business activity, and hence improve corporate performance. In particular, the BOD has the function of controlling the manager and also contributing to making strategies for the decision making of the firm (Rezaee, 2009 p. 89). Internal auditing ensures the effectiveness and efficiency of the internal control system through evaluation and control of the methods and procedures in the organization's processes, and provides recommendations of policies to improve the effectiveness of the operation of the company (Getie Mihret and Wondim Yismaw, 2007). Moreover, the internal auditors also help to keep the system of internal control for financial statements. External auditors specifically assess the fairness of corporate financial reporting and ensure that the financial reports have been presented fairly under the generally accepted accounting standards. Furthermore, external auditors also control shareholders in accounting information, avoiding shareholder manipulation of the accounting information.

A board of directors (BOD) is appointed based on the legal requirements to oversee a firm (Hermalin and Weisbach, 2001). It is responsible for overall firm performance. The importance of the BOD as one of the internal corporate governance mechanisms is to enhance shareholder value, as well as to protect shareholder wealth (Daily et al., 2003). Due to the importance of the role of the BOD to the organisations, its personality characteristics, demographics characteristics, values and competencies have been extensively studied in the last few decades. However, the literature has found inconclusive results of the relationship between boards of directors and firm performance.

The BOD has the function to monitor firm performance and also enhance the value of firm performance (Mashayekhi and Bazaz, 2008). Theoretically, the BOD plays a crucial role in the company to control managers who carry out activities with shareholders (Tirole, 2006). The BOD has the responsibility to monitor the company operations, including the duty of chief executive officer (COE) and the execution of the day-to-day activities, therefore increases the performance of the firm (Zahra et al. 1989). Furthermore, the BOD also provides certainty to companies related to effective and efficient company activities, a credible financial reporting system and trustworthiness of financial reporting systems, safeguarding of the firm's assets, and compliance with applicable laws and regulations (Thomas 2002). Moreover, the BOD selects and replaces the COE and provides advice to management through controlling of the firm (Zahra et al. 1989).

The BOD has two essential characteristics, the number of independent board members and the size of the board. The independent board members come from the board of commissioner members who are from outside the company, which has no relation with other members or management (Ghofar, 2013). An empirical study found that the independence of the BOD has a positive correlation on firm performance (Brickley et al., 1994). Additionally, an independent board also helps in reducing agency cost by controlling more strictly firm activities, which increase in firm performance (Fama and Jensen, 1983a). An independent board can protect the shareholder's interest by monitoring and controlling a decision (Duchin et al., 2010). When properly engaged, it can enable the firm to make better decisions and run more effectively, in turn, improving firm performance. Monitoring is the role of the BOD lessens conflicts between shareholders and management, and increases the markets (Lefort and Urzúa, 2008). An independent board can counterbalance the managers as insiders; thus, the managers cannot benefit from the position (Yunos, 2011). Young (2003) argued that Enron Company collapsed due to the lack of board independence. Therefore, the board's independence is essential for companies.

The presence of an independent board provides important functions in a company, including a controlling and monitoring role, which might also have implications in increasing the company value (Yermack, 1996). Previous studies argue that an independent board influences firm performance through the availability of time for

professional and independent consultations with company managers (Lin, 2011, Ghofar, 2013). Moreover, independent boards who come from the outside can also have experience in maintaining relationships without side parties, and hence, as a result, the relationship with external links becomes well established (Gani and Jermias, 2006, Hung, 1998). Previous studies found that firm performance and an independent BOD has significant correlation, when measured by Tobin's Q (Ivashkovskaya and Stepanova, 2011). While in the UK, Denis and McConnell (2003) found that independent director decision makers have a positive impact on the company. Furthermore, in Korea, Choi et al. (2007) argued that statistically there is a positive relationship between company performance and independent directors (Kim and Lim, 2010). In agreement with that, Abor and Adjasi (2007) found a similar situation in Ghana, where they state that the role of independent directors can improve company competitiveness through a new strategy for the organisations. Independent boards also can balance the relationship between the board and management in the firm. Previous studies generally argued that an independent director is also able to increase corporate governance practices in the firm (Klein, 2002a).

Furthermore, research in Chinese listed companies found that the independence of boards has a negative correlation with financial distress (Lim and Wang, 2007). These studies generally imply that independent directors can control and monitor the discretions of management in making any risky decisions, and hence might prevent the company from experiencing bankruptcy and corporate collapse. An empirical study from European countries such as Denmark, France, Germany, Italy, the Nederlands, Portugal, Spain, Belgium and Austria in 2000 and 2001 found that an independent BOD has a positive correlation towards profitability using the ratio measurement ROA, return on equity (ROE) and the market to book ratio using 87 companies (Coleman et al., 2007). Supported in this study is the suggestion that there is a positive relationship between an independent board and profitability using Tobin's Q as a measurement.

A crucial characteristic of a BOD is related to its size; referred to as one of the elements under the board structure other than leadership structure and board composition. Board size might have an impact on the dynamic function of the board, whereby board size is correlated to the role of the boards (Zahra and Pearce, 1989, Ghofar, 2013). According to Jensen (1993), the number of board members should be not large, as it may become harder to coordinate and communicate, which in turn might decrease the

efficiency of business activity and create low firm performance. On the other hand, some empirical studies have found that board size has a positive relationship with firm performance (Hermalin, 2013) and also market-based company performance (Kiel and Nicholson, 2003).

Moreover, previous studies argue that a large board size could indicate good performance including knowledge and skill (Klein, 1998b). Kiel and Nicholson (2003) found that the board size has a positive impact on firm performance through controlling of the firm, a big size of BOD will be more controlling. Problems in the dynamic of groups of companies can cause the board of directors to be less efficient at work so that the company does not get maximum results (Van den Berghe and Levrau, 2004). Similarly, Beiner et al. (2004) found that in companies in Switzerland, board size is only an optimal requirement, so it does not have a positive relationship to the performance of companies that use Tobin's Q proxy. Kula (2005) also found no significant results from analyses of the effects of the structural variables, i.e., size, the proportion of independent directors, and the board committees' structure, on the firm's performance.

2.3.2.3 External auditor

The quality of the external auditor is a part of the external corporate governance mechanism; companies need to select good quality auditors (Cohen et al., 2004). The external auditor has the function of monitoring and auditing the financial report of the company independently (Christopher et al., 2009). Good quality auditing has implications for firm performance and reduces the agency problem, particularly to investor confidence (Hutchinson and Zain, 2009). Big 4 firms refer to the good quality of reputable international auditing (Moizer, 1997). An external auditor is crucial for companies as the reputation of the auditing firm leads to investor confidence. For example, companies employing Big 4 auditors have better firm performance compared to companies not hiring Big 4 auditors. The quality of audit influences client confidence in the financial market (Chang et al., 2009). Furthermore, good quality auditing has a significant impact on the public debt market and provides the firm with less debt cost (Mansi et al., 2004). Auditor quality is correlated with market performance, which is evident when a firm changes from a low-quality auditor to a high-quality auditor and the market reacts positively (Knechel et al., 2007).

The auditing professionalism is important in creating good financial reports\ing of firms, and has impact to the investor on decision (Chang et al., 2009). It has been stated that this credibility depends mainly on the effect of certain factors (including auditor characteristics) on auditor independence. As noted by Sawan (Sawan and Alzeban, 2015), audit quality has attracted scholarly attention in developed countries due to the importance attached to the role of auditor's reports in the decision making by investors. Arguably, emerging economies, such as Libya, do not enjoy the same level of audit quality or sophistication as seen in advanced countries (Sawan and Alzeban, 2015). As a result, such challenges continue to affect both investors and those seeking to attract investors.

2.3.2.4 Auditor rotation

Another corporate governance mechanism is auditor rotation or auditor change, which is based on a system of periodically rotating independent auditors of a company (Jackson et al., 2008). Prior research suggests that audit rotation contributes to more effectively increase the independence and objectivity of the auditor (Winters, 1976, Kemp Jr et al., 1983, Wolf et al., 1999). Moreover, auditor rotation may help to obtain less biased reporting by the auditor (Dopuch et al., 2001). Rotation auditing is recommended for increasing the effectiveness of auditing and enhancing the quality of reporting of financial information (Myers et al., 2003).

Prior studies found that company rotation of auditors may help rebuild confidence in the regulatory system of companies (Jackson et al., 2008, Smith and Kida, 1991). Auditor rotation decreases the economic bond between the auditor and client (Smith and Kida, 1991, Tan, 1995). Another study found that in the largest accounting firm in Italy, the auditor rotation may have increased market share (Buck and Michaels, 2005). Another benefit in auditor rotation is the improvement in creativity in the auditing approach and the creation of a better relationship between the auditor and client (Carey and Simnett, 2006). The rotation of auditors generates improved perception of the financial statements and could detect mistakes in the financial reports of the past (McLaren, 1958). This also leads to a more thorough review of the firm's audit program (Catanach Jr and Walker, 1999). On the contrary, the changing of auditor does not guarantee better auditing due to time spent in developing knowledge; and thus become familiar and adjust to working with a new company. The auditor usually fails in the first

year with a new client in the company (Arel et al., 2005). The cost of the auditing firm increases due to the extra work from the new auditor (Arrunada and Paz-Ares, 1997).

Meanwhile, several studies have concluded that long relationships between companies and their clients have consequences for some forms of collusion that can jeopardize independent decision making in the external audit process (Gates et al., 2006, Thahir Abdul Nasser et al., 2006). For instance, they argue that a lengthy tenure in office may cause the auditor to develop too close relationships. For example, the more extended stay in one particular firm could influence the emotional connections, either with internal staff or with their clients, which could weaken auditor independence (Alrshah, 2015). Correspondingly, it has been noted that in extreme cases, a long relationship between auditors and their clients could result in collusion between the two parties which would adversely affect the audit process. As is evident, the role of audit firm rotation as a device for safeguarding auditor independence has attracted serious debate in accounting research (Catanach Jr and Walker, 1999). Given the similarly convincing arguments of both sides in the debate, it is not surprising that regulators in some countries have attempted to strike a balance between the two competing perspectives. But on close inspection, to date, there is no consensus within the extant literature on the practice of compulsory audit firm rotation.

2.4.3 Corporate governance in Indonesia

Indonesia started to consider corporate governance after the financial crisis in the Asia Pacific which caused bankruptcy of many companies (Cirmizi et al., 2010). The World Bank argued that one of the factors of corporate collapse is lack of corporate governance (Baird and Rasmussen, 2006). The system of corporate governance around the world is not the same between countries. In 1999, the Indonesia government established the National Committee for Corporate Governance (NCCG) under the Decree of Coordinating Minister for Economic Affairs. Its function was to strengthen, distribute and promote GCG principles. The empirical studies stated that NCCG amended the key regulations implementing GCG principles to become a strong foundation of corporate governance (Ahmed and Duellman, 2007). In 2004, the Coordinating Minister for Economic Affairs changed the NCCG to become the National Committee on Governance (NCG) and it also published the code of GCG.

Additionally, to strengthen corporate governance, in 2000 Indonesia established the Forum of Corporate Governance in Indonesia (FCGI). The members of the FCGI come from the professional and business associations which are: Association Emiten Indonesia (AEI), The Association of Indonesian Listed Companies (Management Accounting Department), Indonesian Institute of Accountants, The Indonesian Financial Executive Association, The Indonesian Netherlands Association and The Indonesian Society for Transparency. The objective of this forum was to develop awareness and to disseminate GCG principles to Indonesia business communities based on international practice (Wibowo, 2008).

Corporate governance practices differ between countries, as regulations and economic conditions differ. The Asian Development Bank provided evidence that the financial crisis of 1997 in Asia was caused by poor corporate governance (Alijoyo et al., 2004). As a developing country, Indonesia's corporate governance has remained weak compared to that of developed countries such as the USA and the UK. Therefore, Indonesia has implemented a corporate governance code of conduct to help improve governance practices.

Mitton (2002) also suggested that companies with GCG show better performance. The lack of risk management practices was one of the causes of the financial crisis in Indonesia. Furthermore, the World Bank reported that Indonesia continues to have problems with internal control practices, as shown by the low effectiveness of audit committees (World Bank, 2010).

To implement successful corporate governance, the Indonesian government established an organisation known as the National Committee for Governance (NCG). Indonesian corporate governance has two tiers of boards of directors with different functions: the first-tier BOD, namely the commissioners, control and advise the activities; and the second-tier BOD, who operate the firm. The regulations come from the Indonesian Security Exchange (the BAPEPAM-MK) and the rule is that at least 30 per cent of the commissioners must be independent. Moreover, Indonesia has stipulated the regulation of the audit committee via its Ministry of Finance statement No 55/POJK.04/2015 (see Appendix 3).

2.5 Risk Management Concept

Risk can be interpreted as a collection of uncertain events that have a negative effect on an organization (Hopkin, 2013). Therefore, managing risk is related to achieving the best results in minimizing the risks that occur in the organization (Hopkin, 2013). It can be said that risk management is the achievement of results in accordance with what is expected, thus risk management is very important for the organization to achieve goals (Hopkin, 2013). There are several things that need to be noticed in order to be achieved, namely: (i) proportionality, that is, the activity must be proportional to the nature and size of the company organization; (ii) management activities need to be aligned with other activities in the organization; and (iii) management must be dynamic in changing situations to make it easier to manage a risk (Hopkin, 2013). Moreover, Hopkin (2013) argued the key to driving risk management is to ensure that risk management in the organization can be measured and identified, by data collection and by more proactive management to influence the level of risk, so as to increase success in the organization. Proactive risk management is important in the success of an organization by increasing design, strategic implementation, tactics, operations and compliance activities. The results of risk management are often said to be a level of risk, with a proactive approach, so risk management can reduce the level of risk and will be useful in some aspects. Firstly, financially it will reduce capital costs and provide better investment control. Secondly, with regards to infrastructure, it will be more efficient. Thirdly, in the aspect of reputation, it will be able to improve publicity and lastly, in the marketplace, it produces commercial opportunities in increasing customer satisfaction (Hopkin, 2013).

In a business there are many activities that have risk, therefore, all companies need to manage of risk using as a tool for minimising of risk (Aebi et al., 2012). Risk management can be described as "the process by which organisations methodically address the risk attached to their activities with the goal of achieving sustained benefit within each activity and across the portfolio of all activities" (Collier, 2009, p. 46). The Treasury Board of Canada Secretariat (Government of Canada, 2001) also describes risk management as "a systematic approach to setting the best course of action under uncertainty by identifying, assessing, understanding, acting on and communicating risk issues" (Government of Canada, 2001, p. 7). Another definition is from the International Organization for Standardization (ISO), which defines risk management as how to

manage risk and to consider the implications of risk (Collier, 2009). Collier (2009) raises more dynamic purposes related to the risk management and enterprise risk management (ERM). The relationship between risk management and ERM must include concrete strategies and organisational goals. Risk management should be a culture in the overall structure of an organisation and sees risks as opportunities as much as threats. This has been a matter of continuing concern for most firms since the fall of Bretton Wood System in the 1970s. The Institute of Risk Management (2002) summarises that risk faced by an organisation can result from both external and internal factors, which include financial, strategic, hazard and operational risks. Some risks have both external and internal drives (e.g. employees, supply chains, products and services, and the integration of mergers and acquisitions). In relation to financial risks, companies are exposed to various types of risks that can affect their expected returns (Kempf et al., 2014, Kim et al., 1993). Interest rate risks, foreign exchange risks, and credit risks are associated with the economic environment (market risk) where their changes affect all companies (Lajili and Zéghal, 2005)

Previous studies have shown that good risk management within the company can increase the value of profitability in the company (Leautier, 2007). The Institute of Chartered Accountants described performance in a company can be affected by risk (Collier, 2009). Risk management is very important for companies to avoid negative impacts. The aim of a company is to be able to go through a management process related to company risk management (Collier, 2009). The elements of risk management are listed in ERM: identifying; assessing; determining; and monitoring. The Committee of Sponsoring Organizations of the Treadway Commission (COSO) has issued an ERM framework by defining risk management as being influenced by human resources in an organisation. COSO has developed eight models for ERM, which are as follows:

a. Internal environment: The internal environment encompasses the tone of the organisation and sets the basis for how risk is viewed and addressed by an entity's people, including risk management philosophy and risk appetite, integrity and ethical value, and the environment in which they operate.
b. Objective setting: Objectives must exist before management can identify potentials affecting their achievement. Enterprise risk management ensures that management has in place a process to set objectives and that the chosen

objectives support and align with the entity's mission and are consistent with its risk appetite.

c. Event identification: Internal and external events affecting achievement of an entity's objectives must be identified, distinguishing between risks and opportunities. Opportunities are channelled back to management's strategy or objective-setting processes.
d. Risk assessment: Risks are analysed, considering likelihood and impact, as a basis for determining how they should be managed. Risks are assessed on an inherent and a residual basis.
e. Risk response: Management selects risk responses, avoiding, accepting, reducing, or sharing risk, developing a set of actions to align risks with the entity's risk tolerances and risk appetite.
f. Control activities: Policies and procedures are established and implemented to help ensure the risk responses are effectively carried out.
g. Information and communication: In a form and timeframe that enable people to carry out their responsibilities. Effective communication also occurs in a broader sense, flowing down, across, and up the entity.
h. Monitoring: the entirety of enterprise risk management is monitored and modifications made as necessary. Monitoring is accomplished through ongoing management activities, separate evaluations, or both. (Havenga, 2006, COSO, 2004)

ERM defined by COSO is "a process, affected by an entity's board of director (BOD), management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (Havenga, 2006, COSO, 2004, p. 16).

In recent times, risk management has been a key governance issue. In the UK corporate governance framework, the objective of balancing profit maximisation is to reduce risk. The Turnbull Committee described the role of risk management and internal control as an important part of a company's objectives, which include internal organisation and the environment.

COSO ERM frameworks consist of several components, namely: internal condition; goal formulation; event identification; risk assessment and response; control and monitoring activities; and communication activities (Calder, 2008). Liebenberg and Hoyt (2008) argued that risk management potentially increases firm value by minimising inefficiencies, promoting capital efficiency and reducing earnings volatility and expected cost of external capital, as well as regulatory scrutiny. Bierc (2003) mentioned that ERM can be developed and pursued with substantial key drivers to influence the success and value of corporations (Lai et al., 2010). Crouhy et al. (2006) and Belmont (2004) claimed that the ERM framework creates tangible and intangible benefits, such as improving firm reputation, smoothing earning expectation, increasing management confidence, clarifying decision-making processes and governance procedures, and stimulating corporate entrepreneurship (Crouhy et al., 2006, Belmont, 2004). Empirical research has provided evidence that ERM enables a firm to be more profitable, which then reduces the possibility of financial distress (Pagach and Warr, 2010). ERM could increase the financial performance and add value in the financial market by reducing the cost and avoiding bankruptcy (McShane et al., 2011, Baxter et al., 2013).

Risk management has a correlation with business performance, reducing financial cost and thereby increasing profit. Given that the goal of companies to maximise profitability, reducing cost by managing risk is essential helping the company to increase profit. Smith and Stulz (1985) presented empirical evidence that risk management can assist in reducing taxes. This evidence has been supported by Dolde (1995), who found a positive and significant relationship between taxes and risk management. Nance et al. (1993) and Mian (1996) also found that statistically there is a significant positive relationship between tax credits and the use of risk management instruments.

In the UK, it is perceived that risk management is an integral part of corporate governance. The Turnbull Committee and Comprehensive Performance Assessment (CPA) have recognised that internal control demands excellent risk management practices; therefore, CPA must be applied in the local authority agenda (Collier, 2009). Risk management is crucial for corporate governance due to three reasons: firstly, risk management influences directors in managing the operations of the firm; secondly, failures of risk management have great impact on the company, such as personal liability; and lastly, managing risk is important to reduce cost in the firm (Farrar, 2008b).

Moreover, previous research has found that the relationship between risk management and corporate performance is significantly positive, through investment innovation (Andersen, 2008). Additionally, the effectiveness of risk management can decrease corporate collapse by reducing the total cost of capital; therefore, investments in the economy can improve (Andersen, 2008). Risk management can create investors' confidence in long-term investment due to stable cash flow.

Risk management can eliminate the probability of financial distress of a company. Therefore, companies plan their investment strategies in order to reduce financial trouble, which helps them in making decisions on optimal capital and good ownership structure (Stulz, 1996). Risk management can also reduce bankruptcy through efficient cost management, as a result increasing firm value (Stulz, 1996).

2.6 Corporate Reputation

Reputation refers to company image, which includes credibility of the firm and the quality of the firm (Fombrun, 1996). Reputation is part of company assets for the stakeholders (Bromley, 2000), which is a reflection of the firm by social evaluation (Deephouse and Suchman, 2008). A positive of perception by stakeholders create the reputation of the company (Pfarrer et al., 2010). Firm reputation of company information affects the perception of stakeholders which could lead to companies' performance (Dolphin, 2004, Halpern, 2001). Corporate reputations have two aspects: perception and reality (Schultz and Werner, 2005). Perception refers to the all the company information that is perceived by stakeholders. Reality relates to the actual information of the company including procedures, systems, policies and performance of the company. A prior study describes reputation as the valuation of the company by the stakeholders and has implications toward the reaction of investors (Fombrun, 1995).

Corporate reputation is an intangible asset that is a value driver and has a competitive advantage for firm performance (Iwu-Egwuonwu, 2011). The essential wealth of many companies is tied up in their intangible assets. In recent years, companies have focused on intangible assets as the major value driver: 70 to 85 percent of the focus is on tangible assets (Hand and Lev, 2003). There are many intangible assets such as reputation, brand, intellectual capital, corporate culture, goodwill, and the quality of management systems (Gardberg and Fombrun, 2006). Many companies have become

aware of the advantages of being concerned with developing and maintaining a quality reputation. In agreement with Iwu-Egwuonwu (2011), previous literature, i.e. Fombrun (1995) has highlighted the understanding that corporate reputation would possibly quantify overall firm value by dissecting both intangible assets and components of overall firm value in a corporate's market value. Ultimately, the rough estimation of total intangible assets would influence market beliefs, which implicitly effects the value for firms' future earnings potential (Brynjolfsson et al., 2002).

Furthermore, GCG enhances the quality of corporate reputation, which in turn increases the financial performance and market value of the organization. Ljubojevic and Ljubojevic (2008) suggested that corporate governance is recognized as necessary for maintaining an attractive investment climate, which is characteristic of highly reputable and competitive companies. One of the most critical strategic and enduring assets of any corporation is a good reputation. A good reputation positively impacts a firm performance (Hammond and Slocum, 1996). According to accounting literature, a good corporate reputation creates an enormous amount of wealth and goodwill.

A good reputation has a positive relationship with firm performance. Prior studies have furnished empirical evidence that corporate reputation has a positive correlation with superior earnings quality (Tan, 2008). This study also found that corporate reputation helped in producing superior total sales in Chinese public companies (Tan, 2008). Moreover, Chung, Eneroth and Schneeweis (2003b) suggested that a firm's reputation and the price of its product are the same as the value of the firm. They also found that UK and US firms that have better reputations outperformed those in the lower ranks of reputation in terms of return on total equity (Chung et al., 2003a). Another study revealed that investors make abnormal returns when they purchase stocks of firms with a significant reputation (Brammer et al., 2006). Intangible assets in firms such as goodwill are necessary assets because of their reputation-enhancing qualities (Clardy, 2005). Black et al. (1999) suggested that intangibles such as firm reputation contribute to the market value of a firm's stock. Good corporate reputation significantly improves firm performance (Ghose et al., 2009).

Corporate reputation is also related with strategic value in a company (Dierickx and Cool, 1989). Prior research suggested that corporate reputation has a positive impact on financial performance (Schultz et al., 2001). Some empirical studies have also found that

value creation has been influenced by corporate reputation (Vergin and Qoronfleh, 1998). Regression analysis also showed that the relationship between the stock market and reputation is positive (Srivastava et al., 1997). A good reputation also maintains and increases share value (Jones et al., 2000). Brand equity is determined by corporate reputation (Iwu-Egwuonwu, 2011). This means that a strong reputation is a necessary foundation for a firm intending to beat its competitors. Additionally, reputation could enhance financial performance, as well as sustaining its existence. Furthermore, Schwaiger (2004) suggested that corporate equity is determined by corporate reputation.

De Castro et al. (2006) suggested that corporate reputation can be differentiated into three main areas: managerial reputation; financial reputation; and product reputation. As an intangible asset, corporate reputation also creates an essential strategic competitive benefit by reducing competition, creating mobility barriers, charging premium prices, reducing operating costs and attracting talent (Caves and Porter, 1977, Vergin and Qoronfleh, 1998, Fombrun, 2008). Enhanced corporate reputation, which is called "creative capitalism" by Bill Gates, serves as a corporate governance model because a company is required to make huge profits to ensure that the company can provide incentives to its employees. This recognizes that having to have incentives in an organization is therefore good for attracting customers and good for corporate reputation (Hemphill, 2010). Previous research suggested that corporate reputation reflects customer trust and the trust of other stakeholders, therefore making employees more productive and increasing benefits (Rose and Thomsen, 2004).

A good reputation increases the confidence of investors that managers will act in ways that are reputation-consistent, thus are influenced to make more investments (Fombrun, 2005). Consequently, confidence among investors could increase firm value. Bond rating is also a proxy for the measurement of corporate reputation. This measure provides valuable information for potential investors about the quality and marketability of bonds issued to help support potential investors in making investment decisions (Brealey, 2014). These ratings are issued by rating agencies such as Moody's, Standard & Poor's (S&P) and Fitch. Bond-rating is a judgement regarding the ability of a firm to make payments on time as scheduled (Pogue and Soldofsky, 1969). These ratings are important for the transmission of information in the debt market, as well as ensuring investors' trust in firms and financial pricing obligations (Becker and Milbourn, 2008).

For instance, Becker and Milbourn (2011) state that the reputational mechanism appears to work best when the company is achieving good quality in corporate rating. Moreover, credit rating also could help in providing positive effects of competition among equity analysts (Chevalier and Ellison, 1999). For example, Kacperczk (2009) found that good firm rating was influenced by reputation and equity analysts; thus, influences the decisions made by firms (Mailath and Samuelson, 2001). They explain that achieving the objective of a good bond rating is pivotal to provide investors with indications of investment quality, which is indicated by the rating symbols.

According to Moody's bond rating, the symbols as described below, range from the highest investment quality to the lowest investment quality. A rating of AAA (triple A) means that the bonds are of the best quality with the lowest risk, and generally, the interest payments are covered by the stable margin of the firm. Besides, the principal is secured. Next is AA (double A) rating, which represents high quality by all standards, but lower than the best bond quality due to fluctuation in the margin or possible long-term risk when compared to the AAA securities. A single A rating indicates attributes of good investments and capability of fulfilling payment obligations. The principal and the interest will likely be maintained against any impairment in the future. Bonds rated with BBB (triple B) are considered to be of a lower-medium grade and indicate ability to meet obligations to pay the principal and the interest which are sufficiently secured at the present, but speculative in the long term (Pogue and Soldofsky, 1969). These ratings are essential for the transmission of information in the debt market, as well as providing investors with indications of investment quality.

The Indonesian rating agency, PEFINDO, also has definitions regarding the symbols for bond rating, ranging from the highest to lowest investment quality. The symbols are described as follows.

First, the AAA (triple A) symbol means that a debtor has the highest rating assigned by PEFINDO, where the debtor's capacity to meet its long-term financial commitments relative to that of other Indonesian debtors is superior. Second, a rating of AA (double A) means that a debtor differs from the highest rated debtors only to a small degree. It has very strong capacity to meet its long-term financial commitments relative to that of other Indonesian debtors. Third, a single A rating is the symbol indicates that the debtor has strong capacity to meet its long-term financial commitments relative to that of other

Indonesian debtors. However, the debtor is somewhat more susceptible to adverse effects of changes in circumstances and economic conditions than higher rated debtors. Fourth, a rating of BBB (triple B) means that the debtor has adequate capacity to meet long-term financial commitments relative to that of other Indonesian debtors. Nevertheless, adverse economic conditions or changing circumstances are more likely to lead to a weakened capacity of such a debtor to meet its financial commitments. Fifth, a single B rating means that a debtor has weak capacity to meet its long-term financial. The commitments relative to that of other Indonesian debtors; adverse business, financial or economic conditions would likely impair the debtor's capacity or willingness to meet its financial commitments. Sixth is the CCC (triple C) rating, which means that a debtor is currently vulnerable and is dependent on favourable business or economic conditions. Seventh, a debtor rated with a single D had failed to meet one or more of its financial obligations, whether rated or unrated, when the financial obligations became due.

A previous study revealed that the bond rating provides essential information for investors' efficient decision-making (Bowe and Larik, 2014). Bond rating is also necessary for corporate borrowers due to their general unwillingness to increase the ratio of leverage if the bond rating is below single A status (Pogue and Soldofsky, 1969). Pogue and Soldofsky (1969) explain that the credit rating performs a function of critical importance to the firms. The positive link between good corporate reputation and high credit rating is econometrically robust and provides growth in overall market share patterns.

2.7 Firm Performance and Firm Value Concept

2.7.1 The concept of firm value

The effectiveness of a firm and its management is essential from the establishment of the firm itself (Armistead et al., 1999). A firm is established to achieve certain goals and targets, which are traditionally perceived as creating, increasing and sustaining wealth (Dyllick and Hockerts, 2002). Concepts and techniques should be applied to assess whether a firm is able to develop the effectiveness of a firm. However, the concept of a firm's effectiveness is a complicated concept. It is abstract to some extent and involves time dimensions (Steers, 1975). The term 'performance measurement' is commonly used to refer to the system by which the effectiveness of a firm is assessed. The system should

define the objects, targets, and goals, measures, and time dimensions of performance measurement (Neely et al., 1995).

Value has been defined as the ultimate goal of all of a firm's activities (Damodaran, 2006). All financing, operating, and investment decisions of management are expected to increase the total value of a firm. Value reflects the utility or benefits gained from goods, services or objects (Rashid, 2008). In economics and finance, value refer to the price of good. Theoretically, it is essential for a company to increase its value in the long term to maintain sustainability (Morin and Jarrell, 2001). Morin and Jarrell (2001) also mentioned that value has four components: valuation; strategy; finance; and corporate governance. Valuation is the key driver of value and is connected to corporate value and business strategy; therefore, profitability in the company will increase.

Based on management theory, value can be defined as a fundamental framework for making better business decisions (Morin and Jarrell, 2001). Firm value can be described as the amount of advantage in the firm for shareholders (Damodaran, 2005). The theory of valuation is an assessment of long-term security for investors. Generally, valuation has relationships with capital budgeting, risk, return and cost of capital, because it is necessary to determine the valuation of a company's market shares. In economics, accounting, and finance, firm value is defined as the ability, now and in days to come, to bring about revenue or value for money (Choong, 2009). Accounting science has developed broader concepts about value, such as current and future property value (Rust et al., 2004). There are many classifications of value, for instance: book value; intrinsic value; market value; liquidation value; and disposal value (Choong, 2009).

Hence, from the perspectives of traditional finance and accounting theories, firm value is a single objective of a firm and must be measured using quantitative financial measures (Neely et al., 1995). This view is based on the normative consensus that shareholder wealth is the single objective function of a firm and financial wealth is perceived as the main interest of shareholders (Loderer et al., 2010, Deakin, 2005, Terblanche, 2008, Damodaran, 2006). It is argued that shareholders, as the owners and main stakeholders of a firm, should be served, first and managers should act on behalf of shareholders (Jensen, 2002). Therefore, maximizing shareholder value is considered to be equivalent to maximising the value of firms (Brigham and Houston, 2009).

On the other hand, stakeholder theory maintains the argument that firms must take into account other constituents instead of solely serving shareholders (Alam, 2006). A firm cannot be separated from the members of society who constitute it, such as employees, customers, suppliers and others (Alam, 2006). Therefore, those interested parties must also be served by the firm (Alam, 2006). However, maximising the utility of such diverse interests is complex, since stakeholder theory does not provide a formula on how to choose among multiple competing and inconsistent constituent interests (Jensen, 2002). Besides, empirically, it has been found that the performance of shareholder-oriented firms is better than that of stakeholder-oriented firms (Loderer et al., 2010). The objections from some economists and scholars about the relevance of shareholder value or firm value the single objective of a firm. However, this study argues that the best focus of a firm is to optimise shareholder value or firm value.

As the wealth of shareholders is the focus, financial measures are commonly used to measure firm value or shareholder value. Financial or quantitative measures are perceived to be the main interest of shareholders (Brignall, 2007). The benefit of using financial measures to determine shareholder value is the objectivity of these measures in valuing an object. It is also argued that, for public companies, the share price is the best proxy for shareholder value since it represents the wealth of shareholders (Brigham and Houston, 2009, Damodaran, 2006).

However, measures of firm value are not as simple as the concept of share price. The concept of firm value itself is not a single concept (Venkat and Prahalad, 2004). It depends on the point of view and the usage of the concept. From the perspectives of finance and accounting, firm value has been divided into many categories such as book value, market value, intrinsic value, and liquidation value (Aswath, 2005). This thesis focuses on two concepts of firm value, namely: market value and intrinsic value, as these are commonly used and also relevant for this study. However, a summary of the other concepts is also presented.

2.6.1.1 Book value

Book value is mainly taken from the accounting point of view (Aswath, 2005). The term ‘historical cost’, which is the recorded value of an asset in the balance sheet, indicates the book value. It reflects the purchase price of an asset (Aswath, 2005).

This value has many weaknesses for use in valuation. It cannot be used to assess the quality of management decisions, as it only reflects past decisions, and so it is called sunk cost (Brigham and Houston, 2009). The future business of a firm is also not completely described by book value. Investors are not only willing to buy the real assets of a firm, but also the prospect and the whole business of a firm (Penman, 2010). Unfortunately, the book value may not give a proper prospective or complete picture of a firm. Book value may also not be relevant, as it does not show the current or selling value of a firm (Godfrey et al., 2006). Hence, shareholder wealth cannot be determined using book value. Moreover, book value is produced by accounting engineering and it is easy for managers to manipulate accounting numbers to maximise their own interests at the cost of shareholder wealth (Penman, 2010, Mir and Seboui, 2006).

However, book value may be used as an anchor for valuation. The anchor value is beneficial in protecting investors from mispricing (Penman, 2002). Thus, many intrinsic valuation methods have selected book value as an anchor in order to determine the real value of a firm (Penman, 2010). There is also evidence that book value has a high correlation with market value (Keener, 2011). Book value in accounting can be described as the price of assets/debts after deducting depreciation (Book value = Price of an asset / Debt – Depreciation).

2.6.1.2 Intrinsic value

Intrinsic value is a concept used to show the real value of assets and to prevent the mispricing of assets (Penman, 2010). Intrinsic value is considered the value of an investment that is justified by the information about its payoffs (Penman, 2010). Intrinsic value is also a fundamental value that investors try to discover using fundamental analysis (Brigham and Houston, 2009).

Using intrinsic value to determine shareholder value may prevent investors or analysts from paying excessive prices on an asset (Abhayawansa et al., 2015). Intrinsic value is an anchor value that can be used to project the (true) value of an asset (Abhayawansa et al., 2015). Intrinsic value also represents the future potential benefits that an asset may generate during its economic life (Abhayawansa et al., 2015). Nevertheless, fundamental analysis to discover intrinsic value is complicated and not free from bias (Penman, 2010). As it is only a projection, inherently potential bias and errors may occur. The precision of fundamental analysis to present the (true) value of the assets

depend on the validity, accuracy and amount of information, as well as the technology employed (Penman, 2010). Despite its weaknesses, fundamental analysis is able to reduce uncertainty, as analysts need to consider factors that may affect intrinsic value; and intrinsic value itself is valuable for determining the (true) value of an asset (Penman, 2010).

Financial reports are commonly the main sources of information about the factors or drivers of intrinsic value (Abhayawansa et al., 2015). Financial reports depict the whole process of value creation within a firm (Abhayawansa et al., 2015). Therefore, the intrinsic value of a firm can be projected using the numbers reported in financial reports. However, creative accounting or earning management practices have distracted investors or analysts from capturing intrinsic value. In such cases, investors or analysts need to equip themselves with the skills and ability to uncover those practices.

The accounting-based measures and market-based measures approaches are commonly used as technical devices to measure the intrinsic value of the shareholder value (Terblanche, 2008, Brignall, 2007). The measures of return on investment (ROI), ROA, free cash flow (FCF) and cash flow return on investment (CFROI) are measured using accounting numbers that are disclosed in financial reports (Kim, 2006). Market-based measures use market valuation to measure shareholder value; earning per share, market value of equity, market capitalisation, market return/share return, residual income, economic value added (EVA), market value added (MVA) and Tobin's Q are all examples of measures of the market-valuation approaches (Brignall, 2007, Terblanche, 2008). Although these measures are categorised as market-based measures, they depend on accounting data as input for the purpose of computations.

Nevertheless, accounting-based metrics have been criticised since they do not reflect cash flow streams and are prone to being manipulated by managers (Terblanche, 2008). Moreover, accounting numbers do not reflect the value creation of firms because traditional accounting uses the historical cost basis to measure the value of firms (Bauer and Hammerschmidt, 2005). Therefore, it is common that the market value is very different from the book value of a firm (Chen et al., 2005).

Since the accounting-based measures fail to reflect value creation, Bauer and Hammerschmidt (2005) proposed using customer lifetime value (CLV) to measure shareholder value (Berger et al., 2006). CLV uses the customer orientation concept to

measure shareholder value. From the perspective of CLV, the value of a firm depends on the cash flow streams generated from individual customers (Berger et al., 2006). Although this concept is interesting, this valuation is still a paper concept and comprehensive practical guidance does not exist. The value of firms is still perceived to be identical to the current value of the stock price (Loderer et al., 2010).

Intrinsic value can be measured using a mathematical equation that produces a single measure that gives a quantitative value for the asset/debt level. Investors find this measure useful and easy to understand. This equation is:

$$V = PV = \frac{Principal}{(1 + r)t} \tag{2.1}$$

where:

V = intrinsic value

PV = present value

Principal or present value = expected cash flow, net income, dividends or interest over the period

r = required rate of return of the investor or cost of capital of the firm

t = time period to discount (Choong, 2009)

2.6.1.3 Market value

The main problem with intrinsic value is its subjectivity in presenting firm value (Penman, 2010). It mainly depends on the skills, belief and perception of the analysts or investors, as well as the methods employed to determine the value. The market value of a firm, or shareholder wealth, is perceived to be a close approximation of intrinsic value, as it is unobservable (Choong, 2009). Choong also explained that in finance, market value is considered the weighted average of all investors' intrinsic values (Choong, 2009).

Market value as represented by stock prices is the most relevant concept of firm value (Damodaran, 2006) and a close approximation of intrinsic value (Choong, 2009). Market value reflects all short-term and long-term decisions made by a firm. Meanwhile, accounting measures as used in intrinsic value and book value may only represent the effects of current operational decisions (Myers and Majluf, 1984). Market value also reflects the business prospects of a firm as it reacts to any information on regarding the

firm and the industry (Dos Santos et al., 1993). Hence, it can be said that firm value or share price is a function of the long-term prospects and the whole business of a firm.

All accounting information is also reflected in market value. Market value reacts to any relevant information published in financial reports (Godfrey et al., 2006). As investors are assumed to be rational and markets efficient, any bad or good news in financial reports is directly responded to by investors through their investment decisions in the capital markets (Malkiel and Fama, 1970). Therefore, share prices can be expected to absorb the information published in accounting reports in a timely and accurate manner. Additionally, market value is objective and observable (Damodaran, 2006). Market value is determined by the competitive marketplace. Market value can be described mathematically as follows:

$$MV = WnVn \tag{2.2}$$

where:

Wn = wealth of nth investor as a proportion of the wealth of all investors

Vn = intrinsic value of the assets/debts to the nth investor

N = total number of investors (Choong, 2009)

A measurement formula that is in use is:

$$\frac{Equity\ market\ value\ +\ Liabilities\ book\ value}{Equity\ book\ value\ +\ Liabilities\ book\ valu)} \tag{2.3}$$

One of a company's performance measurements is to use market value. In this research, Tobin's Q is used as a proxy for firm performance. Tobin's Q is often used as a measure of the relationship between corporate governance and firm performance. Tobin's Q can also measure value-added management using the Q ratio for investment in the future. Tobin's Q is a good valuation for market value. For instance, Yermack used Tobin's Q to measure the effectiveness of corporate governance in order to evaluate board performance (Yermack, 1996). Gompers, Ishii and Metrick also suggested that firms which have strong shareholders increase their performance with a rise in Tobin's Q (Gompers et al., 2003).

2.8 Corporate Governance and Firm Value

One of the individual corporate governance principles that attract the attention of researchers is the characteristics of the boards of directors, such as its size and the independence, experience and tenure of board members (Zahra and Pearce, 1989). The size of the boards is important as a control and monitoring mechanism (Cheng et al., 2008). Larger companies require a greater number of board members to ensure that control and monitoring are placed appropriately and to gain more access to resources (Kiel and Nicholson, 2003). On the other hand, the independence of board members is argued to improve the performance of a firm, as independent board members can establish external linkages (Gani and Jermias, 2009, Hung, 1998) and reduce agency cost as they will be able to minimise opportunistic behaviour of managers (Kiel and Nicholson, 2003), provide professional consultations with managers (Chang-Jui, 2011), and strengthen and assist strategy development and implementation (Hung, 1998, Gani and Jermias, 2006, Gani and Jermias, 2009).

A GCG system has a positive impact on the effectiveness of a firm, which influences competitiveness, the structure of capital and labour markets (Maher and Andersson, 1999). Furthermore, GCG also improves investors' trust, helps to protect minority shareholders and creates good relationships between workers, creditors and stakeholders (Adjaoud and Ben-Amar, 2010). It is an essential requirement for sustainable economic growth (Maher and Andersson, 1999). Maher and Anderson (1999) suggested that a GCG framework provides benefits, as the company can control and monitor shareholders as well as controlling the expense activities of other stakeholders. In addition, GCG also contributes to the efficiency of management and consequently increases firm performance (Claessens, 2006). Empirical evidence in the USA and Korea revealed that GCG leads a higher rate of return on equity, higher valuation, sales growth and higher profitability (Gompers et al., 2003, Joh, 2003).

GCG also contributes to rising firm value by reducing agency costs in companies (McKnight and Weir, 2009). GCG with shareholder rights has better influence on management, thus enhancing shareholder wealth and increasing firm performance (Chugh et al., 2010). Corporate governance from the shareholders' perspective has four standard methods of assessment: firstly, independent and transparent board members are very important for evaluation. Secondly, shareholders have equal voting rights and a free

market. The third is that there should be transparency in financial reporting, including good internal control. The final method is having an independent committee to decide management compensation, as compensation is determined by performance.

2.8.1 How corporate governance can increase firm value

The explanation in the literature of the relationship between corporate governance and firm performance uses a mathematical model. According to Hermalin (2013), GCG potentially creates good performance, which is reflected in this mathematical model. The assumption is that investors are dealing with a single manager. The manager's utility is:

$$\mu = D + \upsilon (R - D, g) \tag{2.4}$$

where R is the firm resources, D denotes the amount the manager diverts and uses profits that are unproductive from the firm's perspective, υ is $R^2 = R$, and g is a measure of the strength or effectiveness of the monitoring and auditing system in place, some measure of the strength of the incentive given to the manager or some index of governance strength (e.g., as proposed by Gompers et al. 2003).

