School of Accounting

CEO Reputation and Accounting and Market-based Measures of Financial Reporting Quality

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DECLARATION

To the best of my knowledge and belief this thesis contains no material previously published by any other person except where due acknowledgment has been made.

This thesis contains no material which has been accepted for the award of any other degree or diploma in any university.

Signature:----------

Date: 23 October, 2016

DEDICATION

To my parents, who belong to the noble profession of teaching and being the source of inspiration to me. To my father Mr. Kafayat Ullah Cheema (Late) and mother Mrs. Mumtaz Tanveer. Special thanks to my mother who always encouraged and motivated me before and during the course of this thesis. To my sisters and brothers.

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ABSTRACT

This thesis examines the impact of CEO reputation and power on three different aspects of financial reporting quality. CEOs were key players in earnings manipulation during major accounting scandals such as Enron, and WorldCom in US, and most recently Toshiba in Japan. CEOs engage in such actions due to several motivations such as high compensation, career promotions and better reputation. CEOs with high reputation receive greater incentives such as high stock based compensation. Further, the investors and other stakeholders also consider CEO reputation to assess the quality of the financial reporting and investment decisions of a firm. Efficient contracting hypothesis suggests that, the reputed CEOs improve the quality of overall financial reporting. In contrast, the rent extraction hypothesis argues that, the reputed CEOs extract the rents from firm and increase their personal wealth at the cost of the shareholders. Similarly, CEOs with high power can also influence the strategic decisions and significantly influence the financial reporting quality.

This thesis is divided into three papers, where each paper examines the relationship between CEO reputation, power and a distinct measure of financial reporting quality. The first paper examines the relationship between CEO reputation, power and properties of analyst's forecasts. Second paper examines the impact of CEO reputation and power on accruals and real earnings quality. Finally, the third paper examines the impact of CEO reputation and power on accounting conservatism.

For empirical analysis, data is collected for Australian listed companies for the period 2004 to 2013 and the final sample consists of different set of firm year observations for all three papers of this thesis. CEO name and corporate governance data is collected from Connect4 and SIRCA. Further, the CEO reputation data is collected from the Factiva database, and financial data is downloaded from DatAnalysis and Capital IQ databases. Finally, share price data and analysts forecasts data is downloaded from DataStream and I/B/E/S databases respectively. Ordinary least square regressions are performed using robust t-statistics and firm clustering, and several sensitivity tests are conducted to provide evidence on the robustness of the results.

All three papers of the thesis conclude that CEO reputation and power deteriorates the overall financial reporting quality of Australian firms. Specifically, paper one concludes that the CEO reputation and power leads to lower (higher) analysts' forecast accuracy (forecast bias, dispersion and number of analyst following). This suggests that, the quality of earnings and disclosures information is lower for firms with reputed and powerful CEOs. Paper two suggests that CEO reputation and power leads to greater accruals and real earnings management. Paper three provides evidence that the timeliness of bad news recognition is lower for firms with high CEO reputation and power. This thesis provides several key contributions to the prior literature on CEO reputation, power, analysts' forecasts, accruals quality, real earnings quality and conservatism literature. The results consequently provide several implications for the regulators, policy makers, investors and general public.

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LIST OF ABBREVIATIONS

ASX	Australian Securities Exchange
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CLERP 9	Corporate Law Economic Reform Program Act (2004)
GAAP	Generally Accepted Accounting Principles
GICS	Global Industry Classification Sector
IBES	Institutional Brokers Estimate System
IPO	Initial Public Offering
IFRS	International Financial Reporting Standards
OLS	Ordinary Least Squares
RFD	Regulation Fair Disclosures
SEC	Securities and Exchange Commission
SEO	Seasoned Equity Offering
SIRCA	Securities Industry Research Centre of Asia-Pacific
SOX	Sarbanes-Oxley Act (2002)
UK	United Kingdom
US	United States of America
WRDS	Wharton Research Database Services

CHAPTER 1: INTRODUCTION

1.1 Motivation and Background

CEOs have been blamed due to their direct involvement in major accounting scandals i.e. Enron and WorldCom in United States (US) HIH in Australia and the latest Toshiba in Japan. The CEO of Toshiba escalated the profit figures with at least $1.2 billion through earnings management during the period 2009 to 2015. In response to corporate accounting scandals a number of regulatory reforms have been introduced globally such as Sarbanes Oxley Act (2002) (SOX) in US, Principles of Good Corporate Governance (2003) and Corporate Law Economic Regulatory Program (2004) (CLERP9) in Australia. The primary purposes of these regulatory reforms was to improve the quality of corporate governance structures and financial reporting. For instance, in Australia, Principles of Good Corporate Governance issued by Australian Securities Exchange Corporate Governance Council in 2003 emphasised on the structure of the board, board committees, the responsibilities of the board of directors and CEOs, and corporates responsibility in terms providing fair and timely disclosures to outsider.(ASX CGC 2003) Specifically, one of these principles require that the CEO and the chairman of the board should not be same persons (ASX CGC 2003).This is because, CEOs with dual role can have high power and influence the decision making process towards their personal economic interests.

The CLERP9 issued in 2003, implemented from July, 2004 and brought a number of reforms including the recommendations provided by HIH Insurance Royal Commission released in April 2003. The reforms through CLERP9 updated the rules in Corporations Act 2001 in the area of financial reporting, audit, disclosures, shareholder participation and remuneration of directors and executives (Commonwealth of Australia 2004). Particularly, CLERP9 focused on improving auditor independence through requiring auditors to provide a statement about their independence in annual report, disclosure of the non-audit service fees paid to auditors by firms and audit partner rotation after a period of 5 years (Commonwealth of Australia 2004). Further, CLERP9 requires CEOs and CFOs to sign of the statement in annual report that the financial statements are prepared in accordance with corporations act 2001, accounting standards and represent true and fair view of the company position (Commonwealth of Australia 2004). Although these regulatory

reforms in Australia improved the corporate governance mechanisms and financial reporting quality to a greater extent, however, do not specifically address the roles, responsibilities and the boundaries for the CEOs to perform their duties. Looking at the role of CEOs in the accounting frauds, there is a need to investigate characteristics of the CEOs and their impact on firm outcomes.

CEOs involve in opportunistic behaviour to receive a number of economic incentives such as high compensation and reputation (Malmendier and Tate 2009; Milbourn 2003). Conversely, CEOs lose reputation and career promotions as a result of not achieving the market expected performance (Milbourn, 2003). Therefore, CEOs meet market expected profit benchmarks by manipulating the accounting numbers (Matsunaga and Park 2001; Cheng and Warfield 2005; Burgstahler and Dichev 1997). CEOs with high reputation are rewarded with greater incentives (as compared to the CEOs with less reputation), such as high stock based compensation (Milbourn 2003). Further, the investors and other stakeholders have higher satisfaction about CEO compensation and the quality of financial reporting, provided that the CEO have high reputation (American Institute of Certified Public Accountants, 1994) (Kaplan, Samuels and Cohen 2015). Furthermore, investors react positively to firms' investment decisions when the CEO has high reputation (Jian and Lee 2011). However, CEOs may take advantage of their previous reputation to achieve their own goals. For instance, previous research concludes that the reputed CEOs with information about future investment options choose short term profitable investments on opportunistic basis for the sake of their own wealth and reputation , therefore overlook the long term progression of the firm (Hirshleifer 1993; Hirshleifer and Thakor 1992).

CEOs with higher decision making power may give priority to their personal incentives and take actions to promote their own wealth at the cost of the shareholders due to conflict of interest. As the managers have different choices on the selection of accounting methods due Generally Accepted Accounting Principles (GAAP), they can choose favourable accounting method to report favourable accounting numbers. In contrast to this, powerful CEOs may use their power to promote the wealth and value of the shareholders acting as a best steward. For instance, the managers being align with the shareholders interest, more likely to

provide voluntary disclosures (Baik, Farber and Lee 2011), and precise earnings information (Han et al. 2014). However, managers due to conflict of interest could perform earnings management and provide poor quality information in capital markets (Mande and Son 2012; Lafond and Roychowdhury 2007).

Investors, analysts and other stakeholders are largely concerned with the quality of financial statements and related information provided by firms. Analysts are one of the important information channels between firm and external stakeholders. Analysts' primarily role is to process the information about firm future performance from different sources and provide earnings forecast in a precise form. External stakeholders use the analysts provided forecasts for their valuable strategic decisions. Therefore, the accuracy of the earnings forecasts provided by firms is highly important. If the analysts provided forecasts goes wrong, the stakeholders using such forecasts are likely to face sever loses in terms of their wealth. Furthermore, analysts also suffer from negative consequences in terms of losing their jobs as a result of providing biased forecasts in the capital markets (Ke and Yu 2006). As the CEOs with high reputation and powerful CEOs can significantly impact the corporate earnings and related disclosures information. Therefore, first paper of the thesis examines that, whether the properties of analysts' forecasts are influenced by reputed and powerful CEOs.[1]

The second aspect of financial reporting quality considered in this thesis is the quality of accruals and real earnings numbers. Managers are able to perform accruals and real earnings management staying within the Generally Accepted Accounting Principles (GAAP) limits. Accruals management is considered useful in meeting certain earnings thresholds at near end of fiscal year (Dechow and Skinner 2000). In addition to the accruals management, research also shows an evidence of earnings management through manipulating the real accounting numbers (Roychowdhury 2006; Cohen, Dey and Lys 2008; Achleitner et al. 2014; Cohen and Zarowin 2010; Chi, Lisic and Pevzner 2011). According to Roychowdhury (2006), real earnings management is performed by managers through reduction or changing

[1] An article from paper one of the theses was accepted at CAAA (Canadian Academic Accounting Association) conference 2016 and AAA (American Accounting Association) conference 2016.

the time of certain expenses (such as production and discretionary expenses) and sales. For instance, delaying the sales or doing extra advertisement expenses in a particular period to reduce the final profits. The advantage of real earnings management is that, the managers can do manipulations in real transactions without any strict scrutiny and monitoring of auditors and other stakeholders (Graham, Harvey and Rajgopal 2005). The second paper of the thesis examines the extent to which reputed and powerful CEOs involve in accruals and real earnings management.[2]

The third aspect of financial reporting quality examined in this thesis is the timely recognition of the bad news and delay in recording of good news, also known as conservative accounting. Accounting conservatism is helpful in monitoring over management, increase the efficiency of the managerial contracts and remove agency problems (Ball and Shivakumar 2005; Watts 2003). Accounting conservatism provides a number of incentives to the managers, shareholders and other stakeholders. For example, conservatism safeguard the firm from managers' opportunistic behaviour (Gao 2013), improves corporate governance structure (Ahmed and Henry 2012), and increase the efficiency of debt contracts (Beatty, Weber and Yu 2008; Nikolaev 2010). Further, conservatism accounting helps manager to protect themselves from litigation risk (Lara, Osma and Penalva 2009b; Qiang 2007; Chung and Wynn 2008) and secure firm from strict regulatory restrictions (Alam and Petruska 2012; Lobo and Zhou 2006). The third paper of the thesis tests the relationship between CEO reputation, power and accounting conservatism. The structure of the thesis and summary of finding is presented in following section.

1.2 Structure of Thesis and Summary of Findings

This thesis is designed based on three papers / essays. All three papers examine the relationship between CEO reputation, power and a distinct measure of financial reporting quality in Australian context For empirical analysis, sample consists of Australian listed firms for the period 2004 – 2013. The motivation to take

[2] An article from paper two of the thesis was presented at AFAANZ (Accounting and Finance Association of Australia and New Zealand) conference 2016.

the year 2004 as a starting point for data collection is the implementation of principles of good corporate governance in 2003 in Australia. In addition to this, CLERP9 also issued in 2003 and implemented from July, 2004. These regulatory reforms streamlined the corporate governance and financial reporting process in Australia. Therefore, this study considers the sample in a period of consistent corporate governance and financial reporting quality. Overall, this thesis consists of four chapters including this chapter. A brief summary for the chapter two to four is presented below.

Chapter 2 presents the first paper of the thesis and examines the association between CEO reputation and properties of analysts' forecasts. Investors seriously consider CEO reputation while assessing the quality of financial statements. Rent extraction argument suggests that, the CEOs with high reputation can significantly impact corporate reporting decisions on opportunistic basis for the sake of economic incentives such high compensation and career promotions. Therefore, it is possible that reputed CEOs deteriorate the quality of earnings and related information. Analysts relying on such earnings related information are more likely to provide less accurate forecasts. Thus, in paper one, this is argued that CEO reputation leads to less accuracy (greater bias) in analysts' earnings forecasts. It is further hypothesised that the low quality earnings related information will lead to high dispersion in analysts' forecast.

Results from paper one suggest that the analysts forecast accuracy is lower and forecast bias is higher for firms with reputed CEOs. Further, CEO reputation is also positively related to the forecast dispersion and number of analyst following a firm. Additional analysis reveals that, the forecast accuracy remains lower if the reputed CEOs have high power. Overall, paper one document that, the CEO reputation reduces the quality of earnings and related information.

Chapter 3 presents the second paper of the thesis and examines the relationship between CEO reputation and accruals and real earnings management. Consistent with paper one, it is argued that the reputed CEOs are likely to report high abnormal accruals and real earnings numbers. Empirical analysis concludes that, the CEO reputation is positively related to the accruals and real earnings management. Additional analysis provides evidence that, the CEO reputation

together with power is also positively related to accruals and real earnings management. Further, the compensation is significantly high, if a reputed CEO reports high accruals. Concluding this paper, results are consistent with paper one and suggest that, the reputed and powerful CEOs perform accruals and real earnings management for the sake of personal incentives.

Chapter 4 reports the third paper of the thesis and examines the relationship between CEO reputation and accounting conservatism. Consistent with paper one and two, relying on the rent extraction behaviour of the reputed CEOs, paper three hypothesises a negative relationship between CEO reputation and accounting conservatism. Results suggest some evidence that the timely recognition of bad news is significantly lower in firms with reputed CEOs. A summary of the main findings of all three papers is presented below:

Chapter	Hypotheses	Findings
Two	CEO reputation is negatively (positively) related to analyst forecast accuracy (bias, dispersion and analyst following).	Accepted
Three	CEO reputation is positively related to accruals and real earnings management.	Accepted
Four	CEO reputation is negatively related to accounting conservatism	Accepted

1.3 Contributions of the Thesis

This thesis examines the impact of CEO reputation and power on financial reporting quality. The financial reporting quality is measured using a number of accounting and market based assumptions. A brief summary of the contributions is as follows:

This thesis (papers one to three) makes contribution to the economy in several ways. Previous research suggests two contrasting arguments about the behaviour of the reputed CEOs towards corporate reporting decisions. For instance, reputed and powerful CEOs may act in the best interest of shareholders (efficient contracting hypothesis) and improve overall financial reporting quality (Demerjian et al. 2013; Baik, Farber and Lee 2011). In contrast to this, CEOs with high reputation and power may extract the rents on opportunistic basis (rent extraction hypothesis)

and reduce the quality of financial statements and related information (Malmendier and Tate 2009). The findings from the thesis conclude that the CEO reputation and power is associated with a reduction in the financial reporting quality. Therefore, there is a contribution to the literature on the two different theoretical perspectives about CEO reputation and power.