Additionally, those governance structures also operate to reward the manager for good behaviour. This is consistent with better performance being better rewarded; assume $\upsilon_1 (., g) > 0$ for all $g > 0.33$. The analysis is straightforward. Assume that for any g, there is a unique value of D that maximises the manager's utility, which can be solved:

$$Max\, {}_{D}^{D} + \upsilon(R - D, g) \tag{2.5}$$

Stronger governance increases the governance parameter, which then reduces the agency behaviour. This supports a behaviour agency model which states that agency behaviour has implications for the firm's performance (Wiseman and Gomez-Mejia, 1998, Amihud et al., 1983), which leads to maximising firm value (Jensen and Meckling, 1976, Ruan et al., 2011).

2.9 Corporate Governance Practice in Other Emerging Countries

Emerging countries carried out very different institutional and economic reforms to constructing market economies, thus becoming involved in the international markets and improving their domestic capital markets. Their objective is to increase the economic growth when there was high information asymmetry among owners, particularly for the majority and minority ownership, and weak legal protection of minority shareholders (Stapledon and Stapledon, 1997). With the influence of different ownership structure, legal systems and their related company and corporate law, the development and structure of capital, and the systematic political and economic institutional rules and regulations help to characterize the corporate governance systems in the emerging economies (Vitols et al., 2001)

In Malaysia, Bhatt (2017) found that GCG practice significantly influenced the performance of the firm, which shows marked improvements, especially after the implementation of the Malaysian Code on Corporate Governance 2012 (MCCG). The sample collected from 113 listed companies in Malaysia indicates that the firms with strong corporate governance outperform compared to the firms with weaker governance structure. This finding highlights the fact that GCG practice could also enhance government agencies; thus, preparing the country to face uncertain market demand legally, as well as the economic reforms at country level. One of the MCCG principles also emphasizes the risk management context in order to provide a sound framework in managing risks (i.e. to strengthen the function of an internal audit (Yatim, 2010). In a different setting, Klapper and Love (2004) highlight that the relationship between corporate governance and market valuation and operating performance has been strongly supported. The findings were completely compensating for the present of GCG structure to improve and establish the country's policymaking. These reforms underscore the importance of further investigation of corporate governance issues within the context of emerging markets, particularly when coming to the task of reforming the legal systems in a particular country.

Furthermore, it is undeniable that domestic and external forces are also influential on the corporate governance guidelines in emerging countries. While forces like globalization, financial market crises, the actions of foreign investors, and the opening up of financial markets are often cited as major factors influencing country-level corporate

governance reforms, there are signals for the government to establish their commitments for improving its corporate governance system (La Porta et al., 2000). Domestic forces, on the other hand, also influence the way in which corporate governance reforms are undertaken in a particular country. The attention is pivotal if the firm or country aims to increase efficiency levels in the corporate governance system (Aguilera and Cuervo-Cazurra, 2004). Important strategies include providing strategic monitoring mechanisms and appropriate incentive schemes which could improve corporate governance practices (Aguilera and Cuervo-Cazurra, 2004).

These considerations have been introduced and implemented in the corporate governance system in Bangladesh in order to ensure fairer, transparent and efficient domestic capital markets, which would attract more potential investors and create larger amount of investment (Biswas, 2012). Referring to the OECD guideline as the benchmark, the weakness of the existing CG system and practice in Bangladesh has been improved, thus providing a broader reform to make the corporate governance framework more effective and coherent (Biswas, 2012).

In Vietnam, the effectiveness and the establishment of corporate governance system still needs to be upgraded. There are inconsistencies and conflicts in the law and regulations that impede corporate governance effectiveness, both at firm and country levels. For instance, the Securities Trading Centre needs to be upgraded to stock exchanges by reforming the roles of these organizations via the process of clarification and upgrading to the status of self-regulatory organizations. Currently, there is no rules and regulations of the informal market, so investors are not protected in both official and unofficial markets (Vo and Phan, 2013). Therefore, in order to improve and attract both domestic and foreign investors, the investment environment needs to be well regulated and more transparent, thus enhancing the Vietnamese firms' understanding in relation to the development of a flexible, dynamic and efficient corporate governance mechanism.

In the Philippines, the corporate governance framework is more dynamic and open, and has achieved a more developed capital market with inclusive development of financial aspects (Echanis, 2006). Elements such as flexibility to accommodate and incorporate its corporate governance frameworks to carry out its corporate mission, contributes to the development of the Philippine's economic stability and a more progressive society. However, to date, the ratio of stock market capitalization to gross

domestic product (GDP) in the Philippines is still not adequate to digest all the potential supply of new shares to finance the rapid growth of firms and corporations (Praptiningsih, 2009). This indicates that all elements such as the board's compensation in all the Philippine corporate sectors including: (i) publicly listed, (ii) Government-owned, (iii) foreign-owned and (iv) privately owned, are integrated indicators that will provide a good strategic corporate governance framework in order to enhance their firm's performance and sustainability to maximize shareholders' value.

As one of the emerging countries, Thailand is likely to show that its firms and corporations are experiencing management misconduct. The decision for remaining with the Western models of corporate governance practices, however, ignores the impact of high family ownership concentration, which is common in Thailand (Kanchanapoomi, 2005). Another factor impacting on Thai corporate governance is the country's weak legal system. Thailand has a relatively high incidence of companies controlled by owners who are also politicians. This leads to the issue of director integrity and unbiased enforcement

Another emerging country is Turkey, where corporate governance has become a main issue among domestic and international companies. Their policies relate to good corporate governance and the future of the firm. Turkey has a problem related to the low level of firm transparency (Newell and Wilson, 2002). One of the main aspects of good corporate governance is transparency, which includes disclosure of information to stakeholders. It is important for stakeholders to provide the information of regulation or rules for understanding of the business process. The advantage of transparency is that it becomes easier for stakeholders to control and monitor the activities of firm, avoiding manipulation of financial reports. Therefore, a company with good of corporate governance will give more information that is accountable and transparent. The accurate and independent information can be used to control and monitor performance of firm. Investors and stakeholders will be more confident if they have enough of the information about the firm. With weak corporate governance, it becomes difficult to detect the mistakes in the company, thus causes lack on company performance.

South Korea was one of the countries that experienced the economic crisis of Southeast Asia in 1997. Economic growth was very bad, and one of the causes was identified as bad corporate governance. This drove South Korea to take note of good corporate governance. In South Korea, some companies still limit business to family,

which may not adhere to the principles of good corporate governance. They do not provide information about the company to outside parties; this will affect shareholders. The principles of good corporate governance are very useful for shareholders or investors in making decisions, for example, the chaebol company, which runs a family business. After the economic crisis companies in Korea began to implement good corporate governance. For example, LG Electronics, KIA and Hyundai companies have applied the principles of good corporate governance. Transparent information from the company can influence the increase in stock prices in the company, which can increase the value of the company. Moreover, financial statements must be controlled by a qualified auditor so that there is no manipulation in accounting. Auditor quality is important for the firm to produce good financial reports and solve agency problems in emerging markets (Ahmadjian and Song, 2004).

In Mexico, not all companies practice principles of corporate governance. Most companies use traditional methods of management of governance that is controlled by some groups. Companies in Mexico have shareholders that come from the executive of firm, centralized companies with family relationships and board of directors represented only by one large shareholder (Ramos, 2000). The economic crisis that occurred several years ago prompted companies to consider good corporate governance, including protection of investors. In this case, the investor is not limited to a group or family members, but to outsiders globally. Moreover, an important part of corporate governance is transparency, which will affect the company performance. In accordance with theory, the principle of corporate governance has four elements. Firstly, fairness refers to a decision taken in accordance with the interests of many people, for example to shareholders and investors, decisions taken are not for the interest of one group. Secondly, transparency in this case concerns the disclosure of information that occurs in the company, no information is covered including information on risk management. This will affect the trust of a business by investors or shareholders. Third is accountability, meaning that there is a guarantee of company activities that can be trusted by professional management in their reporting, and all activities can be held accountable. Fourth is related to responsibility. In this case, all parties involved in the company can be fully responsible for each task. Based on the GCG principle above, it is appropriate for companies in Mexico to pay more attention to transparency.

Based on the evidence discussed in a few emerging countries, it underscores that the corporate governance discussion has provide a significant contribution to the literature. However, there is a lack of consensus regarding a common, all-encompassing different issues, understanding and practices of corporate governance system. But, a common focus is on the mechanisms and activities that are necessary to govern corporations effectively. The analysis, however, provides room for investigation of the effectiveness of the corporate governance practice in the context of emerging countries, thus limiting the misconduct of their corporate governance practice. Further investigation is important in order to suggest an appropriate governance framework to encourage the efficient use of resources, country and firms' risk management practices, promoting a good reputation through good internal and external control.

2.10 Corporate Governance Practice in Developed Countries

The existing empirical literature on corporate governance issue relates mainly to developed countries. The effects of corporate governance on firm performance may vary in advanced countries due to cultural, economic and social determinants (Haniffa and Cooke, 2002). Therefore, corporate governance in developed countries has attracted considerable attention in academic research (Mallin, 2005, Reed, 2002). The concept has been explained using various theories (Christopher, 2010). In the context of developed economies, United Kingdom and the United States have led other developed countries to adopt a corporate governance system. These countries established the rules and regulations governing the capital market, widely diffused ownership structure and, heavy reliance on markets to guide their companies (Tosuni, 2013). However, although the two countries fall under the same category, there is a significant difference between them in terms of corporate governance practices. For instance, the Anglo-American model of corporate governance underscores the shareholder interests whereby the shareholders elect the non-executive, or independent, directors of a single-tiered BOD. In most cases, they hold key positions such as compensation and audit committees and outnumber the executive directors. Apart from that, the markets are generally able to reward or punish firm performance (good or bad) (Shleifer et al., 2000). However, this practice gives more discretion to managers due to shareholders being small in number and dispersed, and not engaged in monitoring or other corporate governance activities. Among other reasons is

the free-rider issues whereby the shareholders are not actively involved in corporate governance activities. This is supported by Shleifer et al. (2000) who argued that countries providing superior legal protection usually have dispersed and small shareowners, who don't have rights including monitoring and supervision.

In contrast, the Japanese corporate governance system has received more attention from researchers. They agree that the Japanese mentality and culture has strongly influenced their corporate governance principles and system. One feature of corporate governance in Japan is that good practice has been encouraged by employees and suppliers (Becht et al., 2003). Japan has implemented a series of corporate governance codes, most recently that effective in June 2015. The role of the corporate headquarters has played a significant part, particularly in long-term management plans, and monitoring strategies. Now, the new Japanese governance code has caused companies to better allocate skills and experience (Nonaka and Takeuchi, 1995). This will also require corporations to rethink their talent pipelines and risk information in their annual reports, which may involve the company's level of risk (Konishi and Ali, 2007). This execution may prove challenging for many Japanese corporations, especially between those with deep industry experience and those with knowledge in different disciplines. However, the establishment of communication between BODs, creditors and shareholders, and customers and trade partners can lead to improvements that would strengthen the organizations.

In the western world, the understanding of corporate governance reflects the importance of the market in exercising corporate control. In European countries, financial market liberation requires clearer corporate governance practices, in part because of the use of funds from private sources including superannuation funds (Lannoo, 1995). With the progress shown by the majority of the western countries, many corporate governance practices stemming from western countries have been introduced. Corporate governance practices which have been applied include:

- the separation of ownership and management;
- the establishment of shareholders' meetings;
- BODs and supervisory boards for directing and monitoring managerial performance;
- restrictions on related-party transactions;

- minority shareholder protection;
- better corporate transparency, increasing the quality and timeliness of corporate reports and information disclosure;
- a strengthening of market regulation and surveillance, standardization of market intermediary services and improvements in investor relations;
- the 'all-circulation' reforms; and
- the effect of the implementation and enforcement of the new regulations or measures remains to be observed in practice.

However, in China despite some remaining deficiencies, the changes can only positively contribute to the advancement of corporate governance practices, in terms of prevailing international standards or norms, and they should lift investor confidence and promote the productivity and effectiveness of Chinese companies (Lin et al., 2006).

Developed financial markets, follow the outsider system of corporate governance as the shareholdings are dispersed and capital allocation efficiently takes place in these markets (Rashid, 2008). The regulatory authorities are efficient in monitoring the firm, as a market for corporate control exists. Furthermore, managers in developed financial markets have sufficient power to discipline firms and can influence the decisions making of BODs. The goal of management in these markets is to create a short-term improvement value shareholder (Wei, 2003).

According to Gompers, Ishii and Metric (2003), in developed markets, shareholders' votes, BODs and an independent Chief Executive Officer (CEO) play a pivotal role in improving firm value. The shareholders allow disciplining at the management level in order to improve the value of their shareholdings. Similarly, the BODs and CEO can also safeguard the interest of the shareholders by creating more value for them (Hillman and Dalziel, 2003). This scenario is different when shareholding in developing markets is only concentrating and following a hybrid system of corporate governance (Toru et al., 2007). Here, the block holders in the emerging financial market play an important role in monitoring the activities of a firm.

In a nutshell, in discussing the issue of corporate governance either in developed or developing financial markets, Dallas (2004) and Nam and Nam (2004) believe that various instruments can be used in order to improve corporate governance systems and

enhance the value of a firm. Economic and financial theory suggests that the instruments including shareholders' votes, the role of auditors, the role of a board of directors, the role of the CEO, the role of board size, role of CEO duality, etc., could significantly affect the value of a firm in both developing and developed financial markets (Brennan, 2006).

2.11 Summary of the Literature Review and Motivation of this Study

According to the literature review, corporate governance mechanisms have a relationship with firm value through corporate reputation as a mediating variable influencing firm value. Another important element, risk management, has a correlation with corporate reputation leading to significant impact on firm value. As illustrated in Figure 2.1, these elements provide a crucial link to firm value.

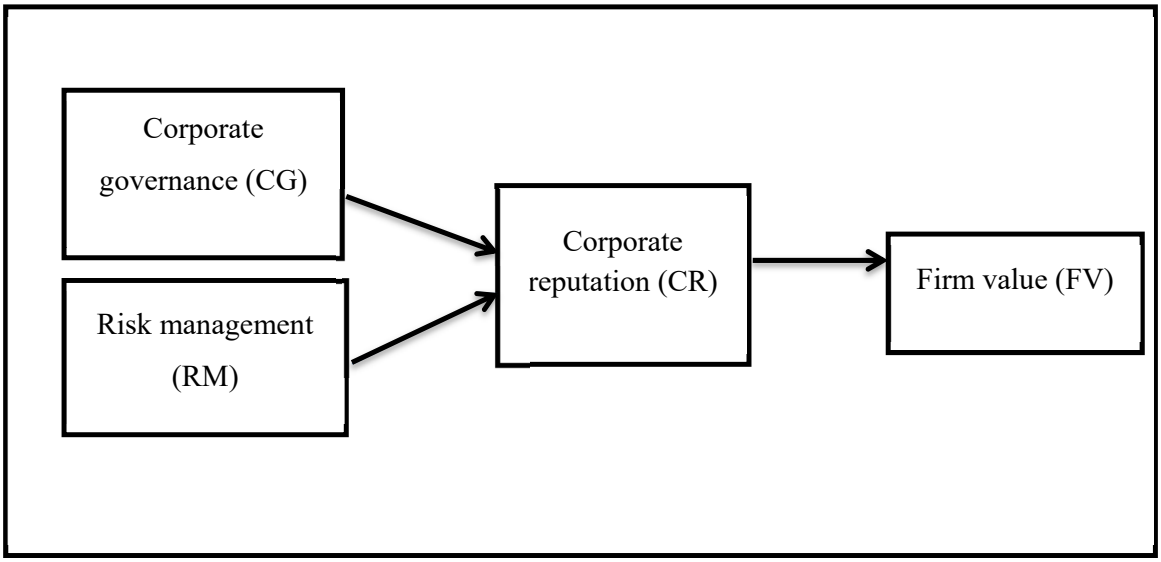

Figure 2.1 Drivers of the corporate governance mechanism, risk management, corporate reputation and their relationship with firm value

2.11.1 Summary of literature review

The objective of GCG is to improve firm performance by reducing agency problems (Mueller, 2006). Previous research suggested that GCG has a positive impact on firm performance (Ulhøi, 2007, Plessis et al., 2005, Gompers et al., 2003). GCG can increase firm performance and also enhance investors' confidence and trust. Investors believe that good governance reduces risk and increases the rate of return, therefore improving firm

value (McShane et al., 2011). In addition, good governance creates more effective production activities, with the result of more cash flow for the firm (Dechow, 1994) . Furthermore, based on the contingency theory, the relationship between corporate governance and firm performance is positive. The goal of corporate governance is to achieve firm performance through increasing shareholder value (El Mir and Seboui, 2008). In addition, a prior study found that GCG has a significant impact on firm performance in emerging Asian markets (Tseng, 2007). GCG not only maximizes the profitability of firm, but also preserves the long-term value of firms for shareholders (Velnampy, 2013b).

2.11.2 Literature gaps and motivation to this study

Based on the above literature review of previous research, a gap has been found in the literature, which can be summarised as follows.

Most research investigated how GCG is perceived to increase firm value, as it may help to reduce agency problems and build investors' confidence (Ulhøi, 2007). However, many researchers who examined the relationship between GCG and firm value focused on measures such as the board size, gearing ratio and ownership concentration ratio. Other research suggested that GCG not only reduces the risk of fraud and corporate collapse, but also creates wealth by improving financial performance (Plessis et al., 2005). Many studies on corporate governance found a positive relationship between corporate governance and corporate performance (Bauer et al., 2004, Black, 2001, Gompers et al., 2003), however, none has studied the impact of corporate governance mechanisms, risk management and firm value as the role of corporate reputation as mediating variable in the relationship. Therefore, this study is expected to fill this gap and develop further knowledge on corporate governance to improve firm performance using the mediating variable of corporate reputation.

2.12 Summary

The literature shows that previous studies revealed findings of GCG having a significant impact on firm performance. Risk management as an element of corporate governance increases firm value by minimizing financial cost and reducing cash flow problems. Risk management can also improve the performance of management by controlling management activities (Leautier, 2007).

Corporate reputation is the mediating relationship between corporate governance and risk management to influence firm performance. Previous research found that a good reputation is perceived to increase company value and reduce the cost of capital by boosting investors' confidence (Mallin, 2001). A good reputation can be thought of as an accumulation of good management practices and performances undertaken by a firm's management. Investors are more confident in the future performance of a firm if that firm has a good reputation.

This chapter has also presented corporate governance in other emerging countries such as Malaysia, Vietnam, the Philippines, and Thailand. GCG practice in developing countries is essential to improving their economic growth. Indonesian corporate governance practice differs from other countries, for example, in the system and the regulations of corporate governance. The last section in this chapter has discussed the literature gap.

CHAPTER 3: CONCEPTUAL FRAMEWORK AND HYPOTHESIS DEVELOPMENT

3.1 Introduction

As discussed in the previous chapter, corporate governance has become a crucial issue in economic growth, since the 1997 Asian financial crisis and the subsequent corporate collapses such as those of Enron, Baring Bank, and WorldCom. Therefore, to help avoid corporate failures, in 1999 the OECD developed good corporate governance (GCG) practices and a code of conduct for GCG. Subsequently, many developing countries, including Indonesia, have adopted the OECD's model in developing standards for corporate governance codes of practice.

As GCG has been confirmed as helping in enhancing firm performance (Gompers et al., 2003), this chapter explains the development of a new model for corporate governance mechanisms that could increase firm performance. Previous empirical studies show that corporate governance mechanisms have a direct relationship with and also influence firm performance. However, none of these consider corporate governance mechanisms and risk management, which are proposed to increase corporate reputations, which can also lead to an increase in firm performance. The research model developed in this study uses three elements: a corporate governance mechanism, risk management and corporate reputation, in which all of these elements have a direct relationship with firm performance. The other model developed in this study is to show that corporate governance mechanisms and risk management do have a relationship with firm performance, using the role of corporate reputation as the mediating variable. The discussion in this chapter is organised as follows: Section 3.2 discusses the theoretical foundation and the conceptual framework, Section 3.3 deals with the hypotheses development, Section 3.4 discusses the control variables used in the model and Section 3.5 concludes this chapter.

3.2 Theoretical Foundation

According to Calder (2008) corporate governance is based on some theories: the agency theory, stewardship theory, and market theory.

First, agency theory is beneficial to principles and agents, while principals delegate to agents in the task and responsibility for making decisions (Drever, 2007). Both parties have mutually beneficial agreements on rights and obligations. The function of agency theory is to identify a combination of work contracts and information systems that can maximize the functions of the principal and minimize the obstacles that arise from the interests of the agent. In agency theory, accounting information is needed to evaluate work contracts that have been agreed upon between the principal and the agent (Baiman, 1990). Evaluation will have an impact on agents to be more motivated and efficient so that they avoid moral hazard problems. The objective of this theory is to decrease agency costs in the firm (Jensen and Meckling, 1976)

Second, the stewardship theory related to behaviour in which managers act like an owner in running an organization for joint interests (Davis et al., 1997). Stewardship theory aims to achieve success as optimal as possible to enhance company performance, so that the owner has satisfactory results (Davis et al., 1997). Moreover, managers make an effort to improve the performance of companies and increase profits so that they can make a greater contribution to shareholders (Abdullah and Valentine, 2009). Manager acting like good owners can achieve the company's goals to achieve great profits. This theory aims to create a management structure with authority to make decisions and to maintain the sustainability of firms by maximizing their wealth to optimize the firm performances (Davis et al., 1997).

Third, is the market theory, which focuses more on selling shares to shareholders, which is not considered in service theory where managers act as owners or agents (Calder, 2008). Market theory refers to an assessment in the stock market to find out the existence of returns and the possibility of risks that will occur so investors can make decisions to invest (Colin, 2004). Generally, investors want to be able to maximize profits. Therefore, they need current information of company and sustainability of the firm.

As discussed in the literature review, GCG has a positive impact on firm value. Risk management can also have a positive relationship with a company's value. In addition, the essential corporate governance mechanisms and risk management might have an impact on corporate reputation, leading to an increase in firm value. Based on previous research, this study aims to investigate the effect of corporate governance mechanisms and risk management on firm value, and also the significance of corporate reputation in

mediating the relationship between corporate governance mechanisms, risk management, and firm value.

The model in this study is developed based on previous studies, with particular concern paid to investigate the relationship between corporate governance mechanisms, risk management, and firm value. This study investigates the direct impact of corporate governance mechanisms and risk management on firm value, as well as the role of corporate reputation in mediating the relationship.

The corporate governance mechanisms in this study consist of four measures. First is an audit committee, with three characteristics: the number of audit committee members, the audit committee's independence and the number of audit committee members who have financial expertise. Second is the board of directors (BOD), which has two components: the number of independent board members and the size of the board. Third are the Big 4 auditing firms or audit quality. Fourth, is the change of auditor. The other element is risk management, with two variables; risk disclosure and leverage. As the measurement of corporate reputation, this study uses bond ratings to show the reputation of a company, particularly on its perceived ability to settle its long-term liabilities. Furthermore, this study also specifies several control variables, which can also have impacts on the dependent variable, including the industry sector the firm operates in and the size of the firms.

Research into corporate governance has revealed evidence of the importance of corporate governance in improving financial performance, as well as preventing the bankruptcy of firms. However, the complex construct of corporate governance has many mechanisms by which agency problems are reduced and which could then lead to improved financial performance. Corporate governance mechanisms and risk management, as the important elements to influence good corporate reputation, create investor confidence and as a result, increase the performance of the firm. Therefore, this study examines the relationships between corporate governance mechanisms and firm value using the moderating relationship of corporate reputation.

Another essential aspect is risk management, which correlates with increased firm value through corporate reputation. The summary of the theoretical foundation for this study is presented in the conceptual framework depicted in Figure 3.1 below.

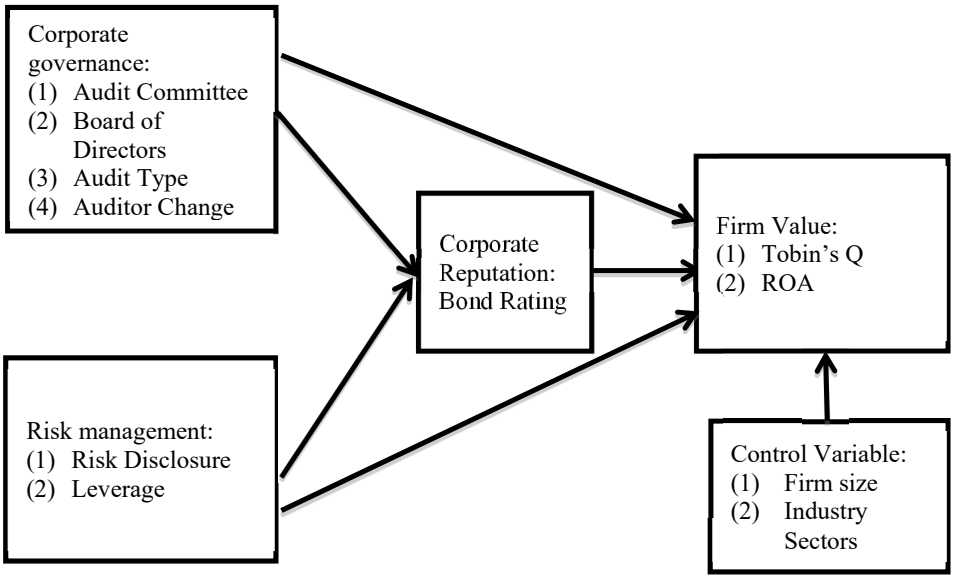

Figure 3.1 Conceptual framework of this study

3.3 Hypotheses Development

The conceptual framework above is now being used as the basis for developing the hypotheses of this study. The hypotheses are developed for the areas of the corporate governance mechanism and risk management that relate to firm value, and also the use of corporate reputation as a mediating variable of the relationship.

The hypotheses are premised on the argument that corporate governance mechanisms have a positive relationship with firm performance. From the existing literature, it is clear that there is indeed a positive relationship between corporate governance mechanisms and firm performance (Plessis et al., 2005). Based on the literature, corporate governance mechanisms can be divided into two: external and internal mechanisms. This study examines the influence of corporate governance mechanisms and risk management toward firm value in both their direct and indirect relationships. Moreover, corporate governance mechanisms and risk management has a correlation on firm value using the rule of corporate reputation as the mediating relationship.

3.3.1 Corporate governance mechanism and firm performance

In measuring corporate governance mechanisms, four measures are used, namely: the audit committee's characteristics which have three elements: the number of members

of the audit committee, the number of independent audit committee members and the number of audit committee members who have some financial expertise. Second is the BOD, which has two aspects: the number of independent board members and the board size. Third, is the quality of the audit (Big 4 auditing firms) and the last is the change of auditor or auditor rotation. The discussion about the ways each measure can influence a firm value is elaborated below.

According to the theory and principles of corporate governance, an audit committee is necessary as it can lead to efficiency in firm financial reporting (Farrar, 2008, 2008b). A committee's structure includes four elements:

- it only consists of non-executive directors;
- it consists of a majority of independent directors;
- it is chaired by an independent chairperson who is not the chair of the board; and
- it has at least three members.

The audit committee's measures follow the definition adopted from the Sarbanes–Oxley Act (SOX) Section 407. Characteristic of audit committees have three aspect, including the number of members of an audit committee, the number of independent members of an audit committee and the number of audit committee members who have some financial expertise. The members of the audit committee must come from outside directors and the non-executive directors. As mentioned in the literature, the size of the audit committee has a significant impact on increasing firm value and performance (Klein, 2002a). An audit committee with only a few members is much more efficient and effective in its monitoring, thus increasing the performance of the firm (Raghunandan and Rama, 2007). The number of members on the audit committee has a positive correlation with the performance of the company (Aldamen et al., 2012).

The second category of the audit committee's characteristics is the number of independent members on the audit committee. The benefit gained from having independent members is that they can help to prevent any internal conflict between the shareholders and the manager (Fama and Jensen, 1983a). Moreover, the independent audit committee members perform more effective monitoring of the financial reporting of the firm (Carcello and Neal, 2003b). Prior studies argued that the independence of the audit committee leads to more accurate and reliable financial reporting by controlling the

activities of the manager (Cohen et al., 2011). The possibility of bankruptcy for the company may be decreased due to the audit committee independence (Beasley et al., 2000, Abbott et al., 2002). Additionally, an independent audit committee has a positive correlation with the audit quality, as the results could improve the firm's performance (Nuryanah and Islam, 2011). An independent audit committee has a significant impact on firm performance because of the expertise the audit committee possesses. (Aldamen et al., 2012, Klein, 1998a). Better monitoring by independent audit committees indicates better quality financial reporting (Bronson et al., 2009).

The third category is the number of audit committee members who have some financial expertise, including their education and experience; a fully qualified expert in accounting and or management, but with a background and expertise in both subjects. The empirical study of Enron and WorldCom showed that in both companies, boards of directors lacked knowledge, causing the collapse of both firms (Lanfranconi and Robertson, 2002). This supports the argument that the financial expertise of the audit committee has a negative relationship with financial reporting restatement and fraud (Abbott et al., 2002). Certified Public Accountants (CPA) have reported that the audit committee has positive correlation with the quality of financial reporting (McMullen and Raghunandan, 1996). Yunos (2011) suggested that the financial expertise of an audit committee creates the accounting conservatism that impacts on the quality of the financial reporting, therefore increasing good governance (Krishnan and Visvanathan, 2008). The advantage of an audit committee knowing of accounting and financial matters does have an influence on the market value of a firm. Furthermore, a prior study argued there is a positive increase in the share price when a firm appoints new members to its audit committee who have financial expertise (Davidson et al., 2004).

The BOD is crucial for supervising managerial functions. Shareholders vote for the board to act on their behalf in monitoring the top management. The BOD has the power to make decisions and manage strategy related to any agency problems (Rezaee, 2009). A previous study suggests that the quality of internal controls is a function of the quality of the control environment, as well as the BOD and the audit committee (Krishnan, 2005).

Previous research into this issue employed two variables for measuring the BOD. The variables used by Zhang et al. (2007) were the number of independent board members and the board's size. According to agency theory, the function of the BOD is to protect

the interests of the principal owners (Hillman and Dalziel, 2003). Furthermore, the BOD can increase the shareholders' value by controlling the firm's management (Denis and McConnell, 2003). Previous studies argued that monitoring by the BOD can influence agency costs through cost reductions and so improve firm performance (Mizruchi, 1983, Zahra and Pearce II, 1989). Following Zhang et al. (2007), this study employs two measures for the BOD's characteristics: the board's independence and the size of the board.

Independent boards consist of board members who come from outside or directors who do not have any relationship with either the controlling shareholders, the managers or the other directors (Ghofar and Sardar, 2013). For these independent board members who have no relationship with the managers, their duty is to monitor the managers independently, from outside the firm. According to (Duchin et al., 2010). The independent board may able to control and monitor management, thus reducing the risk of poor decisions and avoiding corporate collapse. Additionally, an independent board can reduce the agency problems between the shareholders and management by monitoring the role of the BOD. Prior studies found that independent directors have a significant correlation with the decision-making of firms in the UK (Dahya and McConnell, 2003). Other countries, such as South Korea, found that independent boards have a positive impact on the performance of companies (Choi et al., 2007). Prior studies argue that independent boards could develop corporate competitiveness and provide new strategies for firms (Abor and Adjasi, 2007).

The size of the BOD is an essential core element of corporate governance's influence on firm performance. Jensen suggested that companies do not need to have too many members on their BOD and a maximum of eight or nine members would suffice (Jensen, 1993). Lipton and Lorsch (1992) also argued that a limitation on the size of the board makes them more effective in making decision and controlling the CEO. This implies that a large board needs more time to coordinate and communicate thus is not effective in the firm. According to the theory of decision-making, a big board size may create a lot of opinions, and thus it becomes difficult to make decisions, consequently it has a negative impact on the performance of the firm (Cheng, 2008).

In this study, a dummy variable of measurement is used for the type of auditor. According to Zhang et al. (2007), a firm hiring a Big 4 auditor is associated with good

internal controls. This implies that the auditor's quality is more reliable and that a more accurate financial report of the firm will be produced, because good quality auditors have more experience. As one objective of the internal control system is to ensure reliable financial reporting, a company with internal control problems may have complications in preparing and reporting its financial statements. Therefore, it is essential for a company to ensure that it has good internal control mechanisms. Doyle et al.(2007b) argued that smaller and less profitable firms have more internal control problems than more profitable ones and are much less likely to employ a Big 4 auditor due to their limited financial resources. Accordingly, companies not hiring a Big 4 auditor may be an indication of internal control problems.

Big 4 refers to the four largest international professional networks that offer accounting and auditing services. They are PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst and Young and KPMG. Ojala et al. (2014) suggested that a Big 4 auditor provides a better-quality audit compared to non-Big 4 auditors, due to the former having more resources. On the other hand, non-Big 4 firms have some benefits in other areas, for instance, mergers and acquisitions. Moreover, non-Big 4 firms have better quality in terms of their local market connections and generally have good relationships with local business over the long term. Big 4 auditors could influence the auditor's reputation by reducing the risk in capital, thus increasing earnings' quality (Francis and Wang, 2008). As the engagement of a Big 4 auditor might provide several indications as mentioned above, this study employs the Big 4 auditor as a proxy for the auditor's quality, which is measured by a dummy variable.

A company which has a change of auditor is described as having internal control problems (Young, 2003). A company that changes its auditor means it has some problem with its financial report. The purpose of an external auditor is to ascertain whether the financial statements are free from material misstatements, so as not to harm the parties concerned with the company. In this study, the model uses a dummy variable, where 1 refers to a company that has had an 'auditor change', while 0 refers to 'no auditor change'.

As the first hypothesis, this study investigates the impact of corporate governance on firm value. However, as described above, there are several corporate governance mechanisms identified in this study. Therefore, the first hypothesis of this study can be broken down into seven sub-hypotheses:

H1a: The number of audit committee members has a positive impact on firm value.

H1b: The number of independent audit committee members has a positive impact on firm value.

H1c: The number of audit committee members with financial expertise has a positive impact on firm value.

H1d: A Big 4 auditor has a positive impact on firm value.

H1e: A change of auditor has a positive impact on firm value.

H1f: The number of independent members of the board of directors has a positive impact on firm value.

H1g: The size of the board of directors has a positive impact on firm value.

3.3.2 Risk management and firm performance

Effective risk management has an impact on firm value because it reduces taxes and the cost of financial distress, and results in optimal investment. Based on Collier (2009), the dynamic of risk management proposes a relationship between enterprise risk management and the strategy and aim of the organisation. This must be integrated with the overall organisation structure in order to the treat risks. Effective risk management reflects good internal controls that can lead to GCG and improved firm value, as it relates to an improvement in the efficiency of a firm's operations, and hence improves the financial performance of the firm. The Institute of Risk Management also highlights the importance of managing risks either external and internal risk factors including the strategy of the firm, operational and financial. In relation to the financial risk, the organisation needs to understand the type of risk, which can influence the firms's expected returns (Kempf et al., 2014). This implies that managing risk is necessary for developing good performance of companies.

This study uses two measures of risk management, risk disclosure and leverage, which are essential for a company desiring to provide more information about its risk. Doing so makes the company become more credible, and therefore influences potential investors' investment decisions. The modern portfolio theory argues that improving risk disclosure in turn enables investors to deal more effectively with risk diversification (Solomon et al., 2000). Solomon et al., (2000) also argued that improving risk disclosure

is related to the essential information in corporate governance. As GCG has a positive impact on firm performance, accordingly, an effective risk disclosure might also have a positive relationship with firm performance. Based on the evidence from UK companies, risk disclosure provides important information so that investors can know whether a firm is a going concern or about to fail (Solomon et al., 2000). As the survival or failure of the company can be a signal for the long-term sustainability of its financial performance, risk disclosure can have a relationship with firm performance.

In this study, twelve dimensions are employed in measuring the risk disclosure index. These twelve dimensions are taken from the risk disclosure's financial instrument under the International Financial Reporting Standards (IFRS) from 2011 and 2012. The dimensions are:

1. Method of measuring exposure to credit risk
2. Adequate description of how credit risk management occurs, including provision of a clear link between quantitative data and qualitative descriptions
3. Maximum credit exposure
4. Ageing schedule for past due amounts
5. Maturity analysis of derivative liabilities
6. Sensitivity analysis
7. Impairment method and input disclosures
8. Description of the financial effect of collateral and other credit enhancement
9. Maturity analysis of derivative liabilities due
10. Disclosure of the exposure to market risk
11. Sensitivity analysis for market risk
12. Counterparty concentration profile

Leverage is the second proxy for risk management. Leverage increases stock prices for two reasons: firstly, as interest expenses are deductible, firms pay less taxes, which then decreases the cost of capital and ultimately increases firm value. Secondly, based on the signalling theory, the availability of debt provides positive information on the market position of firms requesting money for funding their prospective investments. However, the level of debt can also increase firms' uncertainty levels and the use of debt increases

the cost of capital. Hence a firm should look for an optimum level of debt or optimum capital (Ross, 1977).

The theory of the optimum capital structure is related to the weighted average cost of capital (WACC). The optimal mix of debt and equity affected by the WACC can reduce the leverage because of the interest tax shield. If the capital structure increases, there is an increased possibility of bankruptcy and as a result, the rate of return to the equity holders will also be higher. According to (Chong et al., 2009), good quality companies can issue more debt than low quality ones, as the issuing of debt can cause a higher probability of default due to debt-servicing costs, which represent a costly outcome for management. This theory argues that the highest performing firms are those with more profitable investments and so can acquire more debts, and therefore a positive relationship should exist between leverage and firm performance (Weill, 2001, Ross, 1977).

This study develops a second hypothesis, that risk management can have a positive impact on firm value. As this study identifies two essential elements of risk management, namely risk disclosure and leverage, therefore, the second hypothesis of this study can be broken down into two sub-hypotheses as follows.

H2a: Risk disclosure has a positive impact on firm performance.

H2b: Leverage has a positive impact on firm performance.

3.3.3 Corporate reputation and firm performance

As elaborated earlier in the literature review chapter, a good reputation increases the confidence of investors and they make more investments, hence leading to increased firm value. In measuring corporate reputation, this study uses companies' bond ratings as the proxy, as it provides valuable information for potential investors about the quality and marketability of the bonds issued and helps support investors in making investment decisions (Brealey, 2014). As discussed in the literature review, the definition of bond ratings is based on finance theory where a firm's bond rating is issued by independent rating agencies such as Moody's, Standard & Poor's (S&P) and Fitch. The bond rating measures provided by these agencies use the symbol AAA (triple A) for the highest standard of bonds. The AA (double A) and single A ratings refer to progressively lower standards of bonds. Such ratings are important for the transmission of information in the

debt market, as well as to ensure investors' trust in the firms and to increase the pricing of financial obligations (Becker and Milbourn, 2008).

The Indonesian rating agency also provides an explanation of its conceptual framework. For this study, the rating symbols are based on the ratings of the Indonesian rating agency, known as PEFINDO (Table 3.1).

Table 3.1 PEFINDO bond ratings

Symbol	Rating	Symbol	Rating
AAA	1	B+	14
AA+	2	B	15
AA	3	B–	16
AA–	4	CCC+	17
A+	5	CCC	18
A	6	CCC–	19
A–	7	CC+	20
BBB+	8	CC	21
BBB	9	CC–	22
BBB–	10	C+	23
BB+	11	C	24
BB	12	C–	25
BB–	13	Default	26

Referring to Table 3.1 above, firstly the AAA symbol means that a debtor has the highest rating assigned by PEFINDO. The debtor's capacity to meet its long-term financial commitments, relative to that of other Indonesian debtors, is superior. Second is the AA symbol, which means that a debtor differs from the highest rated debtors by only a small degree and has a very strong capacity to meet its long-term financial commitments relative to that of other Indonesian debtors. Third is the single A symbol, which refers to a debtor that has a strong capacity to meet its long-term financial commitments in relation to that of other Indonesian debtors; however, the debtor is somewhat more susceptible to any adverse effects from changes to its circumstances or the economic conditions when compared to a higher rated debtor. Fourth, the BBB symbol means that a debtor has adequate capacity to meet its long-term financial commitments relative to that of other Indonesian debtors; however, adverse economic conditions or changing circumstances are more likely to weaken the capacity of the debtor to meet its financial commitments. Fifth is the single B symbol, which means that a debtor has a weak capacity to meet its long-term financial commitments relative to that of other Indonesian debtors; adverse

business, financial or economic conditions would likely impair the debtor's capacity or willingness to meet its financial commitments. Sixth, the triple CCC symbol means that a debtor is currently vulnerable and is dependent on favourable conditions. Seventh, a debtor who is rated with a single D has failed to pay one or more of its financial obligations, either rated or unrated, when the financial obligations became due. From the bond rating as explained, it is easy for investors to consider the relevant companies' reputations.

Based on the arguments above, this study formulates a third hypothesis as follows:

H3: Bond rating has a positive impact on firm performance.

Corporate reputation has an influence on firm value, as a good reputation can increase firm performance. Besides that, corporate reputation also has a mediating role in corporate governance mechanisms and risk management, thus enhancing firm value. The mechanisms of the mediation are discussed next.

3.3.4 Corporate reputation as a mediating variable

The mediation variable refers to the third variable that accounts for the relationship between the independent variable and dependent variable (Baron and Kenny, 1986, Holmbeck, 1997, Aryani, 2009). This traditional approach also illustrates that the mediator variable consists of the exogenous variable, the endogenous mediator variable and the exogenous outcome variable (MacKinnon et al., 2007).

To examine the indirect relationship between corporate governance mechanisms and risk management using corporate reputation as the mediating variable, the fourth hypothesis is therefore:

H4: Corporate reputation, as a mediating variable for corporate governance and risk management, has an impact on firm value.

3.4 Control Variables

The control variables are included in the model for this thesis. They are important variables which previous research has shown to have some influence on the dependent

variables, which are not the focus of this research. Hence, it is important to include the control variables, as omitting them would reduce the explanatory power of the model (R^2).

Two control variables are included in this thesis, namely, firm size and the industrial sector of the firms. These two variables are firm characteristics which are recognised by many previous studies as having an influence on firm performance (Mehran, 1995).

3.4.1 Firm size

The size of the firm is one of the essential factors in the study of corporate governance's influence on firm performance. According to Salancik and Pfeffer (1980), small firms and large firms have different influences on their environments, where large firms have more support from their stakeholders. Moreover, large firms are more effective and efficient in managing their resources and therefore able to increase their capabilities in enhancing their firm performance. Large firms also have larger investment and management capabilities compared to small firms, which means that large firms find it easier to maintain their profitability. Firm size has an impact on firm performance through agency costs (Florackis et al., 2009).

The size of firms has been argued to have influence on firm performance, as it is assumed to be one of the competitive features of a firm (Hawawini et al., 2003). Larger companies are argued to be relatively more efficient in managing resources compared to smaller firms, thus improving the former's capabilities to boost their profits. From the strategic management point of view, firms which have more resources are argued to have a greater capability to generate profits. Larger firms obviously have more resources compared to smaller firms. These resources are used by companies to invest in and manage their day-to-day operations to generate profits. Larger firms have greater investment and management capabilities. Moreover, in many cases larger firms can mitigate the competition within an industry by creating entry barriers to new entrants. In addition, prior research findings reveal that firm size is a crucial factor when considering the design and use of management control systems (Tseng, 2007).

3.4.2 Industrial sector

As discussed in the previous chapter, firm performance can be influenced by the industrial sector the firm operates in. Performance can also be influenced by the industrial

sector of the firms. Certain industries may have higher profits compared to other industries, as different sectors may have different levels of competition due to government regulations and the nature of the sector. Some industries may be oligopolistic or even monopolistic, as government regulations and higher entry barriers could create such conditions. The growth in terms of sales may vary across industries. Mature industries may have lower growth compared to less mature ones, which then can influence the capabilities of firms in generating profits, hence enhancing firm performance. Accordingly, this study also employs the industrial sector as one of the control variables that can also influence firm performance.

3.5 Summary

The first section of this chapter presented an introduction to the theoretical foundation and the theory of the relationship between corporate governance mechanisms, risk management, corporate reputation and firm performance. This section has also discussed the conceptual framework of this thesis. This chapter has also presented a discussion on the development of the hypotheses. The hypotheses include a general hypothesis for the relationship between corporate governance mechanisms, risk management, corporate reputation and firm value, with corporate reputation as the mediating variable in those relationships. This chapter has summarised the 11 hypotheses for the specific analysis of the relationships between corporate governance mechanisms and firm performance, risk management and firm performance, and corporate reputation as the mediating variable for the relationship between corporate governance mechanisms, risk management and firm value (as depicted in Table 3.2 below).

Table 3.2 Summary of hypotheses in the study

H1a	The number of audit committee members has a positive impact on firm value.
H1b	The number of independent audit committee members has a positive impact on firm value.
H1c	The number of audit committee members with financial expertise has a positive impact on firm value.
H1d	A Big 4 auditor has a positive impact on firm value.
H1e	A change of auditor has a positive impact on firm value.
H1f	The number of independent members of the board of directors has a positive impact on firm value.
H1g	The size of the board of directors has a positive impact on firm value.
H2a	Risk disclosure has a positive impact on firm value.
H2b	Leverage has a positive impact on firm value.
H3	Bond rating has a positive impact on firm value.
H4	Corporate reputation, as a mediating variable for corporate governance and risk management, has an impact on firm value.

The definition of the variables, the research model and the research methodology used in this study are discussed in the next chapter.

This study involves 216 observations of 36 firms for a six-year period from 2007 until 2012. In this research, the purposive sampling of companies that have bond ratings released by PEFINDO and are listed on the Indonesian Stock Exchange are used. In terms of the industry categories, the sample companies were divided into non-finance companies and finance companies.

CHAPTER 4: METHODOLOGY AND ECONOMETRIC FRAMEWORK

4.1 Introduction

This chapter presents the methodology of this research. The methodology uses quantitative methods to test the hypotheses. The model is used to test the relationships of corporate governance mechanisms and risk management which influence firm value. In this chapter we also describe other tests to examine the relationship between corporate governance mechanisms and risk management, and firm value through mediating variables. Corporate reputation is the mediating variable of corporate governance mechanisms and risk management toward firm performance. The estimated econometric model is used for hypothesis testing, and for policy and strategy formulation in the area of corporate governance mechanisms, risk management, and corporate reputation. This study uses the panel data model and employs several diagnosis tests such as multicollinearity, heteroscedasticity and the Hausman test. This chapter is organised as follows. Section 4.2 discusses the data setting. The data is on Indonesian companies over a six-year period from 2007 until 2012. Section 4.3 reports the data collection and sampling method. The sources of the data are presented in Section 4.4. Section 4.5 discusses the measurements, conceptualisation and operationalisation of the variables.

4.2 Data Setting: Indonesian Case

The data for this study uses sample data from Indonesia, as explained in the literature review. The sample data is from Indonesian companies and the specific justifications are as follows. Firstly, during the financial crisis in Asian countries, including Indonesia, many corporate bankruptcies were caused by poor corporate governance (Johnson et al., 2000). Secondly, Indonesia follows the corporate governance code of conduct based on the OECD principles. However, the regulation of corporate governance in Indonesia is still considered weak, especially pertaining to transparency and internal control practices (World Bank, 2010). Miton (2002) also argued that companies with good corporate governance (GCG) showed better performance in East Asian countries during the financial crisis. Therefore, it is necessary to research in the area of corporate governance in developing countries. Thirdly, many researchers considered corporate governance and firm performance. However, previous research has

not considered the specific aspects of corporate governance mechanism, risk management, and corporate reputation. One of the causes of the financial crisis in Indonesia was the lack of risk management.

4.3 Data and Sampling

The aim of this study is to investigate whether the relationships between corporate governance mechanisms, risk management and corporate reputation have significant impact on firm value, as well as whether corporate reputation mediates the relationship between corporate governance and risk management toward firm value.

The sample has been selected from companies listed on the Indonesian Stock Exchange for the period from 2007 until 2012. The sample data has been selected from 36 companies which are listed throughout the six-year period, which includes 214 firm-year observations from 2007 until 2012. The sample companies' annual reports are available on the Indonesian Stock Exchange for the six-year period. The purposive sampling method is used. To be included in the sample, a firm should fulfil all the criteria below:

1. It should be listed in the Indonesian Capital Market for the years 2007-2012.
2. It should be listed under the financial company and non-finance company. headings.
3. It should have complete data for the years 2007-2012 as required.
4. It should have annual reports and should have a bond rating.

The sample selection of the data is presented in Table 4.1.

Table 4.1 Sample selection process

Sample selection	No. of samples
Total firms listed for 6 years	66
Less: Companies without bond ratings	30
Total sample	36

4.4 Source of Data

The data was collected from secondary sources from the Indonesian Stock Exchange and the respective companies' annual reports. Data relating to the companies' annual reports was available on and taken from the websites of the Indonesian Stock Exchange and also from the sample companies' websites. Data on corporate governance was extracted from the Indonesian Stock Exchange. Data pertaining to corporate reputation was taken from the website of the Indonesian credit rating agency, PEFINDO (www.pefindo.com). The data required in this study include data on corporate governance mechanism, risk management and corporate reputation. Firm performance in this study uses Tobin's Q and return on assets (ROA) as measurements.

4.4.1 Industry category

As discussed, this study involves 216 observations on 36 firms for a six-year period from 2007 until 2012. In this research, purposive sampling of companies that have bond ratings released by PEFINDO and listed on the Indonesian Stock Exchange is used. In terms of industry category, the sample companies were divided into non-finance and finance categories, identified by two different symbols. The symbol 1 is for the 22 companies in the non-finance category, while the symbol 0 is assigned to the 14 finance companies.

The descriptive statistics as presented in Chapter 5, Table 5.1, show the results for the relationships between firm performance and corporate governance, risk management and corporate reputation. Firm performance is measured using Tobin's Q and ROA as the independent variables. The dependent variable in this study is corporate governance mechanisms for which the proxies are: the number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB) audit quality (Big 4), auditor change (AUC). Secondly, the dependent variable in the model is risk management, which is measured by leverage (LEV) and risk disclosure (RD). Thirdly, corporate reputation is measured by bond rating (BDR) and the control variable in this study uses two variables, firm size (SIZE) and industry sector (IND).

4.5 Econometric Model of the Study

The econometric model of the study has three models, which are presented as follows.

Model 1

This model integrates three variables: (i) corporate governance mechanisms; (ii) risk management, and (iii) corporate reputation, as presented below:

$$FP_{it} = \alpha + \beta_1 NAC_{it} + \beta_2 NACI_{it} + \beta_3 NACFE_{it} + \beta_4 NIB_{it} + \beta_5 SB_{it} + \beta_6 Big4_{it} + \beta_7 AUC_{it} + \beta_8 RD_{it} + \beta\beta_9 Lev_{it} + \beta_{10} BDR_{it} + \beta_{11} SIZE_{it} + \beta_{12} IND_{it} + U_{it} \quad (4.1)$$

where the dependent variable is Tobin's Q (FP*it,* for firm *i* in period *t)* and independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), Big 4 (1: companies using Big 4 for audit, and 0: companies not using Big 4 for audit), AUC dummy variable (1: auditor change, 0: no auditor change), risk disclosure (RD), Leverage (Lev), bond rating (BDR), firm size (SIZE), industry sector (IND) and error term (μ).

Model 1 describes the relationships in relation to firm performance using Tobin's Q for measurement of corporate governance mechanisms, risk management, and corporate reputation.

Model 2

This model integrates three variables: (i) corporate governance mechanism; (ii) risk management; and (iii) corporate reputation, as presented below:

$$FP_{it} = \alpha + \beta_1 NAC_{it} + \beta_2 NACI_{it} + \beta_3 NACFE_{it} + \beta_4 NIB_{it} + \beta_5 SB_{it} + \beta_6 Big4_{it} + \beta_7 AUC_{it} + \beta_8 RD_{it} + \beta_9 Lev_{it} + \beta_{10} BDR_{it} + \beta_{11} SIZE + \beta_{12} IND_{it} + U_{it} \quad (4.2)$$

where the dependent variable is ROA and independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), AUC dummy variable (1: auditor change, 0: no auditor change), size of board (SB) bond rating (BDR), firm size (SIZE), industry sector (IND) and error term (μ).

Model 2 describes the relationships in relation to firm performance using ROA for measurement of corporate governance mechanisms, risk management and corporate reputation.

Mediating variable Model

Model 3

$$FP_{it} = \alpha + \beta_1 NAC_{it} + \beta_2 NACI_{it} + \beta_3 NACFE_{it} + \beta_4 NIB_{it} + \beta_5 SB_{it} + \beta_6 Big4_{it} + \beta_7 AUC_{it} + \beta_8 RD_{it} + \beta_9 Lev_{it} + \beta_{11} SIZE + \beta_{12} IND_{it} + U_{it} \quad (4.3)$$

$$BDR_{it} = \alpha + \beta_1 NAC_{it} + \beta_2 NACI_{it} + \beta_3 NACFE_{it} + \beta_4 NIB_{it} + \beta_5 SB_{it} + \beta_6 Big4_{it} + \beta_7 AUC_{it} + \beta_9 RD_{it}\beta_{11} + U_{it}\,\beta_9 Lev_{it}\beta_{11} S + + U_{it}\,\beta_9 SIZE\beta_{11} + \beta_{12} IND_{it} + U_{it} \quad (4.4)$$

In order to examine the relationship between corporate governance and firm value, this study employed a mediating model. Corporate reputation is considered as the mediator of the relationship between corporate governance mechanisms and firm value. In general, a mediating variable is used to explain how or why two variables are related. Mediation analysis is chosen to be applied in this thesis as it can identify fundamental processes underlying one particular issue that is relevant across contexts. Once a true mediating process is identified, then more efficient and powerful interventions can be developed because these interventions can focus on variables in the mediating process (MacKinnon & Fairchild 2009). Additionally, to test the relationship between corporate governance mechanisms and firm value, we use corporate reputation as a mediation mechanism. The mediation variable refers to the variable that mediates the relationship

between independent variables to have significant impact on dependent variable (Baron and Kenny, 1986, Holmbeck, 1997, Aryani, 2009). Besides that, McClelland et al. (2013) explain that the mediator variable is known as exogenous while outcome variable is known as an endogenous variable.

The mediation variable is corporate reputation which mediates the corporate governance mechanism which has correlation to firm value. The other variable is risk management to investigate its impact on firm value through corporate reputation.

The mediator variable is explained as follows (MacKinnon et al., 2007):

$$M = \beta_{0m} + \beta_{xm}X + \varepsilon_m$$
$$Y = \beta_{0y} + \beta_{xy}X + \beta_{my}M + \varepsilon_y$$

The equation explains that variable X influences M, and Y is influenced by two variables, which are variable X and variable M. Thus, M is the mediating variable from the independent variable X indirectly affecting variable Y. To interpret the indirect relationship between variable X and the variable Y the coefficient β_{xm} and β_{my} was used.

Based on theory by MacKinnon (2012), the model of mediation is shown in the diagram below.

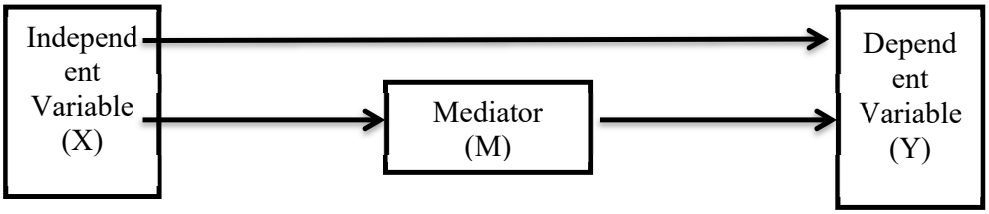

Figure 4.1 Path diagram and equation for mediation model

C’

$$Y = i_2 + c'X + bM + e_2$$

$$M = i_3 + aX + e_3$$

The figure shows the relationship between independent variable (X), which has correlation to the mediator (M) and relation to the dependent variable (Y). To investigate the mediation MacKinnon used three regression equations, (MacKinnon, 2012).

Model 1

$$FP = i_1 + cCGc + e_1 \quad (1)$$

$$FP = i_2 + c'CG + bCR + e_2 \quad (2)$$

$$CR_1 = i_3 + aCG + e_3 \quad (3)$$

where corporate governance is an independent variable, firm value is a dependent variable, and corporate reputation is the mediator. Also where a is the parameter relating the independent variable to the mediator; b represents the effect of the mediator on the dependent variable adjusted for the independent variable; the mediator c represents the total effect of corporate governance on firm value; while c' is the direct of corporate governance on firm value; e1, e2, e3, and e4 are error terms; and i1, i2, i3, and i4 are intercepts.

In the above one-mediator model, the mediator effect by corporate reputation is the product of a and b. Hence, the mediator effect of corporate reputation is the sum of ab, which is equal to the difference between the effect and the direct effect of corporate governance on firm value, that is, ab = c – c'. The individual mediated effect (ab) can be termed as 'specific indirect effect' cited in to distinguish it from the mediator effect (Bollen 1987, cited in MacKinnon 2012, p.106). MacKinnon also claims that the parameters in the four equations presented above can be estimated by using ordinary least squares regression.

Model 2

$$FP = i_1 + cRMc + e_1 \quad (1)$$

$$FP = i_2 + c'RM + bCR + e_2 \quad (2)$$

$$CR_1 = i_3 + aRM + e_3 \quad (3)$$

where risk management is an independent variable, firm value is a dependent variable, and corporate reputation is the mediator. Also where: a is the parameter relating the

independent variable to the mediator; b represents the effect of the mediator on the dependent variable adjusted for the independent variable; the mediator c represents the total effect of risk management on firm value; while c' is the direct of corporate governance on firm value; e1, e2, e3, and e4 are error terms; and i1, i2, i3, and i4 are intercepts.

4.6 Measurement, Conceptualisation and Operationalisation of Variables

This section presents the measurements, conceptualisation and operationalisation of the variables used in measuring the three aspects of corporate governance mechanisms, risk management and corporate reputation, for the analysis of firm performance. In this research, the dependent variable is financial performance measured by Tobin's Q and ROA, while the independent variables are corporate governance mechanisms, risk management and corporate reputation.

Corporate governance mechanisms are measured by four elements namely; first is audit committee, which has three categories including the number of audit committee members, the number of independent audit committee members, and the number of audit committee members with financial expertise. Second is BOD, which has two characteristics namely the number of independent board members and size of board. Third is audit type related to audit quality and is measured by a dummy variable with a score of 1 is assigned to a company using a Big 4 auditor firm and 0 for not using a Big 4 firm. Fourth is auditor change which is also measured using a dummy variable where 1 is given to the company which has changed auditor and 0 is given to the company with no auditor change.

Risk management uses two variables for measurement, risk disclosure and leverage. Corporate reputation is measure by bond rating.

4.6.1 Measurement of dependent variable

4.6.1.1 Tobin's Q

Tobin's Q presents a measurement of managerial firm performance based on the premise that a good decision in a company is influenced by good firm performance. On the other hand, poorly performing managers increase agency cost problems (Henry, 2010). Any firm with a Tobin's Q ratio of more than 1 means that the manager is

considered to be managing the firm to create value for shareholder, thus lowering agency costs. On the other hand, a company with a Tobin's Q ratio of less than 1 could be causing a loss of shareholder value, in which case such a loss of shareholder value is expected to affect the agency costs.

Tobin's Q is a proxy for company performance. Tobin's Q can be described as the ratio of the market value of total assets such as equity and debt to the changed value of the asset (Gompers et al., 2003, Bhagat and Black, 1997). Gompers, Ishii and Metrick (2003) also argued that Tobin's Q is used as a ratio of assets' market value over book value. Many research studies have established that Tobin's Q is an appropriate measure of the relationship between corporate governance and performance due to the fact that Tobin's Q can measure the value of investment in the future.

It can be concluded that a company will have good value if the company's performance is also good and reflected in the high stock price. Company value can be increased by improving company performance. One way is to implement good corporate governance practices. In this study, the dependent variable is measured by the value of Tobin's Q and ROA. Tobin's Q and ROA have their own benefits in reflecting the company's value and potential company profitability in the future (Ruan et al., 2011).The reasons underlying Tobin's Q's use as a proxy for firm value are the absence of general agreement on definite measures of measuring company value, so Tobin's Q is considered to be an alternative proxy for firm value. Another reason is that Tobin's Q's calculations are simple and have been used extensively in various studies on the value of companies in the world.

4.6.1.2 Return on Assets

Return on assets (ROA) is one of the measures of company performance. It influences the profitability of a company in relation to how it manages its assets and the resulting earnings. Following Bringham (2004), ROA can be formulated as follows:

$$ROA = \frac{\text{Net income}}{\text{Total Asset}} \qquad (4.9)$$

The advantage of using ROA is that managers are expected to focus more on the company's activities relating to investment, cost efficiency and efficiency of operating

assets (Hansen and Moven, 2005). ROA is essential for a company as a value driver to improve the company's productivity and therefore increasing its profitability (Booth, 1998).

Return on assets (ROA) measures a company's ability to generate profits by using existing assets and net income. In other words, ROA measures the company's performance in empowering assets. The high performance of a company will have an impact on the high value of the company (Obradovich and Gill, 2013). In other words, the higher rate of return of assets, the better position of the owner of the company so that, it will cause a good assessment of investors towards the company, which causes an increase firm value (Gill and Mathur, 2011). Investors do an overview of a company by looking at financial ratios as an investment evaluation tool, because financial ratios reflect the high and low value of the company. If investors want to see how much the company produces returns on the investment they will invest, what will be seen first is the profitability ratio, namely ROA. The high level of ROA will make investors consider the decision to invest in the company. This result is consistent with the research conducted by Gill and Mathur (2011), and Krafft et al. (2013).

4.6.2 Measurement of independent variables

4.6.2.1 Corporate governance

Corporate governance structure is related to the internal and external corporate governance mechanisms. Corporate governance mechanisms have a lot of components. This study focuses on four: audit committee characteristic, board of directors (BOD), audit type or audit quality and audit change, as follows below.

4.6.2.1.1 Audit committee and firm performance

As mentioned in the literature review, the theory and principles of corporate governance state that audit committees are necessary due to their ability to create efficiency in company financial reporting (Farrar, 2008b). Audit committee structure comprises four components including: a committee of non-executive directors, a majority of independent directors, chaired by an independent chair who is not the chair of the board, and a minimum three members (Farrar, 2008b).

Auditor committee measures follow the definition adopted from the Sarbanes–Oxley Act (SOX) Section 407. The measurements in this study use three characteristics:

first, the number of audit committee members with reference to their expertise and experience in financial accounting, as well as non-accounting and non-financial experience. The second characteristic is the number of independent audit committee members. The disclosure of the number of independent audit committee members is relevant as there may be strong economic bonds between clients and auditors. Third is the number of audit committee members having financial expertise. The financial experts should be qualified, including possessing understanding of the generally accepted accounting principles (GAAP) and financial statements, having experience in auditing and accounting issues in general, and understanding the procedure of internal control and function of the audit committee. As some previous studies argued, there is no relationship between not paying an audit fee and auditors' independence, due to auditors placing more importance on upholding their reputations and on high-quality audits. Therefore, the number of audit committee members should have financial expertise.

4.6.2.1.1.1 The number of audit committee members

The number of audit committee members is the number of members that are an external director and non-executive so no have relationship with firm directors. A prior study found that the size and the characteristic audit committee has a significant impact on increasing value and firm performance (Klein, 1998a). A small number of audit committee members also creates more efficiency and is effective in monitoring leading to an increase in firm performance (Raghunandan and Rama, 2007). Aldamen et al. (2012) also mention that the number of audit committee members has a significant impact on firm performance.

4.6.2.1.1.2 Number of independent audit committee members

To improve the efficiency of company, another variable that should be considered is audit committee independence. Prior studies suggest that an independent audit committee makes monitoring of financial reporting more effective (Klein, 2002b, Kalbers and Fogarty, 1993). Based on the agency theory, an independent director has the duty to monitor the firm based on Indonesia's new code of corporate governance. Also, the audit committee should be made up of non-executive directors to be considered independent. Independence is related to someone from outside the firm which has no correlation with the firm including the manager (Rezaee, 2009). The advantage of external directors is a

decrease in conflict of the internal managers with other shareholders (Fama and Jensen, 1983a). Moreover, independent directors provide a balance of power in the relationship between management and the board. An independent committee external to the firm has a duty to control and monitor decisions, as the results could protect shareholder interest (Duchin, Matsusaka and Ozbas, 2010). Monitoring by an independent committee may also reduce conflict between management and shareholders (Lefort and Urzúa, 2008). It has a significant impact on firm performance use Tobin Q as measurement (Ivashkovskaya and Stepanova, 2011). Another supportive study argues the effectiveness of the committee has a positive impact on firm performance (Lin, 2011). This implies that the independence of the audit committee is essential in controlling and monitoring the firm, therefore creating effectiveness leading to an increase in firm performance.

4.6.2.1.1.3 Number of audit committee members having financial expertise

The other element of audit committees is the number audit committee having financial expertise. The members of the audit committee with financial expertise should come from the members of the BOD in the firm (Arens et al., 2000). These members have to be experts in accounting or finance and responsible for helping the independent auditors in their dealings with the management. Prior studies argued that audit committee members having financial expertise has a significant impact of less misreporting and more effective monitoring (Raghunandan and Rama, 2007). More expert audit committee members with experience indicates that financial report will be more reliable (DeZoort, 1998). Other supporting market studies state there is a positive correlation when a firm chooses a new audit committee member with financial expertise (Davidson III et al., 2004, DeFond et al., 2005). Financial expertise indicates that the audit committee has adequate experience and required education (Giacomino et al., 2009). Financial expertise indicates better financial reporting of the firm and leads to an increase in firm performance. Moreover, good financial reporting thus converts to good market performance.

4.6.2.1.2 Board of directors and firm performance

The BOD is crucial for supervising managerial functions. Shareholders vote for the board to act on their behalf to monitor top management. The managerial function of the BOD refers to decisions on management and how to implement strategies related to

agency problems (Rezaee, 2009). A previous study suggests that the quality of internal control is a function of the quality of the control environment, as well as of the BOD and the audit committee (Krishnan, 2005). Previous research on this issue employs two variables for measuring boards of directors.

The variables used by Zhang et al. (2007) are the number of independent board members and board size. Effective BOD is good for firm value through increasing activities following share price decline. The effective monitoring by BOD can also improve firm performance through reducing agency costs. According to agency theory, the function of the board is to protect the interests of the principal owners (Hillman and Dalziel, 2003). Furthermore, the BOD can increase shareholder value by controlling management (Denis and McConnell, 2003). Moreover, previous studies argued that monitoring by the BOD can influence agency cost through cost reduction so as to improve firm performance (Mizruchi, 1983, Zahra and Pearce, 1989). Following Zhang et al. (2007), this study employs two measures of board of director characteristics, board independence and size of the board.

Firstly, is the number of independent board members. According to agency theory an independent board helps to controlling the activities of the company, thus creating efficiency as the result of decreasing the agency cost, which leads to increased performance of firm (Hillman and Dalziel, 2003, Fama and Jensen, 1983b). Moreover, empirical evidence argued that an independent board has positive impact on the performance of company (Brickley et al., 1994). A composition with a large of the number independent board makes the company more effective (Dharmadasa et al., 2014, Lin, 2011, Pahuja and Bhatia, 2012).

Secondly, an important aspect of good practice is board size, which influences firm performance. According to prior research, it is suggested that companies do not need to have a large number of board directors and probably a maximum of eight or nine members suffices (Jensen, 2010). A small board size is better compared with a large one due to difficulty in coordinating and communicating within the company and in making decisions in meetings, thus reducing performance of the firm (Jensen, 2010, Lipton and Lorsch, 1992). Hermalin and Weisbach (2001) also found that board size has significant impact on firm performance. Lipton and Lorsch (1992) also argued that a limitation on the number of board members makes them effective in decision-making and controlling

the CEOs. A large board can be slow in its decisions and goal achievement due to coordination and communication problems (Lipton and Lorsch, 1992). According to the economic theory of decision making and psychological theory, it is argued that a large board size indicates more diversity of opinions in making decision (Cheng, 2008). A large board size thus has a negative impact on firm performance due to the fact that problems are increased.

Board size might influence the dynamics in board functions. For example, a large and diverse BOD may increase the board performance in terms of knowledge and skills. On the other hand, this type of board potentially may face group dynamic problems, which in turns make the board less effective (Van den Berghe and Levrau, 2004). Hermalin and Weisbach (2003) found that the board size has a positive correlation on firm performance. The meta-analysis of Kiel and Nicholson (2003) found a positive correlation between board size and market-based company performance (but not for accounting type measurements). This implies that the size of board is essential in decision making, with a smaller board size making it easier and more efficient to make decisions.

4.6.2.1.3 Audit type and performance

To determine whether management is working in accordance with the rules of the accounting system, a firm needs to be audited by both internal and external auditors. It is essential for a company to set the goals to be achieved and to maintain their sustainability over the long term. External audits can reduce agency cost by reducing asymmetry in accounting information (Piot, 2001). Therefore, a company should consider external auditors, which have a good reputation. A good reputable external auditor is one of the Big 4 audit firms. Big 4 refers to the four largest international firms offering professional accounting and auditing services, which are: PricewaterhouseCoopers, Deloitte Touche Tohmatsu, Ernst & Young and KPMG. According to Zhang et al. (2007), a firm hiring a Big 4 auditor is associated with internal control.

Internal control problems have implications for financial reporting. Therefore, it is essential for firms to ensure that they have good internal control. Doyle et al. argued that smaller and less profitable firms have more internal control problems than more profitable ones (Doyle et al., 2007a). Meanwhile, firms with internal control problems are less likely to engage any of the Big 4 auditors due to limited financial resources. A firm may also not hire a Big 4 auditor because using a Big 4 auditor could be an indication of

having internal control problems. Louis (2005) suggested that a Big 4 auditor provides a better quality of audit compared to a non-Big 4, as the former have more resources. The use of any Big 4 auditor is a dummy variable to control auditor quality.

On the other hand, non-Big 4 firms offer some benefits in other areas: for instance, mergers and acquisitions. Moreover, a non-Big 4 auditor has better quality in terms of local markets and has good long-term relationships with local businesses. However, Big 4 auditors can have an influence on auditor reputation, which will reduce the risk in capital, thus simultaneously increasing earning quality (Francis and Wang, 2008). Basu (1997) suggested that firms which are audited by the Big 4 can provide investors with a protective environment.

Finally, auditor type in this study has a dummy variable of measurement: 1 for companies using the external Big 4 audit firm services and 0 for companies not using the services of the Big 4 audit firms.

4.6.2.1.4 Audit change (auditor rotation) and performance

The other proxy is auditor change or auditor rotation. A company which changes their auditor may have several reasons for doing so, including to decrease auditor fees, disagreement with management in financial reporting of the firm, or not having sufficient internal control over financial reporting. A prior study argued that a company which has an auditor change is defined as having internal control problems (Young, 2003). Williams (1988) explains that the reason for an auditor change is to reduce the cost of the audit fee. An advantage to changing auditors can be to benefit shareholders leading to enhancing firm performance. In this study, the measurement uses dummy variables of 0 and 1, where 1 refers to companies that have had an auditor change, and 0 refers to companies having no auditor change or rotation.

4.6.2.2 Risk management

According to finance theory, risk management can be defined as identifying and managing financial risks in relation to cash flow and market value due to uncertainty, including commodity prices, interest rates and exchange rates. Risk management is essential for a firm in reducing the cost of production and therefore increasing profitability. This research uses two elements to measure risk management: risk disclosure and leverage.

4.6.2.2.1 Risk disclosure

During the financial market crisis of 2007 to 2009, risk disclosure became an essential issue in increasing the quality of financial instruments. Risk disclosure comprises three categories of instruments (Papa and Peters, 2011), as detailed in Table 4.2.

Table 4.2 Instruments of risk disclosure

Credit risk	Credit risk is the related risk of non-performance of financial assets. It is an essential criterion influencing financial instrument decisions. Credit risk in banking is crucial to determining business policy. Therefore, a company should formulate strategies for corporate risk management, such as hedging.
Liquidity risk	Financial instrument risk disclosure (FIRS) describes liquidity risk as a case where an entity can provide solutions pertaining to its financial liability obligations in relation to its financial assets (Papa and Peters, 2011). According to FIRS, liquidity risk has two factors. Firstly, funding liquidity risk means that the risk comes from the institution and it is required to firstly pay all its financial liabilities. Secondly, asset liquidity refers to the fact that the risk is difficult to avoid if it is not influenced by market price.
Market risk	Market risk is defined as the fair value or future cash flows that are fluctuating due to the changing market price in a financial instrument.

However, this study is based on 12 dimensions in measuring the risk disclosure index. These dimensions were adopted from financial instrument risk disclosure under international financial report standard (IFRS) from 2011 and 2012. The 12 dimensions are as follows.

Table 4.3 Twelve dimensions of risk disclosure

No.	Indicators	Score
1	Method of measuring credit risk exposure	1
2	Adequate description of how credit risk management occurs, including providing a clear link between quantitative data and qualitative description	1
3	Maximum credit exposure	1
4	Ageing schedule for past due amounts	1
5	Maturity analysis derivative liabilities	1
6	Sensitivity analysis	1
7	Impairment method and inputs disclosed	1
8	Description of the extent of financial effect of collateral and other credit enhancement	1
9	Maturity analysis derivative liabilities due	1
10	Disclosure of the exposure market risk	1
11	Sensitivity analysis for market risk	1
12	Counterparty concentration profile	1
	Total available score	**12**

Note: 1 shows companies have an indicator of risk disclosure; 0 shows companies don't have an indicator of risk disclosure.

There are 12 indicators to determine risk disclosure as provided in the table above, if the companies have a method of measuring credit risk exposure, they are given a value of 1 and the total value of indicators can be up to 12. The score calculates the value of risk disclosure index. For instance, if the company has all indicator the score of risk disclosure calculated is 12; the risk disclosure of a company depends on how may indicators a company has.

4.6.2.2.2 Leverage

Leverage is a financial ratio that shows the proportion of debt used to finance the capital investment owned. This ratio is used to measure the extent to which firms are using debt to finance their investments. Companies that do not have leverage must use 100 per cent equity to finance their business operations. For a company, the greater the leverage, the greater the risk of company failure.

Leverage increases stock prices for two reasons: firstly, as interest expenses are deductible, firms pay less tax, which then decreases the cost of capital and ultimately increases firm value. Secondly, based on signalling theory, the availability of debt provides positive information in the market of firms that request funding for their prospective investments. However, the level of debt increases a firm's uncertainty level and the use of debt increases the cost of capital; hence a firm should look for an optimum level of debt or optimum level of capital (Ross, 1977). The theory of the optimum capital structure is related to the WACC. The optimal mix of debt and equity is affected by WACC turndown (reduction) with leverage, because of the interest tax shield. If the capital structure increases, the possibility of bankruptcy also increases and as a result, the rate of return to equity holders will also be higher. According to the Modigliani–Miller theory, the cost of capital increases at the same rate as an increase in leverage (Choong, 2009).

4.6.2.3 Corporate reputation

As discussed in the literature review, corporate reputation is an intangible asset which is a value driver and contributes towards competitive advantage in firm performance (Iwu-Egwuonwu, 2011). Previous research findings revealed that companies focus more on the consideration of intangible assets as value drivers compared to tangible assets (Hand and Lev, 2003). Corporate reputation is becoming important in order for

companies to maintain their good names and reputation quality. A good reputation has influence on firm performance.

One of the most critical strategic and enduring assets of any corporation is good reputation. Good reputation positively impacts on a firm's performance (Hammond and Slocum, 1996). According to accounting literature, corporate reputation brings an enormous amount of wealth and goodwill. Enhanced corporate reputation in turn enhances the financial performance and market value of the organisation. Furthermore, Ljubojevic and Ljubojevic (2008) suggested that corporate governance is recognised as necessary for maintaining an attractive investment climate, which is a characteristic of highly reputable and competitive companies (Ljubojevic and Ljubojevic, 2008) that improves firm performance.

Good reputation has a positive relationship with performance. Prior studies have provided empirical evidence that corporate reputation has a positive correlation with superior earnings quality (Tan, 2008). Tan also found that corporate reputation influences superior earning quality and helped in producing superior total sales in Chinese public companies (Tan, 2008).

Chung, Eneroth and Schneeweis (2003b) suggested that firm reputation and the price of its product is the same as the value of the firm. They also found that UK and US firms which have better reputations outperformed those that were in the lower ranks of reputation in terms of return on total equity (Chung et al., 2003a). Another study argued that investors make abnormal returns when they purchase stocks of firms with a significant reputation (Brammer et al., 2006). Assets such as goodwill are necessary assets because of their reputation-enhancing qualities. Black (1999) suggested that intangibles such as firm reputation contribute to firm stock market value. Good corporate reputation significantly improves firm performance (Ghose et al., 2009).

Corporate reputation is associated with strategic value in a company (Dierickx and Cool, 1989). Moreover, prior research suggested that corporate reputation has a positive impact on financial performance (Schultz et al., 2001). Some empirical studies also found that value creation is influenced by corporate reputation (Vergin and Qoronfleh, 1998). Besides that, regression analysis shows that the relationship between stock market value and reputation is positive (Srivastava et al., 1997). Good reputation also maintains and increases share value (Jones et al., 2000).

Brand equity is also determined by corporate reputation (Iwu-Egwuonwu, 2011). This means that a strong reputation is a necessary foundation for a firm intending to beat its competitors and enhance its market outlook and financial performance, as well as sustaining its existence. Furthermore, Schwaiger (2004) suggested that corporate equity is determined by corporate reputation.

De Castro et al. (2006) suggested that corporate reputation can be compartmentalised into three main areas: managerial reputation, financial reputation and product reputation. As an intangible asset, corporate reputation also creates an essential strategic competitive advantage by reducing competition, creating mobility barriers, charging premium prices, reducing operating costs and attracting talent (Caves and Porter, 1977, Vergin and Qoronfleh, 1998, Fombrun, 2008). Enhanced corporate reputation, which is called "creative capitalism" by Bill Gates, serves as a governance model. He gives the example of a Russian company that is required to make large profits which make it easy for the company to give incentives to its employees, thus resulting in satisfied customers and enhanced corporate reputation (Hemphill, 2010). Previous research also suggested that corporate reputation reflects customers' trust and that of other stakeholders, making employees more productive and thus increasing the benefits (Rose and Thomsen, 2004).

4.6.2.3.1 Bond rating and reputation

Bond rating describes the principal measure of a company's ability to redeem the long-term bonds issued. As elaborated previously, a good corporate reputation increases the confidence of investors to make more investments, therefore leading to increased firm value. In measuring corporate reputation, this study uses a proxy of bond rating. This measure provides valuable information for potential investors about the quality and marketability of bonds issued to help support them in making investment decisions (Brealey, 2014). The rating is issued by rating agencies such as Moody's, Standard & Poor's (S&P) and Fitch. The bond rating measures provided by these agencies use the symbol AAA (triple A) for the highest standard of bonds. A double AA symbol and a single A symbol respectively indicate progressively lower standards of bonds. This rating is important for information transmission in the debt market, as well as to enhance investors' trust in firms and to increase the pricing of their financial obligations (Becker

and Milbourn, 2008). Investors consider companies' reputation and honesty based on the accuracy of the rating. The PEFINDO ratings also use symbols, as depicted in Table 4.4.

Table 4.4 The PEFINDO ratings used in the study

Symbol	Rating	Symbol	Rating
AAA	1	B+	14
AA+	2	B	15
AA	3	B–	16
AA–	4	CCC+	17
A+	5	CCC	18
A	6	CCC–	19
A–	7	CC+	20
BBB+	8	CC	21
BBB	9	CC–	22
BBB–	10	C+	23
BB+	11	C	24
BB	12	C–	25
BB–	13	Default	26

Based on the symbols above, the Indonesian rating agency also furnishes explanations pertaining to the meaning of these ratings, as discussed in the previous chapter.

The symbol AAA mean the company has good rating with value is 1 and the last rating is Default which has a value of 26.

4.6.3 Control variables

This study uses the control variables of firm size and industrial sector in its model. Both control variables as a part of firm characteristics have an impact on firm performance (Mehran, 1995). According to Florackis et al. (2009), firm size may have an impact on agency cost. A previous study found that firm size also influences firm performance (Hawawini et al., 2003). As discussed in the previous chapter, larger companies are argued to be relatively more efficient in managing resources as compared to smaller firms. Moreover, large firms can improve their capabilities in boosting profitability, and larger firms can reduce competition in an industry by creating entry barriers for new entrants.

4.7 Econometric Model

The results of this model can show how corporate governance mechanisms, risk management, and corporate reputation affect firm value. The panel data econometric method is used to estimate the model. Panel data is essential for analysis over different time periods and different companies. Based on the theory of econometric analysis, the benefits of panel data are that it controls individual heterogeneity and gives more informative data, more variability, less collinearity among the variables, more degree of freedom and better efficiency (Baltagi, 2005). Econometric tests for multicollinearity, heteroscedasticity, autocorrelation, missing data, endogeneity and misspecification are conducted and corrections made if any of these problems occurs.

4.7.1 Econometric testing

Regression analysis is used as a tool for hypothesis testing to examine the relationships between corporate governance mechanisms, risk management, reputation and firm performance. To determine the relationships between the dependent variables and independent variables and also the control variables, regression is used for the analysis. An example of the model of multiple regressions is presented as follows:

$$FP_{it} = \alpha + \beta_3 NAC_{it} + \beta_4 NACI_{it} + \beta_5 NACFE_{it} + \beta_6 NIB_{it} + \beta_7 SB_{it} + \beta_8 Big4_{it} + \beta_9 AUC_{it} + \beta_1 RD_{it} + \beta_2 Lev_{it} \beta_{10+} BDR_{it} + \beta_{11} Size_{it} + \beta_{12} IND_{it} + U_{it} \quad (4.5)$$

where there are subscripts in these variables, symbol *i* means the cross-section unit and *t* is related to the time series; the intercept symbol is α and β_1, β_2 refers to the regression coefficient and μ is the error term. The dependent variables are either Tobin's Q or ROA. The independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), risk disclosure (RD), leverage (LEV), Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), AUC dummy variable (1: auditor change, 0: no auditor change) and bond rating (BDR). Control variables are firm size (SIZE) and industry sector (IND).

4.7.2 Panel data model estimation

To analyse using the panel data method, there are three approaches, as well as pooled least squares, which assumes that the data is homogenous. Firstly are the fixed effect (FE) and random effect (RE) approaches (Gujarati, 2011, Cameron, 2009, Baltagi, 2010). Pooled least squares are the combination of the time series and cross-section methods, which is the estimate used by ordinary least squares (OLS). Secondly is the fixed effect (FE) approach, which has the possibility of omitting the variable problems arising from the interception of time series or cross-sections. Thirdly is the random effect (RE) approach. This approach is more efficient in the process when compared to the others, because it is a variation on the generalised least squares estimation.

4.7.2.1 Pooled OLS regression

The pooled least squares approach is a combination of time series and cross-section approaches and continues using ordinary least squares. To test the analyses of the relationships between the three variables of corporate governance: risk management, internal control, corporate reputation, and firm performance, the first step is the pooled OLS regression. This method is a combination of time series and cross-sectional data with the observation of individuals, firms, economic sectors and regions over the period. The formulation in this model is:

$$FP_{it} = \alpha + \beta_3 NAC_{it} + \beta_4 NACI_{it} + \beta_5 NACFE_{it} + \beta_6 NIB_{it} + \beta_7 SB_{it} + \beta_8 Big4_{it} + \beta_9 AUC_{it} + \beta_1 RD_{it} + \beta_{10} BDR_{it} + \beta_2 Lev_{it} + \beta_{11} Size_{it} + \beta_{12} IND_{it} + U_{it} \quad (4.6)$$

where there are subscripts in these variables, symbol *i* means the cross-section unit and *t* is related to time series; the intercept symbol is α and β_1, β_2 refers to the regression coefficient and μ is the error term. The dependence variables are either Tobin's Q or ROA. The independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), risk disclosure (RD), leverage (LEV), Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), AUC dummy variable (1:

auditor change, 0: no auditor change) and bond rating (BDR). Control variables are: firm size (SIZE) and industry sector (IND).

The OLS method assumes that the data is homogeneous and that the coefficients cross time and the cross-sections remain the same.

4.7.2.2 Fixed effects model

Another approach is the fixed effect model for heterogeneity among subjects by individuals which have their own intercept values. The assumption is that the intercept is different across individuals, but the time variant does not vary over time. The fixed effect model controls all individual variant differences; therefore, the model cannot be biased due to omitted time variance characteristics. This method can examine the relationships between the dependent variables and independent variables in the entity to control the factor of the time variant. This approach is as well known as the least square dummy variable model (LSDV). This model also assumes the intercept variant is a constant cross-section among the unit. The equation for the fixed effect model is formulated as:

$$FP_{it} = (\alpha + \mu_i) + \beta_3 NAC_{it} + \beta_4 NACI_{it} + \beta_5 NACFE_{it} + \beta_6 NIB_{it} + \beta_7 SB_{it} + RD_{it} + \beta_2 Lev_{it} + \beta_8 Big4_{it} + \beta_9 AUC_{it} + \beta_{10} BDR_{it} + \beta_{11} Size_{it} + \beta_{12} IND_{it} + U_{it} \quad (4.7)$$

In this model, μ_i is the unobservable individual specific effects, which are not included in the regression. Where there are subscripts in these variables, symbol *i* means the cross-section unit and *t* is related to the time series; the intercept symbol is α and β_1, β_2 refers to the regression coefficient and μ is the error term. The dependent variables are either Tobin's Q or ROA. The independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), risk disclosure (RD), leverage (LEV, Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), AUC dummy variable (1: auditor change, 0: no auditor change) and bond rating (BDR). Control variables which are: firm size (SIZE) and industry sector (IND).