As the paper one concludes that, the CEO reputation and power is negatively (positively) related to analysts forecast accuracy (forecast, bias, dispersion and analyst following), therefore paper one contributes to the previous literature by identifying additional determinants of analyst forecast accuracy, bias, dispersion and number of analyst following. Similarly, paper two suggests that the accruals and real earnings management is high for firms with CEOs having high reputation and power. Therefore, there is an addition to the prior literature on accruals and real earnings management. The paper two adds new factors to the previous literature that could potentially deteriorate the quality of accruals and real earnings numbers. The paper three shows some evidence that the CEO reputation and power reduces the accounting conservatism. Hence, there is a contribution to the previous literature on the determinants of accounting conservatism.

This is the first study in Australia measuring the CEO reputation using number of press articles. Thus, there is methodological contribution towards the proxies of CEO reputation particularly in Australia. This thesis contributes to the CEO reputation and CEO power literature in Australian context. The results suggest the role of reputed and powerful CEOs towards earnings and information quality in Australia. As the results suggest that CEO reputation and power impact negatively on the earnings and information quality, this suggest a number of policy implications in Australian regulatory environment. Further, there is a contribution to the literature on analysts forecast properties, accruals management, real earnings management and accounting conservatism in Australia. In addition to this, there is a contribution to the agency theory and stewardship theory literature in Australian perspectives. Finally, the results of the thesis are generalisable to other countries with regulatory regime similar to Australia, as the behaviour of reputed and powerful CEOs is likely to be similar in other countries.

1.4 Future Research Suggestions

As this thesis examines the impact of CEO reputation on the quality of financial statements and related information, further research can be done to evaluate the role of CEO reputation towards firm performance, investment strategies and cost of equity and debt. As this thesis measures the CEO reputation using the number of press articles citing the name of a CEO, future research can measure the CEO reputation using a different approach i.e. suggested by (Demerjian, Lev and McVay 2012) and industry adjusted return on assets in Australian context. This thesis examines the impact of CEO reputation and power on the quality of earnings and information environment. Future research can focus on assessing the impact CEO personal (age and gender) as well as professional characteristics (qualification, experience, expertise) on firm's financial reporting decisions.

CHAPTER 2: CEO REPUTATION AND PROPERTIES OF ANALYSTS' FORECASTS

2.1 Introduction

2.1.1 Motivation, Objectives and Research Questions

This paper examines the relationship between CEO reputation and properties of analyst earnings forecasts (forecast accuracy, bias, dispersion and analyst following). [3] The study is motivated due to several reasons. First the CEOs having high reputation receive greater economic incentives such as high stock based compensation (Milbourn 2003). Further the investors are also considered to be satisfied with CEO compensation, provided that the CEO has a positive reputation for providing high quality financial reports (Kaplan, Samuels and Cohen 2015). In addition to this, investors and other stakeholders give high value to the CEO reputation when assessing the quality of financial reporting (American Institute of Certified Public Accountants 1994). Moreover, investors react positively to firms' investment decisions when the CEO has high reputation (Jian and Lee 2011). Therefore, according to Malmendier and Tate (2009), investors have high performance expectations from reputed CEOs. If the CEOs are unable to meet market expected outcomes, they have to lose in terms of their career concerns and reputation. Research suggests that, reputed CEOs having information advantage about future investment policies, choose short term profitable investments on opportunistic basis to improve their personal reputation and career, thus ignore the long term growth of the company (Hirshleifer 1993; Hirshleifer and Thakor 1992).

Second, the prior research suggests that reputed CEOs manage earnings on opportunistic basis to maintain their reputation in market (Malmendier and Tate 2009; Graham, Harvey and Puri 2013). However, in contrast to this research also provides evidence that reputed CEOs help to improve the quality of accounting numbers reported by firms (Baik, Farber and Lee 2011; Demerjian et al. 2013). Although, reputed CEOs have a significant influence on the financial reporting

[3] Although the number of analyst following is not to be considered as a property of analyst earnings forecast. As the analyst following is an important part of this study and closely related to forecast properties (accuracy, bias and dispersion), therefore from here onwards, discussion about forecast properties also includes the aspect of number of analyst following.

quality, yet there is little known how the information environment between firm and market is being affected by reputed CEOs. Therefore, in this study, to examine the impact of CEO reputation on information environment, the properties of analyst forecasts have been used as a proxy.

Third, the analysts are considered to be an important information intermediary between firm and investors. Analysts provide concise form of earnings forecasts after processing a large quantity of information about firm. The quality and accuracy of analyst forecasts is important for investors and other stakeholders. This is because, relying on those forecasts, investors make their valuable investment and contract decisions. Thus, investors are likely to face severe consequences in terms of losing their wealth, if the analyst provided earnings forecasts are misleading. Not only this, analysts also face negative consequences for providing biased forecasts, such as firing from jobs (Ke and Yu 2006). Therefore, it is important to identify the factors that could influence the analysts forecasting process and their forecast properties.

Fourth, the prior literature examines the impact of CEO reputation on earnings quality (Francis et al. 2008; Demerjian et al. 2013) and market perceptions of reputed CEOs (Kaplan, Samuels and Cohen 2015; Jian and Lee 2011). However, the question, whether CEO reputation is associated with an actual improvement in the decision making of the financial statement users (analysts and investors), remains to be answered. If the properties of analyst forecasts are associated with the quality of earnings and information provided by firms (Behn, Choi and Kang 2008; Gul, Hutchinson and Lai 2013; Lang and Lundholm 1996; Byard, Li and Weintrop 2006). CEOs having reputation can significantly influence the financial reporting quality (Baik, Farber and Lee 2011; Demerjian et al. 2013; Francis et al. 2008; Malmendier and Tate 2009). Therefore, the forecast properties are likely to be affected by reputed CEOs through their impact on earnings quality and the information environment between firm and markets. This study, therefore, examines the relationship between CEO reputation and analyst earnings forecast properties and leads to the following primary questions of this study:

> ***RQ1:*** *Is there any association between CEO reputation and analysts' forecast accuracy?*

RQ2: *Is there any association between CEO reputation and analysts' forecast bias?*

RQ3: *Is there any association between CEO reputation and analysts' forecast dispersion?*

RQ4: *Is there any association between CEO reputation and number of analyst following a firm?*

2.1.2 Theoretical Background

Prior literature suggests a number of determinants of analyst forecast properties. For instance, research suggests that, corporate provided financial and non-financial disclosures helps to remove information asymmetry between firms and market, and increase (decrease) forecast accuracy (bias and dispersion) (Lang and Lundholm 1996; Hope 2003; Chang, Hooi and Wee 2014; Dhaliwal et al. 2012; Brown and Hillegeist 2007; Xu and Tang 2015; Lim 2001; Eng and Teo 1999; Kothari, Li and Short 2009). Further the level of disclosures information from firms also attracts greater number of analysts to follow a firm (Lang and Lundholm 1996).

Another factor, that could influence the properties of forecast could be historical earnings information (Behn, Choi and Kang 2008). Research suggests that forecast accuracy (bias and dispersion) improves (reduces) with high quality and less volatile earnings (Behn, Choi and Kang 2008; Kross, Ro and Schroeder 1990; Ghosh and Moon 2010; Gul, Hutchinson and Lai 2013). Exploring the managerial characteristics, Ghosh and Moon (2010) suggests that CEOs with stock ownership up to 25% provide high quality earnings, which leads to greater accuracy and lower bias in analysts' forecasts.[4] Although most of the research focus on the relationship between firm characteristics and analyst forecast properties, the extent to which reputed CEOs are linked to streamline the information environment and analyst's decisions for firm's future earnings still needs a great attention.

[4] Other determinants that could impact on properties of analyst forecasts include regulatory changes (Brown, Hillegeist and Lo 2004; Cheong and Al Masum 2010; Drake and Myers 2011; Hovakimian and Saenyasiri 2014), analyst personal characteristics, such as prior forecasting experience (Clement 1999), and information through private sources (Aerts, Cormier and Magnan 2007; Kross and Suk 2012; Kothari, Li and Short 2009).

The two conflicting arguments, efficient contracting and rent extraction hypothesis are used to support the relationship between CEO reputation and analyst forecast properties. The efficient contracting hypothesis suggests that, the managers take actions to promote shareholders' wealth and organizational performance. CEOs build their reputation over a period maximizing the shareholders wealth (Fama 1980). Therefore, in order to avoid loss of their reputation and career, CEOs are more likely to provide high quality financial statements and related information to the market (Fama 1980; Francis et al. 2008). Research suggests that the reputed CEOs produce high quality earnings (Demerjian et al. 2013) and accurate earnings guidance (Baik, Farber and Lee 2011). Thus analysts having high quality and precise earnings information can predict accurate earnings forecasts with low bias. Further the consensus among analysts is also likely to be high (lower dispersion), if the firm provided earnings are of high quality. This is because all analysts getting same and precise information from firms are more likely to provide forecasts with high agreement. Further, the number of analyst following a firm is likely to reduce for firms with high quality earnings (Ghosh and Moon 2010). This is because, if the firm provided financial statements information is true and precise, investors can predict earnings themselves, therefore, decreasing the demand for analysts to provide forecasts.

In contrast to the efficient contracting hypothesis, the rent extraction argument suggests that CEOs perform earnings management and provide low quality information on opportunistic basis to increase their personal wealth and reputation (Francis et al. 2008; Malmendier and Tate 2009). A number of prior studies suggest that CEOs manage earnings and restrict the flow of future bad news information opportunistically (Mande and Son 2012; Lafond and Roychowdhury 2007; Graham, Harvey and Puri 2013; Ball 2001). According to Graham, Harvey, and Rajgopal (2005) managers prefer to provide smooth earnings (although by manipulating the figures) to maintain their market reputation. Furthermore, according to Malmendier and Tate (2009), superstar CEOs get higher compensation, generate poor

performance and involve in earnings management. Similarly Francis et al. (2008) suggest that, CEO reputation positively related to accruals management in earnings.[5]

Relying on the rent extraction behaviour, a lower forecast accuracy and higher bias is expected when the CEOs have high reputation. This is because, analysts having low quality earnings and misleading information (provided by reputed CEOs), could make it complex for them to produce accurate forecasts. Further, Malmendier and Tate (2009) states that, investors and other stakeholders have high expectations from reputed CEOs, but they underperform the expected outcome. Therefore, analysts having higher expectations from reputed CEO are likely to produce optimistic forecasts, leading to high forecast bias (optimism) and dispersion.

The prior research suggests that, if the earnings related information is not precise, analysts provide earnings forecasts in rounded form and contain higher bias and dispersion (Herrmann and Thomas 2005). The extent to which reputed CEOs are linked to lower earnings quality, it is expected that the forecast bias and dispersion is likely to be high. In addition to this, due to lower earnings quality and information provided by reputed CEOs, investors may not be able to predict earnings accurately, thus demand for analysts is expected to increase. Further, as the market have high expectations from firms with reputed CEOs (Malmendier and Tate 2009), it is possible that more investors follow the stock of the firm, and demand for earnings forecasts from analysts. Therefore, it is expected that the analyst following is higher for firms with reputed CEOs.

The CEO reputation is measured using number of press articles mentioning the name of a CEO along with the company name, consistent with prior literature (Behn, Choi and Kang 2008; Francis et al. 2008; Milbourn 2003). The intuition behind the press based measure of CEO reputation is that, greater a CEO cited in business press, more reputed he / she is considered (Francis et al. 2008; Milbourn 2003). According to Milbourn (2003), if a CEO is highly skilled and have

[5] Research also suggests that, the reputed CEOs having information advantage choose short term profitable investments to promote their personal wealth and career, ignoring the long term benefits and growth of the firm (Hirshleifer 1993; Hirshleifer and Thakor 1992).

high ability, he is more likely to be interviewed and cited in press. One of the concerns with press based proxy of CEO reputation could be that all of the press coverage about a CEO may not be favourable and contain unfavourable comments (negative form of reputation). To avoid this critique, a number of prior studies perform validity tests of this measure and conclude that the press-based proxy is a valid way to capture CEO reputation (Francis et al. 2008; Milbourn 2003; Baik, Farber and Lee 2011). This study measures analyst forecast accuracy, dispersion and number of analyst following primarily for 12 month period following i.e. (Lang and Lundholm 1996). Whereas analyst forecast bias is measured following i.e. (Duru and Reeb 2002).

To empirically test the hypothesis of this study (developed on rent extraction basis), a sample of 2,560 Australian firm year observations is used for the recent 10 year period from 2004 to 2013.[6] This study considers 2004 to initiate the data collection because of implementation of principles of good corporate governance in 2003 in Australia. In addition to this, CLERP9 also issued in 2003 and implemented from July, 2004. These regulatory reforms streamlined the corporate governance and financial reporting process in Australia. Therefore, this study considers the sample in a period of consistent corporate governance and financial reporting quality. CEO reputation and forecast properties data has been drawn from Factiva and Institutional Brokers Estimate System (I/B/E/S) databases respectively. To analyse the data a series of regressions is performed to support the primary results. Results from this study are likely to have a number of contributions and implications.

2.1.3 Significance of the Study

This study makes contributions to the economy in several ways. First, this study will provide evidence about the behaviour of reputed CEOs for the firm's information environment and earnings quality. Specifically results will suggest, whether reputed CEOs improve information environment in line with efficient contracting hypothesis, or maximise their own wealth and reputation following rent

[6] The sample has been restricted to the recent 10 year period because of manual data collection involving for the number of press articles to measure CEO reputation.

extraction hypothesis. Therefore, there is a contribution towards the prior discussion on two conflicting arguments about reputed CEOs (efficient contracting and rent extraction) using market based proxy of earnings quality (properties of analysts' forecasts).

Although scholars examine the relationship between CEO reputation and firm outcomes (earnings and information quality provided by firms) (Demerjian et al. 2013; Francis et al. 2008; Baik, Farber and Lee 2011), however, the question, whether the reputed CEOs influence the analysts forecasting process through information environment, has not been tested before. Therefore, this study fills the gap by looking at the consequences of CEO reputation on analysts' decisions making about firm future outcomes.

Forecast properties determinants include but not limited to earnings and information quality, analyst characteristics, regulation, and firm characteristics. This study is likely to identify an additional determinant (managerial personal characteristic i.e. reputation) of the properties of analyst forecasts and analyst following. The results will provide evidence that, whether predictability of earnings and information environment is affected, provided that the CEO has high reputation.

Although CEOs having reputation can influence the internal and external environment significantly through their decision making power, there is still lack of research on their consequences. Therefore, another contribution of this study is likely towards the CEO reputation literature specifically in the context of press based measure. Further there is a contribution to the prior literature on analyst forecast accuracy, bias, dispersion and number of analyst following. In addition to this, the results of this study will be generalizable to other countries, because CEOs having reputation receive high attention across the globe and can significantly impact the firm outcomes through their status power. Most importantly this the first study to examine the relationship between CEO reputation and analyst forecast properties.

2.2 Literature Review

2.2.1 Analyst Forecast Properties

One of the seminal research on analyst forecasts by Schipper (1991), highlights the key issues around properties of analysts' forecasts, the use of forecasts in capital markets, analyst forecasting decision process and incentives available to analysts. Considering the properties of analyst forecasts, prior research has focused on accuracy, bias (optimism) and dispersion. Schipper (1991) classifies the analysts into buy side and sell side analysts. The buy-side analysts are those employed by institutional investors for internal decision making, whereas the sell-side analysts are known to be the producers of the earnings forecasts, acting on behalf of the brokerage houses and individual investors. Further the two broad perspectives of research on analyst forecasts are the properties of consensus analysts' forecasts and individual analyst forecasts (Kothari 2001).[7] In this study, research questions are based on properties of the consensus analysts' forecasts.

2.2.2 Analyst Forecast Accuracy

2.2.2.1 Impact of Regulation

One of the factors affecting analyst forecast accuracy identified in prior literature is regulation. A consensus of literature shows that the regulation is strongly related to forecast accuracy through information environment (Hope 2003; Brown, Hillegeist and Lo 2004; Mohanram and Sunder 2006; Cheong and Al Masum 2010; Hovakimian and Saenyasiri 2014). For instance strong levels of enforcement provide more choices of accounting policies to implement, which helping to improve financial reporting environment Hope (2003).[8]

Similarly, research shows that Regulation Fair Disclosure (RFD) has streamlined the flow of information from firms and all investors are able to get balanced information at the same time (Brown, Hillegeist and Lo 2004; Mohanram

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[7] The consensus analyst forecasts refers to the mean or median value of the multiple forecasts issued by one or more analysts, whereas looking at properties of individual analyst forecasts, it has been examined that, what characteristics of each individual analyst affect their issued forecast.

[8] Applying five country level proxies (audit expenses, rules for insider trading, quality of judicial system, law enforcement and level of safeguards for shareholders) to measure enforcement, Hope (2003) finds that stronger enforcement of accounting standards improves analyst forecast accuracy.

and Sunder 2006; Hovakimian and Saenyasiri 2014).[9] Further the analysts having high forecast accuracy due to strong connections with managers and getting superior information in pre RFD period produce less forecast accurate forecasts in post RFD period.[10]

In a similar context, research shows that the forecast accuracy has improved in Australia since the adoption of the International Financial Reporting Standards (IFRS) (Cheong and Al Masum 2010; Cotter, Tarca and Wee 2012).[11] Exploring countries other than Australia, a study using data for European Union also documented the improvement in consensus of analyst forecasts for earnings reported by firms (Jiao et al. 2012; Horton, Serafeim and Serafeim 2013).

2.2.2.2 Analyst Related Characteristics

Analyst specific characteristics such as analyst experience are also of importance for providing accurate earnings forecast. A number of studies show that the analysts having high experience possess more ability to process information in a better way and thus produce more accurate forecasts (Mikhail, Walther and Willis 2003b; Clement 1999; Drake and Myers 2011). The study conducted by Clement (1999) shows that, the forecast accuracy is higher when provided by analysts having greater general and firm specific experience. Clement (1999) suggests that, the forecast accuracy is lower, provided by less busy analysts. This is because, following greater number of firms leads to portfolio complexity, and therefore analysts being unable to process information accurately yield biased forecasts. There is an evidence that, more experienced and less busy analysts, due to having high ability and sufficient time, are better able to understand the earnings related information and provide accurate forecasts (Mikhail, Walther and Willis 2003a; Drake and Myers 2011).

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9 Regulation Fair Disclosure is implemented in 2002 by SEC and primary motive was to provide same level of information to analysts and other stakeholders issued by firms, and to prohibit the firms from providing information to their preferred investors and analysts.

10 Results from Bailey et al. (2003) study also show that there is a greater level of information and earnings disclosures provided by firms to the stakeholders in post RFD period. Further information asymmetry also goes down as a result of RFD (Eleswarapu, Thompson and Venkataraman 2004)

11 Since 2005, Australia has adopted IFRS known as AIFRS (Australian equivalent to International Financial Reporting Standards), but before that Australia has its own accounting standards similar to IFRS.

In addition to the above characteristics, brokerage size and analyst industry specialization is also considered an important factor affecting the forecast accuracy (Jacob, Lys and Neale 1999). Furthermore, the star status of an analyst also influences the forecast accuracy. For instance, study conducted by Fang and Yasuda (2014) shows that, the stock recommendations issued by analysts with "All American" status perform better..[12]

2.2.2.3 Corporate Disclosures Information

Prior research documents that the financial and non-financial information help to reduce information asymmetry, and improve the analyst forecast accuracy (Lang and Lundholm 1996; Hope 2003; Chang, Hooi and Wee 2014; Dhaliwal et al. 2012; Brown and Hillegeist 2007). For instance, if the firm provided annual report disclosures are consist of precise information about firm's future earnings, forecast accuracy is high (Lang and Lundholm 1996; Hope 2003). Similarly study conducted by Brown and Hillegeist (2007) suggests that the information asymmetry is lower for firms with greater number of investor relations disclosures.[13]

In addition to the annual report disclosures, non-financial disclosures are also considered as a one of the important source of information for analysts and help to improve information environment. For instance, Dhaliwal et al. (2012) state that in stakeholder oriented countries, consumers have strong influence on operation of the firms and give due value to corporate social development actions. Customers having high moral values attract to those firms with high corporate social activities. Thus, the sales and profitability of firms in such countries depend upon meeting social standards. As a result, analysts using corporate social responsibility information of firms can predict future performance and earnings accurately. Dhaliwal et al. (2012) using data across 31 countries show an empirical evidence of

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[12] All American status analysts are selected after a comprehensive survey through sending questionnaire to 64 different types of investment sectors and then ranking is given to analysts by using quantitative scores. Analysts elected through this survey are given high prestige in financial markets.

[13] Similar to this a number of other studies also document a positive relationship between corporate disclosures and analyst forecast accuracy (Eng and Teo 1999; Chang, Hooi and Wee 2014; Dhaliwal et al. 2012).

positive relationship between level of corporate social responsibility disclosures by firms and analyst forecast accuracy.[14]

2.2.2.4 Corporate Governance and Financial Reporting Quality

Research shows direct evidence that the corporate governance quality removes information asymmetry and improves analyst forecast accuracy (Bhat, Hope and Kang 2006; Gul, Hutchinson and Lai 2013; Beekes and Brown 2006; Kanagaretnam, Lobo and Whalen 2007). For instance Bhat, Hope, and Kang (2006) note that managers and other key personals have strong influence over activities of an organization and can impact future performance. Thus it is vital for analysts to get information about governance policies and procedures to estimate earnings accurately. For their study, Bhat, Hope, and Kang (2006) used data across 21 countries and provides evidence that analysts forecast accuracy is higher for firms having more transparent governance structure.[15]

Corporate governance structure also has an indirect link with forecast accuracy through financial reporting quality. For instance research shows that firms having independent audit committee have lower level of earnings management (Klein 2002), and audit committees with financial expert members has lower audit report lag (Sultana, Singh and Van der Zahn 2015).[16] Further firms having financial expert on audit committee, greater number of audit committee meetings, and experienced director on audit committee report more conservative accounting practices (Sultana and Van der Zahn 2015; Sultana 2015). If the firms have less earnings management and high conservative accounting (timely reporting of bad news), analysts incorporating such information can provide accurate forecasts of earnings.

The quality of earnings also has a strong link with forecast accuracy and bias. Behn, Choi, and Kang (2008) argue that the financial analysts are one of the

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[14] Results are stronger for firms belong to stakeholder oriented countries. Their sample period consists of 1997-2001 with 1,297 firms across 31 countries and they used only corporate social responsibility reports published by firms from different sources.

[15] Similar evidence has been provided by other studies as well (Beekes and Brown 2006; Ghosh and Moon 2010; Byard, Li and Weintrop 2006).

[16] Research also show that firms with gender diverse boards have lower level of discretionary accruals (Srinidhi, Gul and Tsui 2011).

key users of financial statements and incorporate historical earnings information in their forecasting process. Their study concludes that the analyst forecast accuracy is higher for firms having high earnings quality measured by audit quality. Further studies suggest that, forecasts are influenced by variation in historical earnings (Kross and Suk 2012), and analysts revise their forecasts on the base of earnings information provided by firms (Abarbanell and Bushee 1997).

2.2.2.5 Information through Private Channels

Although firm provided financial and non-financial disclosures through various reports are useful for analysts, but insiders due to agency conflicts, may restricts the important information. Further the information provided through disclosures is not timely. Therefore, analysts move on other sources such as electronic and print media, and personal contacts with insiders. Research suggests that the information on press helps to improve information environment between firm and capital markets (Aerts, Cormier and Magnan 2007; Kross and Suk 2012; Kothari, Li and Short 2009). Aerts, Cormier, and Magnan (2007) obtain corporate provided performance related disclosures on websites for 267 European firms for the year 2002 and find higher consensus in analyst forecast for firms having greater number of such information on websites.

Kross and Suk (2012) examine the information available about firms on private sources by taking into account number of column inches reported in "*The Wall Street Journal Index*" against 279 firms for the period 1973 to 1981 for their study. They argue that if more information becomes publicly available about a firm, analyst forecasts should perform better for such firms, their results supported this notion. Kothari, Li, and Short (2009) state that the information in news and press is timely, inform well about the future activities of firm and relatively more accurate because the probability is low for news reporters to get compromise for having personal incentives. Further such information is useful for not only analysts but investors as well for making their valuable investment decisions.[17]. Similarly Bushee

[17] This study used content analysis to obtain information about disclosures reported by firms, analysts and business press on four main private electronic sources (Dow Jones, Factiva, Investext and SEC EDGAR). Results suggest that the information given on press is more valuable when compared with news provided by management and analysts, and positive news reported by press decrease revision volatility, cost of capital and analyst forecast dispersion.

et al. (2010) use press articles and classify as a firm-initiated and press-initiated information. Controlling for several firm related factors, their study suggests that the greater amount of press coverage reduce information asymmetry (high depth and less bid-ask spread).

2.2.3 Analyst Forecast Bias (Optimism)

Prior literature suggests that analysts provide biased forecasts due to several reasons, for instance, when it is hard to predict earnings accurately, or to achieve personal incentives (Xu and Tang 2015; Das, Levine and Sivaramakrishnan 1998; Lim 2001; Duru and Reeb 2002; Ke and Yu 2006). The accurate predictability of earnings is likely to be less, if the firms are internationally diversified (Duru and Reeb 2002), firms having internal control material weaknesses (Xu and Tang 2015), or when managers acting opportunistically provide poor information to outsiders (Kanagaretnam, Lobo and Mathieu 2012).[18] According to Lim (2001), analysts maintain good relations with management to acquire private information about firms. For this purpose analysts issue optimistic forecasts to get personal favour from management. Private information from insiders is an important incentive for analysts, particularly when there is no reliable information available to predict the earnings accurately.[19] Another incentive for analysts is to avoid the threat of termination from job. This is because research shows that analysts produce more accurate earnings forecasts, when provide optimistic biased forecasts at initial followed by pessimistic forecasts, and such analysts are also less likely to be fired by employers (Ke and Yu 2006).

2.2.4 Analyst Forecast Dispersion

A consensus of literature provides evidence that firm provided information through disclosures reduce information asymmetry and disagreement among analyst forecasts (Lang and Lundholm 1996; Eng and Teo 1999; Hope 2003; Kothari, Li and Short 2009). This is because, multiple analysts following a firm receive precise and

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[18] Duru and Reeb (2002) provide an empirical evidence that geographically diversified firms have higher forecast bias as it the predictability of earnings is less for such firms. Similarly Xu and Tang (2015) show that firms having internal control material weaknesses have higher forecast optimism. Further the study conducted by (Kanagaretnam, Lobo and Mathieu 2012) also provide evidence that forecast bias is positively related to the level of stock options held by CEO's.

[19] Study conducted by Lim (2001) and Das, Levine, and Sivaramakrishnan (1998) provide evidence that forecasts are optimistically biased when the earnings predictability is complex for analysts.

same information, which brings unity in their future predictions about earnings. Study conducted by Lang and Lundholm (1996) shows that, high level of corporate informative disclosures are helpful in reducing disagreement among analyst forecasts. The key information about firms helps to reduce asymmetry and dispersion in forecasts through various channels. For instance through corporate annual report disclosures (Brown and Hillegeist 2007; Eng and Teo 1999), disclosures on press (Kothari, Li and Short 2009), and web-based performance disclosures (Aerts, Cormier and Magnan 2007).

Another stream of research suggests that, the high quality corporate governance and reported earnings are also crucial to improve information environment and reduce forecast dispersion (Kanagaretnam, Lobo and Whalen 2007; Behn, Choi and Kang 2008). If the earnings guidance is of high quality and precise, analysts have to less rely on information from other sources such as private contacts and disclosures, which reduce information asymmetry. Information through private sources may not be same with all analysts and leads to greater disagreement in forecasts. In their study Behn, Choi, and Kang (2008) argue that if earnings quality is high and firm provided earnings related information is accurate and reliable, then analysts processing such information have higher agreement in forecasts. Behn, Choi, and Kang (2008) claim that , the dispersion is low among firms having high earnings quality (audit quality). Similarly Ghosh and Moon (2010) provide evidence that dispersion in analyst forecasts is lower for firms having high earnings quality.[20] Furthermore the research suggests that, the firms having gender diverse boards exhibit high earnings quality (Srinidhi, Gul and Tsui 2011), and therefore lower forecast dispersion (Gul, Hutchinson and Lai 2013).

2.2.5 Analyst Following

Prior literature has documented several determinants of analyst following. For instance, Lang and Lundholm (1996) argue that, if it is convenient and cost efficient for analysts to get most of the firm related information from disclosures

[20] This study measured earnings quality using CEO stock ownership concentration. A lower stock ownership (up to 25%) represented a high earnings quality whereas CEO stock ownership at higher level represented a poor earnings quality.

rather than private sources, the number of analysts following should be high.[21] Further large amount of information in disclosures also needs more manpower to process, which also give rise to the demand for analysts. Exploring other firm related characteristics, Bhushan (1989) states that the institutional ownership in firms could rise the demand for more information and more analysts to follow a firm. Bhushan (1989) finds that analyst following is positively related to institutional ownership and firm size whereas, negatively related to insider's ownership.

The quality of governance structure has also been considered as an important element to attract analysts. In their study Beekes and Brown (2006) argue that, the firms having better governance structure produce informative disclosures, which could also attract more analysts towards firm. Their results show that firms having high quality corporate governance structure in Australia, produce informative disclosures and attract more analysts. Study conducted by Ghosh and Moon (2010) explores the impact of CEO stock ownership on analyst properties. Their study suggests that CEO's having stock ownership at lower levels improve earnings quality and results into lower agency costs to a firm. They further suggest that, if earnings quality is high, investors relying more on firm provided earnings related information, could decrease the demand for number of analyst following. Their study provide evidence that number of analyst following is low when CEOs have low (up to 25%) stock ownership because of less agency cost and high earnings quality. Further the number of analyst following increased when CEOs have stock ownership at higher level (more than 25%). Research also shows that firms covered by greater number of analysts manipulate less earnings, which implies that analysts also act as an external monitor of firms (Yu 2008). Although prior research examines the relationship between disclosures, and analysts'following,, the relationship between reputed CEOs and analyst following for a firm is unknown.

[21] Their study provides empirical evidence that analyst following is higher for firms providing greater amount of quality information in corporate disclosures.

2.2.6 CEO Reputation

2.2.6.1 Determinants of CEO Reputation

According to Hayward, Rindova, and Pollock (2004) a CEO is called celebrity under the condition;

"*When journalists broadcast the attribution that a firm's positive performance has been caused by its CEO's actions"*.[22]

Firms having reputed CEOs can yield positive outcomes, i.e., high quality financial reports and positive reaction of investors towards firms' strategic and investment decisions (Jian and Lee 2011). Further reputed CEOs also gain greater economic incentives such as high stock based compensation (Milbourn 2003).