4.7.2.3 Random effects model

The random effects method is suitable for a large population and the condition is that the random intercept of each cross-section unit is uncorrelated with the repressors. The benefit of this method is that the time variant variable is constant, and it can also investigate the regression model. Moreover, the results from the random effects model can estimate the dependent variable and also the coefficients of time variant (Cameron, 2009). On the other hand, the disadvantage of the random effects model is its inconsistencies and biased results. The model offers for time constant independent variables and does not exclude them from the regression model (Gujarati, 2011). The random effects model for analysing the relationships between the three elements of corporate governance and firm performance uses the following equation formula:

$$\begin{aligned} FP_{it} = (\alpha + \mu_i) + \beta_3 NAC_{it} + \beta_4 NACI_{it} + \beta_5 NACFE_{it} + \beta_6 NIB_{it} + \beta_7 SB_{it} \\ + \beta_1 RD_{it}\beta_8 + \beta_2 Lev_{it} + Big4_{it} + \beta_9 AUC_{it} + \beta_{10} BDR_{it} + \beta_{11} Size_{it} \\ + \beta_{12} IND_{it} \\ + U_{it} \end{aligned} \quad (4.8)$$

Where there are subscripts in these variables, symbol *i* means the cross-section unit and *t* is related to the time series; the intercept symbol is α and β_1, β_2 refers to the regression coefficient and μ is the error term. The dependent variables are either Tobin's Q or ROA. The independent variables are number of audit committee members (NAC), number of independent audit committee members (NACI), number of audit committee members having financial expertise (NACFE), number of independent board members (NIB), size of board (SB), risk disclosure (RD), leverage (LEV), Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), AUC dummy variable (1: auditor change, 0: no auditor change) and bond rating (BDR). Control variables are: firm size (SIZE) and industry sector (IND).

4.7.3 Panel data model

Based on econometric theory, the panel data regression model has several methods such as the command constant (pooled OLS), fixed effects and random effects methods (Baltagi, 2010). Hypothesis testing using the panel data method uses individual tests; for instance: the Breusch–Pagan or Lagrange multiplier test and the Hausman test.

4.7.3.1 Breusch–Pagan test

The test in this method is also call the Lagrange multiplier (LM) using the random effects and pooled OLS methods, which are appropriate in the panel data model based on the OLS residual (Baltagi, 2005).

4.7.3.2 Hausman test (fixed effects or random effects)

Panel data models have two different types, of which either the fixed effects model or the random effects model is to be selected. The regression is to determine whether to use the fixed effects or random effects model, fixed by using the error term that has correlation (or not) with the independent variable; thus the Hausman test uses the medium to determine the correlation. A value below the null hypothesis means that the individual effect is random. The random effect should be predicted by an estimator, that is consistent in both effects. To test whether the model is fixed effects or random effects, the Hausman test uses the correlation term error and the explanatory variables with running use of the regression models (Baltagi, 2008). According to Baltagi (2005), in the regression the error component is $E(u_{it}/X_{it}) = 0$. It is essential to give the disturbance contained in the individual effects which are not served and possibly correlated with X_{it} .

4.7.3.3 Diagnosis testing

The diagnostic tests have two parts. The first is the data distribution in terms of normality, extreme outliers and multicollinearity, and the second is the diagnostic test specification from the panel data and heteroscedasticity and autocorrelation.

4.7.3.4 Normality

Normality is related to the distribution of quantitative data and corresponds to the normal distribution. In multivariate analysis of data, normality is a basic assumption; thus if there is a sufficiently large deviation, the statistical test results are invalid (Hair et al., 2010). The residual should be independent in a normal distribution. Therefore, the residual is essential to test for normality. For individual variables, it is not important to check the normality (Tabachnick and Fidell, 2007).

There are two ways to test the normality, namely: skewness and kurtosis. Skewness relates to the symmetry of distribution, with skewness of non-normal distribution on the one side, either left or right. Kurtosis is to do with the peakedness or flatness of the distribution when compared with normal distribution. There have been suggestions that

skewness and kurtosis should be used to test statistics in a large data set (Tabachnick and Fidell, 2007). In statistics, the variables may have significant skewness and kurtosis but do not deviate enough to be of any significance in the analysis. Therefore, the solution is to look at the shape of distribution on the graph. According to Hair et al., (2010), the normal probability plot is the same as the actual data values and is more reliable than cumulative distribution in the normal distribution. The actual data becomes normal if the present line closely follows the diagonal line.

4.7.3.5 Outliers

To solve the normality problem of outliers, data transformation is needed. But different authors have opposing arguments. Data that has been transformed sometimes does not have the same meaning as the original data (Grissom, 2000). Tabachnick and Fidell (2007) suggested that data transformation is not usually recommended because the result is sometimes more difficult to interpret.

4.7.3.6 Multicollinearity

Multicollinearity is related to the correlation among dependent and independent variables, with two or more predicted variables that are highly correlated with each other. The percentage of high correlation is around 0.90, which means that the collinearity problem shows the independent variables are related to each other (Tabachnick and Fidell, 2007, Hair et al., 2010). There are two types of measure, the multicollinearity tolerance and the variance inflation factor (VIF) (Hair et al., 2010). Tolerance is a direct measure of multicollinearity among the variables where the selected independent variable has not been made redundant by other independent variables. The VIF is an indicator that the independent variable has a standard error of coefficient of regression.

4.7.3.7 Heteroscedasticity

One of the problems in cross-sectional data is heteroscedasticity. There are many causes of heteroscedasticity, such as the presence of outliers in the data, the function of the regression model, incorrect data transformation and insufficient information in the data (Gujarati, 2011). Heteroscedasticity is when the error of variance is constant. The regression disturbance in the panel data model is restricted by the assumption that the time variance and unit are the same (Baltagi, 2005). The heteroscedasticty test aims to test whether in the regression model, variance inequality occurs from one residual to

another observation. If the variant of the residual on observation to another observation remains, then it is called homoskedasticity and if it is different it is called heteroscedasticty (Ghozali, 2009).

4.7.3.8 Autocorrelation

The problem with regression analysis is autocorrelation, which is related to the correlation in the time-series data. Autocorrelation is important in influencing the covariant metric from the square estimator when compared with heteroscedasticity (Greene 2008). For detecting autocorrelation in Stata, the *xtserial* syntax program is used for testing of serial correlation in the linear panel data model in idiosyncratic errors (Wooldridge, 2002). Multicollinearity tests aim to find out whether in a regression model there is a correlation between independent variables. A good regression model is said to be free from multicollinearity if it has a VIF (Variance Inflation Factor) value below 10 and tolerance value not smaller than 0.1 (Baltagi, 2010).

4.7.4 Robust standard error

Panel data is used in the diagnosis test to detect the presence of cross-sectional dependence, heteroscedasticity and autocorrelation in the residual model. (Sarafidis et al., 2009) argued that the best approach to solve the cross-sectional dependent problem is by using time dummies. On the other hand, they also suggested that time dummies will not be effective and identification of the cross-sectional dependence will be cleared totally by the time dummies if the time effect is fixed (Petersen, 2009).

4.7.5 Goodness of fit

Panel data regression is measured by R^2 to determine the goodness of fit. The coefficient determination is the percentage of total variation. R^2 ranges between 0 and 1. If R^2 is close to 1, this means it shows better goodness of a fit, and if R^2 is close to 0, this means adverse goodness of fit (Gujarati, 2011). R^2 is used as the explanatory power for the independent variable in the regression which is influenced by the number of observations and independent variables.

Table 4.5 summarises the whole model used in this study, including the measurement of the dependent variables and independent variables of corporate governance mechanisms, risk management and firm performance.

Table 4.5 Dependent, independent and control variables and their measurements

Dependent variable		
No.	Variable	Measure
Firm value		
1	Tobin's Q	(Equity market value + Liabilities book value)/(Equity book value + Liabilities book value)
2	Return on assets	Earnings/Total assets
Independent variable		
No.	Variable	Measure
Corporate governance		
1	Audit committee	Number of audit committee members Number of independent audit committee members Number of audit committee members having financial expertise
2	Board of directors	Number of independent board members Size of board
3	Audit type	Dummy variable 1 : Big 4 0 : Non-Big 4
4	Audit change	Dummy variable 1: Auditor change 0: No auditor change
Risk management		
1	Risk disclosure	Risk disclosure index
2	Leverage	Total debt/Total assets
Control Variable		
1	Industry sector	1: Non-finance
		0 : Finance
2	Size	Total asset

4.8 Conclusion

This chapter has provided the methodology of the study, including the econometric models and the data sources. The data for listed companies was obtained from the Indonesian Stock Market. The data on corporate governance mechanisms and risk management was also obtained from the Indonesian Stock Market and the data on corporate reputation was taken from the Indonesian credit rating agency (PEFINDO). The diagnosis test has been used to investigate corporate governance mechanisms, risk management, corporate reputation and firm performance. This chapter has presented the measurement for each variable, as results of the econometric analysis are used for testing the hypothesis and the relationships between the dependent variables and independent variables. The panel data method in this study has used panel data regression, which has three methods: pooled OLS or comment constant, fixed effects (FE) and random effects (RE).

Based on econometric theory, the panel data regression models have several methods including the command constant (pooled OLS), fixed effects and random effects methods (Baltagi, 2010). Hypothesis testing using the panel data method used individual tests; for instance, the Breusch–Pagan or Lagrange multiplier test and the Hausman test, to test the indirect effect used the mediating analysis in the part analysis.

CHAPTER 5: ECONOMETRIC RESULTS

5.1 Introduction

The details of this research and the analysis of the information and application of the statistical data are presented in this chapter. The relationships between the dependent and independent variables are discussed in detail. Three aspects are discussed in detail which are corporate governance mechanisms, risk management and corporate reputation; all which have positive impacts on firm value. To ascertain whether the instrument of corporate governance has a positive impact on firm performance, tests using multicollinearity, autocorrelation and heteroscedasticity are carried out and discussed. The relationship between corporate governance mechanisms and risk management has significant impact on firm value through the mediating variable corporate reputation as presented in this chapter.

This chapter presents the empirical results and the relevant and related discussion. Firstly is the discussion of the analysis of the descriptive statistics, correlations among the variables and tests of the regression panel models. Secondly, this chapter presents the discussion of the analysis of the results. Model 1 shows the relationships between corporate governance mechanisms, risk management, corporate reputation and firm performance using Tobin'Q as proxy. Model 2 presents the relationship corporate governance mechanisms, risk management, corporate reputation and firm performance used ROA as proxy. This chapter is organised as follows. Section 5.2 presents the description of the statistics. Section 5.3 reports the results of corporate governance mechanisms, risk management, corporate reputation and the implication on firm value. Section 5.4 presents level of measurement, 5.5 sample selection, and 5.6 results. Section 5.7 discusses the robustness test, with 5.8 summarising the chapter.

5.2 Statistical Tests

The statistical tests are based on some assumptions as well as the model data analysis, measurement of level, independence of observation, normal distribution and homogeneity of variance. According to the suggestion by Gujarati (2006), it is essential to make assumptions before testing the panel data analysis. This study uses the analysis as presented in Table 5.1 below.

Table 5.1 Descriptive statistics for corporate governance mechanisms, risk management and corporate reputation and firm performance

Variable	Observation	Mean	Std dev	Min	Max
Panel A: Performance					
Tobin's Q	204	2.91	2.87	0.00	19.62
ROA	204	0.07	0.21	–0.02	2.15
Panel B: Corporate governance					
NAC	204	3.59	1.05	2.00	7.00
NACI	204	2.86	1.30	0.00	6.00
NACFE	204	2.85	1.30	0.00	6.00
Big 4	204	0.52	0.50	0.00	1.00
AUC	204	0.01	0.07	0.00	1.00
NIB	204	2.43	1.14	0.00	5.00
SB	204	5.85	1.83	2.00	11.00
Panel C: Risk management					
RD	204	6.24	2.97	1.00	12.00
LEV	204	0.68	0.21	0.22	1.15
Panel D: Corporate reputation					
BDR	204	21.09	2.63	13.0	26.00
Panel E: Control variable					
Size	204	3.85	0.67	2.43	5.41
IND	204	0.58	0.49	0.00	1.00

Notes: RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category.

In Table 5.1, Panel A shows the measurements of firm performance, which are Tobin's Q and ROA. The descriptive statistics in the sample (n = 204) and Tobin's Q have a scale ranging between the minimum of 0 per cent and the maximum of 19.62 per cent, with an average value of 2.91 per cent and standard deviation of 2.87 per cent. The ROA has a minimum value of 0.20 per cent, maximum value of 2.15 per cent and standard deviation of 0.21 per cent.

Table 5.1, Panel B gives corporate governance mechanisms, which shows that for the number of audit committee members (NAC), the average is 4, the minimum is 2 and the maximum is 7 members. Regarding the number of independent audit committee members (NACI), the average is 3 members, the minimum is 1 member and the maximum is 5 members. In this study, the standard deviation for the number of audit committee members having financial expertise (NACFE) is found to have a higher variance as compared to the number of audit committee members (NAC) and the number of independent audit committee members (NACI). As for the Big 4 auditor category, 50 per

cent of the companies are found to be using Big 4 auditors and the other 50 per cent do not. Regarding the change of auditor, only 1 company was found to have made an auditor change. On the number of independent board members (NIB), the average number is 3 members and the maximum is 5 members.

In Table 5.1, Panel C provides the descriptive statistics for risk management. Risk disclosure (RD) is measured on a scale from 1 to 12, of which the average value is 6.36, which means that companies have risk disclosures at a medium level. Leverage (LEV) has 66 per cent and a moderate standard deviation between the minimum of 0.21 and the maximum of 0.94.

Table 5.1, Panel D presents the descriptive statistics of corporate reputation ratings, with rankings from 1 to 26. A ranking of 1 means good, as the symbol AAA refers to the highest rating. This rating indicates strong capacity in meeting financial commitments. The lowest ranking of 26 means a default (D) rating, which indicates bankruptcy status. Bond rating (BDR) has of average of 21, which means that the level of bond rating refers to debtors who are currently vulnerable and dependent on favourable commitments. Table 5.1 shows that the highest distribution of standard deviation (variance) is for risk disclosure (RD) with a value of 3.00 and the second highest is for Tobin's Q with a variance of 2.87.

From Table 5.1 it can also be noted that there are some important characteristics pertaining to the Indonesian setting. Firstly, Indonesian firms tend to have a large BOD but small number of independent board members. Secondly, most of the independent audit committee members have financial expertise, while most of the non-independent audit committee members do not have financial expertise.

5.3 Correlation Analysis

Table 5.2 reports the Pearson correlations. A correlation with a value close to 1 means that the correlation is strong and a negative value is an indication of an inverse relationship. If the results show a positive value, it means there is a direct relationship. The correlation of variables is presented in Table 5.2.

Table 5.2 Correlations between variables

Var.	Tobin's Q	ROA	RD	LEV	NAC	NACI	NACFE	BIG 4	AUC	NIB	SB	BDR	SIZE	IND
Tobin's Q	1													
ROA	-0.0883	1												
RD	0.2878	0.0580	1											
LEV	0.3555	-0.0400	0.6337	1										
NAC	0.1507	0.0673	0.3645	0.3760	1									
NACI	0.5346	-0.0180	0.4990	0.4965	0.4947	1								
NACFE	0.2575	0.1167	0.3265	0.3674	0.3835	0.5825	1							
BIG 4	0.3266	0.0174	0.4133	0.4367	0.3640	0.4109	0.2738	1						
AUC	-0.0046	-0.0217	-0.0554	-0.0385	-0.0398	0.0090	0.0077	-0.0750	1					
NIB	0.2370	0.0318	0.4213	0.4517	0.3411	0.4873	0.4313	0.5262	-0.0275	1				
SB	0.0159	-0.0574	0.1427	0.2018	0.2482	0.3356	0.2837	0.3782	-0.0327	0.5700	1			
BDR	-0.0355	0.2616	0.2359	0.2769	0.4012	0.1963	0.3047	0.4975	-0.0569	0.3304	0.2103	1		
SIZE	-0.1193	0.2259	0.2699	0.1693	0.3152	0.2170	0.2857	0.6147	-0.0243	0.4667	0.4702	0.6300	1	
IND	-0.4117	-0.0739	-0.6476	-0.3615	-0.1154	-0.3210	-0.4120	0.5494	0.0591	-0.3195	-0.0651	-0.2360	-0.2746	1

Notes: ROA = return on assets, RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category.

Based on this analysis, there are positive correlations between risk disclosure (RD), and Tobin's Q and ROA. However, leverage shows different results, whereby for Tobin's Q there is a positive correlation, but for ROA the correlation is negative. The number of audit committee members (NAC), number of independent audit committee members (NACI) and number of audit committee members having financial expertise (NACFE) all have positive correlations with Tobin's Q. In contrast, the correlation is negative between ROA and number of audit committee independent members. The use of Big 4 auditors has a positive correlation with ROA, however, it has a negative correlation toward Tobin's Q. Auditor change (AUC) has a negative correlation with both the Tobin's Q and ROA measures of firm performance. The number of independent board members has a positive correlation with Tobin's Q and ROA. In terms of board size, the correlation with Tobin's Q is positive, however, the correlation with ROA is negative. Bond rating (BDR) has a positive correlation with ROA but a negative correlation with Tobin's Q. The correlations among the other independent variables are not high, which means that there is no correlation among these variables.

5.4 Level of Measurement

The regression analysis for the dependent variable is measured using a ratio scale. The dependent variable in this study is firm performance based on Tobin's Q and ROA. For the regression analysis, the independent variables of corporate governance mechanisms measures are the number of audit committee members (NAC), the number of independent audit committee members (NACI), the number of audit committee members having financial expertise (NACFE), the number of independent board members (NIB), size of board (SB), Big 4 (1: companies using Big 4 for audit, 0: companies not using Big 4 for audit), and AUC is used for the dummy variable (1: auditor change, 0: no auditor change). The independent variables of risk management measures are leverage (LEV) and risk disclosure (RD); and the variable of corporate reputation uses bond rating (BDR) with score from 1 until 26 depend on the rating company category. Meanwhile, control variables used are firm size (SIZE), with amount of total asset company and industry sector (IND) having two classification which are 1 referring to non-finance companies and 0 reflecting finance companies.

5.4.1 Independent observations

An independent observation refers to each observation or measurement that is not affected by other observations. According to Gujarati (2006), the situation when the independent variables correlate with each other in a model is called multicollinearity. Theoretically, mulicollinearity in a model can be assessed by examining the tolerance and variance inflation factors (Gujarati, 2011, Cameron, 2009). The results from this study in relation to the tolerance factor and variance inflation factor (VIF) are presented in Table 5.3.

Table 5.3 Variance inflation factor (VIF)

Variable	VIF	1/VIF
RD	3.35	0.298591
BIG 4	3.20	0.312297
IND	3.16	0.316410
SIZE	2.73	0.366266
NACI	2.34	0.426467
NIB	2.25	0.444326
LEV	2.25	0.444984
NACFE	2.20	0.453696
BDR	1.98	0.504371
SB	1.85	0.541994
NAC	1.72	0.580618
AUC	1.02	0.984748
Mean	**2.34**	

Notes: This table reports the results of multicollinearity using the STATA program.
RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category.

The results presented in Table 5.3 show that risk disclosure (RD) scores the highest value of 3.35 for VIF and the 1/VIF is 0.298591. The lowest value is the auditor change (AUC) whose VIF value is 1.02 and 1/VIF is 0.934748. Audit quality (BIG 4) has for 3.20 for VIF and 1/VIF is 0.312297. The number of independent audit committee members (NACI) has the value 2.34 for VIF and 0.426467 for 1/VIF, followed by the number of independent board members (NIB), whose VIF and 1/VIF respectively are 2.25 and 0.44326. The number of audit committee members having financial expertise (NACFE) has similar values of 2.20 for VIF and 1/VIF is 0.453696. The results reveal that the value of VIF is 1.85 for size of board (SB), 1.98 for bond rating (BDR) and 1.72 for the number of audit committee members (NAC). The value of 1/VIF is found to be similar, with

0.541994 for size of board, 0.504371 for bond rating and 0.580618 for the number of audit committee members. The control variables are firm size (SIZE), which has a value of 2.73 for VIF and 0.366266 for 1/VIF, while the industry category (IND) has a value of 3.16 for VIF and 0.316410 for 1/VIF. The results of this analysis show that none of the independent variables have any multicollinearity in the model because all the variance inflation factors (VIF) are less than 10 and the mean VIF value is 2.34. The result of diagnosis testing in this study is similar with the theory (Hair et al., 2010).

5.5 Sample Selection

This study encompasses 36 companies selected from the Indonesian Stock Exchange. For analysis of the relationships between of corporate governance mechanisms and firm performance, panel data analysis is used. Baltagi (2010) argued that panel data analysis has some advantages: it provides more informative data, more variability, more efficiency, less collinearity, and can control the individual heterogeneity.

The data for corporate governance mechanisms has been taken from the Indonesian Stock Exchange and the credit ratings from PEFINDO for a period of six years. Table 5.4 presents the balanced panel data and the short panel data for the 36 companies (individual units) over the six-year period from 2007 to 2012.

Table 5.4 Balanced panel data

Panel variable	idcode (balanced)
time variable delta (year) N	year, 2007 to 2012 1 unit 36 companies
Idcode year* uniquely identifies each observation for 204 observations	

Note: Data sets are based on panel data with idcodes denoting an individual firm and years as the time period, with the use of the STATA program.

Breusch–Pagan or Langrange multiplier test

As discussed in the previous chapter, this study also uses a test for heteroscedasticity to test the model panel data, in order to determine which model is more appropriate for use, the pooled OLS or the random effects (RE) model. The result of the Breusch–Pagan or Langrange multiplier test is presented below.

Breusch–Pagan / Cook–Weisberg test for heteroscedasticity

Ho: Constant variance

Variables: fitted values of TQ

chi2(1) = 67.99

Prob>chi2 = 0.0000

Based on these results, the implication is that the null hypothesis is rejected. Therefore, the appropriate model to use is the random effects model (RE), as compared to pooled OLS. As discussed in the previous chapter, to test the appropriate method in the panel data regression, which uses either the fixed effects method or the random effects method, the specific test is the Hausman test. The Hausman test refers to the determination of correlations. The null hypothesis normally refers to the fixed effects, but if the result is greater than zero, the random effects would be more appropriate to use. The results from the Hausman test are presented below.

Table 5.5 Hausman test on the regression model

Variable	Coefficients		Difference (b–B)	sqrt (diag(V_b–V_B)
	b (fixed)	B (random)		
RD	-0.157673	-0.2323314	0.2165641	0.4892622
LEV	1.326123	1.0192277	0.3068465	2.739444
NAC	-0.667592	-0.0745244	-0.0077652	0.6177723
NACI	1.89054	1.633361	0.2571789	0.3382121
NACFE	-0.2771836	-0.2600218	-0.0171618	0.5802285
AUC	-0.4023787	0.379438	0.229407	0.4075544
NIB	0.1496666	0.1772829	-0.0276163	0.5296964
SB	-0.265003	-0.1040766	-0.1609263	0.620228
BDR	-0.6695	-0.0342874	-0.326625	0.0939842
SIZE	-2.491042	-2.193732	-0.2973098	0.277622

Notes: b = consistent under Ho and Ha; obtained from xtreg
B = inconsistent under Ha, efficient under Ho; obtained from xtreg
Test: Ho: difference in coefficients not systematic
chi2(11) = (b–B)'[(V_b–V_B)^(–1)](b–B)
= 5.62
Prob>chi2 = 0.8464
RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size.

As shown in Table 5.5, the results of the Hausman test on the regression has a Prob> chi2 = 0.8464, which means that the Prob>chi2 is larger than 5 per cent. Therefore

this study shows that the random effects model is a more appropriate method than the fixed effects model.

5.6 Results and Discussion

The discussion and the results of the analysis of corporate governance mechanisms, risk management, and corporate reputation, and the impacts on firm performance are presented in the following subsections. The measurement of firm performance uses two proxies, Tobin's Q and ROA. The analysis of the indirect relationship of corporate governance mechanisms, risk management and firm value using the role of corporate reputation as the mediating variable is presented in the next section

5.6.1 The relationship of corporate governance mechanisms, risk management, corporate reputation toward firm performance

A summary of the results of this study is presented in Table 5.6 below. It presents Model 1 and the explanation of the relationship of corporate governance mechanisms, risk management, corporate reputation, and firm performance using Tobin's Q measures as the proxy.

From Table 5.6, Model 1, the result shows that the number of audit committee members does not have a significant relationship with firm performance. This result is consistent with that of the research done by Nuryanah (2004), who found that the size of the audit committee does not have a significant impact on firm performance. However, this result is contrary to the expected prediction of sub-hypothesis H1a. This sub-hypothesis suggests that the number of audit committee members has a positive impact on firm performance.

Table 5.6 Corporate governance mechanisms, risk management and corporate reputation toward firm performance using Tobin's Q

MODEL 1 Tobin's Q			
	Coef.	**z**	**P>z**
NAC	-0.0745244	-0.27	0.789
NACI	1.633361	4.44	0.000
NACFE	-0.2600218	-1.11	0.265
BIG 4	1.773115	2.03	0.042
AUC	0.379438	3.92	0.000
NIB	0.1772829	0.77	0.442
SB	-0.1040766	-0.54	0.587
RD	-0.2323314	-1.79	0.073
LEV	1.019277	0.64	0.521
BDR	-0.342874	-0.53	0.599
SIZE	-2.193732	-3.15	0.002
IND	-2.099803	-3.01	0.003
_cons	9.687063	3.06	0.002
Observation			203
R square			0.51
P value F test			0.00

Notes: RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category.

Another variable of the corporate governance mechanism is the number of independent audit committee members. The coefficient of the number of independent audit committee members is positive and the p-value is 0.00, as can be seen in Table 5.6, Model 1. Based on this result, it can be concluded that the number of independent audit committee members has a significant impact on firm performance. This finding supports sub-hypothesis H2b, which predicts that the number of independent audit committee members has a positive impact on firm value. The results support the agency theory which highlights the function of an independent director to monitoring the code of corporate governance, which the composition of the audit committee come from non-executive and should be independent. The advantage of an independent audit committee is that it could reduce internal conflict between managers and shareholders (Fama and Jensen, 1983b). The results are consistent with a prior study that and independent audit committee has a positive correlation toward firm performance as measured by Tobin's Q (Ivashkovskaya and Stepanova, 2011). The results indicate that the controlling and monitoring by an independent audit committee makes the firm more effective, therefore enhances the performance of the firm.

Besides the number of independent audit committee members, another variable is the number of audit committee members having financial expertise. The results presented in Table 5.6, Model 1, show that the p-value is not significant, which means that the number of audit committee members having financial expertise does not have a significant impact on firm performance. This result does not support sub-hypothesis H2c. The absence of a relationship between the number of audit committee members having financial expertise and firm performance implies that audit committees in the Indonesian environment are not yet efficient. These results may be an indication that Indonesian firms still rely on internal audit committee members, as it is argued that internal parties are more knowledgeable about the business of companies.

Another measure of the corporate governance mechanism is the quality of audit. As reported in Table 5.6, Model 1, the quality of audit has a significant relationship with performance, where the p-value is 0.042. These results support sub-hypothesis H1d. Many of the Indonesian companies have tried to attract foreign investors and creditors to increase their capital due to the high economic growth. In attracting foreign investors, these companies need to show credibility by employing a high-quality audit firm (one of the Big 4). This study has found that the quality of auditors has a positive impact on firm performance. The result implies the auditor quality (Big 4) creates good internal control of the firm leading to increased firm performance. This result is consistent with a prior study suggesting that auditor quality has a positive impact in decreasing the cost of debt in the market (Mansi et al., 2004). Additionally, reaction in the market is positive to auditor quality when a market announcement is made about change of auditor to one of better quality (Eichenseher et al., 1989).

Another variable of corporate governance mechanism is auditor change or auditor rotation. The results shown in Table 5.6, Model 1, give the p value of 0.000 for auditor change or auditor rotation so it has a positive impact on firm performance. This result supports the sub-hypothesis H1e. The results are also supported by previous studies that found that the auditor rotation is more effective, enhancing the objective and independency of the auditor (Kemp Jr et al., 1983, Wolf et al., 1999, Winters, 1976) and reducing the bias in the financial report of firm (Dopuch et al., 2001). Additionally, the effectiveness of the auditor influences the good quality of the financial report (Ebimobowei and Keretu, 2011). Moreover, auditor rotation creates more confidence in

the company in the regulatory system (Healey and Kim, 2003) and increases market share (Buck and Michaels, 2005). Creativity in the auditing approach increases and improves the relationship between the auditor and client. (Carey and Simnett, 2006).

The number of independent board members (NIB) is also found to have no relationship with firm performance, which contradicts hypothesis H1f. However, this finding is consistent with those of previous studies by (Ghofar and Sardar, 2013), (Bhagat and Black, 2002) and Yermack (1996), as a high level of control by an independent board is not beneficial to the company because it may restrain managers from engaging in aggressive investments and being more innovative (Gani and Jermias, 2006, Ghofar, 2013). It is argued that an independent board can implement more control and monitoring of managers' activities, which could reduce the innovativeness of managers. However, it should be noted that the relationship between the independence of boards and firm performance is still inconclusive (Kim and Lim, 2010).

The other characteristic of the BOD is board size. This study does not provide evidence of a relationship between size of board and firm performance. These results reject the hypothesis H1g that the size of board director has a positive impact on firm performance. This result is not consistent with prior studies by (Hermalin, 2013) Hermalin and Weishbach (2003) and (Lipton and Lorsch, 1992). Nevertheless, this result is not alone in providing a non-significant relationship between the size of board and firm performance. This result consistent with the previous study suggesting that the board size has no significant correlation with Tobin's Q as proxy of firm performance (Beiner et al., 2004). Similar findings by Yermack (1996) states there is no significant impact of the size of the board on firm performance. Moreover, Kula (2005) finds evidence that there is no significant correlation between board size and firm performance.

Based on the results presented in Table 5.6, Model 1, it can be seen that risk management has two variables, which are risk disclosure and leverage. The results show that risk disclosure has a p value of 0.073. Risk disclosure has significant impact on firm performance. This result is consistent with the hypothesis H2a suggesting that risk disclosure has a positive impact on firm performance. The result is consistent with a prior study suggesting that increasing risk disclosure is important for corporate governance (Solomon et al., 2000). Moreover, risk disclosure is essential information for the investor regarding the company and informs them whether the company is a going concern or

facing collapse (Solomon et al., 2000). The results of risk disclosure in Table 5.6 indicate the coefficient is negative, which shows that the higher the disclosure, the lower the value of Tobin's Q. There could be some reasons to explain this result. Firstly, in the Indonesian setting risk disclosure is not considered an important factor for investors in their investment activities. The World Bank (2010) has reported that one of the weaknesses of Indonesian corporate governance is the low quality of disclosure. This low quality of disclosure might have resulted in lower investor confidence in relation to information disclosed in the annual reports; hence in their decisions on investment activities, investors tend to rely on other information. Secondly, as the quality of disclosure is low, risk management disclosure does not contain quality or adequate information.

Another measurement of risk management is leverage. Table 5.6, Model 1, shows that leverage does not have significant relationship with firm performance. This result is contrary to the expected prediction with the hypothesis stating that leverage has a positive impact on firm performance. This finding is not consistent with a previous study suggesting that there is a positive correlation between leverage and firm performance (Weill, 2001, Ross, 1977).

It can be seen in Table 5.6, Model 1, that corporate reputation measured by bond rating has no relationship with firm performance. This result implies that hypothesis 3 is rejected. This result is consistent with that of the study conducted by (Goh and Ederington, 1993), who also found no relationship between firm reputation and firm performance. Goh and Ederington (1993) explained that the investor would react when the company changes the bond rating. Consequently, bond rating by itself is not relevant to firm value, but a change of bond rating could have either a positive or negative impact on firm performance and firm value. Based on the results of Model 1, the control variables, which are firm size and industry sector, have positive correlations with firm value, with p values shown of 0.002 and 0.003 respectively. This result supports a prior study found that firm size has significant impact on firm performance as discussed by Al-Matari et al. (2012). Moreover, in the large size firm, their activities will be easier to explore, thus it may produce more profitability compared to smaller firms (Joh, 2003).

The hypothesis on the corporate governance mechanisms, risk management and corporate reputation, in relation to firm performance can be accepted because the p-value of the test is significant and the R square is about 0.51 or 51 per cent, which is quite high.

The results of this study revealed that the relationship between corporate governance mechanisms and firm value is consistent with theory argued by Lazonick and O'sullivan (2000), Plessis et al. (2005) and Gompers et al. (2003). Good corporate governance can control the activities and the existence of a good company management. Moreover, it will be able to control the use of funds in accordance with the objectives of the company to obtain profits and could avoid misuse of funds. Furthermore, the practices good of corporate governance mechanisms are crucial to influence firm value. Good corporate governance includes transparency, which presents information on financial statements in accordance with the conditions of the company that do not really need to be hidden.

Another interesting result of this study is the finding that risk management has correlation on firm value. This is supported by the theory argued by Collier (2009) and Leautier (2007). Risk management has become an important factor in a company that must be addressed to avoid risks and uncertainties. Companies need to issue notices of risks to other parties, besides avoiding the effects of risk, and a strategy is needed to reduce negative effects. The existence of risk management can prevent companies from failure and can also increase company profits.

This study also found that corporate reputation has a significant impact on firm value. Reputation is very important for a company. This is essential and is considered an intangible company asset (Barney 1991). Companies with good reputation will be easily known to outsiders, such as consumers, stakeholders and investors. The reputation of the company can be described as a bond rating. If the company gets a high AAA-style rating, it show it has the ability to pay all costs in the long term. On the contrary, if the company has a low DDD-style rating, it may mean it is not able to pay all of its debts or is facing collapse. This is an indicator of how companies survive. Outside parties of interested companies will see rankings as a reputation for the company. Examples of using reputation can be if a creditor wants to lend money but does not want to only rely on financial statements as indicators. If the company is well-reputed, the creditor will easily provide loan funds. This also applies to investors who will be attracted to invest in the if it has a good reputation to ensure their investment obtains profits. Based on the results of this study, it shows that company reputation can influence the value of the company. This is supported in the theory by Jones et al., (2004) and Dierickx and Cool (1989).

Another result of this study as presented in Table 5.7, pertains to the relationships between corporate governance mechanisms, risk management, corporate reputation, and firm performance using ROA as the proxy (Model 2).

Table 5.7 Corporate governance mechanisms, risk management, corporate reputation and firm performance using ROA

Model 2 ROA			
	Coef.	**z**	**P>z**
NAC	0.003682	0.03	0.976
NACI	0.0015949	0.10	0.918
NACFE	0.0137911	0.94	0.348
BIG 4	-0.883239	-1.45	0.146
AUC	-0.341457	-3.10	0.002
NIB	0.0024198	-0.17	0.866
SB	-0.0192793	-1.25	0.213
RD	0.0038546	0.57	0.567
LEV	-0.0117037	-1.65	0.100
BDR	0.0202243	1.96	0.049
SIZE	0.0731473	1.34	0.180
IND	-0.021269	-0.56	0.573
_cons	-0.4452768	-1.21	0.225
Observation			203
R square			0.14
P value F test			0.00

Notes: RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category.

As explained earlier, this study uses two measures of performance, Tobin's Q and ROA. Most of the results in Table 5.7, Model 2, using ROA as the measure of performance show no relationship between the independent variables and dependent variable except auditor change and bond rating. In the variables of corporate governance mechanisms, only auditor change is significant however, the coefficient negative. The measurements of risk management, risk disclosure and leverage, both have no correlation with ROA. The R square in this model is only 14 per cent, which is weak.

Meanwhile, it can be seen from Table 5.7, Model 2, that bond rating has a significant impact on firm performance. This result is consistent with finance theory, which suggests that a firm with a good credit rating tends to achieve higher ROA and hence maintain its long-term sustainability, and vice versa (Brealey, 2014). The other variable is auditor rotation or auditor change, which has a correlation with firm performance as proxy of return on assets (ROA). This is consistent with a previous study

arguing that auditor rotation is increases the quality of financial reporting of the company (Jackson et al., 2008) and decreases biased financial report (Dopuch et al., 2001). Moreover, auditor rotation could improve the market share (Buck and Michaels, 2005).

Based on Table 5.6, Model 1, this result implies that Tobin's Q is more appropriate to measure performance due to the fact that Tobin's Q can measure the value of investment in the future and reflects growth opportunities. ROA is a more short-term oriented measure; hence long-term factors such as corporate governance measures may not be clearly observed by ROA.

5.7 Robustness Test

To test the robustness of the random effects (RE) results, this study employs pooled OLS and fixed effects (FE). The results are presented in Table 5.8. From previous research, Tobin's Q is found to be more appropriate because it measures the value of investment in the future and impact on growth opportunities.

From the random effect (RE) estimation, this study has found that risk disclosure (RD), leverage (LEV), the number of independent audit committee members (NACI), audit quality (Big 4), firm size (SIZE) and industry sector (IND) are statistically significant. Table 5.8 shows the random effect (RE) results, which are confirmed by pooled OLS. For the fixed effects (FE), the RE results are partly confirmed, because in the FE the risk disclosure (RD) is not significant.

Table 5.8 Robustness test

Variable	Pooled OLS				Fixed effect			
	Coef.	Std. Err.	t	P>t	Coef.	Std. Err.	t	P>t
NAC	-0.526998	0.1800898	-0.29	0.770	-0.667592	0.6872578	-0.10	0.92
NACI	1.500735	0.2059341	7.29	0.000	1.89054	0.447098	4.23	0.00
NACFE	-0.284735	0.1640396	-1.74	0.084	-0.2771836	0.6391435	-0.43	0.665
BIG 4	1.22083	0.5179615	2.36	0.019	0	(omitted)		
AUC	0.625939	2.078818	0.13	0.900	0.4023787	1.803556	0.22	0.839
NIB	1786412	1906882	0.94	0.350	0.3075464	0.5912959	0.52	0.604
SB	-0.144313	1074857	-1.34	0.182	-0.265003	0.6484826	-0.41	0.683
RD	-0.2723934	0.878576	-3.10	0.002	0.157673	0.5121822	-0.03	0.975
LEV	1.991103	1.076428	3.59	0.066	1.326123	3.213792	0.41	0.680
BDR	-0.0970277	0.0449692	1.85	0.066	-0.6695	0.1378652	-1.5	0.136
SIZE	-1.428832	0.3560083	-4.01	0.000	-2.388054	0.4418973	-0.49	0.628
IND	-2.295765	0.5213346	-4.40	0.000	0	(omitted)		
-CONS	8.145128	1.488455	15.47	0.000	9.948963	5.290688	1.88	0.062

Notes: RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category

Results – mediating variables

To test the mediating variable, this study uses two kinds of testing methods namely: estimate the equation by using the regression method and testing the relationship variable by using the Stata software program.

The first equation estimates $\hat{\tau}$, the overall effect of the predictor X on the outcome Y. Equation 2 estimates the effect of X on the mediator, expressed as the $\hat{\alpha}$ regression coefficient. Equation 3 models the effect of the mediator on the outcome, the $\hat{\beta}$ coefficient, and also estimates any remaining direct or non-mediated effect of X on Y ($\hat{\tau}'$). Intercepts are expressed by $\beta 0(1)$, $\beta 0(2)$, and $\beta 0(3)$, and error variances by $\varepsilon 1$, $\varepsilon 2$, and $\varepsilon 3$.

Although there are several general methods of testing mediation (for an overview see Mac-Kinnon et al., 2002), this study focuses on the product of coefficients method that requires only the second and third equations, because the total effect of X on Y can be calculated from the regression results of equation 2, and equation 3. The point estimate of the mediated effect is the product of $\hat{\alpha}$ and $\hat{\beta}$ and can be tested for significance by dividing $\hat{\alpha}\hat{\beta}$ by its standard error and comparing the result to the standard normal distribution. This is the standard z method for testing mediation. This approach is also termed the Sobel test (Sobel test 1982, 1986) which focuses on testing the coefficient in a mediating variable.

To look at the significance of the indirect effect, the Product of Coefficient strategy is used by looking at the value of $z > 1.96$, although if it is independent to mediating significantly and mediating to the dependent is also significant, it can be assumed that there is an indirect effect of dependent to independent variable. The following are the path analysis test results.

Table 5.9 Regression the number of audit committee member

R	R-SQ	MSE	F	df1	Df2	P
.05896	.3477	4.6926	11.4296	9.0000	193.0000	.0000
Model	**coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
constant	17.7024	.7763	22.8041	.0000	16.1713	19.2335
nac	.6867	.1729	3.9720	.0001	.3457	1.0277
naci	-.6406	.2058	-3.1157	.0021	-1.0461	-.2351
nacfe	.4347	.1479	2.9394	.0037	.1430	.7265
Big 4	2.1728	.3843	5.6539	.0000	1.4148	2.9308
auc	-.4750	2.1841	-.2175	.8281	-4.7849	3.8329
nib	.0908	.1994	.4554	.6439	-.3025	.4842
sb	-.0162	.1068	-.1519	.8795	-.2262	.1944
rd	-.0143	.0698	-.2043	.8383	-.1520	.1235
lev	.5121	1.0525	.4865	.6271	-1.5638	2.5880

Notes: NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, RD = risk disclosure, LEV = leverage, BDR = bond rating, SIZE = firm size, IND = industry category.

Independent Variable: NAC

Equation 1: $Y = i_1 + cX + e_1$ (total effect X to Y)

$Y = 0.8501 + -0.4876\ X + e_1$

The value of 0.8501 in the above equation is interception, which describes the amount of Tobin's Q (TQ) if the Number of Audit Committee (NAC) is constant or equal to zero; while the value of 0.4876 is the total effect of the Number of Audit Committee on Tobin's Q (TQ) regardless of the mediator (not adjusted for the mediator) Bond Rating (BDR). A negative sign means that if the Number of Audit Committee (NAC) increases by one unit then Tobin's Q (TQ) will decrease by 0.4876.

Equation 2: $Y = i_2 + c'X + bM + e_2$ (Direct Effect X to Y and M to Y)

$Y = 5.3395 + -0.3135\ X + -0.2536\ M + e_2$

The value of 5.3395 in the equation above is intercept, which describes the amount of TQ if the NAC and BDR are constant or equal to zero. The value of 0.3135 is the direct effect of NAC on TQ after calculating the mediator (adjusted for the mediator) BDR and also other independent variables. A negative sign means that if the NAC increases by one unit, then TQ will decrease by 0.3135, assuming BDR and the other independent variables are constant or equal to zero; while the value of 0.2536 is the direct effect of the BDR mediator on TQ after taking into account NAC and other independent variables. A negative sign means that if the BDR increases by one unit, then TQ will decrease by 0.2536 assuming the NAC and the other independent variables are constant or equal to zero.

Equation 3: $M = i_3 + aX + e_3$ (Direct Effect X to M)

$M = 17.7024 + 0.6867\ X + e_3$

The value of 17.7024 in the equation above is intercept, which describes the amount of BDR if the NAC is constant or equal to zero; while, the value of 0.6867 is the direct effect of NAC on BDR mediators. A positive sign means that if the NAC increases by one unit, the BDR will increase by 0.6867.