Prior literature has documented several ways to determine the CEO reputation. For instance, Milbourn (2003) measures CEO reputation using four proxies. The first proxy used is the number of years a CEO serving in a firm (CEO tenure), arguing that, a CEO developed high reputation if survived in firm for longer time period, due to high expertise and ability. Second, whether an appointed CEO is an insider or outsider, where outsider is identified as a more reputable CEO. Third, industry-adjusted performance (ROA) during the last 3 year tenure of a CEO. High ROA shows that a CEO has high reputation (ability). Fourth is the market-based proxy, which is the sum of the number of press articles mentioning the name of the CEO. The intuition behind this measure is that, greater a CEO cited in business press, more reputed he/she is considered (Milbourn 2003; Francis et al. 2008; Rajgopal, Shevlin and Zamora 2006). Milbourn (2003) states that, if a CEO is specialist in a particular skill or industry is more likely to be interviewed and should be considered of high ability. He further suggests that the chances of retaining a job are less for a CEO having negative comments in news. Cianci and Kaplan (2010) provide evidence that, if the managers are providing plausible information about the firm's future performance, it improves their reputation in press positively.[23]

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[22] Four different types of reputed CEOs are given the name as Scoundrels, Icons, Silent Killers and Hidden Gems, for further details please refer to (Ketchen Jr, Adams and Shook 2008).

[23] Cianci and Kaplan (2010) measure the CEO reputation taking into account news story from press articles and tested that how investors react management explanations having favourable or unfavourable prior reputation.

Therefore it is plausible to assume that, the CEOs being cited more on press have higher ability and greater reputation in a positive way.

Scholars may argue that all of the press coverage about a CEO may not be favourable and the news story may represent unfavourable comments about a CEO and firm specific characteristics. In order to avoid this critique, a number of prior studies have provided validity tests (Baik, Farber and Lee 2011; Francis et al. 2008; Milbourn 2003; Rajgopal, Shevlin and Zamora 2006), which is explained in methodology part of this study. For this study purpose, CEO reputation is measured using press-based assumption, thus has been discussed further in the next sections.

2.2.6.2 Consequences of CEO Reputation

The two opposite behaviours (efficient contracting and rent extraction) of CEOs are empirically supported by prior research. Under efficient contracting hypothesis reputed CEOs produce positive outcomes and high quality earnings information. If managers are of high ability, there are less chances of misstatement in provision for doubtful debts, less financial restatements, high quality accruals estimation and high earnings persistence (Demerjian et al. 2013). Trueman (1986) reports that, the high ability managers are more likely to issue precise earnings forecasts to signal about their ability in capital markets. Further, high ability managers are more likely to predict future outcome of the firms accurately. Another study conducted by Koh (2011) supports the argument of efficient contracting for reputed CEOs. Koh (2011) suggests that, the celebrity CEOs exhibit higher firm performance and report higher accounting conservatism in earnings. Similar to this, Baik, Farber, and Lee (2011) provides evidence that highly ability CEOs are more likely to issue management earnings guidance.[24] Their study further suggests that forecasts provided by high ability managers are accurate, implying that the reputed CEOs provide a signal of their ability by anticipating future firm performance precisely.

[24] Baik, Farber, and Lee (2011) measure CEO ability using three proxies. First, the number of press related articles stating the name of a CEO and firm over the rolling five year period. Second following Demerjian et al. (2013) accounting based proxy for CEO ability, and the third using CEO's 3-year industry-adjusted ROA.

According to Francis et al. (2008), rent extraction argument suggests that the CEOs would report low quality earnings such as may involve in earnings management to meet market expectations and increase their own reputation. Francis et al. (2008) conclude that, the reputed CEOs are hired by firms with higher earnings management to improve the earnings quality. Another study shows that, the CEOs having super-star status in press perform less relative to their previous performance and as compared to the CEOs without super-star status (Malmendier and Tate 2009). Further super-star CEOs receive high compensation and involve in greater earnings management after winning such award (Malmendier and Tate 2009).

Additional evidence to support the rent extraction behaviour of the reputed CEOs, managers have information advantage over shareholders about the expected outcome of the available investment opportunities (Hirshleifer and Thakor 1992; Hirshleifer 1993). This provides an opportunity to managers to select investments with short term profits to increase their personal reputation and career (Hirshleifer and Thakor 1992; Hirshleifer 1993). Further managers may take investment decisions which decrease the shareholders wealth but increase managers reputation and incentives in short term (Hirshleifer and Thakor 1992; Hirshleifer 1993). According to Graham, Harvey, and Rajgopal (2005) managers prefer to perform earnings management to provide smoot earnings to avoid loss of their market reputation. Not only this, due to conflict of interest, CEOs can use their power to achieve personal incentives by meeting market expectations through earnings management (Mande and Son 2012). Moreover, under rent extraction hypothesis, CEOs may not provide favourable information timely to the market to avoid the risk of negative outcomes in short run. In this context, research provides a negative relationship between CEO stock-ownership and conservative accounting (Lafond and Roychowdhury 2007).

2.2.6.3 CEO Reputation and Investors' Perception

Survey conducted by the American Institute of Certified Public Accountants (1994) suggests that the investors and other stakeholders give due value to the CEO reputation, when considering the quality of financial reporting. CEO's are primarily responsible for deciding the financial reporting choices for a firm (Kaplan, Samuels and Cohen 2013). Further CEO's build their reputation over a time period, by presenting high quality financial statements and precise disclosure

information to the investors, analysts, press, regulators and other economic stakeholders.

Jian and Lee (2011) argue that the CEO reputation is one of the key factors, when determining the accuracy and reliability of the information provided by firms. In their study Jian and Lee (2011) examine, whether investor's reaction to capital investment decisions is statistically different for firms having reputed CEOs. For their experiment, they took 486 corporate capital investment decisions for the period of 1988 to 2007 for US firms. Their results show a favourable stock price reaction to those capital announcements, where a CEO has greater reputation. Their results further suggest that operating performance after investment announcements is also better for firms having reputable CEOs. It implies that, the investors consider highly credible to corporate provided financial information, when CEO has high reputation.

CEOs having high compensation are of key attention to the researchers and regulators. Research also focus on how investors perceive about the compensation of a CEO with high reputation. In this context Kaplan, Samuels, and Cohen (2013) examine whether CEO reputation matters for investors to satisfy with CEO compensation. More specifically, their study examines that how non-professional investors take decision to vote for say-on-pay about CEO compensation.[25] Their study results suggest that, non-professional investors are less happy with CEO compensation package (lower chances to vote for say-on-pay for CEO compensation), when the CEO has unfavourable reputation for presenting high quality financial statements.

[25] In 2010, US congress passed the Act, which gives right to investors to vote for say-on-pay about CEO compensation. This Act requires public companies to get vote from investor's at-least once in 3 years about CEO compensation. This Act also bring a challenge for members of executive compensation committee to set remuneration for CEOs to perform at higher standards, as they become accountable to investors (Kaplan, Samuels and Cohen 2013).

2.3 Theoretical Framework

2.3.1 Theories Applied

2.3.1.1 Efficient Contracting Hypothesis (Stewardship Theory)

Efficient contracting hypothesis provides similar arguments to the stewardship theory and suggests that the reputed CEOs acts in the best interest of the firm as a steward. CEOs develop their reputation over several years through working with different stakeholders, maximizing shareholders wealth and benefiting all market participants (Fama 1980). According to Francis et al., 2008, under efficient contracting hypothesis, if reputed CEOs are not reporting high quality earnings and related information, they have to lose in terms of their reputation, career, wages reduction, and loss of self-esteem (Francis et al. 2008). The consequences of losing reputation are much higher than the benefits CEOs extract through reporting poor earnings and restricting information (Francis et al. 2008). The poor earnings reported could lead to high cost of capital and stakeholders compensate this by reducing wages of the CEOs (Francis et al. 2008). Therefore managers are considered to take actions which promote shareholders wealth and organizational performance (Donaldson and Davis 1991). CEOs therefore, have several economic incentives to increase organizational wealth such as promotion in their personal reputation, getting inner satisfaction and respecting ethical standards of work (Muth and Donaldson 1998). Therefore, it can be stated that the reputed CEOs are more likely to provide high quality financial reports and accurate information timely to the market. Research suggest that, CEOs act in the best interest of stakeholders by providing high quality financial reports and precise information (Demerjian et al. 2013; Baik, Farber and Lee 2011).

According to Baik, Farber, and Lee (2011), reputed CEOs also signal their ability, by providing accurate management earnings guidance to the market Their study further suggest that reputed CEOs are more likely to provided voluntary earnings guidance to the market than their peers with less reputation. Similar to this, Jian and Lee (2011) states that, reputed CEOs have greater ability to obtain accurate information for investment choices, more likely to get positive outcome from investment decisions. Further the reputed CEOs are more likely to select less risky and positive net present value projects, and improve their reputation in the market by increasing firm value (Jian and Lee 2011).

2.3.1.2 Rent Extraction Hypothesis (Agency Theory)

Rent extraction hypothesis implies that reputed CEOs get agency conflict and increase their personal incentives at the cost of other stakeholders. Under the rent extraction hypothesis, CEOs want to increase their personal wealth and reputation by reporting low quality earnings at the cost of the shareholders (Francis et al. 2008). Research suggests that the CEOs having conflict of interest involve in earnings management to market expectations (Francis et al. 2008; Mande and Son 2012), and restrict the bad news information, reporting good news timely (Lafond and Roychowdhury 2007).

In response to corporate accounting scandals (occurred around 2002), a number of regulatory reforms were introduced globally such as Sarbanes Oxley Act (2002) (SOX) in US, Principles of Good Corporate Governance (2003) and Corporate Law Economic Regulatory Program (2004) (CLERP9) in Australia. The primary purposes of these regulatory reforms was to improve the quality of corporate governance structures and financial reporting. For instance, in Australia, Principles of Good Corporate Governance issued by Australian Securities Exchange Corporate Governance Council in 2003 emphasised on the structure of the board, board committees, the responsibilities of the board of directors and CEOs, and corporates responsibility in terms providing fair and timely disclosures to outsider (ASX CGC 2003).

The CLERP9 issued in 2003, implemented from July, 2004 and brought a number of reforms including the recommendations provided by HIH Insurance Royal Commission released in April 2003. Although these regulatory reforms in Australia improved the corporate governance mechanisms and financial reporting quality to a greater extent, however, do not specifically address the roles, responsibilities and the boundaries for the CEOs to perform their duties. Looking at the role of CEOs in the accounting frauds, it is likely that the CEOs misuse their power and reputation to receive economic incentives from organization.

One of the incentives to manipulate financial statements could be career development for CEOs. For instance, Malmendier and Tate (2009) suggest that, the markets have high performance expectations from firms with celebrity CEOs. If CEOs are unable to meet market expected results (even by misreporting and manipulating the figures), they have to loss in terms of their career and reputation.

Malmendier and Tate (2009) show that, the superstar CEOs get higher compensation, and generate poor performance for a firm, when compared with a non-reputed CEO. They further suggest that after a CEO has achieved super-star status, is more likely to involve in earnings management to meet analysts' earnings expectations. This provides an explanation that, reputed CEOs get conflict of interest and achieve personal incentives, promote their own status and misreport financial statements to meet performance expectations of stakeholders. Similar to this, Ball (2001) argue that managers to achieve their personal incentives such as bonuses and personal reputation, less likely to report any future losses of cash flows which might incur from negative net present value projects. This is because managers timely reporting any future losses in current earnings may face severe problems such as termination and loss of the reputation.

2.3.2 Hypotheses Development

2.3.2.1 Forecast Accuracy and CEO Reputation

One of the determinants for forecast accuracy is the level of financial and non-financial disclosures, has been documented in prior literature (Lang and Lundholm 1996; Hope 2003; Chang, Hooi and Wee 2014). Further, analysts are considered as a key user of financial reports and specifically earnings information reported by firms. Research shows that, the forecast accuracy increases with the earnings quality (Behn, Choi and Kang 2008). Therefore any variation in historical earnings could significantly affect the analyst's earnings predictions (Kross and Suk 2012). According to Das, Levine, and Sivaramakrishnan (1998), forecast accuracy is lower, when the predictability of firm's future earnings is hard from the limited amount of information available publicly. Further, if the historical earnings information is not reliable, the demand for information from private sources increase, which is not available to all analysts. Abarbanell and Bushee (1997) suggest that, the analysts revise their forecasts on the base of earnings information provided by firms. Therefore, it is reasonable to assume that analyst forecasts are strongly influenced by earnings related information. To the extent the earnings information is valid, forecasts issued by analysts are likely to be precise. CEO's being key insiders always possess important information about firm's future policies and procedures to be taken place.

Relying on the rent extraction perspectives, if the CEOs use their status and power, gained due to their position, and involve in earnings management to meet market expectations (Mande and Son 2012) then analysts having such earnings information are likely to produce less accurate forecasts. If the earnings related information is not precise, analysts have to rely on information from other sources, making their job more complex. Under conflict of interest, CEOs restrict the timely flow of bad news information to the market (Lafond and Roychowdhury 2007), to avoid short term negative outcomes. According to Ball (2001), managers to achieve their personal incentives such as bonuses and personal reputation are less likely to report any future losses of cash flows which might incur from negative net present value projects. This is because managers timely reporting any future losses in current earnings may face severe problems such as termination and loss of the reputation. Analysts having only favourable information about future outcome of the firm could yield less accurate forecasts.

Francis et al. (2008) suggest that the reputed CEOs are associated with lower accruals quality earnings. Further according to Malmendier and Tate (2009), while the analysts and investors have high performance expectations from firms with celebrity CEOs. However such celebrity CEOs generate poor performance and perform earnings management to meet market earnings expectations (Malmendier and Tate 2009). Where the forecast accuracy has been linked to the earnings quality (Behn, Choi and Kang 2008), it is worthy to assume that forecast accuracy is likely to be lower for firms with reputed CEOs.

H1: CEO reputation is negatively associated with analysts' earnings forecast accuracy.

2.3.2.2 Forecast Bias and CEO Reputation

In addition to arguments for H1, prior literature suggests that, the analysts provide biased forecasts due to several reasons, for instance, when it is hard to predicts earnings accurately (Xu and Tang 2015; Das, Levine and Sivaramakrishnan 1998; Duru and Reeb 2002). The predictability of earnings accurately becomes complex, if the firms are internationally diversified (Duru and Reeb 2002), having internal control material weaknesses (Xu and Tang 2015), or when managers opportunistically provide poor information to outsiders (Kanagaretnam, Lobo and

Mathieu 2012). As the CEOs under rent extraction behaviour, to maintain their reputation, restrict the bad news information and provide good news timely (Lafond and Roychowdhury 2007; Ball 2001). Analysts having only favourable information are get mislead, therefore likely to produce optimistic biased forecasts. Further, if the reputed CEOs produce poor earnings by doing earnings management (Francis et al. 2004; Malmendier and Tate 2009), it can also make harder for analysts to produce accurate earnings, thus leading to forecast bias.

Analysts and investors' having optimistic view and high expectations from reputed CEOs also create bias in forecasts. According to Fama (1980)**,** stakeholders rely on historical reputation of agents (CEOs) to assess reliability and credibility of financial statements. Their study further suggests that the stock price reaction is positive to capital investment decisions for firms with reputable CEOs. Further, according to Malmendier and Tate (2009) analysts and investors have high performance expectations from firms with celebrity CEOs. This suggests that, analysts assess the prior reputation of CEOs and expecting higher outcome could produce optimistic earnings forecasts. But contrary to the high expectations of analysts, superstar CEOs generate poor performance for a firm as compared to a non-reputed CEO, as well as compare to their own performance, prior to be a superstar CEO (Malmendier and Tate 2009). Therefore, this is reasonable to predict that forecast bias increase optimistically when analysts expect higher, but reputed CEOs perform poor.

Another reason, analysts produce optimistically biased forecasts is to achieve personal incentives (Lim 2001). According to Lim (2001), analysts maintain good relations with management to acquire private information about firms. For this purpose, analysts issue optimistic forecasts to get personal favours (such as acquiring important information to predict earnings) from management. Private information from management is an important incentive for analysts, particularly when reputed CEOs report low quality earnings and restrict information opportunistically. Therefore, relying on the above arguments, it is expected that the forecast bias is likely to be higher for firms with reputed CEOs.

H2: CEO reputation is positively associated with analysts' earnings forecast bias (optimism).

2.3.2.3 Forecast Dispersion and CEO Reputation

Forecast dispersion has been considered as an indicator of the uncertainty about firms' information environment and future earnings (Hope 2003; Imhoff Jr and Lobo 1992). According to Herrmann and Thomas (2005), forecast dispersion could be higher due to inability or unwillingness of some analysts to collect and process information without conflict of interest. Prior studies suggest that the disagreement among analyst forecasts reduce, if more information available through financial and non-financial disclosures (Lang and Lundholm 1996; Eng and Teo 1999; Hope 2003). Further, if the firm provided earnings related information is precise and same with all analysts, consensus among forecast will be high (Behn, Choi and Kang 2008; Herrmann and Thomas 2005).

If the earnings related information is not true and fair, analysts produce biased forecasts in rounded figure, with high dispersion (Herrmann and Thomas 2005). Under rent extraction hypothesis, reputed CEOs involve in earnings management and provide low quality information to analysts and investors (Francis et al. 2008; Malmendier and Tate 2009).[26] Therefore it is likely that reputed CEOs having status and power, could affect the financial reporting structure (quality) and create information asymmetry, leading to high dispersion in forecasts. Relying on this the third hypothesis of the study is as follows.

H3: CEO reputation is positively associated with analyst forecast dispersion.

2.3.2.4 Analyst Following and CEO Reputation

The determinants of analyst following include the amount of information through disclosures (Lang and Lundholm 1996), firm size and institutional ownership (O'Brien and Bhushan 1990), corporate governance structure (Beekes and Brown 2006), and the earnings quality (Ghosh and Moon 2010). According to (Ghosh and Moon 2010), analyst following should decrease (increase) with high (low) earnings quality. This is because, if the earnings quality is high, investors can

[26] Conversely, under efficient contracting hypothesis, reputed CEOs produce high quality earnings and provide the market with precise information (Baik, Farber and Lee 2011; Demerjian et al. 2013).

predict future earnings of the firms accurately relying on the information provided by firms, thus decreasing the demand for analysts to follow. However, if the earnings prediction is hard (no precise information available to predict earnings), investors have to rely on analyst forecasts, increasing the demand for analyst following. Relying on rent-extraction behaviour of reputed CEOs, if the reported earnings are of lower quality, it is assumed that the greater number of analyst should follow such firms.

Another notion could be that, as the superstar CEOs get higher compensation and perform earnings management to meet expectations of investors and other stakeholders (Malmendier and Tate 2009). It is likely that investors and other institutions require extra monitoring of such firms through independent monitors (analysts). Furthermore, as all of the stakeholders have higher expectations from superstar CEOs, it is likely that more investors are attracted to the stocks of such firms, consequently increasing the demand for analysts to provide forecast. Relying on the above arguments it is hypothesized that the number of analysts following should be high for firms with reputed CEOs.

H4: CEO reputation is positively associated with the number of analyst following.

2.4 Research Design

2.4.1 Sample Selection Details

2.4.1.1 Sample Data Collection

Table 2.1 describes the sample selection process. Panel A presents details regarding the sample selection approach used for the analyst forecast accuracy and bias models (H1 and H2). For empirical analysis, sample consists of Australian listed firms for the period 2004 – 2013. The motivation to take the year 2004 as a starting point for data collection is the implementation of principles of good corporate governance in 2003 by Australian Securities Exchange Corporate Governance Council in Australia.

Table 2.1: Sample Selection Procedure	**Firm-Year Observations**
Panel A: Forecast Accuracy and Bias (H1 & H2)	
Firms available at I/B/E/S for the period 2004-2013	3,729
Less:	
Firms with no information regarding CEO at Connect4 and SIRCA database	(826)
Firms with no information for institutional ownership	(240)
Firms with no information for standard deviation of return on equity	(30)
Firms with no information for audit committee independence	(73)
Final Firms when CEO reputation measured across 5 year period	**2,560**
Less:	
Firms with no information of CEO reputation for 3 year period	(35)
Final Firms when CEO reputation measured across 3 year period	**2,525**
Panel B: Forecast Dispersion (H3)	
Firms available at I/B/E/S for the period 2004-2013	3,729
Less:	
Firms followed by less than 3 analysts	(1,599)
Firms followed by 3 or more analysts	2,130
Less:	
Firms with no information regarding CEO at Connect4 and SIRCA database	(375)
Firms with no information for institutional ownership	(111)
Firms with no information for volatility (*SDROE*)	(17)
Firms with no information for audit committee independence	(4)
Final Firms when CEO reputation measured across 5 year period	**1,623**
Less:	
Firms with no information of CEO reputation for 3 year period	(20)
Final Firms when CEO reputation measured across 3 year period	**1,603**
Panel B: Analyst Following (H4)	
Firms available at I/B/E/S for the period 2004-2013	3,729
Less:	
Firms with no information regarding CEO at Connect4 and SIRCA database	(826)
Firms with no information for institutional ownership	(240)
Firms with no information for volatility standard deviation of return on equity	(30)
Firms with no information for audit committee independence	(73)
Final Firms when CEO reputation measured across 5 year period	**2,560**
Less:	
Firms with no information of CEO reputation for 3 year period	(35)
Final Firms when CEO reputation measured across 3 year period	**2,525**

In addition to this, CLERP9 also issued in 2003 and implemented from July, 2004. These regulatory reforms streamlined the corporate governance and financial reporting process in Australia. Therefore, this study considers the sample in a period of consistent corporate governance and financial reporting quality. Initial sample consists of 3,729 firm year observations drawn from the Institutional Brokers Estimate System (I/B/E/S) database. After merging I/B/E/S data with Connect4 and SIRCA (CEO related information and other corporate governance data), 826 firm year observations are lost. As a result of removing the data for missing observations with regards to control variables, 2,560 firm year observations (529 unique Australian listed firms) remain for the analyst forecast accuracy model.

Panels B and C summarises the sample selection procedures for the analyst forecast dispersion model (H3) and the analyst following model (H4) respectively. Similar to the analyst forecast accuracy model, initial sample consists of 3,729 firm year observations. After merging with corporate governance and financial data, final sample reduces to 2,560 and 1,623 firm year observations to test H3 and H4 respectively.[27] Please refer to Table 2.1 for further details.

2.4.1.2 Source Documentation

A number of secondary sources have been used for data collection purposes. Data regarding analyst forecast accuracy, dispersion in analyst forecast, and number of analyst following is retrieved from I/B/E/S, available on the Wharton Research Data Services (WRDS) platform. If a company has more than one CEO in a financial year, only the details from the current CEO at year end are used.

The number of press articles (a proxy for CEO reputation) is taken from the Dow Jones (Factiva) database.[28] Information regarding CEO and other corporate governance variables has been collected from both Connect4 and SIRCA databases. Where information is missing for CEO age, it is manually sourced from online

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[27] For calculating forecast dispersion to test H3, firms followed by less than 3 analysts have been excluded from the initial sample. This is consistent with prior literature to draw a meaningful outcome (Behn, Choi and Kang 2008; Gul, Hutchinson and Lai 2013). Dispersion refers to the consensus among analyst forecasts and explains uncertainty about the firm's information environment.

[28] Press articles mentioning the name of a CEO are manually collected from the Factiva database by entering the name of individual CEO along with the name of companies for which he/she served over the time period of study.

sources. Financial data and data related to firm characteristics is downloaded from DatAnalysis. The list of data collection sources is presented in Table 2.2.

Table 2.2: Variables and Sources of Data Collected

Data	Database
Analyst Forecasts, Analyst Following, Analyst Forecast Dispersion and Actual Earnings Per Share	I/B/E/S
CEO Name and Age	Connect4 and SIRCA
Number of Press Articles (Proxy for CEO Reputation)	Factiva (Dow-Jones)
Corporate Governance Data (Board Independence, Audit Committee Independence)	SIRCA
Financials and Firm Characteristics	DatAnalysis
Institutional Ownership for a Company	Capital IQ

2.4.2 Data Preparation

2.4.2.1 Data Screening and Accuracy

Prior research suggests several possible ways to deal with missing values. One approach is to fill in the missing values with mean value of available observations, carrying forward the last available value of a firm to next years, or excluding missing values from analysis (Briggs et al. 2002). Another possible way could be the use of regression analysis by regressing the variable whose values are missing on available predictor variables to estimate the missing values (Briggs et al. 2002). The approach used in all three papers of the thesis is to exclude an observation from sample, if the data is missing for at-least one of the required variables. However, the variables having available data are still used to form other observations. This methodology is helpful and appropriate when there is a small sample of missing observations and is also easy to deal with, as most of the available statistical software's automatically exclude observations with missing values (Briggs et al. 2002). Additionally, outliers / extreme values in the data can lead to heteroscedasticity (unequal variance of the error term across multiple observations) and may affect the results significantly (Gujarati 2011). To avoid such a problem, data has been winsorised at 1% and 99% level.

2.4.2.2 Normality Check

One of the assumptions of linear regression is that data must be normally distributed. Table 2.3 shows the skewness and kurtosis for the variables transformed to meet the normality assumption used in this study. The independent variable of this

study CEO reputation (*Press_5Y* and *Press_3Y*) is positively skewed (skewness of 1.8632 and 1.7174 respectively), which could potentially lead to biased results. Therefore, following (Baik, Farber and Lee 2011), CEO reputation is transformed by taking log for number of press articles. After transformation, *Press_5Y* and *Press_3Y* show skewness of -0.5804 and -0.6165 and kurtosis of 2.8774 and 2.8724 respectively. Please refer to table 2.3 for details.

Table 2.3: Skewness and Kurtosis of Variables

	Skewness		Kurtosis	
Variable Name	**Before Transformation**	**After Transformation**	**Before Transformation**	**After Transformation**
Press_5Y	1.8632	-0.5804	6.0991	2.8774
Press_3Y	1.7174	-0.6165	5.4937	2.8724
Follow	0.8875	0.0575	2.6076	1.5247
Horizon	-0.8787	-3.7548	8.4749	19.7641
Size	8.6605	0.4102	82.5294	2.6990
CEO_Age	0.1108	-0.3820	3.3990	3.9813

2.4.3 Variables Measurement

2.4.3.1 Properties of Analysts Forecast

The dependent variable for this study relates to the four main properties of analyst forecasts: 1) Analyst forecast accuracy (*Accuracy*), 2) Analyst forecast bias (*Bias*), 3) Number of analyst following (*Follow*) and 4) Analyst forecast dispersion (*Dispersion*). *Accuracy* has been measured following Lang and Lundholm (1996), as a negative of the absolute value of the difference between actual earnings per share (EPS) and mean value of the consensus analyst forecast for the fiscal year *t*, divided by stock price at the beginning of the fiscal year *t*. Thus in equational form, *Accuracy* can be notated as below:

$$Accuracy = (-1) \frac{(|Acutal\ EPS_{it} - Forecasted\ EPS_{it}|)}{Stock\ Price_{it} - 1}$$

The second dependent variable is the analyst forecast optimism / bias (*Bias*) measured following Duru and Reeb (2002) as the signed difference between the mean value of the consensus analyst forecast and actual EPS for the fiscal year *t*, divided by stock price at the beginning of the fiscal year *t*. In equational form *Bias* has been represented below:

$$Bias = \frac{(Forecasted\ EPS_{it} - Actual\ EPS_{it})}{Stock\ Price_{it} - 1}$$

The third dependent variable is the number of analyst following (*Follow*) the firm for a particular year. Following Lang and Lundholm (1996), *Follow* is measured as the total number of analysts following a firm across the 12 month reporting period. Finally the last dependent variable of interest is the *Dispersion* calculated as the standard deviation of individual analyst forecast divided by stock price at the beginning of fiscal year *t*, following prior literature (Lang and Lundholm 1996). Then, *Dispersion* is defined as:

$$Dispersion = \frac{Std(Forecasted\ EPS_{it})}{Stock\ Price_{it} - 1}$$

The reputation of the CEOs is not likely to affect the forecast of a particular month within the fiscal year because the information CEOs provide through press or highlighted in the press by journalists across the whole year. Therefore following Lang and Lundholm (1996), all four properties of analyst forecasts have been measured as a simple average of the measure across the 12 month reporting period. However, all three properties have also been measured across 9, 6 and 3 month horizons. In addition to considering the mean consensus analyst forecast, the median value of the consensus analysts forecast has also been utilised in the analysis.

2.4.3.2 CEO Reputation

The independent variable for this study is the CEO reputation (*Reputation*), which has been measured using publicly available news channels (number of press articles). The notion for the measure of CEO reputation is that a CEO who is perceived to be an expert is more likely to be interviewed and cited in press as compared to a CEO not being considered as an expert (Baik, Farber and Lee 2011). As highlighted in the literature review, CEOs develop their reputation over

time by providing high quality financial statements, precise and timely information, and promoting shareholder wealth (Kaplan, Samuels and Cohen 2015). Thus CEOs cited most in the press have valid / in fact reputation due to their positive role in a firm. Further stock market / stakeholders react to firm's economic decisions taking into account CEO prior market reputation (American Institute of Certified Public Accountants 1994; Jian and Lee 2011). This further implies that press citation measures validate the market perception of CEO reputation in a positive direction. As such press citations measure of CEO reputation can be considered as a true measure of actual as well as market perception of CEO reputation.

As CEO's develop their reputation over a number of years therefore, following prior literature, CEO reputation has been measured by taking sum of the number of articles mentioning the name of a CEO along their company name over a prior rolling five year period (*t-1* to *t-5*) (Baik, Farber and Lee 2011; Francis et al. 2008; Milbourn 2003). For example for the year 2004, the sum of the number of articles for the year 1999 – 2003 has been taken.[29] Consistent with prior literature, the name of a CEO is combined with the name of all the companies a CEO has been serving during the time period of this study (Milbourn 2003; Rajgopal, Shevlin and Zamora 2006; Francis et al. 2008; Baik, Farber and Lee 2011).[30]

Scholars may argue that the tone of the press articles about a CEO may be negative which could infer that a CEO has a poor image (negative reputation) in the market but erroneously being included in the sample of good reputation CEO's. To overcome this concern, a number of prior studies have performed validity checks and these support the press-based measure of CEO reputation (Baik, Farber and Lee 2011; Francis et al. 2008; Milbourn 2003; Rajgopal, Shevlin and Zamora 2006). For instance, Baik, Farber, and Lee (2011) randomly selected 100 CEOs in their sample and then 10 news articles for each CEO. They found that 94 percent of the selected articles have a positive or neutral tone about CEOs, therefore validating the press

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[29] Following Baik, Farber, and Lee (2011), an article is counted only once regardless of the number of times, the CEO name given in an article. Further an article has been counted as many times as published, because the republication of the same article suggests that the CEO is highly reputed. In addition to this, the CEO reputation is measured by taking sum of number of articles mentioning the name of CEO over the prior 3, 2 and 1 year periods.