Table 5.10 Regression of the number audit committee independent (NACI)

R	R-SQ	MSE	F	df1	Df2	P
.65896	.3477	4.6928	11.4296	9.0000	193.0000	.0000
Model	**coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
constant	17.7024	.7763	22.8041	.0000	16.1713	19.2335
naci	-.6406	.2056	-3.1157	.0021	-1.0461	-.2351
nac	.6867	.1729	3.9720	.0001	.3457	1.0277
nacfe	.4347	.1479	2.9394	.0037	.1430	.7262
Big 4	2.1728	.3843	5.6539	.0000	1.4148	2.9308
auc	-.4750	2.1841	-.2175	.8281	-4.7829	3.8329
nib	.0908	.1994	-.4554	.6493	-.3025	.4842
sb	-.0162	.1068	-.1519	.8795	-.2268	.1944
rd	-.0143	.0698	-.2043	.8383	-.1520	.1235

Notes: NACI = number of independent audit committee members, NAC = number of audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, RD = risk disclosure, BDR = bond rating, SIZE = firm size, IND = industry category LEV = leverage.

Independent Variable: NACI

Equation 1: $Y = i_1 + cX + e_1$ (Total Effect X to Y)

$Y = 0.8501 + 1.6362\ X + e_1$

The value of 0.8501 in the equation above is intercept which describes the amount of TQ if NACI is constant or equal to zero; while the value of 1.6362 is the total effect of NACI on TQ regardless of the mediator (not adjusted for the mediator) BDR. A positive sign means that if NACI increases by one unit then TQ will increase by 1.6362.

Equation 2: $Y = i_2 + c'X + bM + e_2$ (Direct Effect X to Y and M to Y)

$Y = 5.3395 + 1.4737\ X + -0.2536\ M + e_2$

The value of 5.3395 in the equation above is intercept, which describes the magnitude of TQ if NACI and BDR are constant or equal to zero. The value of 1.4737 is the NACI direct effect on TQ after calculating the mediator (adjusted for the mediator) BDR and also other independent variables.

A positive sign means that if it increases by one unit then TQ will increase by 1.4737, assuming BDR and the other independent variables are constant or equal to zero. While the value of 0.2536 is the direct effect of the BDR mediator on TQ after calculating NACI and also other independent variables. A negative sign means that if the BDR

increases by one unit, then TQ will decrease by 0.2536 with the NACI the assumption and the other independent variable is constant or equal to zero.

Equation 3: M = i3 + aX + e3 (Direct Effect X to M)

M = 17.7024 + -0.6406 X + e3

The value of 17.7024 in the equation above is intercept, which describes the amount of BDR if NACI is constant or equal to zero. Whereas, the value of 0.6406 is the direct effect of NACI on the mediator of BDR. A negative sign means that if NACI increases by one unit, the BDR will decrease by 0.6406.

Table 5.11 Regression the number audit committee has financial expert (NACFE)

R	R-SQ	MSE	F	df1	Df2	P
.5896	.3477	4.6926	11.4296	9.0000	193.0000	.0000
Model	**coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
constant	17.7024	.7763	22.8041	.0000	16.7909	19.2335
nacfe	.4347	.1479	2.9394	.0037	.1430	.7265
nac	.6867	.1729	3.9720	.0001	.3457	1.0277
naci	-.6406	.2056	-3.1157	.0021	-1.0461	-.2351
Big 4	2.1726	.3843	5.6539	.0000	1.4148	2.9308
auc	-.4750	2.1841	-.2175	.8281	-4.7829	3.8329
nib	.0908	.1994	.4554	.6493	-.3025	.4842
sb	-.0162	.1068	-.1519	.8795	-.2262	.1944
rd	-.0143	.0698	-.2043	.8383	-.1520	.1235
lev	.5121	1.0525	.4862	.6271	-1.568	2.5880

Notes: NACFE = number of audit committee members having financial expertise, NAC = number of audit committee members, NACI = number of independent audit committee members, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, RD = risk disclosure, LEV = leverage, BDR = bond rating, SIZE = firm size, IND = industry category.

Independent Variable: NACFE

Equation 1: $Y = i_1 + cX + e_1$ (Total Effect X to Y)

$Y = 0.8501 + -0.1110\ X + e_1$

The value of 0.8501 in the above equation is intercept, which describes the amount of TQ if NACFE is constant or equal to zero. While the value of 0.1110 is the total effect of NACFE on TQ regardless of the mediator (not adjusted for the mediator) BDR. A

negative sign means that if NACFE increases by one unit then TQ will decrease by 0.1110.

Equation 2: $Y = i_2 + c'X + bM + e_2$ (Direct Effect X to Y and M to Y)

$Y = 5.3395 + -0.0008\ X + -0.2536\ M + e_2$

The value of 5.3395 in the equation above is intercept, which describes the magnitude of TQ if NACFE and BDR are constant or equal to zero. The value of 0.0008 is the direct effect of NACFE on TQ after calculating the mediator (adjusted for the mediator) BDR and also other independent variables. A negative sign means that if NACFE increases by one unit then TQ will decrease by 0,0008 assuming BDR and the other independent variables are constant or equal to zero. While the value of 0.2536 is the direct effect of BDR mediator on TQ after calculating NACFE and also other independent variables. A negative sign means that if the BDR increases by one unit then TQ will decrease by 0.2536 with the assumption of NACFE and the other independent variable is constant or equal to zero.

Equation 3: $M = i_3 + aX + e_3$ (Direct Effect X to M)

$M = 17.7024 + 0.4347\ X + e_3$

The value of 17.7024 in the above equation is intercept, which describes the amount of BDR if NACFE is constant or equal to zero. While the value of 0.4347 is the direct effect of NACFE on the BDR mediator. A positive sign means that if NACFE increases by one unit, the BDR will increase by 0.4347.

Table 5.12 Regression of the auditor quality (Big 4)

R	R-SQ	MSE	F	df1	Df2	P
.6157	.3791	5.3907	13.0932	9.0000	193.0000	.0000
Model	**coeff**	**se**	**t**	**p**	**LLCI**	**ULCI**
constant	.8501	.8320	1.0217	.3082	-.7909	2.4911
Big 4	1.1735	.4119	2.8489	.0049	.3611	1.9859
nac	-.4876	.1853	-2.6315	.0092	-.8531	-.1221
naci	1.6362	.2204	7.4251	.0000	1.2015	2.0708
nacfe	-.1110	.1585	-.7003	.4846	-.4237	.2017
auc	-.3217	2.3410	-.1374	.8908	-4.9389	4.2955
nib	.0228	.2137	.1066	.9152	-.3998	.4444
sb	-.3573	.1145	-3.1219	.0021	-.5831	-.1316
rd	-.0791	.0748	1.0871	.2918	-.2267	.0685
lev	2.0515	1.1281	1.8186	.0705	-1734	4.2765

Notes: Big 4 = Big 4 auditor, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, AUC = auditor change, NIB = number of independent board members, SB = board size, LEV = leverage, BDR = bond rating, SIZE = firm size, IND = industry category, RD = risk disclosure.

Independent Variable: BIG 4

Equation 1: $Y = i_1 + cX + e_1$ (Total Effect X to Y)

$Y = 0.8501 + 1.1735\ X + e_1$

The value of 0.8501 in the above equation is intercept, which describes the amount of TQ if BIG 4 is constant or equal to zero. While the value of 1.1735 is the BIG 4 total effect on TQ regardless of the mediator (not adjusted for the mediator) BDR. A positive sign means that if BIG 4 increases by one unit then TQ will increase by 1.1735.

Equation 2: $Y = i_2 + c'X + bM + e_2$ (Direct Effect X to Y and M to Y)

$Y = 5.3395 + 1.7245\ X + -0.2536\ M + e_2$

The value of 5.3395 in the above equation is intercept, which describes the amount of TQ if BIG 4 and BDR are constant or equal to zero. The value of 1.7245 is the BIG 4 direct effect on TQ after calculating the mediator (adjusted for the mediator) BDR and also other independent variables. A positive sign means that if BIG 4 increases by one unit, then TQ will increase by 1.7245 assuming BDR and the other independent variables are constant or equal to zero; while the value of 0.2536 is the direct effect of the BDR mediator on TQ after calculating BIG 4 and also other independent variables. A negative

sign means that if the BDR increases by one unit, then TQ will decrease by 0.2536 with the BIG 4 assumption and the other independent variable being constant or equal to zero.

Equation 3: $M = i_3 + aX + e_3$ (Direct Effect X to M)

$M = 17.7024 + 2.1728\ X + e_3$

The value of 17.7024 in the above equation is intercept, which describes the amount of BDR if BIG 4 is constant or equal to zero; while the value of 2.1728 is the BIG 4 direct effect on the BDR mediator. A positive sign means that if BIG 4 increases by one unit, the BDR will increase by 2.1728. The value of 17.7024 in the above equation is intercept, which describes the amount of BDR if BIG 4 is constant or equal to zero. While the value of 2.1728 is the BIG 4 direct effect on the BDR mediator. A positive sign means that if BIG 4 increases by one unit, the BDR will increase by 2.1728.

Based on the mediating test in Chapter 4 (refer to p. 74), the study tests the relationship between corporate governance mechanisms and firm value using corporate reputation as an indirect relationship. Corporate reputation is mediate of corporate governance mechanisms to influence firm performance. The other variable is risk management which has correlation with firm value through corporate reputation. The resulting test of mediating variables to test corporate reputation's influence on firm value uses Tobin's Q. The STATA program is used to test the relationship variables as shown below.

Table 5.13 The estimate of indirect effect, z-value and p-value (Sobel test)

Independent	Indirect effect	z-*value*	p-*value*	Description
NAC	-.1741442	-2.64	0.008	Significant
NACI	.1624476	2.35	0.019	Significant
NACFE	-.1102534	-2.28	0.023	Significant
BIG 4	-.5510343	-2.98	0.003	Significant
AUC	.1204639	0.22	0.824	Not significant
NIB	-.0230337	-0.46	0.643	Not significant
SB	.0041128	0.16	0.876	Not significant
RD	.0036185	0.21	0.834	Not significant
LEV	-.1298677	-0.49	0.621	Not significant

Notes: NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, RD = risk disclosure, LEV = leverage, BDR = bond rating, SIZE = firm size, IND = industry category.

Based on analysis in Table 5.9, it was found that the indirect effect of the number of audit committee member (NAC) on Tobin's Q (TQ) through bond rating was -0.1741, which was shown to be significant (z = -2.29;p = 0.022< 0.05). It can be concluded that BDR mediates the relationship between NAC and Tobin's Q. The number or size of audit committee will influence the function of controlling of firm. A large number audit committee members will be more optimal in supervising and controlling the firm, and in avoiding mistakes in financial reporting. The number of audits committee members has contributed to improving the quality of the earnings report which leads to increase in firm value. Beasley (1996) found that companies may have fraudulent financial reporting if the number of audit committee members is small.

The number of audit independent committee members has a coefficient value of bond rating of -0.6406. The bond rating has an effect on Tobin's Q, -0.2536. Thus the indirect effect of the number of independent audit committee members on Tobin's Q through bond rating is 0.1624 which has significance (shown as z =2,03;p=0.042< 0.05). Therefore, it can be concluded that bond rating mediates the relationship between the number of audit committee members and Tobin's Q. This indicates that the audit committee independence will strengthen control and supervision, as the result of the influence of the quality of financial reporting. Moreover, Klien (2002) argues that companies with an independent audit committee impact financial reporting and reduce the accruals discretionary. The good quality of financial reports helps investors trust the firm and gives it a good reputation. This result implies that the independent audit committee members produce better financial reporting which gives investors confidence, thus influencing firm value.

The other corporate governance mechanism variable is the number of audit committee members with financial expertise. The results show that this number has an effect on bond rating with a coefficient of 0,4347 and the bond rating has an effect on Tobin's Q which is -0.2536. Therefore, the indirect effect of NACFE on TQ trough BDR is -0.1102, which was significant (z = -2.28;p=0,023 >0,05). It can be concluded that BDR mediates the relationship betwenn corporate governance and firm value. Financial reporting is key to the firm which may encourage them to hire audit committee members with financial experise. For example, if a company has NACFE, the financial reporting will be more accurate and of good quality. An audit committee with financial expertise has knowledge in accounting so will be more efficient, accurate, and timely in financial

reporting. As regulated in Indonesia, companies are required to have a minimum of one member on the audit committee with financial expertise.

Another element of corporate of corporate governance is auditor quality (Big 4). The results show the coefficient of Big 4 on BDR is 2.1728 and the bond rating effect on Tobin's Q is -0.2536. Thus, the Big 4 has an indirect effect on Tobin's Q through a BDR of -0.5510, which was significant ($z = -2.98$; $p=0.03<0.05$). Therefore, it can be concluded that BDR mediates the relationship between audit quality (Big 4) and firm value. This result implies that companies hiring quality audit (Big 4) firms may help their financial reporting to be more accurate and reliable due to the auditor's experience and knowledge, thus reducing mistakes in the reporting, which results in more investor trust. Moreover, company's value will increase if they are audited by a Big 4 auditor firm because of the quality of financial reporting. Furthermore, the level of confidence by the external parties is based on auditor quality. Prior studies argue that companies will be trusted by the external parties if the companies have financial reporting by qualified auditor (Piot, 2001, Teoh and Wong, 1993, Jang and Lin, 1993). Moreover, the benefit from the auditor quality will decrease the uncertainty related to the financial statements of the firm (Wallace 2004).

The third element of corporate governance is auditor change (auditor rotation). The effect coefficient of auditor change on bond rating (BDR) is -0.4750 and the effect of BDR on Tobin's Q is -0.2536, thus the indirect effect of auditor change (AUC) on Tobin's Q trough bond rating (BDR) is 0.1205, which was not significant ($z = 0.22$; $p= 0.824 >0.05$). From these results, it can be concluded that bond rating does not mediate the relationship between auditor change and Tobin's Q. Based on the regulation of a public accountant, Indonesia has issued a statement by the Ministery of Finance (359/KMK.06/2003 article 2), stating an auditor can be in a company for a maximum of five consecutive years. This implies that the companies in Indonesia must change the auditor, thus the changing of auditor may not influence the financial reporting of the firm. Moreover, the companies sometimes change the auditor looking for a lower fee.

Another variable from corporate governance is the number of independent board members. The results show that the effect of coefficient is 0.0908 on bond rating (BDR). The effect of bond rating (BDR) on Tobin's Q is -0.2536, so the indirect effect of NIB on Tobin's Q trough BDR is -0.0230, which was not significant ($z=-0.46$; $p=0.643>0.05$). Therefore, it can be concluded that bond rating does not mediate the relationship between

the number independent board members and Tobin's Q. This implies that a large or small number of independent board members has no correlation with companies' value. In Indonesian companies, the number of independent board members only fulfils the regulation and is just a formality, but it is not central to controlling and monitoring the firm. Moreover, the majority of shareholders have important influence in the company, thus the number of independent boards has less role in carrying out its duties, because of the demonstrate by the majority of shareholders. This result is supported by a prior study by Veronika and Utama (2006) who state the the number of independent boards as part of corporate governance has nt significant impact on firm value. Additionally, the independent commissioner does not find a correlation to the financial problem of companies (Wardhani, 2006). This research is contrary to research conducted by Yermack (1996), who argued that a large number independent board members has significant impact on firm value.

Another variable of corporate governance mechanisms is the size of board. The results show that the size of board has a coefficient of bond rating of -0.0162 and the bond rating effect on Tobin's Q is -0.2536. Thus, the indirect effect of size of board on Tobin's Q through bond rating is 0.0041, which was not significant (z=0.16; p=0.876 >0.05). Therefore, it can be concluded that bond rating does not mediate the relationship between size of board and Tobin's Q. The companies with large size boards may differ, saying this wastes time in decision making.

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The resulting test of mediating variables to test corporate reputation's influence on firm value uses ROA. The STATA program is used to test the relationship variables as shown below.

Table 5.14 Estimation indirect effect, z-value, dan p-value (Sobel test)

Independent	Indirect effect	*z-value*	p-*value*	Description
NAC	.0182017	2.81	0.005	Significant
NACI	-.0169792	-2.47	0.014	Significant
NACFE	.0115238	2.38	0.017	Significant
BIG 4	.0575946	3.23	0.001	Significant
AUC	-.012591	-0.22	0.824	Not significant
NIB	.0024075	0.46	0.643	Not significant
SB	-.0004299	-0.16	0.876	Not significant
RD	-.0003782	-0.21	0.834	Not significant
LEV	.0135739	0.49	0.621	Not significant

Notes: RD = risk disclosure, LEV = leverage, NAC = number of audit committee members, NACI = number of independent audit committee members, NACFE = number of audit committee members having financial expertise, Big 4 = Big 4 auditor, AUC = auditor change, NIB = number of independent board members, SB = board size, BDR = bond rating, SIZE = firm size, IND = industry category

Based on this analysis, the NAC effect of the coefficient on BDR was 0.6867 and the BDR effect on ROA was 0.0265, so the indirect effect of NAC on ROA through BDR was 0.1820, which was significant (z = 2.81; p = 0.005 <0, 05). Thus, it can be concluded that BDR mediates the relationship between NAC and ROA. This result indicates that the companies with a large the number of audit committee members will perfom better than a small number of audit committee members, as the audit committee will be controlling and monitoring the firm therefore avoiding mistakes in financial reporting. Moreover, the number audit committee members provides better quality financial reporting. This supports the practice of good corporate governance, which is the duty of the number of audit committee to supervising and controlling companies, and it influences the good quality of financial reporting. As a result, investors will be more trusting and hence the company reputation will increase leading to increase in firm value.

The NACI effect coefficient on BDR obtained was -0.6406 and the BDR effect on ROA was 0.0265, so the indirect effect of NACI on ROA through BDR was -0.1698, which was significant (z = -2.47; p = 0.014 <0.05). Therefore, it can be concluded that BDR mediates the relationship between NACI and ROA. This is the number of independent audit committee members who can give their opinions freely and professionally without siding with anyone, because there is no conflict of interest in supervising and controlling the company thus creating good quality financial statements for the firm.

The NACFE effect coefficient on BDR obtained was 0.4347 and the BDR effect on ROA was 0.0265, so the indirect effect of NACFE on ROA through BDR was 0.1152, which was significant (z = 2.38; p = 0.017 <0.05). So, it can be concluded that BDR mediates the relationship between NACFE and ROA. An adequate audit committee with a background of accounting or finance making contributions has a good impact on the effectiveness of the audit committee. Regulations in Indonesia require a minimum of one person with financial expertise, thus increasing the effectiveness of the firm.

The effect of the coefficient of BIG 4 on BDR obtained was 2.1728 and the effect of BDR on ROA was 0.0265, so BIG 4's indirect effect on ROA through BDR was 0.5759 which was significant (z = 3.23; p = 0.001 <0.05). Thus, it can be concluded that BDR mediates the relationship between BIG 4 and ROA. One of the factors to obtain a company reputation is that companies have the quality auditors with an international standard such at a Big 4 auditor firm. Investors will respond well if companies are audited by a Big 4 auditor firm.

The effect of the coefficient of AUC on BDR obtained was -0.4750 and the effect of BDR on ROA was 0.0265, so that the indirect effect of AUC on ROA through BDR was -0.0126, which was not significant (z = -0.22; p = 0.824> 0.05). So, it can be concluded that BDR does not mediate the relationship between AUC and ROA.

The NIB effect of the coefficient on BDR obtained was 0.0908 and the BDR effect on ROA was 0.0265, so that the indirect effect of AUC on ROA through BDR is 0.0024, which is not significant (z = 0.46; p = 0.643> 0.05). So, it can be concluded that BDR does not mediate the relationship between NIB and ROA.

The SB effect of the coefficient on BDR obtained was -0.0162 and the BDR effect on ROA was 0.0265, so that the indirect effect of SB on ROA through BDR was -0.00043, which was not significant (z = -0.16; p = 0.876> 0.05). So, it can be concluded that BDR does not mediate the relationship between SB and ROA.

The RD effect of the coefficient on BDR obtained was -0.0142 and the BDR effect on ROA was 0.0265, so the indirect effect of RD on ROA through BDR was -0.0004, which was not significant (z = -0.21; p = 0.834> 0.05). So, it can be concluded that BDR does not mediate the relationship between RD and ROA.

The effect of the coefficient of LEV on BDR was 0.5121 and the effect of BDR on ROA was 0.0265, so the indirect effect of LEV on ROA through BDR was 0.0136, which

is not significant (z = 0.49; p = 0.621> 0.05). Consequently, it can be concluded that BDR does not mediate the relationship between LEV and ROA.

5.8 Summary

This chapter has presented the descriptive statistical analysis of the data and analysis of the regression models. Findings of this study reveals that three elements, corporate governance mechanisms, risk management, and corporate reputation, generally have a positive impact on firm performance. The results also confirm the findings of the robustness test using other methods. The analysis of the relationships of corporate governance mechanisms, risk management, corporate reputation toward firm value is generally a significant measure by Tobin's Q. This study has provided strong evidence supporting hypothesis H1b, suggesting that the number of independent audit committee members has a positive impact on firm performance. The hypothesis H1d stated that a Big 4 auditor has a positive effect on firm performance with the result of P being 0.042. Hypothesis H1e found that P value is 0.000 using the proxy of Tobin's Q; this indicates that auditor change has a significant impact on firm value.

However, in some hypotheses, the elements of corporate governance mechanisms were not statistically significant, namely H1a, H1c, H1f and H1g. The specific analysis is risk management, with two variables: risk disclosure and leverage. Hypothesis H2a has strong support that risk disclosure has a significant impact on firm value with a p value of 0.073. Conversely, hypothesis H2b stating that leverage has a positive impact on firm performance is rejected. The last variable is corporate reputation using the measurement bond rating. This study does not provide evidence for hypothesis H3 that states that bond rating has a positive impact on firm performance. Hypothesis H4 is strongly confirmed, which indicates that corporate reputation is a mediating variable for corporate governance mechanisms on firm value. This is a significant finding.

It is shown in Table 5.9 that corporate reputation has the role of mediating variable for several elements of corporate governance, including firstly, where the number of audit committee members shows the p value is 0.008. The establishment of an audit committee is an obligation for the companies listed in the Stock Exchange. Based on the results of this study, the number of audit committee members had an influence on firm value as it mediates corporate reputation. This shows that if the number of audit committee members is large, there will be a lot of supervision and more protection in the accounting process

in the company. Refering to the results, the number of audit committee members works optimally, in relation to the function of supervision as an independent process of financial statements, and in controlling of risk management. This result is consistent with a prior study by Anderson et al. (2004), who argued that the number of audit committee members has a significant impact on firm performance by controlling the firm. Additionally, there is a positive correlation between the number of audit committee members and firm value (Hapsoro, 2008, Obradovich, 2012). In contrast, the number audit committee members has negative significant impact on firm value due to the fact that if it is small, a number of audit committee members will lack awareness of activities leading to improving firm performance (Ramano et al., 2012).

Secondly, the number of independent audit committee members has a p value of 0.019. This indicates the independency of auditing has an influence on company value, due to in carrying out duties, there is no interest other than supervising and controlling the company. Moreover, in carrying out their duties, they are not influenced by the other parties, so they can be more objective and professional.

Thirdly, the number of audit committee members having financial expertise has a p value of 0.023. This indicates that the committee's audit knowledge in accounting and finance has an effect on the company's performance. This is because if they have sufficient knowledge and experience, it will be easier and faster to supervise and control financial reporting of firm. Furthermore, it can increase the quality of the statement of financial reporting without mistakes. This is very important for the investors in decision making.

Fourthly, auditor quality calls for Big 4 auditors. The result shows that the audit quality has a p value of 0.003. This implys that companies with good auditor quality give more reliable and accurate information. This is because the auditor's quality is improved with more training, proper procedures and is more effective compared to a non-Big 4 auditor firm. These results have found that the four elements of corporate governance above have a positive correlation on firm value as the role of mediating variable of corporate reputation.

Meanwhile, there are other interesting results of the element of corporate governance mechanisms, which are that auditor change, the number of independent board and size of board have no significant impact on firm value. The results find these three elements do not significantly impact firm value, as the corporate reputation is a mediating

relationship. Furthermore, this study provides evidence that there is no association between risk management and firm value using corporate reputation as a mediating variable.

The other measurement of firm value is ROA. In the relationships of corporate governance mechanism, risk management and corporate reputation toward firm value using the proxy ROA, only auditor change has strong evidence of impact with a p value of 0.002. The other variables were not statistically significant. The variables of risk management, which are risk disclosure and leverage, were rejected in the hypothesis. Meanwhile, the variable of corporate reputation suggesting the bond rating has a positive impact on firm value is accepted. These results imply that the measurement using Tobin's Q is more appropriate compared with ROA.

The results are consistent and in agreement with Yermack (1996), who found that effective corporate governance has a significant impact on the value of board performance by using Tobin's Q measurement. The relationship between corporate governance mechanisms and firm performance is appropriate by using Tobin's Q due to being a more effective measurement, as well as accurate (Wiwattanakantang, 2000). This result is consistent with a prior study of corporate governance which shows its correlation to the financial market using the proxy of Tobin's Q (Agrawal and Knoeber, 1996, Claessens and Djankov, 1999). Evidence in Saudi Arabia using listed companies found that the relationship between corporate governance and firm performance has a positive correlation using Tobin's Q (Fallatah and Dickins, 2012).

On the other hand, the correlation of corporate governance on firm value is not significant using the measurement of return on assets (ROA). Based on the results, in Indonesia, the corporate governance mechanism, risk management and corporate reputation have a significant impact on the firm. Indonesian companies, which practice good corporate governance mechanisms become more efficient in managing costs, therefore increase profitability. As the results, a good company having profits can be considered as an attraction affecting the decision to invest in Indonesia. Corporate governance has become the main concern for investors in Indonesian companies. The practice of good corporate governance has the benefit of reducing agency cost due to the delegation of authority to management, including the use of company resources. Moreover, company implementation of good governance will increase financial performance because of the obligation to comply with various applicable accounting roles

and principles, as well as providing information to be more transparent. Risk management also affects the investor's decision, where it relates to the survival of the company and good risk managing, which definitely provides good impact on firm performance. Indonesian companies, have good bond rating, which has significant influence in boosting the confidence level among investors.

Based on Table 5.10, results show the relationship between corporate governance mechanisms, risk management, and firm value used a proxy by ROA as the role of reputation as mediating variables has a variety results. The results found four variables of corporate governance have a significant impact on firm value as the role of corporate reputation mediates the relationship.

First, there is strong evidence that the number audit committee members has a p value of 0.005. This implies that in Indonesian companies, the number of audit committee members has worked optimally in accordance with its function to supervise and control the company's financial statements. If they are many members in the committee, there will be a lot of supervision and monitoring in the firm. Thus, it can improve the profitability which leads to increase in firm value. This finding supports prior studies that the number of audit committee members has positive correlation on firm value (Anderson et al., 2004, Obradovich and Gill, 2013). On the other hand, the empirical evidence has different results, the number audit committee members has no correlation toward firm value (Romano et al., 2012).

Second, the number of independent audit committee members has a significant impact on firm, with a p value of 0.014. Results show that companies having an independent audit committee will be more accurate in the financial reporting because they have no affiliation with the parties in supervising and controlling of firm. This independence in managing and monitoring creates a more objective audit committee.

This study supports the argument by Nuryanah and Islam (2011) that in Indonesian companies, the independence of the audit committee has influence on the audit quality and hence firm value. This result is consistent with prior studies that the financial reporting in the firm will be more accurate and reliable because of the duties by an independent audit committee in controlling the activities of manager (Cohen et al., 2011). Moreover, the independency of audit committee members will help in avoiding company collapse (Lennox and Park, 2007).

Third, the number of audit committee members having financial expert has a p value of 0.017. This indicates that knowledge and experience in accounting and finance has a positive effect on financial reporting of the firm due to the fact that the audit committee has skill and capability in this area. Moreover, the quality of financial statements in reporting of the firm will increase compared with and audit committee without financial expertise.

Fourth, is having a Big 4 auditor firm or auditor quality. Auditor quality has p value of 0.001. This implies that the auditor quality (Big 4) has a good influence on the financial reporting due to the auditor quality having more skill and better procedures compared with a non-Big 4 auditor firm. Moreover, auditor quality has influence on investor's decisions. This result supports the supposition that the quality of audit gives the client confidence in the financial market. Auditor quality has a correlation with market performance; if the companies change the auditor quality, the market has positive reaction (Knechel and Vanstraelen, 2007).

Meanwhile, the results of this study revealed that the relationship variables of corporate governance which are auditor change, the number of independent board and size of board, have no significant impact on firm value. This indicates that the three variables have no significance on firm value through corporate reputation as a mediating relationship. Moreover, this study provides evidence that there is no association between risk management and firm value using corporate reputation as mediating variable.

The summary of the hypotheses of this study are presented in Table 5.13 below.

Table 5.15 Summary of hypotheses of the study

	Hypothesis	Results Tobin's Q	Results ROA
H1a	The number of audit committee members has a positive impact on firm value.	This result does not supporting hypothesis H1a. This indicates that the number of audit committee members in Indonesian companies still ineffective.	This result does not supporting hypothesis H1a. This indicates that the number of audit committee members in Indonesian companies still ineffective.
H1b	The number of independent audit committee members has a positive impact on firm value.	The results show the relationship between the number of independent audit committee member and firm value has statistically significant.	The results do not show a relationship between the number of independent audit committee member and firm value.
H1c	The number of audit committee members having financial expertise has a positive impact on firm value.	The results show that the relationship between the number of audit committee members having financial expertise and firm performance is not significant. This finding does not support the hypothesis H1c.	The result show the relationship between the number of audit committee having financial expert and firm performance is not significant. This rejects hypothesis H1c.
H1d	A Big 4 auditor has a positive impact on firm value.	Shows strong evidence in support hypothesis H1d that auditor quality has positive impact on firm value.	The results contradict the hypothesis that a Big 4 auditor has a positive impact on firm value.
H1e	Auditor change has a positive impact on firm value.	The results support the hypothesis that auditor change has a positive impact on firm value.	The results support the hypothesis that auditor change has a positive impact on firm value.
H1f	The number of independent board members has a positive impact on firm value.	The results do not support the hypothesis that the number of independent board members has a positive impact on firm value.	The result do not support the hypothesis that the number of independent board members has a positive impact on firm value.
H1g	Size of the board has a positive impact on firm value.	The results contradict the hypothesis that size of the board has a positive impact on firm value.	The results contradict the hypothesis that size of the board has a positive impact on firm value.
H2a	Risk disclosure has a positive impact on firm value.	The results are consistent with the hypothesis that risk disclosure is essential for company information in relation to the sustainability of firm.	The results contradict the hypothesis that risk disclosure has a positive impact on firm value.
H2b	Leverage has a positive impact on firm value.	This result is unexpected in relation to hypothesis H2b. The relationship between leverage and firm value is not significant.	This result is unexpected in relation to hypothesis H2b. The relationship between leverage and firm value is not significant.
H3	Bond rating has a positive impact on firm value.	Refering to the hypothesis H3, the relationship between corporate reputation and firm value is not significant. The bond rating is not important for investors.	The result supports the hypothesis that bond rating has a positive impact on firm value.
H4	Corporate reputation as a mediating variable for corporate governance mechanisms and risk management has impact on firm value.	Corporate reputation as a mediating variable for corporate governance mechanisms has impact on firm value.	Corporate reputation mediating variable for corporate governance mechanisms has impact on firm value.

CHAPTER 6: DISCUSSION AND IMPLICATIONS

6.1 Introduction

The previous chapter provided the results of the hypothesis testing, and the results of model 1 were presented in Table 5.6 with the relationship of corporate governance mechanisms, risk management, corporate reputation and firm value using Tobin's Q as a proxy. Model 2 in Table 5.7 provided the correlation of corporate governance mechanisms, risk management, corporate reputation on the firm value measured by ROA. This chapter presents a more detailed discussion on the findings, results, and implications. The organization of this chapter is as follows. Section 6.2 presents the measurement model analysis. Section 6.3 provides the discussion of the relationships between corporate governance, risk management, corporate reputation, and firm performance using Tobin's Q as the proxy. Section 6.4 discusses the relationship between corporate governance mechanisms and firm performance using ROA. Section 6.5 summarises the discussion of the mediating variables. Section 6.6 discusses the theoretical and political research implications. Section 6.7 present risk management and firm performance. Section 6.8 provides the relationship of corporate reputation on firm performance. Section 6.9 discusses the implications of the study from an accounting perspective.

6.2 Measurement Model Analysis

The study of the three variables of corporate governance mechanisms, risk management, corporate reputation, and firm performance has demonstrated that the measurements are consistent with the theory. The results reveal that Model 1, the relationship of corporate governance mechanisms, risk management and corporate reputation toward firm value using Tobin's Q proxy has significant correlation, as reflected by the R squared of 51 per cent. For Model 2, the relationship of corporate governance mechanisms, risk management, corporate reputation and firm value measured by ROA are not significant. Auditor change and corporate reputation have positive correlation toward firm value using the ROA proxy.

6.3 The Relationship of Corporate Governance Mechanisms, Risk Management, Corporate Reputation on Firm Value as Measured by Tobin's Q Proxy

This study finds that in Indonesia, generally, the relationship of corporate governance mechanism, risk management, and corporate reputation has positive correlation and an impact on firm value using the Tobin's Q measurement. This finding is supported by the theory based on the OECD's contention that good practice of corporate governance can increase firm performance. These results are consistent with the theory of corporate governance, where the company value will be increased by reducing agency cost (Rezaee, 2009, Klapper and Love, 2004). The elements of corporate governance mechanisms, risk management and corporate reputation in this study have different results in the case of Indonesia.

Hypothesis 1a

The results do not support hypothesis H1a, suggesting that the number of audit committee members has no significance towards firm value, because the number of audit committee members in Indonesian companies is still ineffective. This may be due to a diversity of understandings of the function and responsibility of the committee. The task of the audit committee is to oversee the quality of the company's financial statements. The supervision of financial statements will help to avoid fraud in the company's financial operation. In these results, the audit committee is not yet optimal in its duty, thus the impact does not improve financial performance. The finding here is also supported by Nuryanah (2004) that argued that the size of the audit committee did not correlate with firm performance. The existence of technical incomprehension and other problems can lead to weaknesses in the governance in the company management (DeZoort and Salterio, 2001). There is no recognition that the application of the principles of corporate governance via an audit committee will influence firm value.

Hypothesis 1b

As stated in Chapter 6, there are many studies on the relationship between the number of independent audit committee members and firm performance. These studies state that the relationship, such as professionalism and independence, between the number of independent audit committee member and firm value is statistically significant, (Abbott et al., 2004). For instance, in investigating the relationship between the number of independent audit committee members and firm performance in an Indonesian setting

during 2000-2010, it is possible to conclude that objectivity can be found, as there is no affiliation between audit committee members and companies. Therefore, we conclude that independent audit committees reduce the incidence of officer-auditor affiliations (Klein, 2002a, Abbott and Parker, 2000).

This indicates that in Indonesian companies, the independence of an audit committee and the integrity work in reporting of financial statements will be easy to maintain because the committee has no relationship with management. A number of independent audit committee members are becoming more professional in controlling the financial reporting of the firm. which as a result enhance companies' performance. This result supports agency theory suggesting that the independence of audit committee members could avoid an internal conflict among shareholders and managers in the firm (Fama and Jensen, 1983a). In addition, this study is consistent with prior studies that argue that independent audit committee members are effective in monitoring the financial reporting of the company (Carcello and Neal, 2003b, Beasley, 1996).

The independence of audit committee members is related to financial reporting, which becomes more accurate and more reliable through the controlling activity of manager (Cohen et al., 2011). Therefore, the company can avoid the possibility of bankruptcy (Beasley, 1996). This stronger evidence is in agreement with Nuryanah et al. (2011) who suggest that the number of independent audit committee members has a positive relationship with good quality monitoring and improvement in firm value. Moreover, good quality monitoring by an independent audit committee has a good correlation with the financial reporting of the firm (Bronson et al., 2009).

Hypothesis 1c

Another aspect of the corporate governance mechanism is the number of audit committee members having financial expertise. This study revealed that the relationship between the number of audit committee with financial expertise and firm performance is not significant. Indonesian company policies do not require audit committee members to have a lot of financial expertise. A financial expert on an audit committee is only apppointed fulfil a regulation. Legitimacy is a legal rule that protects companies that must be fulfilled (Ginzel in Suchman, 1995). Based on a regulation of the Ministry of Finance No 55/POJK.04/2015 (Chapter 3, Article 13), members of an audit committee are required to be independent and a minimum of one person must have capability in accounting or finance. Many companies have only one audit committee member with

financial expertise, thus explaining the result of no correlation with the audit committee members having financial expert in the case of Indonesian companies. The results relate to legitimacy theory. The regulation of the audit committee requirement has been implemented in Indonesian companies who tend to appoint at least one audit committee member with capability in accounting and finance. This result is not supported by prior studies that found that the number of audit committee members with financial expertise has a positive correlation with financial reporting because of the effectiveness of monitoring (DeFond et al., 2005).

Hypothesis 1d

This study explored whether audit quality had a relationship with firm value on a sample of Indonesia companies. Findings provided strong evidence for hypothesis H1d that auditor quality has a positive impact on firm value. Auditor quality will affect the company's financial statement audit. The company will be better at presenting financial statements leading to an increase in firm performance. Moreover, the quality of auditor reflects on good financial reporting of the firm, and as a result increases investor trust and confidence, therefore increasing profitability and firm value. Referring to the market theory, auditor quality can provide a positive signal to the market or investors, thus there is no doubt in investing. The more investors, the easier it will be for companies to manage finances for development that can increase profitability and company value. Additionally, the existence of a professional auditor can improve firm performance because he/she is more experienced in working on financial reporting, resulting in efficiency and reduction of costs. Moreover, qualified auditors will influence the credibility of financial statements in disclosure and can reduce costs incurred by the company (Jensen and Meckling, 1976). These results are supported by a prior study arguing that audit quality has received more attention because it is essential for investors' decision making (Sawan and Alsaqqa, 2013).

Hypothesis 1e

Financial reporting of the firm is becoming more important to investors' decision making. The financial reporting statement is influenced by the external auditor for controlling the financial activities of the firm. These results support hypothesis H1e, which states there is a correlation between the auditor change or rotation toward firm value as it was found that auditor change has a statistically significant impact on firm

value. Based on market theory, this result implies that auditor change provides positive perception in the market that the company is managing its finances better because a new auditor can correct weaknesses of the previous auditor. Furthermore, new auditors will be more independent than the previous auditors, so will be more objective in giving company opinions that can improve company performance. Companies change the auditor for several reasons. First, companies are not satisfied or have problems with a prior auditor, therefore they anticipate a new auditor will be able to improve the financial statement of the firm, thus leading to improved firm performance. Second, auditor rotation maintains the independence of the auditor, who will be more objective, leading to improving the performance of the firm.

This result is consistent with prior studies arguing that auditor rotation makes the auditor become more productive, objective and independent (Winters, 1976, Kemp Jr et al., 1983, Wolf et al., 1999). This implies that the effectiveness and objectivity of the auditor will influence good financial reporting and thus improve firm value. Additionally, the changing auditor may decrease the bias of financial reporting (Dopuch et al., 2001) and enhance the quality of the reports (Myers et al., 2003). A company changing auditor has the effect of reducing the economic bond between the auditor and client (Smith and Kida, 1991, Tan, 1995). A prior study found that the rotation of the auditor improved the market share in an Italian company (Buck and Michaels, 2005). The other benefits from auditor change are improving the creativity of the auditing approach and creating a good relationship between the auditor and client (Carey and Simnett, 2006).

Hypothesis 1f

The study does not provide any empirical evidence that number of the independent board members influences on firm value (H1f). Refering to stewardship theory, the number of independent board members improves the function the company in controlling management activities to increase company value. However, results of this study show that the number of independent board members only fulfils the regulation, thus they are not yet optimal in monitoring and do not relate to improving firm performance. In Indonesian companies, most independent board tend to give some direct policy advice, making management less difficult in working and improving firm value, as the regulation is tight. Therefore, an independent board of directors has fewer conflicts of interest when monitoring managers. As an independent board, they must ensure their presence and performance is free from any internal influence from management. Moreover, this finding

is consistent with a prior study that an independent board has no impact on improving company performance (Hermalin, 2001). An independent board of directors has fewer conflicts of interest when monitoring managers. In contrast, Zinkin (2010) has stated that an independent board has benefits in creating company strategy and is therefore more effective. Thus, when the monitoring function is prevalent, a positive link between the presence of outsiders and firm value is expected (De Andres and Vallelado, 2008).

Hypothesis 1g

Results on the size of the board of directors indicate that the variable has a negative effect on firm value. This result is not in accordance with the hypothesis H1g. The size of the board of directors can cause fraudulent activity in the company's financial statements. Additionally, it can reduce the ability of the board of directors to monitor, which can cause problems. For instance, it could be difficult to coordinate and communicate with the other boards, as the result makes decision making difficult. Problems arise that can cause weakness in the overseeing of management, therefore, the size of the board does not increase the value of the firm. In reference to the agency cost, a large of board directors could increase the cost due to the company have to pay more salaries. Furthermore, companies that have a small board of directors will find coordinating and communicating in decision making easier and timely, therefore company activities will be more efficient (Jensen, 1993). Moreover, a similar result was also found in companies in the US where companies that have a large board of directors do not have an impact on improving company performance (Yermack, 1996). The greater size of the company will lead to a greater and more complex size of the board, which causes lower value of the company because of lack of transparency in management. A similar situation is found in Nadaraja et al. (2011) who state that a company with large of board directors can create inefficiency in monitoring operational activities and strategies by a high level of management, leading to decrease in firm value. Moreover, a large of board directors cause conflict between agent and principle (Peter and Sabine, 2007). The results contradict stewardship theory, which purposes that a large of board directors will be more helpful to the company by controlling and monitoring activities to improving company performance. Moreover, the large board may contribute advice and consultancy to the manager relating to the activities companies to develop firm performance.

Hypothesis H2a

Another variable in this model is risk management, which is risk disclosure and leverage. Managing risk is essential for the firm to decrease its cost of production, which impacts on improving profitability. This study has strong evidence in supporting hypothesis H2a, that there is a correlation between risk disclosure and firm value. The results are consistent with the hypothesis that risk disclosure has a positive impact on firm value. Risk disclosure is useful in providing information to outside parties to predict future conditions. The information presented includes operational activities of all obstacles and threats. The existence of complete information can increase investor confidence in decision-making. The number of investors who enter the company will affect the funds available for activities that increase profits, therefore improving firm value. This result is supported by a prior study arguing that the existence of risk disclosure in the company's financial statements can give confidence to shareholders, increasing the value of the company (Elshandidy et al., 2013). Risk disclosure are important for the investors to make decisions, because they are presented with information on firm activities in the form of a financial statement. It is believed that the company should give more transparent information to the shareholder and the investor, who will then be more confident in investing, thus influencing the company's activities to improve profitability leading to an increase in firm performance. The results are consistent with a prior study stating that risk disclosure may help improve the transparency of information of annual reporting, thus assists in making proper decisions about the firm's performance (Linsley and Shrives, 2005). Moreover, risk disclosure influences investor's reliability and gives them more understanding on the corporate risk profile. Good financial reporting of the firm improves risk disclosure leading to a rise firm value (Gordon et al., 2009). Moreover, risk disclosure standards under international financial reporting standard (IFRS) could increase the quality of the firm (Miihkinen, 2012).

Hypothesis H2b

The other element of risk management is leverage. This result was unexpected in hypothesis H2b, as the relationship between leverage and firm value was not significant. This result indicates that companies in Indonesia use funds from their own capital or retained earnings to reduce the amount of debt. This is because a large amount of debt is not worth with the cost, thus companies tend to use their own capital for improving the productivity of the firm. Moreover, investors assume that companies that have debt will

be more costly because of interest payments, reducing benefits. This result supports a prior study that companies with high marginal tax rates are more likely to issue debt compared with companies with low marginal tax rates (MacKie-Mason, 1990, Graham, 1996). Moreover, leverage has a negative influence on the value of the company, this is because it can increase the risk of bankruptcy and financial difficulties. If the company uses business activities from debt funds, it will be burdened to pay interest and principal loan debt. Therefore, a firm using debt needs to pay attention to the company's ability to generate profits. This supports the argument that leverage in the company does not a significant impact on firm value (Vural et al., 2012).

Hypothesis H3

Another variable in Model 1, Table 5.6, is corporate reputation. The measure of corporate reputation is bond rating. In relation to hypothesis H3, it was found that the relationship between corporate reputation and firm value is not significant. This result implies that in Indonesian companies, bond rating is not an important factor for investors. Investors give more consideration to financial reporting and the annual report of a firm. The company's announcement of a bond rating does not affect the reaction of investors. Based on signalling theory, management has more accurate information on the company value, thus the investor is more confident with the information from management. The result is supported by a prior study, which found that corporate reputation has no correlation with the performance of the firm (Goh and Ederington, 1993). On the contrary, the result does not supporting the market theory, that states that the market has a positive reaction when the company announces a change in the bond rating.

Hypothesis H4

The relationship between corporate governance mechanism, risk management, and firm value using the mediating variable of corporate reputation is provided in hypothesis H4. The results find that corporate reputation is an essential variable in mediating both corporate governance mechanisms and firm value. Good corporate governance will provide better financial statement reporting needed by the investor and the stakeholder. A company with good financial reporting has a good firm image, thus the investor is more confident. Companies with more investment find it easier to expand their business and become more profitable. For instance, many companies collapsed in Indonesia during the financial crisis due to the companies' lack of good corporate governance practice. This

result is consistent with the theory that the practice of good corporate governance can increase market efficiency, transparency and consistency, and achieve company goals. Table 5.9 provides evidence that the relationship of the element of corporate governance mechanisms using the role of corporate reputation as a mediating variable has significant impact on firm value as measure by Tobin's Q which are as follows.

First, the number of audit committee members has a positive impact on influencing firm performance through corporate reputation. Second, the number of independent audit committee members has a correlation on firm performance with the role of corporate reputation as a mediating variable. Third, the relationship between the number of audit committee members with financial expertise and firm value is significant through corporate reputation. Fourth, audit quality has a significant impact on firm performance using the mediating variable of corporate reputation.

Meanwhile, there are three variables of corporate governance mechanisms - auditor change, board size and the number of independent board members - that do not correlate with firm value with the mediating variable of corporate reputation. Moreover, the results found that risk management has no significant impact on firm value with the role of corporate reputation as mediating variable. Leverage and risk disclosure, both variables risk management, have no significant impact on firm value using the mediating variable of corporate reputation. In Indonesia, company reputation is a factor adding competitive advantage due to a few reasons. A good firm reputation creates greater interest to use the product or service, thus increasing the level of market interest leading to an increase in profitability. Moreover, a good reputation becomes more highly valued in the market since reputation has a price. For instance, a company may produce a product with specifications not much different than another company, but the market valued may different because of a known brand. A highly reputable company will be valued higher in the market. Many stock prices are measured as high value even though their performance is ordinary.

6.4 The Relationship of Corporate Governance Mechanisms, Risk Management, Corporate Reputation on Firm Value as Measured by ROA Proxy

Another effective measurement of firm value using the proxy ROA is presented in model 2, Table 5.7. The findings in model 2 show that the relationship of corporate governance mechanisms, risk management, and corporate reputation toward firm value,

is not significant using a ROA proxy. So the general hypothesis is not significant using ROA proxy. Indonesia has a diversity of results in the relationship of corporate governance mechanisms, risk management, and corporate reputation toward firm value as measured by ROA.

Hypothesis 1a

The audit committee has a role in supporting and supervising management to maximize the value of the company. Hypothesis H1a, suggests that the number of audit committee members has significant impact on firm value. The results do not support the hypothesis, indicating that a larger number of audit committee members in Indonesian companies is not yet effective. For example, the lack of a larger committee audit in meetings for one year will not affect firm performance because this does not maximizing their duties in controlling the company. Therefore, it does not contribute to an increase in company profits. Furthermore, fewer audit committee members may improve the internal control thus, influence the activities leading to improvement in firm profitability. Moreover, similar results are found in Malaysian and Singapore companies where a large audit committee does not have a significant impact on firm value (Yermack, 1996).

Hypothesis 1b

Finding show the number of independent audit committee members does not correlate with influence on firm performance. Therefore, the results reject hypothesis H1b. The number of independent audit committee members in Indonesian companies is not significant towards firm value, because the audit committee's duties are not directly related to the company's operational performance. The number of independent audit committee members tends to help the board of director in controlling the reporting of financial statement. Moreover, the function an independent audit committee is not yet optimal for monitoring the activities of a firm. This result supports a prior study stating an independent audit committee has a negative impact on firm performance (Krishnan, 2005)

Hypothesis 1c

The other characteristic of the audit committee is the number of expert members. Hypothesis H1c is not accepted, as the number of the audit committee members with financial expertise has no significant impact on firm value. The policy and regulation in Indonesian companies as stipulated by the Ministry of Finance requires a minimum of

one person on the audit committee with ability in finance and accounting (regulation 55/POJK.04/2015, chapter 3, article 13). However, the bigger companies need more members on the audit committee with knowledge in accounting. These companies will find it difficult to produce timely financial reporting due to the increase in the workload. This result was contradicted by Defond et al. (2005), stating that the number of audit committee members with financial expertise does not have a significant impact on firm performance.

Hypothesis 1d

Financial reporting is necessary for investors and stakeholders. Financial reports have to be present with accuracy and accountability because it affects decision making. Therefore, companies need to hire good quality auditors (e.g. Big 4). This study explores the relationship between audit quality and firm value. However, the results do not support hypothesis H1d. Big 4 auditors have a good reputation and they have a lot of experience compared to the non-Big 4 auditor firms. But in the case of Indonesia, some companies tend to choose a non-Big 4 company auditor due to the lower cost.

Hypothesis 1e

It was found that auditor change or auditor rotation in Indonesian companies has no correlation with company performance. This result rejects the hypothesis. When a company changes auditor for some reason, it is often a long time before the new auditor adjusts to the company's characteristics. This finding contradicts prior studies that changing auditor increases the company effectiveness in maintaining independence (Winters, 1976, Kemp Jr et al., 1983, Wolf et al., 1999). But, Myers et al. state that auditor change will increase the quality in financial reporting (2003).

Hypothesis 1f

The study no provides evidence supporting hypothesis H1f that the number of independent board members has a positive impact on firm value. The results indicate that an independent board that tends to be a formality for the company in complying with the rules, but does not function optimally in the supervision of the directors' policies, so does not affect the value of the company. These results are consistent with a prior study arguing that an independent board of directors come from outside the company and they do not understand the condition of the company, therefore they cannot work efficiently and have difficulty in improving company performance (Baysinger and Hoskisson, 1990). This

result supports a prior study by Yearmack (1996) arguing that the number of independent board has no significant impact on improving firm value.

Hypothesis 1g

Another element of the corporate governance mechanism is the size of the board which has no significant impact on firm value. This result is not consistent with hypothesis H1f. In Indonesian companies, the board size is not important in increasing company performance, as there are other factors influencing company performance. A larger board creates a variety of arguments which result in longer time to make compromises and reach a consensus decision in the firm. Moreover, a larger number of company commissioners is not necessarily optimal for improving performance, because it might be inefficient.

Hypothesis 2a

This study provided very weak evidence on the relationship between risk disclosure and firm value. The hypothesis states that risk disclosure has significant impact on firm value. The measurement using ROA is not appropriate, due to risk disclosure relating to company information about risk of the firm, thus in the results there is no correlation. This finding consistent with the Belgian companies finding that there is no correlation between risk disclosure and firm value (Vandemele et al., 2009).

Hypothesis 2b

Leverage is not significant indicating that the variable does not have a positive effect on firm value. This result is not in accordance with the hypothesis. Leverage is a measurement that shows how much the level of debt is used in financing a company's assets. The measurement of the leverage variable in this study uses the ratio of total debt divided by total assets. Leverage or solvency of a company shows the ability of a company to fulfil all its financial obligations in the event of liquidation. Meanwhile the positive influence of leverage on firm value indicates that the use of debt to the extent of optimal leverage will increase the value of the firm (Obradovich and Gill, 2013).

Hypothesis 3

Corporate reputation is one of the variables assumed to increase company performance. Good reputation of the firm reflects that the company's bond rating is high. Good rating refers to the capability of company to pay long-term debt. The results support

hypothesis H3, with findings that the relationship between corporate reputation and firm value is statistically significant with a p value of 0.049. In Indonesia, companies with a good reputation are described as a good rating firm. Good ratings indicate that the firm has the capability to pay off long-term debt. Furthermore, the bond rating is one of the indicators for predicting and analysising the financials of company in the future. Good firm reputation could increase investment, thus company will find it easier to create profitability due to having capital from the investor. Moreover, the company then has the opportunity to expand the activity. This is consistent with a prior study, which argued that a company with a good rating has a significant impact on increasing return on assets and maintaining a going concern of firm. This result is support by financial theory stating the positive impact of good ratings on company value (Brealey 2014).

Hypothesis H4

The relationship between corporate governance mechanism, risk management and firm value use the mediating variable of corporate reputation is provided in hypothesis H4. The results find that corporate reputation is an essential variable in mediating both corporate governance and firm value. Good corporate governance will provide a better financial statement report needed by investors and stakeholders. If the company has good financial reporting, it gives the firm a good image, so the investor will be more confident. Companies with greater investment find it easier to expand the business and gain more profitability. For instance, in the last financial crisis, many companies collapsed in Indonesia. One of the reasons for this was that many Indonesian companies did not practice good corporate governance. These results are consistent with the theory that the practices of good corporate governance can increase market efficiency, transparency and consistency with the goal to improve company achievement.

6.5 Discussion of the Mediating Variables

The results on testing the mediating variables to analysis the indirect relationship between the corporate governance mechanism and firm value through corporate reputation were presented in the Table 5.7. The findings of this study have a variety of results, generally that corporate governance is correlated to firm performance (Tobin's Q) through corporate reputation. The corporate governance mechanisms correlated to firm value through corporate reputation are: the number of audit committee members, the number of independent audit committee members, the number of audit committee

members with financial expertise and audit quality. Risk management has no significant impact on firm value through the role of corporate reputation as the mediation variable, as shown in Table 5.9. The elements of corporate governance mechanisms which have a positive correlation with firm performance through corporate reputation as mediating variable are: the number of audit committee members, the number of independent audit committee members, the number of audit committee members with financial expertise and audit quality (Big 4). The other variables of corporate governance mechanism, with, no correlation on firm value through corporate reputation are: size of board and the auditor change. These finding show that the variables of corporate governance mechanisms which are audit committee characteristic and the quality audit (Big 4) have a positive correlation on firm value using the measurement of Tobin's Q and ROA with mediating variable of corporate reputation. These results imply that good corporate governance mechanisms have correlation with corporate reputation leading to improved firm performance. Indonesian companies have many factors which improve firm performance such as corporate reputation in the role of mediating variable. Moreover, this study consistent with the theory.

6.7 Research and Other Implications

This study provides some evidence and reveals findings that have both theoretical implications and potential implications for policy.

6.7.1 Theoretical implications

From the theoretical perspective, this study provides an extended understanding of corporate governance mechanisms, risk management, corporate reputation with regards to impact on firm value. The theory of corporate governance is a system of ensuring that a corporation is controlling its activities. Based on the OECD, an effective corporate governance system can encourage efficiency and thus lead to improved profitability of a firm. The practice of good corporate governance not only avoids the problem of corporate collapse, but can also produce benefits to a firm. One element of the corporate governance mechanism is the number of independent audit committee members which, shows evidence of a positive correlation toward firm value. Independency of the audit committee affects the quality of the financial reporting thereby increasing firm value.

The other finding supporting the theory of corporate governance is auditor quality with the results finding a positive relationship between employing a Big 4 auditor firm

and firm value. A quality auditor reflects well on the company's financial reporting and has implications for firm value. Another aspect of the corporate governance mechanism is auditor change. The objective of changing the auditor relates to the reporting of opinion. An auditor change could detect any mistakes in the financial reporting, improving quality, and objectivity on firm value. Overall it was found that corporate governance has a positive correlation on firm value. Analyses were carried out on the indirect relationship of corporate governance mechanisms on firm value with the role of corporate reputation as mediating variable. Findings show that the number of audit committee members, number of independent audit committee members, number audit committee members with financial expertise, audit quality and leverage as mediated by corporate reputation, increases company performance.

As discussed in the literature review in Chapter 2, risk management is a tool for reducing risk in a firm. A prior study found that risk management has a correlation with improving firm value in a business (Leautier, 2007). The Institute of Chartered Accountants also explained that risk management increases the positive influence on firm value (Collier, 2009). Therefore, managing risk is necessary for lessening the negative effects for firms. As mention in the literature chapter, enterprise risk management refers to the procedure and system of how to apply the aims of firms (Collier, 2009). An enterprise risk management framework has advantages in the firm including tangible and intangible assets, increasing the firm reputation, smoothing earning expectation, increasing management confidence, clarifying decision-making processes and governance procedures, and stimulating corporate entrepreneurship (Belmont, 2004, Crouhy et al., 2006). Moreover, enterprise risk management may help to improve profitability and decrease financial distress of companies (Pagach and Warr, 2010). Risk management also has significant impact on improving firm value by the investment of innovation (Andersen, 2008). Additionally, effective risk management may help avoid corporate collapse through decreasing the total cost of capital thus impacting on the improvement of economic investments (Andersen, 2008). This study finds that risk disclosure has a significant impact on the development of firm value. In Indonesia, company information is essential for the investor to make decisions, including of risk disclosure because of the going concern of the firm. In relation to the theory of risk management, this receives more attention in the organisation because risk management

can control the operation of a firm by the director and risk management decreases the costs of companies (Farrar, 2008b).

Corporate reputation which refers to an intangible asset, becomes a value driver that provides competitive advantage in relation to firm value (Iwu-Egwuonwu, 2011). Based on accounting theory, a good reputation produces a huge amount of wealth and goodwill about the firm. Empirical studies have shown that a good reputation is correlated to an increase in firm value (Hammond and Slocum, 1996, Ghose et al., 2009, Schultz et al., 2001). Additionally, Tan (2008) suggests that corporate reputation has a positive effect on earning quality. Therefore, one of the most important elements of critical strategic and enduring assets of any business is a good reputation. A good reputation also promotes investors' confidence leading to an increase in investment and hence firm value of companies.

The findings of this study have three essential implications. Firstly, good corporate governance mechanisms reflect on the accounting perspective associated with controlling and monitoring of the firm. It influences shareholders trust and as a result the firm value will be increase. Moreover, good corporate governance mechanisms create investor confidence encouraging investment, hence increasing firm value. The results of this study show that parts of corporate governance mechanisms, one of which is the number of audit committee independent members, which provides strong evidence to develop firm value. This indicates that the independency of audit committee members is more effective in the monitoring of company operation and as a result increases firm value. The other crucial element of corporate governance mechanisms is auditor quality which has significant impact on firm value. A good quality auditor provides better financial reporting of companies creating investor confidence leading to an increase firm value through reducing the agency problem. This finding is similar to a prior study arguing that auditor quality will influence the debt market and reduce the cost of debt (Mansi et al., 2004). Additionally, auditor quality influences the market, as shown when the firm changes to a good quality auditor, the markets have a positive reaction (Eichenseher et al., 1989). It is concluded that audit quality attracts more attention from investors due to increased competence and skill, which influences good financial reporting for investor decision making.

Periodically changing auditor is also correlated to increase in firm value, due to the auditor rotation avoiding the bias in financial reporting. This finding indicates the rotation

audit can assist the firm in becoming more efficient and more objective. It is consistent with prior studies suggesting that audit rotation creates effectiveness in the firm and develops the independency of the auditor (Winters, 1976, Kemp Jr et al., 1983, Wolf et al., 1999) resulting in an increase in firm value. Moreover, the auditor rotation can reduce bias in financial reporting (Dopuch et al., 2001). This indicates that auditor rotation is essential in increasing firm value due to reducing bias in financial reporting of the firm. Secondly, risk management is correlated to improvement of firm value. Strong evidence shows that risk disclosure is essential for company information in relation to the sustainability of firm. Stakeholders will make a decision based on the annual financial reporting including risk disclosure. Thirdly, as discussed in the literature review, bond rating is a measure of corporate reputation. It is related to a grade or level of a company's ability to finance long-term debt. The rating categories from low rating to higher rating are presented in Table 3.1. Good corporate governance can increase investor confidence, so that it is easy to obtain capital for company activities and create a good reputation, which can improve company performance. Results found that corporate reputation has a significant impact on firm value using the ROA proxy.

6.7.2 Findings with potential implications for policy

This study finds that corporate governance mechanisms, risk management, and corporate reputation influence improvements in firm performance. Corporate governance mechanisms measurement, as shown in Table 5.6, model 1, reveals that the number of audit committee members has no relationship with firm performance. This is consistent with the findings of a prior study, which has argued that the size of audit committees does not have any significant relationship with firm performance (Nuryanah, 2004). The number of independent audit committee members has a positive correlation with firm performance, with a p-value of 0.00. This result is consistent with empirical evidence in the study by Krishnan (2005), which shows that in the Indonesian setting, external audit committee members are competent to add value and play an important role in monitoring and controlling firms. The independent members can monitor and control the rules, and thus ensure good value for firms. Another measure of corporate governance mechanisms is the number of audit committee members having financial expertise. The results show that there is no relationship between the number of audit committee members having financial expertise and firm performance. This indicates that audit committees in the Indonesian environment are not yet efficient.

The quality of audit is measured in reference to the use of Big 4 auditors and the results show a p-value of 0.02, which means that the use of Big 4 auditors has a positive relationship with firm performance. This result supports the hypothesis that good quality audits have a positive influence on companies in Indonesia. Companies try to attract foreign investors and creditors to increase their capital and this can lead to high economic growth. Therefore, the quality of audits is important to show the credibility of a firm and has a positive impact on firm performance. However, this study finds no relationship between auditor change and firm performance. From the observations in this study, few firms changed auditors.

Moreover, this study finds no correlation between the number of independent board members and firm performance. This is consistent with the findings of prior studies, which suggest that a high level of control by an independent board is not beneficial to companies (Bhagat and Black, 2002, Yermack, 1996, Ghofar, 2013). The reason for this could be that independent board members may restrain managers from making aggressive investments and being more innovative (Gani and Jermias, 2006). The relationship between independent board members and firm value is still inconclusive (Kim and Lim, 2010). The size of the board and the audit committee is not relevant in relation to their influence on firm performance.

Companies have to manage risk management to create investors' confidence. With reference to the data from this study in the Indonesian context, as shown in Table 5.6, model 1 shows corporate governance mechanisms, risk management, and corporate reputation and their relationships with firm performance. The results shows a p-value of risk disclosure of 0.073. This means that risk disclosure has an influence on firm performance as measured by Tobin's Q. On the other hand, the coefficient is negative, which shows that the higher the disclosure, the lower the Tobin's Q value. Such a finding in the Indonesian setting shows that risk disclosure is not considered a factor that encourages investors to engage in investment activities. Empirical evidence from this study includes the fact that the World Bank (2010) stated that corporate governance in Indonesia has weaknesses pertaining to low disclosure quality. This low disclosure quality might result in lower investor confidence in relation to information disclosed in annual reports; hence, in exercising investment activities, investors tend to rely on other information. Moreover, when the quality of risk disclosure is low, risk management disclosure does not contain adequate information.

The other variable within risk management is leverage. It can be seen that the impact of leverage is not significant on firm performance with a p-value of 0.521 and it has a negative coefficient. This result is supported by prior studies by Balakrishnan and Fox (1993) and Gleason et al. (2000), who found that leverage has a negative impact on firm performance. Based on agency theory, increasing financial debt increases agency cost due to diverging interests among shareholders and debt holders, which can result in a moral hazard problem (Jensen and Meckling, 1976, Weill, 2001). High leverage also increases the risk of bankruptcy and therefore is considered a risk, which threatens firm value.

Corporate reputation and firm performance have no correlation using Tobin's Q as the proxy. On the other hand, the measure using ROA shows a p-value of 0.04. This finding is consistent with a previous study that a good reputation increases share value (Jones et al., 2000).

6.8 Risk Management and Firm Performance

Risk is one of the crucial issues in improving firm performance. Most businesses have raised concerns with regards to risk because the business has become more complicated and riskier. The purpose of risk management is to minimize the risk, which can improve the company's profitability, avoid bankruptcy, and boost firm performance. In reference to the literature, managing risk could be improve the value of the company by minimizing cost. Risk management can also control the activity of management through the transparency of managerial performance and create flexibility in the firm strategy (Leautier, 2007). Good practice in the management of risk has a positive impact on company performance (Leautier, 2007). The cost of capital will be lower because of the effectiveness of risk management (Andersen, 2008), and cash flow variability results in lower risk of financial distress (Guay, 1999, Froot et al., 1994).

This study finds that two measures of risk management (risk disclosure and leverage) produce different results; for example, leverage has a positive relationship with firm value measured by Tobin's Q with a p-value of 0.001. However, there is no evidence of any relationship between risk disclosure and firm value or performance measured by ROA. This finding is consistent with that of the study conducted by Anderson (2008), who supports the argument that effective risk management increases investors' confidence to invest in specific long-term investments. The explanation for no association

between risk management and ROA could be that risk management may not be associated with short-term financial performance. Rather, it is more about increasing confidence of investors, which impacts on long-term performance indicators such as Tobin's Q.

This study also finds that risk disclosure is negatively related to Tobin's Q. Although this finding is not consistent with the reported findings in previous literature, it extends the knowledge of the relationship between risk disclosure and firm value in emerging countries. Emerging countries, such as Indonesia are characterized as low disclosure environments. The ownership of Indonesian firms is dominated by block-holders, who may have direct access to private information, which results in a low-transparency regime.

This finding has two important implications. First, regulators should tighten regulations with regard to risk management, as this may increase firms' ability to boost value. Moreover, regulations on risk disclosure should also be strengthened, especially in emerging countries. Theoretically, block-holder ownerships may substitute for controls, as block-holders have more access to information and control. However, this situation is not ideal in protecting minority shareholders who have limited access to information. Second, managers should be aware of the importance of risk management, as it may increase their long-term performance indicators. Managers' ultimate performance is to increase firm value; hence, any effort should be focused on the latter. This study provides strong evidence that risk management has a relationship with firm value.

Commonly used measures as indicators of corporate governance mechanisms are: (1) audit committee characteristics, which include the number of committee members, the number of independent audit committee members and the number of audit committee members who have financial experience/background; (2) board of director characteristics, namely the size of the board and the number of independent board members; (3) audit quality or type; and (4) audit change.

With regard to audit committees, this study finds a positive relationship between the number of independent audit committee members and Tobin's Q, with a p-value of 0.001. This finding is consistent with the finding of Krishnan (2005). This shows that in the Indonesian setting, audit committee members add value and play an essential role in monitoring and controlling firms. This is because they are independent from management. The independent members can objectively exercise the monitoring and controlling roles, which results in better firm value. However, other audit committee

characteristics are found not to be associated with either Tobin's Q or ROA. These findings show that the size and background of audit committees are not important determinants of firm performance or firm value.

Audit quality is proven to be an important determinant of firm value and performance (ROA). The p-value of audit quality is 0.026. This finding is consistent with the research of Zhang et al. (2007). Firms audited by Big 4 audit firms have better internal control, which results in better firm value. The Big 4 audit firms might also have the resources to detect earnings management, and this enables them to increase the quality of earnings. This finding reveals an important implication for firms and regulatory bodies. Regulatory bodies should strengthen regulations with regard to auditing tasks. Firms should also consider and understand that the quality of the external auditor is important and can influence firm value.

6.9 Corporate Reputation and Firm Performance

Corporate reputation is an essential element in increasing firm performance. Ljubojevic and Ljubojevic (2008) suggested that corporate governance is recognized as a necessity for maintaining an attractive investment climate, which is a characteristic of highly reputable and competitive companies. Hence, it should also improve the firm value and firm performance. Indonesian's companies who have a good reputation find it easy to increase funding from many sources such as creditors, investors, or other financial resources. These companies will have more funds available to expand their company. Therefore, achieving a good reputation can create profit, assure the company's sustainability, and encourage local and national economic development. For instance, in 1997, Indonesia was facing financial crisis issues, where there were many companies experiencing collapse due to their volatility.

These findings are important for companies to endorse their good reputation. Firms should consider that enhanced corporate reputation, which has been referred to as "creative capitalism" by Bill Gates, serves as a governance model, because a company is required to make a huge profit which makes it easy for the company to give incentives to its employees. The recognition of incentives in an organization influences the quality of employees and leads to increased customer satisfaction and firm reputation (Hemphill, 2010). Enhancing firm reputation also improves firm value. Therefore, companies need to enhance their reputation.

6.10 Implications of Study from Accounting Perspective

This result demonstrates that it is essential for companies to practice good corporate governance, establishing an audit committee tasked with assessing the board of commissioner to control the internal operations of the firm. Moreover, agency theory can be overcome by the implementation of good corporate governance practice which includes the number of audit committee members, the number of independent audit committee members, the number of audit committee members with financial expertise and the quality of auditors (Big 4). From an accounting perspective, good corporate governance may reduce the likelihood of managers engaging in earnings management, which might lead to the detriment of shareholders. For instance, in the case of Enron, the management used accounting policy to engage in earning management practices. This study finds that corporate governance mechanisms in relation to the variable of quality of audit can increase firm performance. Audit quality leads to companies' reduced use of earnings management and thus can lead to good firm performance. Therefore, research in accounting is essential for increasing the value of firms.

CHAPTER 7: CONCLUSION, LIMITATIONS AND RECOMMENDATIONS

7.1 Introduction

This thesis examines the impact of corporate governance, risk management, and corporate reputation on firm value. The previous chapters 5 and 6 discussed and interpreted the results and implications of the study, the objective of this chapter is to summarise the findings. This study focused on the impact of corporate governance, risk management, and corporate reputation on firm value. The study also focussed on investigating the relationship of corporate governance mechanisms, risk management and corporate, reputation to firm value. The measurement of firm performance has been performed by the use of two proxies: Tobin's Q and return on assets (ROA). In addition, the role of corporate reputation as a mediating variable between GCG mechanisms and firm value was also tested. The previous chapter has presented the discussion and interpretation of the results of the study. This chapter outlines the limitations of the study and provides recommendations for further research. This chapter also presents summaries of the literature review, conceptual framework, methodology, hypothesis development, hypothesis testing, results of the econometric analysis and the conclusion.

This concluding chapter discusses the most significant findings of the research. It shows how the finding have matched the research questions in Chapter 1. This is followed by consideration of the importance of this in the context of its practical and theoretical contribution. The final section covers the limitations of the research and provides suggestions for future research.

Based on the results and discussion in the previous chapter, corporate governance mechanisms have the following impacts. The number of independent audit committee members, the auditor quality and the auditor change have correlation impact on firm value as measured by Tobin's Q. These committees will be more objective in monitoring and controlling the firm and improving company performance, due to more objective control and supervision without any special relationship with the company. Companies that are monitored by an independent audit committee can avoid mistakes in the company's financial statements (Abbott and Parker, 2000). Moreover, a company that drives accountable financial statements is influenced by qualified of auditors. Quality audits can increase the confidence of users of financial statement information due to the presentation of quality financial reports (Sawan and Alsaqqa, 2013).

The other element of corporate governance is audit rotation, which is very important for companies because if the auditor has a relationship with a manager for a long time, it can affect independence. This can have a bad effect on the company because the auditor will defend the interests of the manager more than the public interest. As a result, auditor rotation is an essential part of improving firm value. Moreover, essential auditor rotation can motivate auditors to be more creative and enhance quality (Hoyle, 1978).

Another important part of the firm is risk management. Risk disclosure as a variable of risk management has a correlation to enhance the company performance. Disclosure of risk in the company is very important because it can reduce asymmetric information that can result in losses for investors. As a result, risk disclosure will be more effective for the stakeholders to make decisions.

Meanwhile, the relationship of corporate governance mechanisms toward firm value using return on asset (ROA) proxies has only one variable which is auditor rotation. Changing auditors is good for companies due to the ability to detect mistakes. The company with a long relationship with the auditor can reduce independency and can let fraud take place, which can cause investor loss.

The other element to improving firm value is corporate reputation. The reputation of a company is the result of an assessment from outside parties on the company's image. A good corporate reputation will affect the ability to generate profits and become a motivation for all parties to be able to maintain their performance, thus the company's value also increases (Roberts and Dowling, 2002). Companies that are well considered, will be able to attract investors. One assessment of the company can be seen from the bond rating, which describes the company's ability to cover all loans in the long run. A good corporate reputation can improve company performance. Companies that have large capital will find it easier to use funds for productivity, so that it is easy to increase profitability. The results show that the more suitable measurement of performance to use in corporate governance will be Tobin's Q as a measure of market valuation compared to using ROA as a measure of operational performance.

Table 7.1 Summary of results direct relationship corporate governance, risk management, corporate reputation on firm value

	Tobin's Q	ROA	Conclusion
NAC	The large number of audit committee members becomes ineffective caused by the diversity of understanding of the function and responsibility of the committee. Although this proxy provides the information of market value of the company, which reflects the company's future profits, it does not influence the investor's decisions.	The number of audit committee members does not maximizing their duties in controlling the company. Furthermore, the large number of members is not effective in implementing the financial report of the firm and is more costly.	Both the Tobin's Q and ROA proxies, result in no improvement of firm performance because of the variety of understanding and different arguments not focusing on monitoring and controlling of firm. Therefore, there is no impact on firm value.
NACI	The number of independent audit committee members means they are more professional in the monitoring the firm, because they do not have any relationship with the firm.	Not yet optimal on controlling.	The number of independent audit committee members has a significant impact on firm value, using the proxy Tobin's Q because of the investor confidence. Meanwhile, ROA is not appropriate.
NACFE	The number of audit committee members with financial expertise is not yet optimal in the firm.	The number of audit committee members with financial expertise is the mandatory.	Number of audit committee members with financial expertise has no correlation on firm value.
BIG 4	Auditor quality is essential to the firm, as it could avoid financial fraud if they work transparently. Transparency helps investors and shareholders, and they can report matters related to taxation on the capital market. Therefore, a good auditor will increase firm value.	The companies often do not provide a change of auditor due to the lower cost of using the same auditor, therefore changing auditor is not correlated to the company's performance.	The audit quality has an impact for increasing firm value due to the financial report becoming more credible and more accurate.
AUC	An auditor change can be more optimal due to the understanding from the prior auditor. Moreover, the new auditor will be more independent and creative. The investor will be interested in the financial report if the auditor is changed, because the length of time with old auditor means the manager may have had a special relationship so independency will be less. Therefore, auditor changes are essential for companies to increase firm value and the investor confidence.	The auditor change could reduce mistakes and make the operation of the firm more effective and efficient, which could reduce cost. Moreover, companies have more funds, thus it is easier to expand to get more profitability. This implies that auditor change has a positive correlation and enhances firm value.	Both proxies, whether Tobin's Q or ROA, show the auditor change benefits the companies leading to increase in firm value.
NIB	The number of independent board members can create tight policy, so it is difficult for management to increase profits.	Outside directors take time to understand the conditions of the firm.	The number of independent board members causes difficulties in increasing profitability which could affect improvement of firm value.
SB	A large board size means it takes more time to make decisions thus is not efficient.	Large board size tends to cause conflict.	Both proxies Tobin's Q and ROA find results of not increasing firm value.
RD	Risk disclosure makes information transparent, making investors more confident in creation of more profitability.	Risk disclosure is more suitable for Tobin's Q proxy due to informing the market.	The market will be more confident if they get risk disclosure information, which relates to reputation and enhances the company's performance.

LEV	Leverage indicates companies that have debt will be more costly because of interest payments so that benefits obtained are less, which means that it will not be able to affect company profits and company value.	Leverage will be more costly due to companies paying interest liability.	Leverage should be managed to get optimal profitability.
BDR	Bond-rating is not the main information to the investors, they are more concerned with the annual report and management information.	Bond-rating indicates the capability to pay debt in the long term, so relates to the companies' sustainability.	Bond-rating relates to the operation of the firm, thus a good rating could gain stakeholder trust and the resulting increase in funds makes it easy for companies to increase profitability.

Table 7.2 Summary of results indirect relationship, corporate reputation as the rule of mediating variable of corporate governance and risk management to influence firm value

	Tobin's Q	ROA	Conclusion
NAC	Controlling the activities of the firm support good company performance due to providing a large of number of audit committee members, leading to good reputation.	The number of audit committee members with duties to the monitor the financial statement, results in a good reputation	NAC has implications for increasing firm value through mediating of corporate reputation.
NACI	More independent audit committee members implies that firm financial reporting is more accurate, thus enhances good reputation.	The number independent audit committee members creates a more conservative management, therefore increases the quality of financial statements.	NACI has a significant impact on improving firm value by corporate reputation as a mediating relationship.
NACFE	The number of audit committee members with knowledge in accounting and finance is the key for the firm to produce good financial statements.	The audit committee has skills to become more effective and efficient.	The relationship between NACFE and firm value has a positive correlation as a rule mediating corporate reputation.
BIG 4	Good quality auditors giving the information to the firm creates trust in stakeholders.	The financial statement of the firm is more accountable and accurate if companies hire a good auditor.	The quality of auditor will improve firm value through corporate reputation.
AUC	The rule of auditor change as a requirement for companies is not related to companies' productivity.	Auditor rotation does not influence the operation of the firm.	Auditor change has no correlation between influencing firm value through mediating of corporate reputation.
NIB	NIB needs time for adjustment, due to coming from outside of the firm, and the results do not influence the firm value.	The independency of the board gives stricter policies, which are difficult for the manager to implement.	The relationship between NIB and firm value has no significant impact with the rule mediating the variable corporate reputation.
SB	Large board size creates conflict because of various arguments, therefore does not influence the firm performance.	Large board size makes it difficult for companies to make decisions.	SB has no correlation to improve firm value, using the mediating relationship of corporate reputation.
RD	Risk disclosure creates more trust in the stakeholder and the shareholder, due to the information to predict the going concern of the firm.	The information of risk disclosure is not important in the operational companies.	The market valuation is more of a concern than information risk disclosure, in operational performance.
LEV	Leverage indicates more information about the capability of financing the firm in the long term.	Leverage is not the main concern in operational companies as companies could cost the activities.	Leverage is necessary for market valuation, meanwhile the operational performance is more concerned with optimal activity.

BDR	Investors need the general information of the firm to make decisions in not only bond rating.	Shareholders are concerned with the capability of the firm to pay costs in the long term.	The market is concerned with the financial report and management information. However, in the operational concern, capability pays in long term based on the rating.

7.2 Corporate Governance Mechanisms and Firm Performance

As mentioned in the literature review, corporate governance refers to a system to control activities of firm (Banks, 2004), or a system for directing and controlling a business corporation (Clarke, 2004). Companies that have good governance will be able to influence economic growth in a region and country, because the company's performance is able to increase profitability. Corporate governance is mechanism to control a balanced system of profit sharing and wealth to stakeholders and to create company efficiency. Companies listed on the stock exchange need to convince investors that funds are used appropriately and efficiently, so that they are sure to regain the value of their investments, so there is a need for good governance. Managers working effectively and efficiently can reduce the cost of capital and minimize risk thus improving profitability. The size of firms has increased and the increasing role of finance that influences capital mobilisation has an impact on the principal owners (Claessens, 2006). The objective of corporate governance is to maximise firms' contributions to the economy and to stakeholders (Claessens, 2006).

Corporate governance mechanisms can be divided into two aspects, internal and external. The function of both mechanisms is to control the activities of management. The internal corporate governance mechanisms tend to control the general activities, thus providing for the sustainability of stakeholder value. On the other hand, the external corporate governance mechanisms control activities in relation to performance that maximise the interests of shareholders and stakeholders. This is consistent with the prior research assumption that internal corporate governance is essential for the interests of shareholders (Walsh and Seward, 1990). The objectives of both the external and internal corporate governance mechanisms are to increase firm profitability as well as shareholder value.

Based on the results in this study, the element of corporate governance mechanisms which are the number of audit committee independent, the audit quality and the auditor change can improve the value of firm. The independency of the audit committee is

necessary and very important for the company, because it will be able to provide effective supervision of company management. Moreover, supervision of management in carrying out activities so as not to make policies that can benefit themselves and which can harm stakeholders is important. Additionally, the independence audit committee can be a guarantee of the quality of the company's financial statements.

7.3 Risk Management and Firm Performance

Risk management is important for the company; management realizes that the risk will come in the company. Therefore, the company must be able to provide solutions for risks that will influence it and provide information about this to investors. This information is useful for investors to be able to carry out a refund risk analysis as expected. Risk management in organizations refers to the activity of dealing with the obstacles faced to achieve the goals set (Collier, 2009). According to the Treasury Board of Canada Secretariat (2001), risk management is "a systematic approach to setting the best course of action under uncertainty by identifying, assessing, understanding, acting on and communicating risk issues". Another definition is from the International Organization for Standardization (ISO), whereby risk management includes the process of how to manage risk and consider the implications of risk (Collier, 2009). Risk management is a business practice to enhance value in the firm (Leautier, 2007). The Institute of Chartered Accountants has described risk as an event that affects the performance of a firm (Collier, 2009). Enterprise risk management (ERM) is the process and method of how to implement the goals in an organisation (Collier, 2009). There are four components of risk management: identifying; assessing; determining; and monitoring.

COSO also defines ERM as a "process, affected by an entity's BOD, management and other personnel, applied in a strategic setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risk to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives" (Collier, 2009). Empirical research found that ERM makes a firm more profitable, which then decreases the probability of financial distress (Pagach and Warr, 2010).

In addition, risk management can also encourage maximisation of investment (Lin et al., 2008) due to the effectiveness of risk management in creating investors' confidence to invest in the long term (Andersen, 2008). Therefore, the managing of risk is an essential

issue for a firm to create profitability and to ensure sustainability, thus increasing shareholders' confidence. Liebenberg and Hoy (2003) assumed that risk management increases the value of a firm through minimising inefficiency, promoting capital efficiency and reducing earnings volatility and expected cost of external capital, as well as regulatory scrutiny.

Risk management has a correlation with firm performance and the reduction of cost in a firm and, as a result, increases profitability. According to Smith and Stulz (1985), risk management can reduce the taxes of firms. This is consistent with the findings of the research by Dolde (1995), who found a positive and significant relationship between risk management and taxes. Nance et al. (1993) and Mian (1996) reported that statistically the relationship between tax credits and risk management instruments is positive.

Risk management has become a key governance issue and part of corporate governance as well in the UK. The Turnbull Committee and the Comprehensive Performance Assessment (CPA) documented that internal control and risk management have now become a central major agenda for firms (Collier, 2009).

Risk management is central to corporate governance because risk management encourages directors in the operations of managing a firm. The failure of risk management would impact on a company in terms of personal liability; thus, managing risk is significant in reducing cost in a firm (Farrar, 2005). A previous study suggested that a significantly positive relationship between risk management and corporate performance affects investment innovation (Andersen, 2008). Moreover, effective risk management decreases corporate collapse by reducing the total cost of capital; therefore, investment in the economy increases (Andersen, 2008). Risk management can create investors' confidence in long-term investment due to stable cash flow in the firm.

7.4 Corporate Reputation and Firm Performance

Corporate reputation is part of the corporate governance mechanism, because corporate reputation has a direct relationship with the internal control governance mechanisms. Consequently, the reputation of individuals and board members has to be positive and sustainable over the long term. Second, the reputation and governance mechanisms of companies are directly correlated with firm reputation, which can be measured through a single board member or through the collective reputations of all board members (Tomšić, 2013).

Corporate reputation is an essential part of corporate governance due to the fact that a good reputation enables investors to invest more with confidence and, as a result, can lead to increased firm performance. Bond rating is a proxy for corporate reputation. Based on finance theory, bond rating is a measure that provides valuable information for potential investors about the quality and marketability of bonds issued to help support potential investors in making investment decisions (Brealey, 2014). Finance theory posits that ratings are issued by rating agencies such as Moody's, Standard & Poor's (S&P) and Fitch. The bond rating measures provided by these agencies use the symbol AAA (triple A) for the highest standard of bonds. In addition, the double AA and single A ratings are for progressively lower standards of bonds. Rating is important for the transmission of information in the debt market, as well as to create investors' trust in the firms and to increase the pricing of financial obligations (Becker and Milbourn, 2008).

7.5 Relationships Between Corporate Governance, Risk Management, Corporate Reputation and Firm Performance

This study finds that overall, the direct relationship of three elements which are: corporate governance, risk management, and corporate reputation, has significant impact on improving company performance. The measurement of firm performance has used two proxies, Tobin's Q and ROA. There is different results from the variables of corporate governance, risk management, corporate reputation influencing firm value using the measurement Tobin's Q. Moreover, it can be seen that Tobin's Q is a more appropriate measure as compared to ROA, because Tobin's Q can measure the value of investment in the future and reflects the growth opportunities. On the other hand, ROA tends to be a short-term oriented measure. These findings are consistent with those of previous studies, which found that Tobin's Q is effective for measuring the performance of a firm in relation to corporate governance mechanisms (Wiwattanakantang, 2000).

7.6 Analysis of Direct Relationship Between Corporate Governance Mechanisms and Firm Performance

Based on the results of the specific analysis, it is found that the number of audit committees' member does not have a significant impact on firm performance. This result rejects hypothesis H1a that states the number of audit committee members has a positive impact on firm performance. This implies that in Indonesia, the number of audit

committee members is not yet optimal in supervising and monitoring the firm. The large number of the audit committee members tends to diverse arguments thus is not efficient in making decisions, so the result is that there is no correlation on firm value. There is little realization that the application of the principles of corporate governance via an audit committee will influence firm value. This result is also consistent with that of prior research done by Nuryanah (2004), who found that the size of an audit committee does not have a significant impact on firm performance. On the other hand, the relationship between audit committee independence and firm performance has a positive correlation, which is consistent with hypothesis H1b: the number of independent audit committee members has a positive impact on firm performance. The number of audit committee members having financial expertise has no significant relationship with firm performance. This is inconsistent with hypothesis H1c: the number of audit committee members having financial expertise has a positive impact on firm performance.