[30] Searches are made for news articles from all Australian and international news wires, newspapers and all other publications available in Dow Jones (Factiva) database.

citations as a positive assumption of the CEO reputation. Similarly Francis et al. (2008) also measure the CEO reputation using the press and performed a similar validity test of the assumption by reading a random sample of 500 articles. According to Francis et al. (2008) conclude almost 95% of the articles have a neutral to favourable tone about firm and CEOs.[31]

2.4.3.3 Control Variables

To empirically test H1 to H4, a number of control variables have been included in the analysis.[32] From analyst attributes, number of analyst following a firm (*Follow*) is included. This is because, prior research shows a positive (negative) relationship between *Accuracy* (*Dispersion*, *Bias*) and *Follow* (Lang and Lundholm 1996; Gul, Hutchinson and Lai 2013; Duru and Reeb 2002). Therefore, the expectation is to get similar coefficients on variable *Follow*. Forecast horizon (*Horizon)* is also included as prior literature suggests that *Horizon* has a negative (positive) relationship with *Accuracy* (*Dispersion, Bias*) (Behn, Choi and Kang 2008; Duru and Reeb 2002)**.** *Dispersion* has also been included to control for forecast accuracy and bias, because accuracy and bias are likely to be lower for firms with high dispersion in their forecasts (Duru and Reeb 2002).

Several firm characteristics have been included as control variables consistent with prior literature. Firm size (*Size*) is included as prior literature suggests that *Size* has a positive (negative) relationship with forecast accuracy and analyst following (dispersion) (Lang and Lundholm 1996). Surprise **(***Surp*) is included as there is an evidence that forecast accuracy (dispersion, forecast bias) is lower (higher) for firms having greater earnings surprise (Lang and Lundholm 1996). Prior research suggests that forecast accuracy is relatively lower and bias is high for firms reporting loss (Hwang, Jan and Basu 1996), therefore *Loss* has also been included. Volatility (*Sd_Roe*) is also included because there is evidence that forecast accuracy (bias, dispersion and analyst following) has a negative (positive)

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[31] Similar to this, Milbourn (2003) also performed a validity test of the press based positive assumption by selecting 50 CEOs in each year of his sample period and analysed related articles. After performing test, Milbourn (2003) concluded that around 20 percent of the articles are highly positive (favourable) for CEOs and 90 percent of the selected articles are neutral (non-negative).

[32] For ease of explanation, the firm and time subscripts are removed while labelling the variables following prior literature (Behn, Choi and Kang 2008).

relationship with earnings volatility (Kross, Ro and Schroeder 1990; Lang and Lundholm 1996; O'Brien and Bhushan 1990). This is because it may be complex for analysts to provide accurate earnings forecasts for firms having high volatile stocks and earnings (Kross, Ro and Schroeder 1990; Lang and Lundholm 1996). There is evidence that earnings quality has a positive (negative) relationship with forecast accuracy and analyst following (dispersion) (Byard, Li and Weintrop 2006; Behn, Choi and Kang 2008; Gul, Hutchinson and Lai 2013), therefore, auditor (*Big4*) has been included.

In addition to the firm characteristics, the level of internal and external governance could also influence properties of analysts' forecasts. Institutional ownership (*Inst_Own*) is included as prior research posits a positive relationship between number of analyst following and institutional ownership (Bhushan 1989). Thus the expectation is to get similar coefficient on *Inst_Own*. Beekes and Brown (2006) suggest that the firms having high quality governance structure provide more informative disclosures, attracting more analysts towards a firm. Therefore, internal governance variables include board independence (*P_B_Ind*) and audit committee independence (*P_Ac_Ind*).

2.4.4 Regression Models

The four regression equations utilised to test H1 to H4 respectively are notated below.

$$Accuracy = \beta_0 + \beta_1 Reputation + \beta_2 Dispersion + \beta_3 Follow + \beta_4 Horizon + \beta_5 Surp + \beta_6 Size + \beta_7 Lev + \beta_8 Sd\_Roe + \beta_9 Loss + \beta_{10} Big4 + \beta_{11} CEO\_Age + \beta_{12} P\_B\_Ind + \beta_{13} P\_Ac\_Ind + \beta_{14} Inst\_Own + Year + \varepsilon \quad (1)$$

$$Bias = \beta_0 + \beta_1 Reputation + \beta_2 Dispersion + \beta_3 Follow + \beta_4 Horizon + \beta_5 Surp + \beta_6 Size + \beta_7 Lev + \beta_8 Sd\_Roe + \beta_9 Loss + \beta_{10} Big4 + \beta_{11} CEO\_Age + \beta_{12} P\_B\_Ind + \beta_{13} P\_Ac\_Ind + \beta_{14} Inst\_Own + Year + \varepsilon \quad (2)$$

$$Dispersion = \beta_0 + \beta_1 Reputation + \beta_2 Follow + \beta_3 Horizon + \beta_4 Surp + \beta_5 Size + \beta_6 Lev + \beta_7 Sd\_Roe + \beta_8 Loss + \beta_9 Big4 + \beta_{10} CEO\_Age + \beta_{11} P\_B\_Ind + \beta_{12} P\_Ac\_Ind + \beta_{13} Inst\_Own + Year + \varepsilon \quad (3)$$

$$Follow = \beta_{0+}\beta_1 Reputation + \beta_2 Horizon + \beta_3 Surp + \beta_4 Size + \beta_5 Lev + \beta_6 Sd\_Roe + \beta_7 Loss + \beta_8 Big4 + \beta_9 CEO\_Age + \beta_{10} P\_B\_Ind + \beta_{11} P\_Ac\_Ind + \beta_{12} Inst\_Own + Year + \varepsilon \quad (4)$$

Please refer to Appendix 1 for definition of the variables.

2.4.5 Data Analysis and Econometric Issues

One of the problems that arises in panel data regression is the unequal variance of the error term (known as heteroscedasticity problem) which violates the assumption of linear regression (Wooldridge 2002). In linear regression, it is assumed that there is an equal variance across error term of the multiple observations (homoscedasticity) (Gujarati 2011; Wooldridge 2002). Another common problem in panel data regression is autocorrelation where the error term of multiple observations of a firm is correlated across multiple years. Simply put the error term for a firm *i* in period *t* is correlated with error term for the firm *i* in period *t-1*, which violates the assumption of a linear regression (Gujarati 2011). The problem of autocorrelation in a panel / time-series data can be identified using Durbin-Watson test. To overcome heteroscedasticity and auto correlation, Huber - White's robust t-statistic have been widely reported in prior studies (Francis et al. 2008; Duru and Reeb 2002). As such, a similar approach is therefore adopted in this study as well.

Pooled ordinary least squares (OLS) regression can provide biased results by ignoring heterogeneity of characteristics that exists between firms. The coefficients in pooled regression are always constant and do not change among subjects of study (Gujarati 2011). To overcome such a problem, firm fixed effects are included in panel regressions of this study. These successfully allow for each firm in the sample to have its own intercept which does not change across time, and this also simultaneously controls for the effect of omitted variables on dependent variables in regression equation (Cornett, McNutt and Tehranian 2009), resulting in more accurate results.

Another major concern in linear regression is that the error term should not be correlated with any of the regressor in the equation. If this is the case, then the correlated regressor is no more a true predictor of the outcome variable (Wooldridge 2002). The results from such regressions are therefore biased because of the influence of omitted variables on the outcome variable. Such a problem in regression

is called “endogeneity” and the correlated regressor is consequently labelled as an endogenous regressor. Endogeneity problems can also arise due to a measurement error in the regressor, simultaneous equation bias and / or auto-correlation in the error term of the regression equation (Gujarati 2011; Wooldridge 2002). To deal with the potential endogeneity problem, firm fixed effects and instrumental variable approach (also known as two stage least square approach) is applied in this study.

If one of the key variables on left hand side of a regression equation is a choice variable and data is missing for several observations for that variable, then sample used for analysis remains no longer a true representative of population (Guo and Fraser 2014). Therefore, results from such a study could be biased. Such problem has been highlighted in prior literature as a self-selection bias. To deal with any potential self-selection bias, Heckman (1976) two step approach is utilised.

2.5 Data Analysis

2.5.1 Univariate Analysis

Table 2.4 reports the descriptive statistics for the variables used in regression analysis. The mean (median) analyst forecast accuracy (*Accuracy*) is -0.5030 (-0.0125) and consistent with prior Australian studies (Chang, Hooi and Wee 2014), which implies that the mean (median) difference between analyst forecasts and actual earnings is around 50.3 (1.2) percent of the lagged stock price. The mean (median) forecast bias (*Bias*) is 0.2768 (0.0027) suggesting that on average analyst forecasts remains optimistic. The mean (median) dispersion (*Dispersion*) is 0.0108 (0.0042), suggesting that average analyst forecast dispersion is 1.0 (0.4) percent of the lagged stock price. The mean (median) number of press articles over the prior 5 year (*Press_5Y*) and 3 year (*Press_3Y*) is 4.2435 (4.4543) and 4.0738 (4.2904) respectively. This suggests that over the prior 5 year and 3 year period average number of articles with the name of a CEO are 69.7 and 58.7 respectively. Mean values for abnormally high CEO reputation (*High_5Y* = 0.4411 and *High_3Y* = 0.4419) suggest that almost 44 percent of the firms lie in the top quintile for the decile rank of the number of press citations.

Analysing the control variables, the mean (median) number of analyst following (*Follow*) is 1.3090 (1.3350), implying that, on average, 3.7 number of analysts follow a firm in the sample. The mean (median) forecast horizon (*Horizon*) is 4.9494 (5.0093), indicating that average number of days between the date of forecast announcement and the end of fiscal year is 141 days. The mean (median) surprise (*Surp*) is 0.1389 (0.0496), implying that the average change in earnings of a firm for the current year is 13.8 (4.9) percent of the lagged stock price. The average leverage (*Lev*) is 2.0493, whereas firm size (*Size*), the natural logarithm of total assets is 20.0330 equal to $499 million. The average volatility – standard deviation of return on equity (*Sd_Roe*) is 0.0919. The mean value for *Big4* and *Loss* is 0.8028 and 0.2178 respectively, suggesting that 80% of the sample firms have big 4 auditor and 21 percent of the sample firms reported a loss. The average logarithm of *CEO_Age* is 4.072, which is equal to 59 years. The mean value for percentage of board independence (*P_B_Ind*) is 0.4999 suggesting that 50 percent of the board members are independent on average. Audit committee independence (*P_Ac_Ind*) has a mean value of 0.7188, implying that on average, audit committees have 72

percent independent members. Finally, the average percentage of shares held by institutions (*Inst_Own*) is 24.2 percent.

Table 2.4: Descriptive Statistics

Variables	N	Mean	Median	Std	Min	Max	P1	P99
Accuracy	2561	-0.5030	-0.0125	3.0451	-32.1230	-0.0003	-17.2880	-0.0004
Bias	2561	0.2768	0.0027	2.5034	-4.3915	26.3688	-3.2711	14.7835
Dispersion	2561	0.0108	0.0042	0.0279	0	0.2938	0	0.1348
Follow	2561	1.3090	1.3350	0.9767	0	3.0349	0	2.8543
Horizon	2561	4.9494	5.0093	0.3811	2.3025	5.7589	2.7080	5.5477
Surp	2561	0.1389	0.0496	0.2408	0.0002	1	0.0006	1
Press_5Y	2561	4.2435	4.4543	1.5769	0	6.7369	0	6.7369
Press_3Y	2526	4.0738	4.2904	1.5131	0	6.4167	0	6.4167
High_5Y	2525	0.4411						
High_3Y	2525	0.4419						
Lev	2560	2.0823	1.7399	1.5484	-1.4452	12.2533	0	12.2533
Size	2561	20.0330	19.8119	2.0045	14.6319	24.7727	16.3269	24.7727
Sd_Roe	2561	0.0919	0.0330	0.2492	0.0018	4.8821	0.0018	0.8582
Big4	2561	0.8028						
Loss	2561	0.2178						
CEO_Age	2561	4.0723	4.0604	0.1264	3.4011	4.3567	3.7376	4.3567
P_B_Ind	2561	0.4999	0.5000	0.2398	0	0.8750	0	0.8750
P_Ac_Ind	2561	0.7188	0.7500	0.3186	0	1	0	1
Inst_Own	2561	24.2570	20.0300	17.2979	0.0900	67.8400	0.3350	67.8400

Please refer to Appendix-1 for definition of variables

2.5.2 Bi-Variate Analysis

Table 2.5 shows results for the Pearson correlation matrix for the regression variables with significance level. Most of the variables are significantly correlated at the 1 percent level. The univariate correlation suggests that forecast accuracy (*Accuracy*) is significantly correlated with CEO reputation (*Press_3Y*, *High_5Y* and *High_3Y*) except the proxy of *Press_5Y*. Correlation between forecast bias and CEO reputation is significant on *High_5Y*. Dispersion appears to be insignificantly correlated with CEO reputation. Analyst following (*Follow*) is significant with all CEO reputation measures and control variables.

Further the CEO reputation appears to be positively correlated with *Size*, *Big4*, *CEO_Age*, and governance variables (*P_B_Ind*, *P_Ac_Ind*, *Inst_Own*), and negatively correlated with earnings volatility (*Sd_Roe*) and *Loss*. The magnitude of correlation indicates that there are no significant multicollinearity issues in the analysis.

Table 2.5: Pearson Correlation Matrix

Panel A: Variable *Accuracy* to *High_3Y*

	Accuracy	*Bias*	*Dispersion*	*Follow*	*Horizon*	*Surp*	*Press_5Y*	*Press_3Y*	*High_5Y*	*High_3Y*
Accuracy										
Bias	-0.8159***									
Dispersion	-0.1349***	0.006								
Follow	0.1799***	-0.1608***	0.0547***							
Horizon	-0.0717***	0.0663***	0.0059***	0.268***						
Surp	-0.556***	0.4329***	0.2417***	-0.2792***	-0.0726***					
Press_5Y	0.0302	-0.0134	-0.0111	0.4368***	0.1458***	-0.1125***				
Press_3Y	0.0341*	-0.0159	-0.0113	0.4299***	0.141***	-0.1039***	0.9795***			
High_5Y	0.0663***	-0.0358*	-0.0111	0.438***	0.1337***	-0.1382***	0.6855***	0.6677***		
High_3Y	0.046**	-0.0165	-0.0291	0.4318***	0.1357***	-0.118***	0.6765***	0.6853***	0.8813***	
Lev	-0.0204	0.0151	-0.0158	0.1461***	0.0758***	0.0545***	0.0401**	0.0399**	0.0523***	0.0386**
Size	0.1681***	-0.1543***	-0.0403**	0.7412***	0.2278***	-0.1876***	0.4076***	0.4025***	0.4257***	0.4229***
Sd_Roe	-0.0836***	0.0957***	0.051***	-0.2145***	-0.1631***	0.0966***	-0.0559***	-0.0473**	-0.0899***	-0.0667***
Big4	0.0932***	-0.0913***	0.0178	0.3493***	0.2057***	-0.08***	0.169***	0.1641***	0.1745***	0.1724***
Loss	-0.2098***	0.2500***	0.1139***	-0.3904***	-0.1589***	0.1923***	-0.1078***	-0.1063***	-0.1649***	-0.1527***
CEO_Age	0.0236	-0.0253	-0.0095	0.0707***	0.064***	-0.0478***	0.1022***	0.0723***	0.1133***	0.0993***
P_B_Ind	0.114***	-0.1165***	-0.0508***	0.3518***	0.1117***	-0.1375***	0.2702***	0.2596***	0.2539***	0.2403***
P_Ac_Ind	0.05***	-0.0540***	-0.0084	0.2327***	0.0575***	-0.021	0.1778***	0.1708***	0.1717***	0.1575***
Inst_Own	0.079***	-0.0689***	-0.0099	0.3398***	0.121***	-0.1541***	0.1821***	0.1774***	0.1484***	0.1552***

Panel B: Variable *Lev* to *Inst_Own*

	Lev	*Size*	*Sd_Roe*	*Big4*	*Loss*	*CEO_Age*	*P_B_Ind*	*P_Ac_Ind*	*Inst_Own*
Lev									
Size	0.2641***								
Sd_Roe	-0.0919***	-0.2902***							
Big4	0.0989***	0.4061***	-0.1284***						
Loss	-0.1409***	-0.4196***	0.3019***	-0.1991***					
CEO_Age	-0.0345*	0.1004***	-0.1024***	0.0077	-0.1089***				
P_B_Ind	0.0678***	0.3542***	-0.109***	0.1814***	-0.2122***	0.0405***			
P_Ac_Ind	0.0471**	0.2358***	-0.0873***	0.1283***	-0.1274***	0.0287	0.8222***		
Inst_Own	0.0387**	0.254***	-0.0774***	0.184***	-0.1716***	-0.0009	0.2188***	0.1327***	

** p<0.1; ** p<0.05; *** p<0.01, Please refer to Appendix-1 for definition of variables*

The correlations among control variables are generally low except the correlation between *Follow* and *Size*, and *P_B_Ind* and *P_Ac_Ind*. As expected *Accuracy* is positively correlated with *Follow* and *Size*, and negatively correlated with *Dispersion*, *Horizon* and *Surp*. The positive correlation between *Bias* and *Horizon*, and *Bias* and *Surp* also makes sense, that longer forecast horizon and greater earnings surprise leads to large forecast bias. Similarly, the positive high correlation between *Follow* and *Size* is also understandable because the larger firms are followed by more analysts.