Audit quality has a positive correlation with firm performance, which indicates that using Tobin's Q as proxy, the use of Big 4 audit firms is found to have a positive relationship with firm performance. This result supports hypothesis H1d: Big 4 auditors have a positive impact on firm performance. However, auditor change is found to have no relationship with firm performance and this is not consistent with hypothesis H1e: auditor change has a positive impact on firm performance. In addition, using Tobin's Q as the proxy, the number of independent board members is found to have no relationship with firm performance, which is inconsistent with hypothesis H1f: the number of independent board members has a positive impact on firm performance. Similarly, using Tobin's Q, the size of board is found to have no correlation with firm performance, which is the reverse of hypothesis H1g: the size of the board has a positive impact on firm performance.

This study also used ROA as a measure of firm performance. Only auditor change has correlation on firm value as measured by ROA. In Indonesia, there is a rule that an auditor audits the company for a maximum of 5 consecutive years. This has a positive impact on the company as changing auditors will be able to increase independence and enables detecting faults that occur from the previous auditor. If in the long term, the auditor is not replaced, it can cause lack of independence in auditing so that the company's financial statements lack accountability. In this case, it is very important that there is an auditor change. Meanwhile, the results show that the variables corporate

governance comprising the number of audit committee members, number of independent audit committee members, number of audit committee members having financial expertise, Big 4 auditor quality, number of independent board members and size of the board do not have relationships with firm performance. This indicates that ROA is not appropriate for measurement of corporate governance.

7.7 Analysis of Direct Relationship Between Risk Management and Firm Performance

The results of the analysis of the relationship between risk management and firm performance have been presented in the discussion in Chapter 5. The result reveals that risk disclosure does not have a significant impact on Tobin's Q and so this result rejects hypothesis H2a: risk disclosure has a positive impact on firm performance. Whereas for leverage, the result reveals that leverage has a positive relationship with Tobin's Q and this result is consistent with hypothesis H2b: leverage has a positive impact on firm performance. Meanwhile, the measurement of firm performance using ROA finds both risk disclosure and leverage to have no significant relationship with firm performance; thus, this result rejects hypothesis H2a and hypothesis H2b.

7.8 Analysis of Direct Relationship Between Corporate Reputation and Firm Performance

Analysis of the direct relationship of corporate reputation on firm value using the bond rating as proxy has a variety of results. The results presented in Table 5.9 shows that the relationship between bond rating and firm performance as measured with Tobin's Q has no correlation. This finding does not support hypothesis H3: bond rating has a positive impact on firm performance. Meanwhile, the results in Table 5.10 show that the relationship between bond rating and firm performance using ROA as the proxy is significantly positive. This finding also supports the hypothesis that bond rating has a positive impact on firm performance. This result is consistent with that of prior research, suggesting that a good reputation has a positive impact on firm performance (Hammond and Slocum, 1996). Another prior study also found that corporate reputation has a positive correlation with superior earnings quality (Tan, 2008). Moreover, Tan found that this helped in producing superior total sales in Chinese public companies (Tan, 2008). A good reputation also maintains and increases share value (Jones et al., 2000). Besides, corporate

reputation reflects customers' trust and trust of other stakeholders, hence creating employees who are more productive and enabling increases in benefits (Rose and Thomsen, 2004).

7.9 Limitations of the Study

As with other empirical studies, this study has some limitations, which are presented below.

7.9.1 Data and methodology

The data in this study is limited to 214 firm-year observations involving 36 companies over a six-year period. The companies were those listed on the Indonesian Stock Exchange that had bond ratings during the period from 2007 until 2012. The data pertaining to corporate governance was only available from 2007 onwards due to the fact that the practice of corporate governance in Indonesia only commenced in that year. These are limitations in terms of that data from Indonesian companies, and hence the results may be different for a similar period but in other countries.

The methodology in this study involves the use of panel data, from small panels for six years. As a result, every company is the same fiscally over the six years, which could create bias in the results.

7.9.2 Measurement of variables

This study measures the variables of corporate governance mechanisms, risk management and corporate reputation and their influence on firm value. The variables of corporate governance mechanisms include: audit committee characteristic, board of directors (BOD), audit quality and the auditor rotation or auditor change, while the measurement of firm performance used two proxies which are: Tobin's Q and ROA. The results of using several proxies could have had different impacts. The results of corporate governance mechanisms found a variety of results. Some results are significantly different, although overall this study shows that the results support the hypotheses.

7.10 Future Research

Apart from the limitations in the research, it is possible for future researchers to continue as follows:

1. This research presents evidence on the relationships between corporate governance mechanisms, risk management and corporate reputation on firm value, as a direct relationship. However, it found variation in the results when the two measures of firm value (Tobin's Q and ROA) were used. Further researchers can consider the measurement of firm value as using Tobin's Q, as the results suggests that it is more suitable for corporate governance mechanisms.
2. Future research might consider futher corporate reputation as an indirect relationship, bring together more data so that they can explore more robust as mediating relationships between GCG, risk management and firm performance variables.
3. The central limitation of this study is that it is based on a relatively small sample of observations – 216 firm-year observations over a six-year period – with only limited power to discriminate between competing hypotheses. With new data becoming available, further research to test these findings on a much larger sample over a longer time period would be valuable.

7.11 Conclusion

These summaries of the findings reveal the relationships between corporate governance mechanisms, risk management and corporate reputation toward firm value. Based on the results, corporate governance mechanisms have significant impacts on firm performance. The results indicate that firms with GCG in relation to these three aspects can increase their value and also avoid corporate collapse. The proxies for measuring firm performance are Tobin's Q and ROA. This study has found different results between using Tobin's Q and ROA as measurements. The more appropriate measurement is Tobin's Q because it measures the value of investment in the future, thus affecting growth opportunities. On the other hand, ROA is a more short-term oriented measure.

This study also analyses the relationship of corporate governance mechanism as direct correlation to influence firm values with the proxies of audit committee, Board of directors (BOD), audit quality (Big 4) and auditor rotation. The relationship of corporate governance mechanisms has a positive impact on developing firm value using Tobin's Q measure. The result shows that risk management has a positive correlation with firm performance as measured by Tobin's Q, which also has positive impacts on firm

performance using Tobin's Q. Bond rating as the proxy of corporate reputation has a significant impact on firm performance using both Tobin's Q and ROA as measurements. This result implies that risk management as a component of corporate governance can encourage firms to maximise firm performance and investors' confidence. The results indicate that firms that have good corporate governance (GCG) practice encourage effectiveness in their business operations, which can lead to the improvement of firm performance. Moreover, the results provide evidence that corporate reputation is a mediating variable on corporate governance mechanisms and firm value. Thus, it can be concluded that corporate reputation can strengthen the relationship between corporate governance and firm value. It can be seen from the results that the number of audit committee members and the number audit committee members with financial expertise, does not directly affect firm value, but through mediating variables it strengthens the relationship, thus the results have significant impact on firm value. The number of independent audit committee members has a function of monitoring companies in their activities including financial reporting, and provides more control, therefore avoiding fraud and improving the profitability of firm. Moreover, good quality auditors are able to act fairly in reflecting accurate conditions in the financial statements of a firm in accordance with the standards and rules of the applicable financial accounting standards. An essential element is auditor change, where auditor firms should not engage with the companies' for a long term. The existence of a long relationship between the auditor and manager can reduce auditor independence, which can have a bad effect on the company. Managers in policy-making will be more inclined to prioritize their interests which benefit the company's interests; thus, auditor turnover plays an important role in the company's performance.

The results of the indirect relationship between corporate governance mechanisms and firm value with the role of corporate reputation as the mediating variable, show the number audit committee member has a correlation to increase firm value through corporate reputation. This implies that the number of audit committee members has a function in supervising financial reports and improving the quality of financial statements, thus can increase public trust and a good reputation leading to increase company value. Moreover, the number of independent audit committee members has positive correlation to increase firm value use the mediating role of corporate reputation. This indicates that an audit committee that has experience in accounting and finance can

provide advice and improvements thus their financial reporting is more accountable and reliable. In addition, the existence of a professional audit committee in controlling and monitoring on firm activities becomes more efficient, reduces cost and also improves the company's reputation. A company that has a good reputation will be able to attract investors that are confident, and this can have a positive impact on improving company performance. Furthermore, auditor quality is an essential element for influencing firm value using the role of corporate reputation as mediating variable. The results have shown that auditor quality (Big 4) with a professional and experienced auditor, can create efficient financial reporting for the company. A Big 4 auditor is also able to provide an explanation to the client if any mistakes appear in the company's financial statements. They can give solutions making the firm more accountable and reliable, leading to improving the company's reputation resulting in an increase in firm value.

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APPENDIX 1: LIST OF FIRM AND INDUSTRY CATEGORIES

No	Name of Firm	Categories
1	Surya Citra Televisi	Non Finance
2	Bank Danamon	Finance
3	Bank UOB Buana TBK	Finance
4	Bank Negara Indonesia TBK	Finance
5	Bank NISP TBK	Finance
6	Bank Panin	Finance
7	Bank Permata	Finance
8	Bank Tabungan Negara TBK	Finance
9	Bnak Rakyat Indonesia	Finance
10	Lutan Luas TBK	Non Finance
11	Indofood Sukses Makmur	Non Finance
12	HM Sampoerna TBK	Non Finance
13	Bentoel International Investama TBK	Non Finance
14	Multi Finance TBK Adira Dinamika	Finance
15	Bhakti Investama TBK	Finance
16	Jasa Marga	Finance
17	Medco Energy International TBK Medco Energy	Non Finance
18	Kalbe Farma TBK	Non Finance
19	Japfa Comfeed Indonesia	Non Finance
20	Malindo Feedmill TBK	Non Finance
21	Duta Pratiwi TBK	Non Finance
22	Adhi Karya (Persero)	Non Finance
23	Summarecon Agung	Non Finance
24	Bumi Serpong Damai	Non Finance
25	Bakrieland Develpment	Non Finance
26	Pembangunan Jaya Ancol TBK	Non Finance
27	Matahari Putra Prima TBK	Non Finance
28	Trimegas Securities TBK	Non Finance
29	Berlian Laju Tangker TBK	Non Finance
30	Arpeni Pratama Ocean	Non Finance
31	Bakrie Telecom TBK	Non Finance
32	PT Excelcomindo Pratama	Non Finance
33	Indosat TBK	Non Finance
34	Mobile-8 Telkom TBK	Non Finance
35	Pabrik Kertas Tjiwi Kimia	Non Finance
36	Bank Mandiri (Persero) TBK	Finance

Source: (www.pefindo.com).

APPENDIX 2: RESULTS

```
  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/   13.0   Copyright 1985-2013 StataCorp LP
  Statistics/Data Analysis             StataCorp
                                       4905 Lakeway Drive
     Special Edition                   College Station, Texas 77845 USA
                                       800-STATA-PC        http://www.stata.com
                                       979-696-4600        stata@stata.com
                                       979-696-4601 (fax)


. xtset idcode year
       panel variable:  idcode (strongly balanced)
        time variable:  year, 2007 to 2012
                delta:  1 unit

. xtdes, pattern (0)

  idcode:  1, 2, ..., 36                                 n =         34
    year:  2007, 2008, ..., 2012                         T =          6
           Delta(year) = 1 unit
           Span(year)  = 6 periods
           (idcode*year uniquely identifies each observation)

Distribution of T_i:   min      5%     25%       50%       75%     95%     max
                         6       6       6         6         6       6       6

. sum tq roa rd lev nac naci nacfe Big 4 auc nib sb bdr size ind

    Variable |       Obs        Mean    Std. Dev.       Min        Max
-------------+--------------------------------------------------------
          tq |       204    2.910316    2.877103      .0035    19.6208
         roa |       204    .0762681    .2189851       -.02     2.1508
          rd |       204    6.367647    3.008548          1         12
         lev |       204    .6699044    .2011945      .2162      .9482
         nac |       204    3.593137    1.053332          2          7
-------------+--------------------------------------------------------
        naci |       204    2.862745    1.074003          1          5
       nacfe |       204    2.857843    1.307194          0          6
      Big 4 |       204    .5294118    .5003621          0          1
         auc |       203    .0049261    .0701862          0          1
         nib |       204    2.431373    1.149082          0          5
-------------+--------------------------------------------------------
          sb |       204    5.857843    1.831414          2         11
         bdr |       204    21.09314     2.63103         13         26
        size |       204    3.851254    .6710268   2.432969   5.419199
         ind |       204    .5882353    .4933637          0          1

. pwcorr tq roa rd lev nac naci nacfe Big 4 auc nib sb bdr size ind

             |       tq      roa       rd      lev      nac     naci    nacfe
-------------+------------------------------------------------------------------
          tq |   1.0000
         roa |  -0.0883   1.0000
          rd |   0.2878   0.0580   1.0000
         lev |   0.3555  -0.0400   0.6337   1.0000
         nac |   0.1507   0.0673   0.3645   0.3760   1.0000
        naci |   0.5346  -0.0180   0.4990   0.4965   0.4947   1.0000
       nacfe |   0.2575   0.1167   0.3265   0.3674   0.3835   0.5825   1.0000
      Big 4 |   0.3266   0.0174   0.4133   0.4367   0.3640   0.4109   0.2738
         auc |  -0.0046  -0.0217  -0.0554  -0.0385  -0.0398   0.0090   0.0077
```

```
         nib |   0.2370   0.0318   0.4213   0.4517   0.3411   0.4873   0.4313
          sb |   0.0159  -0.0574   0.1427   0.2018   0.2482   0.3356   0.2837
         bdr |  -0.0355   0.2616   0.2359   0.2769   0.4012   0.1963   0.3047
        size |  -0.1193   0.2259   0.2699   0.1693   0.3152   0.2170   0.2857
         ind |  -0.4117  -0.0739  -0.6476  -0.3615  -0.1154  -0.3210  -0.4120

             |     Big 4      auc      nib       sb      bdr     size      ind
-------------+------------------------------------------------------------------
        Big 4 |   1.0000
         auc |  -0.0750   1.0000
         nib |   0.5262  -0.0275   1.0000
          sb |   0.3782  -0.0327   0.5700   1.0000
         bdr |   0.4975  -0.0569   0.3304   0.2103   1.0000
        size |   0.6147  -0.0243   0.4667   0.4702   0.6300   1.0000
         ind |  -0.5494   0.0591  -0.3195  -0.0651  -0.2360  -0.2746   1.0000

.
. reg tq  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind

      Source |       SS       df       MS              Number of obs =     203
-------------+------------------------------           F( 12,   190) =   17.14
       Model |  871.070329    12  72.5891941           Prob > F      =  0.0000
    Residual |  804.576167   190  4.23461141           R-squared     =  0.5198
-------------+------------------------------           Adj R-squared =  0.4895
       Total |   1675.6465   202  8.29527969           Root MSE      =  2.0578

------------------------------------------------------------------------------
          tq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.2723934   .0878576    -3.10   0.002    -.4456951   -.0990918
         lev |   1.991103   1.076428     1.85   0.066    -.1321814    4.114388
         nac |  -.0526998   .1800898    -0.29   0.770     -.407932    .3025324
        naci |   1.500735   .2059341     7.29   0.000     1.094524    1.906946
       nacfe |   -.284735   .1640396    -1.74   0.084    -.6083078    .0388379
        Big 4 |    1.22083   .5179615     2.36   0.019     .1991366    2.242524
         auc |   .2625939   2.078818     0.13   0.900    -3.837934    4.363121
         nib |   .1786412   .1906882     0.94   0.350    -.1974966    .5547791
          sb |  -.1440313   .1074857    -1.34   0.182    -.3560499    .0679872
         bdr |  -.0714232   .0777634    -0.92   0.360    -.2248138    .0819674
        size |  -1.428832   .3560083    -4.01   0.000    -2.131068   -.7265955
         ind |  -2.295765   .5213346    -4.40   0.000    -3.324112   -1.267418
       _cons |   8.145128   1.488455     5.47   0.000     5.209108    11.08115
------------------------------------------------------------------------------

. ovtest

Ramsey RESET test using powers of the fitted values of tq
       Ho:  model has no omitted variables
                 F(3, 187) =     50.88
                  Prob > F =      0.0000

. hettest

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

         chi2(1)      =    67.99
         Prob > chi2  =   0.0000
```

```
. vif

    Variable |       VIF       1/VIF
-------------+----------------------
          rd |      3.35    0.298591
       Big 4 |      3.20    0.312297
         ind |      3.16    0.316410
        size |      2.73    0.366266
        naci |      2.34    0.426467
         nib |      2.25    0.444326
         lev |      2.25    0.444984
       nacfe |      2.20    0.453696
         bdr |      1.98    0.504371
          sb |      1.85    0.541994
         nac |      1.72    0.580618
         auc |      1.02    0.984748
-------------+----------------------
    Mean VIF |      2.34

.
. reg roa  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind

      Source |       SS       df       MS              Number of obs =     203
-------------+------------------------------           F( 12,   190) =    2.65
       Model |   1.3973671    12  .116447258           Prob > F      =  0.0026
    Residual |  8.33415556   190  .043863977           R-squared     =  0.1436
-------------+------------------------------           Adj R-squared =  0.0895
       Total |  9.73152266   202  .048175855           Root MSE      =  .20944

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |   .0039484   .0089418     0.44   0.659    -.0136896    .0215865
         lev |  -.1101298    .109555    -1.01   0.316    -.3262301    .1059706
         nac |   .0009477   .0183289     0.05   0.959    -.0352065     .037102
        naci |  -.0065675   .0209592    -0.31   0.754    -.0479102    .0347751
       nacfe |   .0142261   .0166954     0.85   0.395     -.018706    .0471582
       Big 4 |  -.0974198   .0527163    -1.85   0.066    -.2014042    .0065645
         auc |  -.0706857   .2115747    -0.33   0.739    -.4880228    .3466514
         nib |   .0083599   .0194076     0.43   0.667     -.029922    .0466419
          sb |  -.0207193   .0109395    -1.89   0.060    -.0422977    .0008592
         bdr |   .0178912   .0079145     2.26   0.025     .0022797    .0335028
        size |   .0847043   .0362333     2.34   0.020     .0132332    .1561754
         ind |  -.0212715   .0530596    -0.40   0.689     -.125933      .08339
       _cons |  -.4388852   .1514897    -2.90   0.004    -.7377028   -.1400676
------------------------------------------------------------------------------

. xtreg tq  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, re

Random-effects GLS regression                   Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.3378                         Obs per group: min =         5
       between = 0.6333                                        avg =       6.0
       overall = 0.5111                                        max =         6

                                                Wald chi2(12)      =    122.52
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

------------------------------------------------------------------------------
          tq |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.2323314   .1515027    -1.53   0.125    -.5292713    .0646085
         lev |   1.019277   1.680448     0.61   0.544     -2.27434    4.312894
         nac |  -.0745244   .3011324    -0.25   0.805    -.6647329    .5156842
        naci |   1.633361   .2924195     5.59   0.000      1.06023    2.206493
       nacfe |  -.2600218   .2680286    -0.97   0.332    -.7853482    .2653046
       Big 4 |   1.773115   .8734172     2.03   0.042     .0612491    3.484982
```

```
         auc |    .379438   1.756905     0.22   0.829    -3.064032    3.822908
         nib |   .1772829   .2971844     0.60   0.551    -.4051878    .7597537
          sb |  -.1040766   .1893331    -0.55   0.583    -.4751627    .2670095
         bdr |  -.0342874   .1008651    -0.34   0.734    -.2319794    .1634045
        size |  -2.193732    .391711    -5.60   0.000    -2.961471   -1.425993
         ind |  -2.099803   .9445387    -2.22   0.026    -3.951064   -.2485407
       _cons |   9.687063   2.260954     4.28   0.000     5.255675    14.11845
-------------+----------------------------------------------------------------
     sigma_u |  1.4723538
     sigma_e |  1.6455376
         rho |  .44462567   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est  sto random

.
. xtreg tq  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, fe
note: Big 4 omitted because of collinearity
note: ind omitted because of collinearity

Fixed-effects (within) regression               Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.3393                         Obs per group: min =         5
       between = 0.2803                                        avg =       6.0
       overall = 0.2826                                        max =         6

                                                F(10,159)          =      8.16
corr(u_i, Xb)  = -0.4302                        Prob > F           =    0.0000

------------------------------------------------------------------------------
          tq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.0157673   .5121822    -0.03   0.975    -1.027325    .9957905
         lev |   1.326123   3.213792     0.41   0.680    -5.021103     7.67335
         nac |  -.0667592   .6872578    -0.10   0.923    -1.424091    1.290572
        naci |    1.89054    .447098     4.23   0.000     1.007524    2.773557
       nacfe |  -.2771836   .6391435    -0.43   0.665     -1.53949    .9851224
       Big 4 |          0  (omitted)
         auc |   .4023787   1.803556     0.22   0.824    -3.159638    3.964395
         nib |   .1496666   .6073688     0.25   0.806    -1.049884    1.349218
          sb |   -.265003   .6484826    -0.41   0.683    -1.545754    1.015748
         bdr |    -.06695   .1378652    -0.49   0.628    -.3392331    .2053332
        size |  -2.491042   .4801161    -5.19   0.000    -3.439269   -1.542814
         ind |          0  (omitted)
       _cons |   9.948963   5.290688     1.88   0.062    -.5001255    20.39805
-------------+----------------------------------------------------------------
     sigma_u |  2.1986364
     sigma_e |  1.6455376
         rho |  .64096165   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(33, 159) =     6.74             Prob > F = 0.0000

. est sto fixed
```

```
. hausman fixed random

                 ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+------------------------------------------------------------
          rd |   -.0157673    -.2323314        .2165641        .4892622
         lev |    1.326123     1.019277        .3068465        2.739444
         nac |   -.0667592    -.0745244        .0077652        .6177723
        naci |     1.89054     1.633361        .2571789        .3382121
       nacfe |   -.2771836    -.2600218       -.0171618        .5802285
         auc |    .4023787     .379438        .0229407        .4075544
         nib |    .1496666     .1772829       -.0276163        .5296964
          sb |    -.265003    -.1040766       -.1609263         .620228
         bdr |     -.06695    -.0342874       -.0326625        .0939842
        size |   -2.491042    -2.193732       -.2973098         .277622
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic

                 chi2(10) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                          =        5.62
                Prob>chi2 =      0.8464


.
. xtreg tq  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, re robust

Random-effects GLS regression                   Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.3378                         Obs per group: min =         5
       between = 0.6333                                        avg =       6.0
       overall = 0.5111                                        max =         6

                                                Wald chi2(12)      =    143.44
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

                               (Std. Err. adjusted for 34 clusters in idcode)
------------------------------------------------------------------------------
             |               Robust
          tq |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.2323314   .1295412    -1.79   0.073    -.4862275    .0215647
         lev |   1.019277   1.588336     0.64   0.521    -2.093805    4.132359
         nac |  -.0745244   .2790101    -0.27   0.789    -.6213741    .4723254
        naci |   1.633361   .3679081     4.44   0.000     .9122748    2.354448
       nacfe |  -.2600218   .2333492    -1.11   0.265    -.7173779    .1973343
       Big 4 |   1.773115   .8725171     2.03   0.042     .0630133    3.483217
         auc |    .379438   .0967204     3.92   0.000     .1898694    .5690066
         nib |   .1772829   .2307769     0.77   0.442    -.2750315    .6295973
          sb |  -.1040766   .1915491    -0.54   0.587     -.479506    .2713527
         bdr |  -.0342874   .0651987    -0.53   0.599    -.1620746    .0934998
        size |  -2.193732   .6970055    -3.15   0.002    -3.559838   -.8276263
         ind |  -2.099803   .6980421    -3.01   0.003     -3.46794   -.7316652
       _cons |   9.687063   3.162475     3.06   0.002     3.488726     15.8854
-------------+----------------------------------------------------------------
     sigma_u |  1.4723538
     sigma_e |  1.6455376
         rho |  .44462567   (fraction of variance due to u_i)
------------------------------------------------------------------------------
```

```
. xtreg tq  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, fe robust
note: Big 4 omitted because of collinearity
note: ind omitted because of collinearity

Fixed-effects (within) regression               Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.3393                         Obs per group: min =         5
       between = 0.2803                                        avg =       6.0
       overall = 0.2826                                        max =         6

                                                F(9,33)            =         .
corr(u_i, Xb)  = -0.4302                        Prob > F           =         .

                              (Std. Err. adjusted for 34 clusters in idcode)
------------------------------------------------------------------------------
             |               Robust
          tq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.0157673   .2726712    -0.06   0.954    -.5705211    .5389864
         lev |   1.326123    3.94646     0.34   0.739     -6.70301    9.355257
         nac |  -.0667592   .2726739    -0.24   0.808    -.6215184         .488
        naci |    1.89054   .6908547     2.74   0.010     .4849859    3.296095
       nacfe |  -.2771836   .3082716    -0.90   0.375    -.9043668    .3499996
       Big 4 |          0  (omitted)
         auc |   .4023787    .056873     7.08   0.000     .2866698    .5180876
         nib |   .1496666   .5060895     0.30   0.769    -.8799802    1.179313
          sb |   -.265003   .4923238    -0.54   0.594    -1.266643    .7366374
         bdr |    -.06695   .1155045    -0.58   0.566    -.3019456    .1680457
        size |  -2.491042   .9970872    -2.50   0.018    -4.519631   -.4624525
         ind |          0  (omitted)
       _cons |   9.948963   4.965133     2.00   0.053    -.1526754     20.0506
-------------+----------------------------------------------------------------
     sigma_u |  2.1986364
     sigma_e |  1.6455376
         rho |  .64096165   (fraction of variance due to u_i)
------------------------------------------------------------------------------

.
. xtreg roa  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, re

Random-effects GLS regression                   Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.0367                         Obs per group: min =         5
       between = 0.3258                                        avg =       6.0
       overall = 0.1404                                        max =         6

                                                Wald chi2(12)      =     17.43
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.1340

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |   .0038546   .0130367     0.30   0.767    -.0216968     .029406
         lev |   -.117037   .1518709    -0.77   0.441    -.4146984    .1806244
         nac |   .0003682   .0264051     0.01   0.989    -.0513849    .0521212
        naci |   .0015949   .0279394     0.06   0.954    -.0531652    .0563551
       nacfe |   .0137911   .0237125     0.58   0.561    -.0326846    .0602668
       Big 4 |  -.0883239   .0753548    -1.17   0.241    -.2360166    .0593689
         auc |  -.0341457   .2017753    -0.17   0.866    -.4296181    .3613266
         nib |  -.0024198   .0268916    -0.09   0.928    -.0551263    .0502868
          sb |  -.0192793   .0160332    -1.20   0.229    -.0507039    .0121452
         bdr |   .0202243   .0099893     2.02   0.043     .0006458    .0398029
        size |   .0731473   .0414497     1.76   0.078    -.0080927    .1543873
         ind |   -.021269    .079136    -0.27   0.788    -.1763727    .1338346
       _cons |  -.4452768   .2064346    -2.16   0.031    -.8498813   -.0406723
-------------+----------------------------------------------------------------
```

```
     sigma_u |  .10719359
     sigma_e |  .19339445
         rho |  .23501789   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. est sto random

. xtreg roa  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, fe
note: Big 4 omitted because of collinearity
note: ind omitted because of collinearity

Fixed-effects (within) regression               Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.0494                         Obs per group: min =         5
       between = 0.0667                                        avg =       6.0
       overall = 0.0394                                        max =         6

                                                F(10,159)          =      0.83
corr(u_i, Xb)  = -0.5745                        Prob > F           =    0.6036

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.0212057    .060195    -0.35   0.725    -.1400907    .0976792
         lev |  -.0793942    .377706    -0.21   0.834    -.8253621    .6665738
         nac |   .0311427   .0807711     0.39   0.700    -.1283798    .1906653
        naci |    .021822   .0525459     0.42   0.678    -.0819559       .1256
       nacfe |  -.0048363   .0751164    -0.06   0.949    -.1531908    .1435183
       Big 4 |          0  (omitted)
         auc |   -.013454   .2119658    -0.06   0.949    -.4320857    .4051777
         nib |  -.0463428    .071382    -0.65   0.517     -.187322    .0946363
          sb |  -.0410348    .076214    -0.54   0.591    -.1915571    .1094875
         bdr |    .027561   .0162028     1.70   0.091    -.0044396    .0595615
        size |   .0476404   .0564264     0.84   0.400    -.0638015    .1590824
         ind |          0  (omitted)
       _cons |  -.3080902   .6217966    -0.50   0.621    -1.536136    .9199558
-------------+----------------------------------------------------------------
     sigma_u |  .16023297
     sigma_e |  .19339445
         rho |  .40704224   (fraction of variance due to u_i)
------------------------------------------------------------------------------
F test that all u_i=0:     F(33, 159) =     2.08             Prob > F = 0.0015

. est sto fixed

. hausman fixed random

                ---- Coefficients ----
             |      (b)          (B)            (b-B)     sqrt(diag(V_b-V_B))
             |     fixed        random       Difference          S.E.
-------------+----------------------------------------------------------------
          rd |   -.0212057     .0038546       -.0250603        .0587664
         lev |   -.0793942     -.117037        .0376428        .3458281
         nac |    .0311427     .0003682        .0307746        .0763331
        naci |     .021822     .0015949        .0202271        .0445024
       nacfe |   -.0048363     .0137911       -.0186274        .0712754
         auc |    -.013454    -.0341457        .0206917        .0649326
         nib |   -.0463428    -.0024198       -.0439231        .0661229
          sb |   -.0410348    -.0192793       -.0217555        .0745084
         bdr |     .027561     .0202243        .0073366        .0127572
        size |    .0476404     .0731473       -.0255069        .0382866
------------------------------------------------------------------------------
                           b = consistent under Ho and Ha; obtained from xtreg
            B = inconsistent under Ha, efficient under Ho; obtained from xtreg

    Test:  Ho:  difference in coefficients not systematic
```

```
                chi2(10) = (b-B)'[(V_b-V_B)^(-1)](b-B)
                         =        3.01
              Prob>chi2 =      0.9813

.
. xtreg roa  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, re robust

Random-effects GLS regression                   Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.0367                         Obs per group: min =         5
       between = 0.3258                                        avg =       6.0
       overall = 0.1404                                        max =         6

                                                Wald chi2(12)      =     75.72
corr(u_i, X)   = 0 (assumed)                    Prob > chi2        =    0.0000

                               (Std. Err. adjusted for 34 clusters in idcode)
------------------------------------------------------------------------------
             |               Robust
         roa |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |   .0038546   .0067385     0.57   0.567    -.0093526    .0170617
         lev |   -.117037   .0710992    -1.65   0.100    -.2563888    .0223148
         nac |   .0003682   .0122888     0.03   0.976    -.0237175    .0244538
        naci |   .0015949   .0155487     0.10   0.918    -.0288799    .0320698
       nacfe |   .0137911   .0146827     0.94   0.348    -.0149865    .0425687
      Big 4  |  -.0883239   .0608048    -1.45   0.146     -.207499    .0308513
         auc |  -.0341457   .0109975    -3.10   0.002    -.0557004   -.0125911
         nib |  -.0024198   .0143319    -0.17   0.866    -.0305098    .0256703
          sb |  -.0192793   .0154731    -1.25   0.213    -.0496061    .0110475
         bdr |   .0202243   .0102934     1.96   0.049     .0000496    .0403991
        size |   .0731473   .0545839     1.34   0.180    -.0338352    .1801298
         ind |   -.021269   .0377789    -0.56   0.573    -.0953143    .0527763
       _cons |  -.4452768   .3673474    -1.21   0.225    -1.165264    .2747108
-------------+----------------------------------------------------------------
     sigma_u |  .10719359
     sigma_e |  .19339445
         rho |  .23501789   (fraction of variance due to u_i)
------------------------------------------------------------------------------

. xtreg roa  rd lev nac naci nacfe Big 4 auc nib sb bdr size ind, fe robust
note: Big 4 omitted because of collinearity
note: ind omitted because of collinearity

Fixed-effects (within) regression               Number of obs      =       203
Group variable: idcode                          Number of groups   =        34

R-sq:  within  = 0.0494                         Obs per group: min =         5
       between = 0.0667                                        avg =       6.0
       overall = 0.0394                                        max =         6

                                                F(9,33)            =         .
corr(u_i, Xb)  = -0.5745                        Prob > F           =         .

                               (Std. Err. adjusted for 34 clusters in idcode)
------------------------------------------------------------------------------
             |               Robust
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
          rd |  -.0212057   .0183671    -1.15   0.257    -.0585738    .0161623
         lev |  -.0793942   .0715503    -1.11   0.275    -.2249643    .0661759
         nac |   .0311427   .0094169     3.31   0.002      .011984    .0503015
        naci |    .021822   .0270673     0.81   0.426    -.0332467    .0768908
       nacfe |  -.0048363    .025783    -0.19   0.852    -.0572922    .0476197
      Big 4  |          0  (omitted)
         auc |   -.013454   .0107589    -1.25   0.220    -.0353431    .0084351
         nib |  -.0463428   .0369908    -1.25   0.219    -.1216011    .0289155
```

```
          sb |  -.0410348   .0483537    -0.85   0.402    -.1394112    .0573416
         bdr |    .027561   .0241486     1.14   0.262    -.0215697    .0766916
        size |   .0476404   .0420715     1.13   0.266    -.0379546    .1332355
         ind |          0  (omitted)
       _cons |  -.3080902   .5127712    -0.60   0.552    -1.351331    .7351506
-------------+----------------------------------------------------------------
     sigma_u |  .16023297
     sigma_e |  .19339445
         rho |  .40704224   (fraction of variance due to u_i
```

```
  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
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Notes:
      1.  (/v# option or -set maxvar-) 5000 maximum variables
```

Dependent Variable: TQ

```
. cmp (bdr = nac naci nacfe Big 4 auc nib sb rd lev) (tq = nac naci nacfe Big 4
a
> uc nib sb rd lev bdr size ind), indicators(1 1) nonrtolerance quietly
```

```
Fitting individual models as starting point for full model fit.
Note: For programming reasons, these initial estimates may deviate from your sp
> ecification.
      For exact fits of each equation alone, run cmp separately on each.

Fitting constant-only model for LR test of overall model fit.

Fitting full model.

Mixed-process regression                        Number of obs   =        203
                                                LR chi2(21)     =     235.30
Log likelihood = -867.65669                     Prob > chi2     =     0.0000

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
bdr          |
         nac |   .6866829   .1685707     4.07   0.000     .3562904    1.017075
        naci |  -.6405611   .2004651    -3.20   0.001    -1.033466   -.2476567
       nacfe |   .4347497   .1442174     3.01   0.003     .1520887    .7174107
       Big 4 |   2.172831   .3747236     5.80   0.000     1.438386    2.907276
         auc |  -.4750115   2.129673    -0.22   0.824    -4.649094    3.699071
         nib |   .0908263   .1944486     0.47   0.640    -.2902859    .4719386
          sb |  -.0162174     .10413    -0.16   0.876    -.2203084    .1878736
          rd |  -.0142683   .0680875    -0.21   0.834    -.1477173    .1191807
         lev |   .5120924   1.026275     0.50   0.618     -1.49937    2.523554
       _cons |   17.70239   .7569195    23.39   0.000     16.21885    19.18592
-------------+----------------------------------------------------------------
tq           |
         nac |  -.0526998   84.61073    -0.00   1.000    -165.8867    165.7813
        naci |   1.500735   78.92785     0.02   0.985     -153.195    156.1965
       nacfe |   -.284735    53.5685    -0.01   0.996    -105.2771    104.7076
       Big 4 |    1.22083   267.7287     0.00   0.996    -523.5178    525.9595
         auc |   .2625939   58.56372     0.00   0.996    -114.5202    115.0454
         nib |   .1786412   11.19281     0.02   0.987    -21.75886    22.11614
          sb |  -.1440313    2.00095    -0.07   0.943    -4.065822    3.777759
          rd |  -.2723934   1.760143    -0.15   0.877     -3.72221    3.177423
         lev |   1.991103   63.10675     0.03   0.975    -121.6958    125.6781
         bdr |  -.0714232   123.2164    -0.00   1.000    -241.5711    241.4282
        size |  -1.428832   .3444204    -4.15   0.000    -2.103883   -.7537804
         ind |  -2.295765   .5043654    -4.55   0.000    -3.284303   -1.307227
       _cons |   8.145128   2181.224     0.00   0.997    -4266.975    4283.266
-------------+----------------------------------------------------------------
    /lnsig_1 |    .747739   .0496292    15.07   0.000     .6504676    .8450103
    /lnsig_2 |   .6885547   .0496292    13.87   0.000     .5912833     .785826
/atanhrho_12 |  -5.77e-10   130.7289    -0.00   1.000     -256.224     256.224
-------------+----------------------------------------------------------------
       sig_1 |   2.112219   .1048277                     1.916437    2.328002
       sig_2 |   1.990836   .0988035                     1.806305    2.194219
      rho_12 |  -5.77e-10   130.7289                          -1           1
------------------------------------------------------------------------------

.
. nlcom [bdr]_b[nac]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[nac]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0490451   84.61057    -0.00   1.000    -165.8827    165.7846
------------------------------------------------------------------------------

. nlcom [bdr]_b[naci]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[naci]*[tq]_b[bdr]

------------------------------------------------------------------------------
```

```
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0457509   78.92761     0.00   1.000    -154.6495     154.741
------------------------------------------------------------------------------

. nlcom [bdr]_b[nacfe]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[nacfe]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0310512   53.56828    -0.00   1.000     -105.023    104.9608
------------------------------------------------------------------------------

. nlcom [bdr]_b[Big 4]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[Big 4]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.1551905   267.7283    -0.00   1.000     -524.893    524.5827
------------------------------------------------------------------------------

. nlcom [bdr]_b[auc]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[auc]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0339268   58.52939     0.00   1.000    -114.6816    114.7494
------------------------------------------------------------------------------

. nlcom [bdr]_b[nib]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[nib]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0064871    11.1913    -0.00   1.000    -21.94103    21.92806
------------------------------------------------------------------------------

. nlcom [bdr]_b[sb]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[sb]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0011583    1.99826     0.00   1.000     -3.91536    3.917677
------------------------------------------------------------------------------

. nlcom [bdr]_b[rd]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[rd]*[tq]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0010191   1.758096     0.00   1.000    -3.444786    3.446824
------------------------------------------------------------------------------

. nlcom [bdr]_b[lev]*[tq]_b[bdr]

       _nl_1:  [bdr]_b[lev]*[tq]_b[bdr]
```

```
------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0365753   63.09821    -0.00   1.000    -123.7068    123.6336
------------------------------------------------------------------------------
```

Dependent Variable: ROA

```
. cmp (bdr = nac naci nacfe Big 4 auc nib sb rd lev) (roa = nac naci nacfe Big
4
> auc nib sb rd lev bdr size ind), indicators(1 1) nonrtolerance quietly

Fitting individual models as starting point for full model fit.
Note: For programming reasons, these initial estimates may deviate from your sp
> ecification.
      For exact fits of each equation alone, run cmp separately on each.

Fitting constant-only model for LR test of overall model fit.

Fitting full model.

Mixed-process regression                        Number of obs   =        203
                                                LR chi2(21)     =     103.84
Log likelihood = -403.80642                     Prob > chi2     =     0.0000

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
bdr          |
         nac |   .6866829   .1685707     4.07   0.000     .3562904    1.017075
        naci |  -.6405611   .2004651    -3.20   0.001    -1.033466   -.2476566
       nacfe |   .4347497   .1442174     3.01   0.003     .1520887    .7174107
       Big 4 |   2.172831   .3747237     5.80   0.000     1.438386    2.907276
         auc |  -.4750115   2.129673    -0.22   0.824    -4.649094    3.699071
         nib |   .0908263   .1944486     0.47   0.640    -.2902859    .4719386
          sb |  -.0162174     .10413    -0.16   0.876    -.2203084    .1878736
          rd |  -.0142683   .0680875    -0.21   0.834    -.1477173    .1191807
         lev |   .5120924   1.026275     0.50   0.618     -1.49937    2.523554
       _cons |   17.70239   .7569195    23.39   0.000     16.21885    19.18592
-------------+----------------------------------------------------------------
roa          |
         nac |   .0009477   12.84723     0.00   1.000    -25.17916    25.18105
        naci |  -.0065675   11.98434    -0.00   1.000    -23.49543     23.4823
       nacfe |   .0142261    8.13379     0.00   0.999    -15.92771    15.95616
       Big 4 |  -.0974198   40.65173    -0.00   0.998    -79.77335    79.57851
         auc |  -.0706857   8.889392    -0.01   0.994    -17.49357     17.3522
         nib |   .0083599   1.699382     0.00   0.996    -3.322368    3.339088
          sb |  -.0207193    .303597    -0.07   0.946    -.6157585      .57432
          rd |   .0039484   .2670873     0.01   0.988    -.5195331      .52743
         lev |  -.1101298   9.581372    -0.01   0.991    -18.88927    18.66901
         bdr |   .0178912    18.7091     0.00   0.999    -36.65126    36.68705
        size |   .0847043   .0350539     2.42   0.016     .0159999    .1534086
         ind |  -.0212715   .0513325    -0.41   0.679    -.1218814    .0793384
       _cons |  -.4388852   331.1957    -0.00   0.999    -649.5705    648.6928
-------------+----------------------------------------------------------------
    /lnsig_1 |    .747739   .0496292    15.07   0.000     .6504676    .8450104
    /lnsig_2 |  -1.596422   .0496292   -32.17   0.000    -1.693693   -1.499151
/atanhrho_12 |   4.88e-10   195.0334     0.00   1.000    -382.2584    382.2584
-------------+----------------------------------------------------------------
       sig_1 |   2.112219   .1048277                      1.916437    2.328002
       sig_2 |   .2026202   .0100559                      .1838393    .2233198
      rho_12 |   4.88e-10   195.0334                           -1           1
------------------------------------------------------------------------------

.
. nlcom [bdr]_b[nac]*[roa]_b[bdr]
```

```
       _nl_1:  [bdr]_b[nac]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0122856   12.84722     0.00   0.999     -25.1678    25.19237
------------------------------------------------------------------------------

. nlcom [bdr]_b[naci]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[naci]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0114604   11.98432    -0.00   0.999     -23.5003    23.47737
------------------------------------------------------------------------------

. nlcom [bdr]_b[nacfe]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[nacfe]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0077782   8.133775     0.00   0.999    -15.93413    15.94968
------------------------------------------------------------------------------

. nlcom [bdr]_b[Big 4]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[Big 4]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |   .0388746    40.6517     0.00   0.999      -79.637    79.71475
------------------------------------------------------------------------------

. nlcom [bdr]_b[auc]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[auc]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0084985   8.887118    -0.00   0.999    -17.42693    17.40993
------------------------------------------------------------------------------

. nlcom [bdr]_b[nib]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[nib]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |    .001625   1.699282     0.00   0.999    -3.328907    3.332157
------------------------------------------------------------------------------

. nlcom [bdr]_b[sb]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[sb]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0002901   .3034183    -0.00   0.999     -.594979    .5943987
------------------------------------------------------------------------------
```

```
. nlcom [bdr]_b[rd]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[rd]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |  -.0002553     .26695    -0.00   0.999    -.5234677    .5229571
------------------------------------------------------------------------------

. nlcom [bdr]_b[lev]*[roa]_b[bdr]

       _nl_1:  [bdr]_b[lev]*[roa]_b[bdr]

------------------------------------------------------------------------------
             |      Coef.   Std. Err.      z    P>|z|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
       _nl_1 |    .009162   9.580804     0.00   0.999    -18.76887    18.78719
------------------------------------------------------------------------------

. log close
      name:  <unnamed>
       log:  C:\dataStata\cmp1.log
  log type:  text
 closed on:  11 Feb 2018, 10:22:21
```

```
  ___  ____  ____  ____  ____ (R)
 /__    /   ____/   /   ____/
___/   /   /___/   /   /___/   13.0   Copyright 1985-2013 StataCorp LP
  Statistics/Data Analysis            StataCorp
                                      4905 Lakeway Drive
     Special Edition                  College Station, Texas 77845 USA
                                      800-STATA-PC        http://www.stata.com
                                      979-696-4600        stata@stata.com
                                      979-696-4601 (fax)

-------------------------------------------------------------------------------
-
      name:  <unnamed>
       log:  C:\dataStata\reg.log
  log type:  text
 opened on:  16 Feb 2018, 15:27:37

. reg tq bdr

      Source |       SS       df       MS              Number of obs =     204
-------------+------------------------------           F(  1,   202) =    0.25
       Model |   2.1165965     1   2.1165965           Prob > F      =  0.6143
    Residual |  1678.26119   202  8.30822373           R-squared     =  0.0013
-------------+------------------------------           Adj R-squared = -0.0037
       Total |  1680.37779   203   8.2777231           Root MSE      =  2.8824

------------------------------------------------------------------------------
          tq |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bdr |  -.0388101   .0768919    -0.50   0.614    -.1904238    .1128035
       _cons |   3.728943   1.634397     2.28   0.024     .5062755    6.951611
------------------------------------------------------------------------------



. reg roa bdr

      Source |       SS       df       MS              Number of obs =     204
-------------+------------------------------           F(  1,   202) =   14.84
       Model |   .66631761     1   .66631761           Prob > F      =  0.0002
    Residual |  9.06844354   202  .044893285           R-squared     =  0.0684
-------------+------------------------------           Adj R-squared =  0.0638
       Total |  9.73476115   203  .047954488           Root MSE      =  .21188

------------------------------------------------------------------------------
         roa |      Coef.   Std. Err.      t    P>|t|     [95% Conf. Interval]
-------------+----------------------------------------------------------------
         bdr |   .0217754   .0056522     3.85   0.000     .0106306    .0329203
```

```
       _cons |  -.3830441   .1201418    -3.19   0.002    -.6199371   -.1461512
------------------------------------------------------------------------------
```

Matrix

```
Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Version 3.00 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : tq
    X  : nac
    M  : bdr

Covariates:
 naci     nacfe    big4     auc      nib      sb       rd       lev

Sample
Size:  203

Custom
Seed:     210767

**************************************************************************
OUTCOME VARIABLE:
 bdr

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .5896    .3477   4.6926  11.4296   9.0000 193.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant  17.7024    .7763  22.8041    .0000  16.1713  19.2335
nac         .6867    .1729   3.9720    .0001    .3457   1.0277
naci       -.6406    .2056  -3.1157    .0021  -1.0461   -.2351
nacfe       .4347    .1479   2.9394    .0037    .1430    .7265
big4       2.1728    .3843   5.6539    .0000   1.4148   2.9308
auc        -.4750   2.1841   -.2175    .8281  -4.7829   3.8329
nib         .0908    .1994    .4554    .6493   -.3025    .4842
sb         -.0162    .1068   -.1519    .8795   -.2268    .1944
rd         -.0143    .0698   -.2043    .8383   -.1520    .1235
lev         .5121   1.0525    .4865    .6271  -1.5638   2.5880

**************************************************************************
OUTCOME VARIABLE:
 tq

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .6433    .4139   5.1154  13.5568  10.0000 192.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant   5.3395   1.5579   3.4275    .0007   2.2668   8.4122
nac        -.3135    .1877  -1.6697    .0966   -.6837    .0568
bdr        -.2536    .0752  -3.3744    .0009   -.4018   -.1054
naci       1.4737    .2200   6.6991    .0000   1.0398   1.9076
nacfe      -.0008    .1578   -.0048    .9962   -.3121    .3106
big4       1.7245    .4332   3.9808    .0001    .8701   2.5790
auc        -.4422   2.2807   -.1939    .8465  -4.9406   4.0563
nib         .0458    .2083    .2200    .8261   -.3651    .4567
```

```
sb         -.3614    .1115  -3.2415    .0014   -.5814   -.1415
rd         -.0827    .0729  -1.1347    .2579   -.2266    .0611
lev        2.1814   1.0996   1.9838    .0487    .0126   4.3502

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 tq

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .6157    .3791   5.3907  13.0932   9.0000 193.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant    .8501    .8320   1.0217    .3082   -.7909   2.4911
naci       1.6362    .2204   7.4251    .0000   1.2015   2.0708
nac        -.4876    .1853  -2.6315    .0092   -.8531   -.1221
nacfe      -.1110    .1585   -.7003    .4846   -.4237    .2017
big4       1.1735    .4119   2.8489    .0049    .3611   1.9859
auc        -.3217   2.3410   -.1374    .8908  -4.9389   4.2955
nib         .0228    .2137    .1066    .9152   -.3988    .4444
sb         -.3573    .1145  -3.1219    .0021   -.5831   -.1316
rd         -.0791    .0748  -1.0571    .2918   -.2267    .0685
lev        2.0515   1.1281   1.8186    .0705   -.1734   4.2765

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   1.6362    .2204   7.4251    .0000   1.2015   2.0708

Direct effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   1.4737    .2200   6.6991    .0000   1.0398   1.9076

Indirect effect(s) of X on Y:
      Effect
bdr    .1624

   Normal theory test for indirect effect(s):
      Effect       se        Z        p
bdr    .1624    .0726   2.2367    .0253

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

------ END MATRIX -----
```

Matrix

```
Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Version 3.00 *****************

          Written by Andrew F. Hayes, Ph.D.       www.afhayes.com
    Documentation available in Hayes (2018). www.guilford.com/p/hayes3

**************************************************************************
Model  : 4
    Y  : tq
    X  : nacfe
    M  : bdr

Covariates:
 nac      naci     big4     auc      nib      sb       rd       lev

Sample
Size:  203

Custom
Seed:     210767

**************************************************************************
OUTCOME VARIABLE:
 bdr

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .5896    .3477   4.6926  11.4296   9.0000 193.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant  17.7024    .7763  22.8041    .0000  16.1713  19.2335
nacfe       .4347    .1479   2.9394    .0037    .1430    .7265
nac         .6867    .1729   3.9720    .0001    .3457   1.0277
naci       -.6406    .2056  -3.1157    .0021  -1.0461   -.2351
big4       2.1728    .3843   5.6539    .0000   1.4148   2.9308
auc        -.4750   2.1841   -.2175    .8281  -4.7829   3.8329
nib         .0908    .1994    .4554    .6493   -.3025    .4842
sb         -.0162    .1068   -.1519    .8795   -.2268    .1944
rd         -.0143    .0698   -.2043    .8383   -.1520    .1235
lev         .5121   1.0525    .4865    .6271  -1.5638   2.5880

**************************************************************************
OUTCOME VARIABLE:
 tq

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .6433    .4139   5.1154  13.5568  10.0000 192.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant   5.3395   1.5579   3.4275    .0007   2.2668   8.4122
nacfe      -.0008    .1578   -.0048    .9962   -.3121    .3106
bdr        -.2536    .0752  -3.3744    .0009   -.4018   -.1054
nac        -.3135    .1877  -1.6697    .0966   -.6837    .0568
naci       1.4737    .2200   6.6991    .0000   1.0398   1.9076
big4       1.7245    .4332   3.9808    .0001    .8701   2.5790
auc        -.4422   2.2807   -.1939    .8465  -4.9406   4.0563
```

```
nib         .0458    .2083    .2200    .8261   -.3651    .4567
sb         -.3614    .1115  -3.2415    .0014   -.5814   -.1415
rd         -.0827    .0729  -1.1347    .2579   -.2266    .0611
lev        2.1814   1.0996   1.9838    .0487    .0126   4.3502

************************** TOTAL EFFECT MODEL ****************************
OUTCOME VARIABLE:
 tq

Model Summary
        R     R-sq      MSE        F      df1      df2        p
    .6157    .3791   5.3907  13.0932   9.0000 193.0000    .0000

Model
            coeff       se        t        p     LLCI     ULCI
constant    .8501    .8320   1.0217    .3082   -.7909   2.4911
nacfe      -.1110    .1585   -.7003    .4846   -.4237    .2017
nac        -.4876    .1853  -2.6315    .0092   -.8531   -.1221
naci       1.6362    .2204   7.4251    .0000   1.2015   2.0708
big4       1.1735    .4119   2.8489    .0049    .3611   1.9859
auc        -.3217   2.3410   -.1374    .8908  -4.9389   4.2955
nib         .0228    .2137    .1066    .9152   -.3988    .4444
sb         -.3573    .1145  -3.1219    .0021   -.5831   -.1316
rd         -.0791    .0748  -1.0571    .2918   -.2267    .0685
lev        2.0515   1.1281   1.8186    .0705   -.1734   4.2765

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   -.1110    .1585   -.7003    .4846   -.4237    .2017

Direct effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   -.0008    .1578   -.0048    .9962   -.3121    .3106

Indirect effect(s) of X on Y:
      Effect
bdr   -.1103

   Normal theory test for indirect effect(s):
      Effect       se        Z        p
bdr   -.1103    .0510  -2.1631    .0305

*********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

------ END MATRIX -----
```

Matrix

Run MATRIX procedure:

*************** PROCESS Procedure for SPSS Version 3.00 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

****
Model : 4
Y : tq
X : big4
M : bdr

Covariates:
nac naci nacfe auc nib sb rd lev

Sample
Size: 203

Custom
Seed: 210767

****
OUTCOME VARIABLE:
bdr

Model Summary

R	R-sq	MSE	F	df1	df2	p
.5896	.3477	4.6926	11.4296	9.0000	193.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	17.7024	.7763	22.8041	.0000	16.1713	19.2335
big4	2.1728	.3843	5.6539	.0000	1.4148	2.9308
nac	.6867	.1729	3.9720	.0001	.3457	1.0277
naci	-.6406	.2056	-3.1157	.0021	-1.0461	-.2351
nacfe	.4347	.1479	2.9394	.0037	.1430	.7265
auc	-.4750	2.1841	-.2175	.8281	-4.7829	3.8329
nib	.0908	.1994	.4554	.6493	-.3025	.4842
sb	-.0162	.1068	-.1519	.8795	-.2268	.1944
rd	-.0143	.0698	-.2043	.8383	-.1520	.1235
lev	.5121	1.0525	.4865	.6271	-1.5638	2.5880

****
OUTCOME VARIABLE:
tq

Model Summary

R	R-sq	MSE	F	df1	df2	p
.6433	.4139	5.1154	13.5568	10.0000	192.0000	.0000

Model

	coeff	se	t	p	LLCI	ULCI
constant	5.3395	1.5579	3.4275	.0007	2.2668	8.4122
big4	1.7245	.4332	3.9808	.0001	.8701	2.5790
bdr	-.2536	.0752	-3.3744	.0009	-.4018	-.1054
nac	-.3135	.1877	-1.6697	.0966	-.6837	.0568
naci	1.4737	.2200	6.6991	.0000	1.0398	1.9076
nacfe	-.0008	.1578	-.0048	.9962	-.3121	.3106
auc	-.4422	2.2807	-.1939	.8465	-4.9406	4.0563
nib	.0458	.2083	.2200	.8261	-.3651	.4567
sb	-.3614	.1115	-3.2415	.0014	-.5814	-.1415
rd	-.0827	.0729	-1.1347	.2579	-.2266	.0611
lev	2.1814	1.0996	1.9838	.0487	.0126	4.3502

************************ TOTAL EFFECT MODEL ***************************

```
OUTCOME VARIABLE:
 tq

Model Summary
        R     R-sq      MSE         F      df1      df2         p
    .6157    .3791   5.3907  13.0932   9.0000 193.0000    .0000

Model
            coeff       se         t         p      LLCI      ULCI
constant    .8501    .8320    1.0217    .3082   -.7909    2.4911
big4       1.1735    .4119    2.8489    .0049    .3611    1.9859
nac        -.4876    .1853   -2.6315    .0092   -.8531    -.1221
naci       1.6362    .2204    7.4251    .0000   1.2015    2.0708
nacfe      -.1110    .1585    -.7003    .4846   -.4237     .2017
auc        -.3217   2.3410    -.1374    .8908  -4.9389    4.2955
nib         .0228    .2137     .1066    .9152   -.3988     .4444
sb         -.3573    .1145   -3.1219    .0021   -.5831    -.1316
rd         -.0791    .0748   -1.0571    .2918   -.2267     .0685
lev        2.0515   1.1281    1.8186    .0705   -.1734    4.2765

************** TOTAL, DIRECT, AND INDIRECT EFFECTS OF X ON Y **************

Total effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   1.1735    .4119   2.8489    .0049    .3611   1.9859

Direct effect of X on Y
   Effect       se        t        p     LLCI     ULCI
   1.7245    .4332   3.9808    .0001    .8701   2.5790

Indirect effect(s) of X on Y:
      Effect
bdr   -.5510

   Normal theory test for indirect effect(s):
      Effect       se        Z        p
bdr   -.5510    .1924  -2.8647    .0042

************************ ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95.0000

------ END MATRIX -----
```

APPENDIX 3: COPY OF FINANCIAL SERVICES AUTHORITY REGULATIONS

OTORITAS JASA KEUANGAN

REPUBLIK INDONESIA

SALINAN

PERATURAN OTORITAS JASA KEUANGAN

NOMOR 55 /POJK.04/2015

TENTANG

PEMBENTUKAN DAN PEDOMAN PELAKSANAAN KERJA KOMITE AUDIT

DENGAN RAHMAT TUHAN YANG MAHA ESA

DEWAN KOMISIONER OTORITAS JASA KEUANGAN,

Menimbang : a. bahwa dengan berlakunya Undang-Undang Nomor 21 Tahun 2011 tentang Otoritas Jasa Keuangan, maka sejak tanggal 31 Desember 2012 fungsi, tugas, dan wewenang pengaturan dan pengawasan kegiatan jasa keuangan di sektor Pasar Modal termasuk terkait dengan pengaturan mengenai pembentukan dan pedoman pelaksanaan kerja Komite Audit beralih dari Badan Pengawas Pasar Modal dan Lembaga Keuangan ke Otoritas Jasa Keuangan;

b. bahwa dalam rangka memberikan kejelasan dan kepastian mengenai pengaturan terkait pembentukan dan pedoman pelaksanaan kerja Komite Audit, maka peraturan mengenai Pembentukan dan Pedoman Pelaksanaan Kerja Komite Audit yang diterbitkan sebelum terbentuknya Otoritas Jasa Keuangan perlu diubah ke dalam Peraturan Otoritas Jasa Keuangan;

c. bahwa berdasarkan pertimbangan sebagaimana dimaksud dalam huruf a dan huruf b, maka perlu diterbitkan peraturan mengenai Pembentukan dan Pedoman Pelaksanaan Kerja Komite Audit dengan menetapkan Peraturan Otoritas Jasa Keuangan;

Mengingat : 1. Undang-Undang Nomor 8 Tahun 1995 tentang Pasar Modal (Lembaran Negara Republik Indonesia Tahun 1995 Nomor 64, Tambahan Lembaran Negara Republik Indonesia Nomor 3608);

2. Undang-Undang Nomor 21 Tahun 2011 tentang Otoritas Jasa Keuangan (Lembaran Negara Republik Indonesia Tahun 2011 Nomor 111, Tambahan Lembaran Negara Republik Indonesia Nomor 5253);

MEMUTUSKAN:

Menetapkan : PERATURAN OTORITAS JASA KEUANGAN TENTANG PEMBENTUKAN DAN PEDOMAN PELAKSANAAN KERJA KOMITE AUDIT.

BAB I
KETENTUAN UMUM

Pasal 1

Dalam Peraturan Otoritas Jasa Keuangan ini yang dimaksud dengan:

1. Komite Audit adalah komite yang dibentuk oleh dan bertanggung jawab kepada Dewan Komisaris dalam membantu melaksanakan tugas dan fungsi Dewan
   Komisaris.
2. Komisaris Independen adalah anggota Dewan Komisaris yang berasal dari luar Emiten atau Perusahaan Publik dan memenuhi persyaratan sebagaimana dimaksud dalam Peraturan Otoritas Jasa Keuangan ini.

BAB II

KOMITE AUDIT

Bagian Kesatu

Pembentukan

Pasal 2

Emiten atau Perusahaan Publik wajib memiliki Komite Audit.

Bagian Kedua

Komposisi, Struktur Dan Keanggotaan

Pasal 3

Anggota Komite Audit diangkat dan diberhentikan oleh Dewan Komisaris.

Pasal 4

Komite Audit paling sedikit terdiri dari 3 (tiga) orang anggota yang berasal dari Komisaris Independen dan Pihak dari luar Emiten atau Perusahaan Publik.

Pasal 5

Komite Audit diketuai oleh Komisaris Independen.

Pasal 6

Komisaris Independen wajib memenuhi persyaratan sebagaimana diatur dalam Peraturan Otoritas Jasa Keuangan Nomor 33/POJK. 04/2014 tentang Direksi Dan Dewan Komisaris Emiten Atau Perusahaan Publik.

Bagian Ketiga

Persyaratan Keanggotaan dan Masa Tugas

Pasal 7

Anggota Komite Audit:

a. wajib memiliki integritas yang tinggi, kemampuan, pengetahuan, pengalaman sesuai dengan bidang pekerjaannya, serta mampu berkomunikasi dengan baik;

b. wajib memahami laporan keuangan, bisnis perusahaan khususnya yang terkait dengan layanan jasa atau kegiatan usaha Emiten atau Perusahaan Publik, proses audit, manajemen risiko, dan peraturan perundang-undangan di bidang Pasar Modal serta peraturan perundang-undangan terkait lainnya;

c. wajib mematuhi kode etik Komite Audit yang ditetapkan oleh Emiten atau Perusahaan Publik;

d. bersedia meningkatkan kompetensi secara terus menerus melalui pendidikan dan pelatihan;

e. wajib memiliki paling sedikit 1 (satu) anggota yang berlatar belakang pendidikan dan keahlian di bidang akuntansi dan keuangan;

f. bukan merupakan orang dalam Kantor Akuntan Publik, Kantor Konsultan Hukum, Kantor Jasa Penilai Publik atau pihak lain yang memberi jasa asurans, jasa non-asurans, jasa penilai dan/atau jasa konsultasi lain kepada Emiten atau Perusahaan Publik yang bersangkutan dalam waktu

6 (enam) bulan terakhir;

g. bukan merupakan orang yang bekerja atau mempunyai wewenang dan tanggung jawab untuk merencanakan, memimpin, mengendalikan, atau mengawasi kegiatan Emiten atau Perusahaan Publik tersebut dalam waktu 6
(enam) bulan terakhir, kecuali Komisaris Independen;

h. tidak mempunyai saham langsung maupun tidak langsung pada Emiten atau Perusahaan Publik;

i. Dalam hal anggota Komite Audit memperoleh saham Emiten atau Perusahaan Publik baik langsung maupun tidak langsung akibat suatu peristiwa hukum, saham tersebut wajib dialihkan kepada pihak lain dalam jangka waktu paling lama 6 (enam) bulan setelah diperolehnya saham tersebut;

j. tidak mempunyai hubungan Afiliasi dengan anggota Dewan Komisaris, anggota Direksi, atau Pemegang Saham
Utama Emiten atau Perusahaan Publik; dan

k. tidak mempunyai hubungan usaha baik langsung maupun tidak langsung yang berkaitan dengan kegiatan usaha Emiten atau Perusahaan Publik.

Pasal 8

Masa tugas anggota Komite Audit tidak boleh lebih lama dari masa jabatan Dewan Komisaris sebagaimana diatur dalam Anggaran Dasar dan dapat dipilih kembali hanya untuk 1 (satu) periode berikutnya.

Bagian Keempat

Tugas, Tanggung Jawab, dan Wewenang

Pasal 9

Komite Audit bertindak secara independen dalam melaksanakan tugas dan tanggung jawabnya.

Pasal 10

Dalam menjalankan fungsinya, Komite Audit memiliki tugas dan tanggung jawab paling sedikit meliputi:

a. melakukan penelaahan atas informasi keuangan yang akan dikeluarkan Emiten atau Perusahaan Publik kepada publik dan/atau pihak otoritas antara lain laporan keuangan, proyeksi, dan laporan lainnya terkait dengan informasi keuangan Emiten atau Perusahaan Publik;

b. melakukan penelaahan atas ketaatan terhadap peraturan perundang-undangan yang berhubungan dengan kegiatan Emiten atau Perusahaan Publik;

c. memberikan pendapat independen dalam hal terjadi perbedaan pendapat antara manajemen dan Akuntan atas jasa yang diberikannya;

d. memberikan rekomendasi kepada Dewan Komisaris mengenai penunjukan Akuntan yang didasarkan pada independensi, ruang lingkup penugasan, dan imbalan jasa;

e. melakukan penelaahan atas pelaksanaan pemeriksaan oleh auditor internal dan mengawasi pelaksanaan tindak lanjut oleh Direksi atas temuan auditor internal;

f. melakukan penelaahan terhadap aktivitas pelaksanaan manajemen risiko yang dilakukan oleh Direksi, jika Emiten atau Perusahaan Publik tidak memiliki fungsi pemantau risiko di bawah Dewan Komisaris;

g. menelaah pengaduan yang berkaitan dengan proses akuntansi dan pelaporan keuangan Emiten atau Perusahaan Publik;

h. menelaah dan memberikan saran kepada Dewan Komisaris terkait dengan adanya potensi benturan kepentingan Emiten atau Perusahaan Publik; dan

i. menjaga kerahasiaan dokumen, data dan informasi Emiten atau Perusahaan Publik.

Pasal 11

Dalam melaksanakan tugasnya, Komite Audit mempunyai wewenang sebagai berikut:

a. mengakses dokumen, data, dan informasi Emiten atau Perusahaan Publik tentang karyawan, dana, aset, dan sumber daya perusahaan yang diperlukan;

b. berkomunikasi langsung dengan karyawan, termasuk Direksi dan pihak yang menjalankan fungsi audit internal, manajemen risiko, dan Akuntan terkait tugas dan tanggung jawab Komite Audit;

c. melibatkan pihak independen di luar anggota Komite Audit yang diperlukan untuk membantu pelaksanaan tugasnya (jika diperlukan); dan

d. melakukan kewenangan lain yang diberikan oleh Dewan Komisaris.

BAB III

PIAGAM KOMITE AUDIT

Pasal 12

(1) Emiten atau Perusahaan Publik wajib memiliki piagam Komite Audit.

(2) Piagam Komite Audit sebagaimana dimaksud pada ayat (1) paling sedikit memuat:

a. tugas dan tanggung jawab serta wewenang;

b. komposisi, struktur, dan persyaratan keanggotaan;

c. tata cara dan prosedur kerja;

d. kebijakan penyelenggaraan rapat;

e. sistem pelaporan kegiatan;

f. ketentuan mengenai penanganan pengaduan atau pelaporan sehubungan dugaan pelanggaran terkait pelaporan keuangan; dan

g. masa tugas Komite Audit.

(3) Piagam Komite Audit sebagaimana dimaksud pada ayat (2) wajib dimuat dalam Situs Web Emiten atau Perusahaan Publik.

BAB IV

PENYELENGGARAAN RAPAT

Pasal 13

Komite Audit mengadakan rapat secara berkala paling sedikit 1 (satu) kali dalam 3 (tiga) bulan.

Pasal 14

Rapat Komite Audit dapat diselenggarakan apabila dihadiri oleh lebih dari 1/2 (satu per dua) jumlah anggota.

Pasal 15

Keputusan rapat Komite Audit diambil berdasarkan musyawarah untuk mufakat.

Pasal 16

Setiap rapat Komite Audit dituangkan dalam risalah rapat, termasuk apabila terdapat perbedaan pendapat, yang ditandatangani oleh seluruh anggota Komite Audit yang hadir dan disampaikan kepada Dewan Komisaris.

BAB V

PELAPORAN

Pasal 17

Komite Audit wajib membuat laporan kepada Dewan Komisaris atas setiap penugasan yang diberikan.

Pasal 18

Komite Audit wajib membuat laporan tahunan pelaksanaan kegiatan Komite Audit yang diungkapkan dalam Laporan Tahunan Emiten atau Perusahaan Publik.

Pasal 19

Emiten atau Perusahaan Publik wajib menyampaikan kepada Otoritas Jasa Keuangan informasi mengenai pengangkatan dan pemberhentian Komite Audit paling lambat 2 (dua) hari kerja setelah pengangkatan atau pemberhentian.

Pasal 20

Informasi mengenai pengangkatan dan pemberhentian sebagaimana dimaksud dalam Pasal 19 wajib dimuat dalam Situs Web Bursa Efek dan/atau Situs Web Emiten atau Perusahaan Publik.

BAB VI

KETENTUAN SANKSI

Pasal 21

(1) Dengan tidak mengurangi ketentuan pidana di bidang Pasar Modal, Otoritas Jasa Keuangan berwenang mengenakan sanksi administratif terhadap setiap pihak yang melakukan pelanggaran ketentuan Peraturan Otoritas Jasa Keuangan ini, termasuk pihak-pihak yang menyebabkan terjadinya pelanggaran tersebut, berupa:

    a. peringatan tertulis;

    b. denda yaitu kewajiban untuk membayar sejumlah uang tertentu;

c. pembatasan kegiatan usaha;

d. pembekuan kegiatan usaha;

e. pencabutan izin usaha;

f. pembatalan persetujuan; dan

g. pembatalan pendaftaran.

(2) Sanksi administratif sebagaimana dimaksud pada ayat (1) huruf b, huruf c, huruf d, huruf e, huruf f, atau huruf g dapat dikenakan dengan atau tanpa didahului pengenaan sanksi administratif berupa peringatan tertulis sebagaimana dimaksud pada ayat (1) huruf a.

(3) Sanksi administratif berupa denda sebagaimana dimaksud pada ayat (1) huruf b dapat dikenakan secara tersendiri atau secara bersama-sama dengan pengenaan sanksi administratif sebagaimana dimaksud pada ayat (1) huruf c, huruf d, huruf e, huruf f, atau huruf g.

Pasal 22

Selain sanksi administratif sebagaimana dimaksud dalam Pasal 21 ayat (1), Otoritas Jasa Keuangan dapat melakukan tindakan tertentu terhadap setiap pihak yang melakukan pelanggaran ketentuan Peraturan Otoritas Jasa Keuangan ini.

BAB VII

KETENTUAN PENUTUP

Pasal 23

Pada saat Peraturan Otoritas Jasa Keuangan ini mulai berlaku, Keputusan Ketua Badan Pengawas Pasar Modal dan Lembaga Keuangan Nomor: KEP-643/BL/2012 tanggal 7 Desember 2012 tentang Pembentukan dan Pedoman Pelaksanaan Kerja Komite Audit beserta Peraturan Nomor IX.I.5, yang merupakan lampirannya, dicabut dan dinyatakan tidak berlaku.

Pasal 24

Peraturan Otoritas Jasa Keuangan ini mulai berlaku pada tanggal diundangkan.

Agar setiap orang mengetahuinya, memerintahkan pengundangan Peraturan Otoritas Jasa Keuangan ini dengan penempatannya dalam Lembaran Negara Republik Indonesia.

Ditetapkan di Jakarta pada tanggal 23 Desember 2015

KETUA DEWAN KOMISIONER

OTORITAS JASA KEUANGAN,

ttd

MULIAMAN D. HADAD

Diundangkan di Jakarta pada
tanggal 29 Desember 2015

MENTERI HUKUM DAN HAK ASASI MANUSIA

REPUBLIK INDONESIA,

ttd

YASONNA H. LAOLY

LEMBARAN NEGARA REPUBLIK INDONESIA TAHUN 2015 NOMOR 406

Salinan sesuai dengan aslinya

Direktur Hukum 1
Departemen Hukum

ttd

Sudarmaji

APPENDIX 4: THE ROLE AND REGULATION AUDIT COMMITTEE IN INDONESIA

PENJELASAN

ATAS

PERATURAN OTORITAS JASA KEUANGAN

NOMOR 56 /POJK.04/2015

TENTANG

PEMBENTUKAN DAN PEDOMAN PELAKSANAAN KERJA KOMITE AUDIT

I. UMUM

Bahwa sejak tanggal 31 Desember 2012, fungsi, tugas, dan wewenang pengaturan dan pengawasan kegiatan jasa keuangan di sektor Pasar Modal, Perasuransian, Dana Pensiun, Lembaga Pembiayaan, dan Lembaga Jasa Keuangan Lainnya beralih dari Menteri Keuangan dan Badan Pengawas Pasar Modal dan Lembaga Keuangan ke Otoritas Jasa Keuangan.

Sehubungan dengan hal tersebut di atas, perlu dilakukan penataan kembali struktur Peraturan yang ada, khususnya yang terkait sektor Pasar Modal dengan cara melakukan konversi Peraturan Bapepam dan LK terkait sektor Pasar Modal menjadi Peraturan Otoritas Jasa Keuangan. Penataan dimaksud dilakukan agar terdapat Peraturan Otoritas Jasa Keuangan terkait sektor Pasar Modal yang selaras dengan Peraturan Otoritas Jasa Keuangan sektor lainnya.

Berdasarkan latar belakang pemikiran dan aspek tersebut, perlu untuk melakukan konversi Peraturan Bapepam dan LK yaitu Peraturan Nomor IX.I.5, Lampiran Keputusan Ketua Badan Pengawas Pasar Modal dan Lembaga Keuangan Nomor: KEP-643/BL/2012 tentang Pembentukan dan Pedoman Pelaksanaan Kerja Komite Audit tanggal 7 Desember 2012.

II. PASAL DEMI PASAL

Pasal 1

Cukup jelas.

Pasal 2

Cukup jelas.

Pasal 3

Cukup jelas.

Pasal 4

Cukup jelas.

Pasal 5

Cukup jelas.

Pasal 6

Cukup jelas.

Pasal 7

Cukup jelas.

Pasal 8

Anggota Komite Audit yang telah menjabat selama 2 periode tidak dapat dipilih kembali.

Pasal 9

Cukup jelas.

Pasal 10

Tugas dan tanggung jawab dimaksud tidak membatasi Komite Audit untuk melakukan tindakan lain sepanjang tidak bertentangan dengan Peraturan Otoritas Jasa Keuangan ini serta kelaziman praktik di dalam negeri dan internasional.

Pasal 11

Cukup jelas.

Pasal 12

Cukup jelas.

Pasal 13

Cukup jelas.

Pasal 14

Cukup jelas.

Pasal 15

Cukup jelas.

Pasal 16

Cukup jelas.

Pasal 17

Cukup jelas.

Pasal 18

Cukup jelas.

Pasal 19

Cukup jelas.

Pasal 20

Cukup jelas.

Pasal 21

Cukup jelas.

Pasal 22

Cukup jelas.

Pasal 23

Cukup jelas.

Pasal 24

Cukup jelas.

TAMBAHAN LEMBARAN NEGARA REPUBLIK INDONESIA NOMOR 5824

APPENDIX 5: THE ROLE AND REGULATION OF MINISTER AND FINANCE IN INDONESIA

KEPUTUSAN MENTERI KEUANGAN REPUBLIK INDONESIA
NOMOR 359/KMK.06/2003

TENTANG

PERUBAHAN ATAS KEPUTUSAN MENTERI KEUANGAN NOMOR 423/KMK.06/2002 TENTANG JASA AKUNTAN PUBLIK

MENTERI KEUANGAN REPUBLIK INDONESIA

Menimbang : a. bahwa dalam rangka melindungi kepentingan umum diperlukan Akuntan Publik dan Kantor Akuntan Publik yang professional, handal dan independen melalui pengaturan, pembinaan, dan pengawasan yang efektif dan berkesinambungan;

b. bahwa guna mewujudkan Akuntan Publik dan Kantor Akuntan Publik yang professional, handal dan independen, pengaturan mengenai Jasa Akuntan Publik sebagaimana diatur dalam Keputusan Menteri Keuangan Nomor 423/KMK.06/2002, perlu dilakukan penyempurnaan;

c. bahwa berdasarkan pertimbangan sebagaimana, dimaksud dalam huruf a dan b perlu menetapkan Keputusan Menteri Keuangan tentang Perubahan Atas Keputusan Menteri Keuangan Nomor 423/KMK.06/2002 tentang Jasa Akuntan Publik;

Mengingat : 1. Undang-undang Nomor 34 Tahun 1954 tentang Pemakaian Gelar Akuntan (Lembaran Negara Republik Indonesia Tahun 1954 Nomor 103; Tambahan Lembaran Negara Republik Indonesia Nomor 705);

2. Keputusan Presiden Nomor 228/M;

3. Keputusan Menteri Keuangan Nomor 423/KMK.06/2002 tentang Jasa Akuntan Publik;

MEMUTUSKAN:

Menetapkan: KEPUTUSAN MENTERI KEUANGAN TENTANG PERUBAHAN ATAS KEPUTUSAN MENTERI KEUANGAN

NOMOR 423/KMK.06/2002 TENTANG JASA AKUNTAN PUBLIK.

Pasal I

Beberapa ketentuan dalam Keputusan Menteri Keuangan Nomor 423/KMK.06/2002 tentang Jasa Akuntan Publik, diubah sebagai berikut:

1. Menambah 3 (tiga) ayat baru dalam ketentuan Pasal 6, yaitu ayat (5), ayat (6) dan ayat (7) yang berbunyi sebagai berikut :

"Pasal 6

(5)Dalam hal KAP yang telah menyelenggarakan audit umum atas laporan keuangan dari suatu entitas melakukan perubahan komposisi Akuntan Publiknya, maka terhadap KAP tersebut tetap diberlakukan ketentuan ayat (4).

(6)Dalam hal KAP melakukan perubahan komposisi Akuntan Publik yang mengakibatkan jumlah Akuntan Publiknya 50% (lima puluh per seratus) atau lebih berasal dari KAP yang telah menyelenggarakan audit umum atas laporan keuangan dari suatu entitas maka terhadap KAP tersebut diberlakukan sebagai kelanjutan KAP asal Akuntan Publik yang bersangkutan dan tetap diberlakukan pembatasan penyelenggaraan audit umum atas laporan keuangan sebagaimana dimaksud dalam ayat (4).

(7)Dalam hal pendirian atau perubahan nama KAP yang komposisi Akuntan Publiknya 50% (lima puluh per seratus) atau lebih berasal dari KAP yang telah menyelenggarakan audit umum atas laporan keuangan dari suatu entitas maka terhadap KAP tersebut diberlakukan sebagai kelanjutan KAP asal Akuntan Publik yang bersangkutan dan tetap diberlakukan pembatasan penyelenggaraan audit umum atas laporan keuangan sebagaimana dimaksud dalam ayat (4)."

2. Ketentuan ayat (3) Pasal 9 diubah, sehingga Pasal 9 ayat (3) menjadi berbunyi sebagai berikut :

"Pasal 9

(3)Direktur Jenderal dapat menunjuk pejabat atau petugas untuk melakukan penelitian fisik langsung atas permohonan izin usaha KAP yang diajukan."

3. Ketentuan ayat (2) Pasal 13 diubah, sehingga Pasal 13 ayat (2) menjadi berbunyi sebagai berikut :

"Pasal 13

(2)Direktur Jenderal dapat menunjuk pejabat atau petugas untuk melakukan penelitian fisik langsung atas permohonan izin pembukaan Cabang KAP yang diajukan."

4. Menambah 1 (satu) ayat baru dalam ketentuan Pasal 16, yaitu ayat (3) yang berbunyi sebagai berikut:

"Pasal 16

(3)KAP hanya dapat menggunakan nama KAP sesuai dengan nama KAP yang tercantum dalam izin usahanya."

5. Ketentuan ayat (2) Pasal 17 diubah, sehingga Pasal 17 ayat (2) menjadi berbunyi sebagai berikut:

"Pasal 17

(2)Persetujuan pencantuman nama KAPA atau OAA sebagaimana dimaksud dalam ayat (1) hanya diberikan apabila memenuhi ketentuan sebagai berikut :

a. melakukan perjanjian kerja sama secara langsung dengan satu KAPA atau OAA yang tidak melakukan kerja sama dengan KAP lain;

b. kerja sama bersifat berkelanjutan yaitu tidak terbatas hanya untuk suatu penugasan tertentu, yang dinyatakan dalam perjanjian kerja sama;

c. terdapat review mutu sekurang-kurangnya sekali dalam 4 (empat) tahun oleh KAPA atau OAA, yang dinyatakan dalam perjanjian kerja sama;

d. kerja sama sekurang-kurangnya mencakup bidang jasa audit umum atas laporan keuangan, yang dinyatakan dalam perjanjian kerja sama;

e. Nama KAPA yang akan digunakan tidak menggunakan nama KAPA atau OAA lain yang telah digunakan."

6. Ketentuan ayat (3) Pasal 20 diubah, sehingga Pasal 20 ayat (3) menjadi berbunyi sebagai berikut :

"Pasal 20

(3)Pemeriksa tidak diperkenankan membawa kertas kerja Akuntan Publik dari KAP kecuali salinan atau copy-nya sebagai dokumen pendukung hasil pemeriksaan."

7. Ketentuan Pasal 26 diubah, sehingga keseluruhan Pasal 26 berbunyi sebagai berikut :

"Pasal 26

(1)Akuntan Publik dilarang merangkap sebagai pejabat negara, pimpinan atau pegawai pada instansi pemerintah,

badan usaha milik negara atau daerah atau swasta, atau badan hukum lainnya.

(2) Larangan merangkap jabatan sebagaimana dimaksud dalam ayat (1) dikecualikan bagi Akuntan Publik yang merangkap jabatan sebagai dosen perguruan tinggi yang tidak menduduki jabatan struktural dan atau komisaris atau komite yang bertanggung jawab kepada komisaris atau pimpinan usaha konsultansi manajemen atau pengurus suatu lembaga sosial yang bersifat nirlaba.

(3) Akuntan Publik yang dikecualikan dari ketentuan larangan merangkap jabatan sebagaimana dimaksud dalam ayat (2), wajib melaporkan secara tertulis kepada Direktur Jenderal u.p. Direktur paling lambat 1 (satu) bulan sejak terjadinya perangkapan jabatan dimaksud.

(4) Jabatan struktural sebagaimana dimaksud ayat (2) adalah jabatan yang bersifat struktural di lingkungan perguruan tinggi yang diduduki oleh seorang Akuntan Publik berdasarkan surat keputusan atau surat penetapan dalam bentuk lainnya."

8. Ketentuan ayat (4) huruf d Pasal 32 diubah, sehingga keseluruhan Pasal 32 ayat (4) berbunyi sebagai berikut :

"Pasal 32

(4) Direktur Jenderal dapat menolak permohonan sebagaimana dimaksud dalam ayat (2), apabila yang bersangkutan :

a. tidak melampirkan persyaratan sebagaimana dimaksud dalam ayat (2);

b. sedang diperiksa oleh Direktur Jenderal atau diadukan oleh pihak lain yang layak ditindaklanjuti;

c. telah dikenakan sanksi peringatan sebanyak 2 (dua) kali dalam jangka waktu 48 (empat puluh delapan) bulan terakhir terhitung saat permohonan disampaikan secara lengkap dan benar;

d. sedang menjalani kewajiban yang harus dilakukan berdasarkan rekomendasi Direktur Jenderal;

e. sedang menjalani sanksi pembekuan izin."

9. Menambah 1 (satu) ayat baru dalam Pasal 47, yaitu ayat (6) yang berbunyi sebagai berikut :

"Pasal 47

(6)Sanksi peringatan dan sanksi pembekuan izin sebagaimana dimaksud dalam ayat (1), dapat disertai dengan suatu kewajiban atau rekomendasi tertentu."

10.Ketentuan ayat (4) dan ayat (5) Pasal 48 diubah, sehingga Pasal 48 ayat (4) dan ayat (5) menjadi berbunyi sebagai berikut :

"Pasal 48

(4)Pelanggaran berat adalah pelanggaran yang memenuhi kriteria sebagai berikut :

a. pelanggaran terhadap ketentuan Pasal 24 dalam penugasan sebagaimana dimaksud dalam Pasal 6 yang berpotensi berpengaruh terhadap laporan auditor independen dan atau hasil dalam bentuk lainnya dari penugasan yang bersangkutan;

b. memenuhi ketentuan sebagaimana dimaksud dalam Pasal 43 ayat (4) huruf a;

c. pelanggaran terhadap ketentuan Pasal 6 ayat (4), ayat (5), ayat (6), dan atau ayat (7) atau Pasal 59 ayat (5) dan atau ayat (6); atau

d. pelanggaran yang memenuhi ketentuan sebagaimana dimaksud dalam Pasal 49 ayat (2) dan atau Pasal 55 ayat (1) huruf b.

(5)Pelanggaran sangat berat adalah pelanggaran yang memenuhi kriteria sebagai berikut :

a. pelanggaran terhadap ketentuan Pasal 24 dalam penugasan sebagaimana dimaksud dalam Pasal 6 yang berpotensi berpengaruh signifikan terhadap laporan auditor independen dan atau hasil dalam bentuk lainnya dari penugasan yang bersangkutan;

b. memenuhi ketentuan sebagaimana dimaksud dalam Pasal 43 ayat (4) huruf b atau c atau d;

c. pelanggaran yang memenuhi ketentuan sebagaimana dimaksud dalam Pasal 50 ayat (3); atau

d. pelanggaran terhadap Pasal 5 ayat (1) atau ayat (2) atau ayat (3) dan atau Pasal 27 ayat (1) atau ayat (2) dan atau Pasal 33 ayat (3) dan atau Pasal 52 dan atau Pasal 53 dan atau Pasal 55 ayat (1) huruf c dan atau Pasal 58 ayat (3)."

Pasal II

(1) KAP yang telah memberikan jasa audit umum untuk 5 (lima) tahun buku berturut-turut atau lebih atas laporan keuangan

dari suatu entitas pada saat berlakunya Keputusan Menteri Keuangan ini, dapat melaksanakan audit umum atas laporan keuangan entitas tersebut sampai dengan tahun buku 2003.

(2) Akuntan Publik yang telah memberikan jasa audit umum untuk 3 (tiga) tahun buku berturut-turut atau lebih atas laporan keuangan dari suatu entitas pada saat berlakunya Keputusan Menteri Keuangan ini, dapat melaksanakan audit umum atas laporan keuangan entitas tersebut sampai dengan tahun buku 2003.

Pasal III

Pelanggaran terhadap ketentuan Pasal II Keputusan Menteri Keuangan ini termasuk pelanggaran berat yang dikenakan sanksi pembekuan izin sebagaimana dimaksud dalam Pasal 48 ayat (1) huruf b.

Pasal IV

Keputusan Menteri Keuangan ini mulai berlaku pada tanggal ditetapkan.

Agar setiap orang mengetahuinya, memerintahkan pengumuman Keputusan Menteri Keuangan ini dengan penempatannya dalam Berita Negara Republik Indonesia.

Ditetapkan di Jakarta

pada tanggal 21 Agustus 2003

MENTERI KEUANGAN
REPUBLIK INDONESIA,

BOEDIONO