2.5.3 Multivariate Analysis

2.5.3.1 CEO Reputation and Properties of Analyst Forecasts

Table 2.6 reports the results of the relationship between CEO reputation and all four analyst forecast properties over a 12-month horizon. Columns 1 to 8 report the results for pooled ordinary least squares (OLS) regressions with Huber – White robust t-statistic including industry and year dummies , whereas columns 9 to 16 provide the results clustered by firm (controlling firm fixed effects).[33]

Columns 1 and 2 report the outcome for the relationship between CEO reputation (measured using *Press_5Y* and *Press_3Y*), and analyst forecast accuracy (*Accuracy*). The variables *Press_5Y* and *Press_3Y* are significant with a negative coefficient (t-statistic = 3.0260 and 2.2256). As predicted, results support H1 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation negatively related to analyst forecast accuracy. Results on control variables provide mixed results comparing with prior literature. Column 1 illustrates that coefficients on *Horizon, Surp,* and *Loss* are negative and significant (Lang and Lundholm 1996; Behn, Choi and Kang 2008; Gul, Hutchinson and Lai 2013). This suggests that longer forecast horizon, change in earnings and loss reporting firms lead to lower analyst forecast accuracy.

As predicted, coefficient on *Size* shows a positive and significant coefficient, and supports the prior literature that larger firms tend to have greater

[33] Using White's robust regression successfully overcome the problem of heteroscedasticity and auto-correlation, whereas firm clustering allows each firm to have their own intercept for multiple years considering the heterogeneity of characteristics between firms (Gujarati 2011).

forecast accuracy (Lang and Lundholm 1996; Behn, Choi and Kang 2008; Gul, Hutchinson and Lai 2013). The adjusted R-square of 33% reports the explanatory power of the model. Column 2 also yields quantitatively similar results.

Table 2.6 columns 3 and 4 report the results for the relationship between CEO reputation and analyst forecast bias (*Bias*). Columns 3 and 4 indicate that CEO reputation variables *Press_5Y* and *Press_3Y* are significant with a positive coefficient having t-statistic of 3.1231 and 2.7513 respectively. It supports H2 of this study, and shows that analyst provide optimistic forecasts for firms with reputed CEOs. Column 3 shows that the control variables *Surp*, *Loss* and *Horizon* (*Follow*) have positive (negative) and significant coefficient. This is consistent with prior literature (Duru and Reeb 2002), and suggests that firms having greater earnings surprise, reporting loss and longer forecast horizon tend to have higher forecast bias, whereas large number of analyst following leads to decrease the bias in analyst forecasts. Other control variables *Lev*, *Sd_Roe, CEO_Age,* and *Inst_Own* remain positive and insignificant, whereas *Big4, P_B_Ind* and *P_Ac_Ind* negatively insignificant. The adjusted R-square of 0.20 reports the explanatory power of the model. Results for column 4 also reports quantitatively similar results.

Table 2.6 columns 5 and 6 report the results for the relationship between CEO reputation and forecast dispersion. Columns 5 and 6 indicate that CEO reputation variables *Press_5Y* and *Press_3Y* are significant with a positive coefficient having t-statistic of 1.6792 and 1.9832 respectively. It supports H3 of this study, and suggests that the disagreement among analyst forecasts increase with CEO reputation. Column 5 shows that the control variables *Surp* and *Loss* have positive and significant coefficient. This is consistent with prior literature (Gul, Hutchinson and Lai 2013; Behn, Choi and Kang 2008), and implies that firms having greater earnings surprise and reporting loss tend to have high dispersion. Consistent with Lang and Lundholm (1996), *Size* is negatively related to *Dispersion.* Corporate governance variable *P_B_Ind* is positively significant having t-statistic 3.0431, whereas *P_Ac_Ind* is negatively significant with t-statistic 2.6808. The adjusted R-square of 0.31 reports the explanatory power of the model. Results for column 6 remain quantitatively similar to as reported for column5.

Table 2.6 columns 7 and 8 report results for the relationship between CEO reputation and number of analyst following (*Follow*) a firm. As expected CEO reputation variables *Press_5Y* and *Press_3Y* are positive and significant with a t-statistic of 7.3319 and 8.1154 respectively. It supports H4 of this study, and suggests that greater number of analysts follow a firm with reputed CEO. Column 7 shows that control variables *Horizon*, *Sd_Roe*, *Size*, *Big4* and *Inst_Own* report a positive and significant coefficient. It supports the prior literature that analyst following is higher for large firms and firm having higher institutional ownership (Lang and Lundholm 1996; Bhushan 1989). Further *Surp* and *Loss* possess negative and significant coefficient. The adjusted R-square of 0.65 reports the explanatory power of the model. Results are quantitatively similar in Column 8 as well.

Table 2.6 columns 9 to 16 reports the results for the relationship between CEO reputation and all four properties of analyst forecasts controlling for firm fixed effects. Columns 9 and 10 show that CEO reputation variables *Press_5Y* and *Press_3Y* yield similar results as compared to columns 1 and 2 with a t-statistic of 2.8362 and 2.1352 respectively. Columns 11 and 12 suggest a significant and positive association between *Press_5Y* and *Press_3Y* and *Bias*, with a t-statistic of 3.0038 and 2.6747 respectively (similar to columns 3 and 4). Further in columns 13 and 14 variables *Press_5Y* and *Press_3Y* also report positive coefficient with a t-statistic of 1.3432 and 1.6549 respectively. Columns 15 and 16 show that, *Press_5Y* and *Press_3Y* are positively associated with analyst following with a t-statistic of 4.3471 and 5.0048 respectively. Results for control variables and model summary also remain quantitatively similar in the fixed effects model compared to robust regression model.

2.5.3.2 Abnormally High CEO Reputation and Properties of Analysts Forecasts

If CEO reputation has a significant effect on properties of analyst forecasts, then this relationship should be stronger in firm years where a CEO reputation is higher than normal. For this purpose, a dummy variable has been created which is equal to 1 if the decile rank for number of press citations by industry and year lies in the top quintile. Table 2.7 reports results for relationship between high CEO reputation (*High_5Y* and *High_Rep_3*) and properties of analyst forecasts.

Table 2.6: CEO Reputation (Log of Number of Press Citations) and Analyst Mean Forecast Properties across a 12 Month Period

	Robust Regression								Firm Fixed Effects							
	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following		Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	Press_5Y Column 1	Press_3Y Column 2	Press_5Y Column 3	Press_3Y Column 4	Press_5Y Column 5	Press_3Y Column 6	Press_5Y Column 7	Press_3Y Column 8	Press_5Y Column 9	Press_3Y Column 10	Press_5Y Column 11	Press_3Y Column 12	Press_5Y Column 13	Press_3Y Column 14	Press_5Y Column 15	Press_3Y Column 16
Reputation	-0.1200	-0.0966	0.1131	0.1076	0.0008	0.0010	0.0657	0.0751	-0.1200	-0.0966	0.1131	0.1076	0.0008	0.0010	0.0657	0.0751
	(3.0260)***	(2.2256)**	(3.1231)***	(2.7513)***	(1.6792)*	(1.9832)**	(7.3319)***	(8.1154)***	(2.8362)***	(2.1352)**	(3.0038)***	(2.6747)***	(1.3432)	(1.6549)*	(4.3471)***	(5.0048)***
Dispersion	9.6279	9.6916	-8.9752	-9.0077					9.6279	9.6916	-8.9752	-9.0077				
	(2.8732)***	(2.8523)***	(2.9503)***	(2.9338)***					(2.7024)***	(2.6831)***	(3.0018)***	(2.9834)***				
Horizon	-1.1013	-1.0990	0.7544	0.7519	-0.0001	-0.0001	0.1454	0.1446	-1.1013	-1.0990	0.7544	0.7519	-0.0001	-0.0001	0.1454	0.1446
	(5.9400)***	(5.9026)***	(4.7162)***	(4.6828)***	(0.0250)	(0.0124)	(4.6213)***	(4.5965)***	(5.7955)***	(5.7588)***	(4.6846)***	(4.6489)***	(0.0242)	(0.0120)	(4.7677)***	(4.7548)***
Follow	0.0317	0.0286	0.1322	0.1322	0.0016	0.0014			0.0317	0.0286	0.1322	0.1322	0.0016	0.0014		
	(0.3683)	(0.3331)	(1.7220)*	(1.7291)*	(0.9708)	(0.8471)			(0.3475)	(0.3158)	(1.6539)*	(1.6648)*	(0.8101)	(0.7000)		
Surp	-6.9111	-6.9455	4.0575	4.0588	0.0684	0.0677	-0.5226	-0.5203	-6.9111	-6.9455	4.0575	4.0588	0.0684	0.0677	-0.5226	-0.5203
	(9.7732)***	(9.7237)***	(6.3227)***	(6.2662)***	(5.3580)***	(5.2908)***	(9.9887)***	(9.9571)***	(9.8867)***	(9.8447)***	(6.0880)***	(6.0331)***	(4.4626)***	(4.4051)***	(8.2916)***	(8.3233)***
Lev	-0.0523	-0.0501	0.0539	0.0535	-0.0003	-0.0003	-0.0015	-0.0020	-0.0523	-0.0501	0.0539	0.0535	-0.0003	-0.0003	-0.0015	-0.0020
	(0.7302)	(0.6932)	(0.8769)	(0.8636)	(0.7946)	(0.7334)	(0.2471)	(0.3258)	(0.6637)	(0.6316)	(0.8214)	(0.8097)	(0.6735)	(0.6198)	(0.1543)	(0.2066)
Sd_Roe	0.1424	0.1439	0.0972	0.0891	0.0025	0.0022	0.1151	0.1064	0.1424	0.1439	0.0972	0.0891	0.0025	0.0022	0.1151	0.1064
	(0.6374)	(0.6400)	(0.4676)	(0.4268)	(0.4967)	(0.4482)	(3.2368)***	(3.0599)***	(0.5580)	(0.5594)	(0.4137)	(0.3779)	(0.3676)	(0.3322)	(2.3229)**	(2.2230)**
Size	0.1040	0.0990	-0.1160	-0.1149	-0.0029	-0.0029	0.3141	0.3109	0.1040	0.0990	-0.1160	-0.1149	-0.0029	-0.0029	0.3141	0.3109
	(2.3744)**	(2.2026)**	(2.7565)***	(2.6593)***	(4.1076)***	(4.0397)***	(42.7181)***	(41.8408)***	(2.1482)**	(2.0020)**	(2.6158)***	(2.5314)**	(3.6598)***	(3.5996)***	(22.5849)***	(22.4889)***
Big4	0.2445	0.2400	-0.1059	-0.1051	0.0005	0.0006	0.1390	0.1359	0.2445	0.2400	-0.1059	-0.1051	0.0005	0.0006	0.1390	0.1359
	(1.3816)	(1.3392)	(0.6804)	(0.6669)	(0.1798)	(0.2389)	(4.4278)***	(4.3025)***	(1.3587)	(1.3212)	(0.6824)	(0.6693)	(0.1671)	(0.2225)	(2.4203)**	(2.3903)**
Loss	-0.5675	-0.5822	1.1113	1.1276	0.0102	0.0104	-0.1492	-0.1476	-0.5675	-0.5822	1.1113	1.1276	0.0102	0.0104	-0.1492	-0.1476
	(3.0249)***	(3.0658)***	(6.8777)***	(6.8699)***	(3.0653)***	(3.1206)***	(4.6936)***	(4.6309)***	(3.0832)***	(3.1242)***	(6.7651)***	(6.7524)***	(2.2085)**	(2.2450)**	(3.1463)***	(3.1129)***
CEO_Age	0.1031	0.0208	0.0055	0.0066	0.0058	0.0059	-0.1154	-0.0827	0.1031	0.0208	0.0055	0.0066	0.0058	0.0059	-0.1154	-0.0827
	(0.2526)	(0.0508)	(0.8281)	(0.9890)	(1.5370)	(1.5158)	(1.0738)	(0.7714)	(0.2352)	(0.0472)	(0.8110)	(0.9712)	(1.2172)	(1.1818)	(0.5533)	(0.4035)
P_B_Ind	0.1520	0.1045	-0.1690	-0.1523	-0.0201	-0.0203	0.0954	0.0984	0.1520	0.1045	-0.1690	-0.1523	-0.0201	-0.0203	0.0954	0.0984
	(0.3772)	(0.2568)	(0.4807)	(0.4298)	(3.0431)***	(3.0557)***	(1.0534)	(1.0829)	(0.3662)	(0.2509)	(0.4618)	(0.4133)	(2.4277)**	(2.4501)**	(0.6161)	(0.6429)
P_Ac_Ind	0.1464	0.1587	-0.0996	-0.1031	0.0132	0.0133	0.0681	0.0646	0.1464	0.1587	-0.0996	-0.1031	0.0132	0.0133	0.0681	0.0646
	(0.4660)	(0.4995)	(0.3550)	(0.3636)	(2.6808)***	(2.6952)***	(1.0618)	(0.9998)	(0.4569)	(0.4917)	(0.3421)	(0.3505)	(2.3304)**	(2.3490)**	(0.6478)	(0.6134)
Inst_Own	-0.0029	-0.0029	0.0017	0.0018	0.0000	0.0000	0.0061	0.0062	-0.0029	-0.0029	0.0017	0.0018	0.0000	0.0000	0.0061	0.0062
	(0.9553)	(0.9630)	(0.6307)	(0.6580)	(0.3481)	(0.4744)	(7.9378)***	(8.0897)***	(0.9123)	(0.9216)	(0.6041)	(0.6313)	(0.3038)	(0.4140)	(3.9690)***	(4.0436)***
Constant	3.5877	3.9530	-2.5222	-2.5751	0.0256	0.0244	-5.5994	-5.6831	3.5877	3.9530	-2.5222	-2.5751	0.0256	0.0244	-5.5994	-5.6831
	(1.8537)*	(2.0102)**	(2.3650)**	(2.3632)**	(0.7138)	(0.6715)	(11.9887)***	(12.2383)***	(1.6746)*	(1.8191)*	(2.2487)**	(2.2510)**	(0.6179)	(0.5740)	(6.4743)***	(6.7311)***
Adj R-Sq	0.33	0.33	0.20	0.20	0.31	0.30	0.65	0.65	0.33	0.33	0.20	0.20	0.31	0.30	0.65	0.65
F statistic	3.74	3.69	2.32	2.29	5.58	5.30	286.12	286.76	3.81	3.77	2.34	2.31	4.90	4.68	100.77	102.04
N	2,560	2,525	2,560	2,525	1,623	1,603	2,567	2,532	2,560	2,525	2,560	2,525	1,623	1,603	2,567	2,532
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variables

Table 2.7 columns 1 and 2 show that the CEO reputation has a negative coefficient on *High_5Y* and *High_3Y* with a t-statistic of 3.0109 and 3.2649 respectively. Using abnormally high CEO reputation coefficient increased to 0.3460 and 0.3998 for *High_5Y* and *High_3Y* respectively, which is almost 3 times greater than coefficient on *Press_5Y* and *Press_3Y*. This suggests that effect of abnormally high CEO reputation on forecast accuracy is more pronounced than normal CEO reputation.

Table 2.7 columns 3 and 4 highlight the results for the relationship between abnormally high CEO reputation and analyst forecast bias. As expected the coefficient on *High_5Y* and *High_3Y* is positive and significant with a t-statistic of 3.2120 and 3.4779 respectively. It suggests that the forecast bias increase with an increase in CEO reputation.

Table 2.7 columns 5 and 6 illustrate the results for the relationship between abnormally high CEO reputation and analyst forecast dispersion. As expected, the coefficient on *High_5Y* is positive and significant with a t-statistic of 2.0374. It suggests that disagreement among analyst forecasts increase when CEO's have higher reputation. One of the reason could be that greater amount of information on press may be interpreted by analysts in different ways to speculate future earnings of firms. Another reason could be that the analysts expect higher earnings for such firms due higher reputation of CEOs. However, coefficient on *High_3Y* turns to insignificant. This is in accordance with the argument that CEOs develop their reputation over a period of time, therefore *High_5Y* could be a better measure of CEO abnormally high reputation as compared to *High_Rep_3*.

Table 2.7 columns 7 and 8 exhibit the relationship between CEO abnormally high reputation and number of analyst following. Results provide a positive and significant coefficient on *High_5Y* and *High_3Y* with t-statistic of 8.0602 and 7.9574 respectively. Coefficients on *High_5Y* and *High_3Y* also improved to 0.2221 and 0.2167 respectively as compared to Table 2.6 columns 7 and 8 (*Press_5Y* = 0.0657 and *Press_3Y* = 0.0751). It implies that analyst attraction toward firms with highly reputed CEOs is more pronounced. Columns 9 to 16 report the results after controlling for firm and year fixed effects. Results remain quantitatively similar except for dispersion model, which becomes insignificant.

Table 2.7: High CEO Reputation and Analyst Mean Forecast Properties across a 12 Month Period

	Robust Regression								Firm Fixed Effects							
	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following		Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y	High_5Y	High_3Y
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15	Column 16
Reputation	-0.3460	-0.3998	0.3585	0.4167	0.0031	0.0016	0.2221	0.2167	-0.3460	-0.3998	0.3585	0.4167	0.0031	0.0016	0.2221	0.2167
	(3.0109)***	(3.2649)***	(3.2120)***	(3.4779)***	(2.0374)**	(1.1336)	(8.0602)***	(7.9574)***	(2.8590)***	(3.1701)***	(3.1386)***	(3.4548)***	(1.5983)	(0.8689)	(4.6002)***	(4.6364)***
Dispersion	11.1418	10.9410	-9.5373	-9.3285					11.1418	10.9410	-9.5373	-9.3285				
	(3.3477)***	(3.2636)***	(3.1712)***	(3.1166)***					(3.1198)***	(3.0271)***	(3.1740)***	(3.1112)***				
Horizon	-1.0486	-1.0424	0.6535	0.6469	-0.0011	-0.0010	0.1474	0.1450	-1.0486	-1.0424	0.6535	0.6469	-0.0011	-0.0010	0.1474	0.1450
	(5.1858)***	(5.1715)***	(3.7580)***	(3.7297)***	(0.2268)	(0.2084)	(4.9636)***	(4.8033)***	(4.9841)***	(4.9687)***	(3.6662)***	(3.6363)***	(0.2189)	(0.2014)	(4.9075)***	(4.7910)***
Follow	-0.0018	0.0057	0.1432	0.1352	0.0012	0.0016			-0.0018	0.0057	0.1432	0.1352	0.0012	0.0016		
	(0.0206)	(0.0649)	(1.8635)*	(1.7713)*	(0.8006)	(1.0188)			(0.0188)	(0.0594)	(1.7294)*	(1.6393)	(0.6636)	(0.8433)		
Surp	-7.5634	-7.5431	4.4244	4.4034	0.0668	0.0666	-0.5056	-0.5144	-7.5634	-7.5431	4.4244	4.4034	0.0668	0.0666	-0.5056	-0.5144
	(10.4731)***	(10.4685)***	(6.7874)***	(6.7780)***	(5.6279)***	(5.5993)***	(10.5513)***	(10.7212)***	(10.3068)***	(10.3018)***	(6.4257)***	(6.4137)***	(4.6287)***	(4.6118)***	(8.7056)***	(8.8652)***
Lev	-0.0638	-0.0669	0.0628	0.0662	-0.0003	-0.0003	-0.0024	-0.0009	-0.0638	-0.0669	0.0628	0.0662	-0.0003	-0.0003	-0.0024	-0.0009
	(0.9056)	(0.9506)	(1.0306)	(1.0855)	(0.7104)	(0.6981)	(0.3805)	(0.1485)	(0.7333)	(0.7714)	(0.8551)	(0.9027)	(0.5960)	(0.5961)	(0.2342)	(0.0925)
Sd_Roe	-0.0170	0.0173	0.2222	0.1863	0.0022	0.0020	0.1099	0.0936	-0.0170	0.0173	0.2222	0.1863	0.0022	0.0020	0.1099	0.0936
	(0.0628)	(0.0634)	(0.8854)	(0.7332)	(0.4435)	(0.4055)	(3.1986)***	(2.7373)***	(0.0542)	(0.0550)	(0.7394)	(0.6105)	(0.3285)	(0.2989)	(2.4400)**	(2.0534)**
Size	0.1130	0.1178	-0.1064	-0.1117	-0.0028	-0.0027	0.3100	0.3096	0.1130	0.1178	-0.1064	-0.1117	-0.0028	-0.0027	0.3100	0.3096
	(2.5011)**	(2.6149)***	(2.5163)**	(2.6295)***	(4.2601)***	(4.1663)***	(43.4528)***	(42.9764)***	(2.1660)**	(2.2627)**	(2.2794)**	(2.3837)**	(3.8089)***	(3.7187)***	(22.6742)***	(22.6010)***
Big4	0.0139	0.0103	0.0225	0.0264	0.0012	0.0012	0.1470	0.1489	0.0139	0.0103	0.0225	0.0264	0.0012	0.0012	0.1470	0.1489
	(0.0754)	(0.0562)	(0.1387)	(0.1632)	(0.4875)	(0.4643)	(4.8485)***	(4.8823)***	(0.0754)	(0.0562)	(0.1419)	(0.1670)	(0.4518)	(0.4303)	(2.6480)***	(2.6675)***
Loss	-0.7495	-0.7425	1.2874	1.2801	0.0116	0.0116	-0.1501	-0.1533	-0.7495	-0.7425	1.2874	1.2801	0.0116	0.0116	-0.1501	-0.1533
	(3.6259)***	(3.5964)***	(7.1326)***	(7.1101)***	(3.4002)***	(3.3829)***	(4.8477)***	(4.9516)***	(3.4775)***	(3.4520)***	(6.7367)***	(6.7202)***	(2.3723)**	(2.3628)**	(3.2217)***	(3.2862)***
CEO_Age	0.0667	0.0712	0.0041	0.0041	0.0060	0.0067	-0.1366	-0.1284	0.0667	0.0712	0.0041	0.0041	0.0060	0.0067	-0.1366	-0.1284
	(0.1622)	(0.1719)	(0.6241)	(0.6223)	(1.6167)	(1.8150)*	(1.3099)	(1.2354)	(0.1495)	(0.1586)	(0.5983)	(0.5967)	(1.2730)	(1.4175)	(0.6678)	(0.6297)
P_B_Ind	-0.2218	-0.2221	0.2499	0.2497	-0.0202	-0.0199	0.1248	0.1305	-0.2218	-0.2221	0.2499	0.2497	-0.0202	-0.0199	0.1248	0.1305
	(0.4997)	(0.5031)	(0.6414)	(0.6405)	(3.1861)***	(3.1382)***	(1.4102)	(1.4788)	(0.4857)	(0.4897)	(0.6200)	(0.6186)	(2.5298)**	(2.4950)**	(0.8369)	(0.8781)
P_Ac_Ind	0.6299	0.6248	-0.5073	-0.5019	0.0135	0.0136	0.0294	0.0319	0.6299	0.6248	-0.5073	-0.5019	0.0135	0.0136	0.0294	0.0319
	(1.6754)*	(1.6613)*	(1.5300)	(1.5132)	(2.8602)***	(2.8561)***	(0.4703)	(0.5119)	(1.6084)	(1.5972)	(1.4497)	(1.4357)	(2.4715)**	(2.4671)**	(0.2916)	(0.3196)
Inst_Own	-0.0008	-0.0007	0.0002	0.0000	-0.0000	-0.0000	0.0064	0.0063	-0.0008	-0.0007	0.0002	0.0000	-0.0000	-0.0000	0.0064	0.0063
	(0.2738)	(0.2140)	(0.0684)	(0.0014)	(0.0756)	(0.0876)	(8.3457)***	(8.2380)***	(0.2593)	(0.2027)	(0.0650)	(0.0013)	(0.0648)	(0.0755)	(4.1219)***	(4.0789)***
Constant	3.0983	2.9758	-1.9635	-1.8503	0.0301	0.0252	-5.3307	-5.3508	3.0983	2.9758	-1.9635	-1.8503	0.0301	0.0252	-5.3307	-5.3508
	(1.5449)	(1.4827)	(1.6954)*	(1.6128)	(0.8797)	(0.7412)	(11.7408)***	(11.7848)***	(1.3840)	(1.3252)	(1.6040)	(1.5226)	(0.7598)	(0.6380)	(6.2486)***	(6.2722)***
Adj R-Sq	0.34	0.34	0.21	0.21	0.31	0.31	0.65	0.65	0.34	0.34	0.21	0.21	0.31	0.31	0.65	0.65
F statistic	4.36	4.30	2.67	2.66	5.97	6.01	321.95	320.46	4.34	4.31	2.62	2.61	5.23	5.27	112.08	112.76
N	2,682	2,682	2,682	2,682	1,693	1,693	2,689	2,689	2,682	2,682	2,682	2,682	1,693	1,693	2,689	2,689
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variab

2.5.3.3 The Role of CEO Power

CEOs having high power may act as a steward and perform in the best interest of shareholders or alternatively could get conflict of interest under agency theory. As a leading authority in management, the CEO is able to significantly influence the decisions regarding firm's financial reporting. For instance the managers being align with the shareholders interest, could provide voluntary disclosures (Baik, Farber and Lee 2011), and precise earnings (Han et al. 2014). However managers facing conflict of interest could perform earnings management and provide poor quality information in capital markets (Mande and Son 2012; Lafond and Roychowdhury 2007). Relying on the above arguments, it is hypothesised that if the CEO reputation results into lower analyst forecast accuracy and lower informative earnings, then this result may be significant when a reputed CEO have high power. To test the earnings informativeness and analyst behaviour for firms with CEOs having high reputation and power, further analysis has been performed.[34]

To measure the CEO power, first proxy has been considered following Daily and Johnson (1997), as a percentage of interdependent directors on board. Interdependent directors are those appointed by a CEO. Such directors may have loyalty for the CEO because of being recruited on board (Daily and Johnson 1997). Therefore CEO power could be identified through such loyalties and personal connections between the board members and the CEO (Daily and Johnson 1997). A CEO is considered more powerful, if greater numbers of interdependent directors exist on board. For this purpose, a dummy variable (*InterDir*) is created which is equals to 1, if more than 70 percent of the directors on board are appointed by the CEO.

Second proxy of power suggested by Finkelstein (1992), has been measured by considering the number of corporate board memberships held by a CEO. Finkelstein (1992) argues that managers improve their personal as well as firm value and also maintain contacts in the institutional environment by serving on

[34] In this context prior research suggests that the earnings quality proxy by accruals quality does not worsen when a reputed CEO also has high power in a firm (Francis et al. 2008). In this study a different approach than Francis et al. (2008) has been used to measure CEO power and its impact on earnings quality.

multiple boards. Thus greater number of directorships held by a CEO represents high power. For this purpose, a dummy variable (*MulDir*) is created, which is equals to 1 if a CEO have 2 or more directorships at one time. Third proxy used to examine CEO power is the compensation ratio of a CEO with top five executives. The value of 1 is given to a dummy variable (*CPR*), if the CEO compensation is higher than the top 5 executives of the firm, otherwise 0. The *CPR* measure of CEO power is in line with prior literature (Finkelstein 1992; Mande and Son 2012; Bebchuk, Cremers and Peyer 2011) and is considered an important indicator of CEO power. The advantage of using *CPS* is that it explains the importance of CEO as compared to other managers in a firm (Bebchuk, Cremers and Peyer 2011).

The descriptive statistics (untabulated) for CEO power proxies suggests that the mean value for percentage of directors appointed by a CEO is 0.4488. This implies that, on average, 44.88% percent of directors are appointed by a CEO. Further, the firms where more than 70 percent of the directors are appointed by a CEO (InterDir, the proxy of CEO power for this study) represent 20 percent of the sample. The mean value for MulDir is 0.3310, suggests that, on average, 33.10 percent of the directors have more than one board memberships. Finally, the mean value for CPR variable suggests that, on average, 93 percent of the CEOs have a compensation more than what is paid to the top five executives of a firm.

Table 2.8 reports the results for the relationship between CEO reputation with power and analyst forecast properties. Table 2.8 columns 1 to 3 highlight that there is a negative coefficient on all three measures of CEO power when combined with reputation (t-statistic for *InterDir*Reputation* = 0.9155, *MulDir*Reputation* = 1.7975, *CPR*Reputation* = 1.9736). This suggests that forecast accuracy remains lower when a reputed CEO has power, however the relationship is not strengthening. Columns 4 to 6 show that the coefficients for analyst forecast bias also remain positive on all three measures of CEO power when combined with reputation (t-statistic for *InterDir*Reputation* = 0.8870, *MulDir*Reputation* = 1.9024, *CPR*Reputation* = 2.386). The forecast bias (optimism) remains high and significant when a reputed CEO has multiple directorships or high compensation. However, the coefficient remains insignificant for forecast accuracy and bias, when a reputed CEO has greater number of interdependent directors. Columns 7 to 9 show that the coefficient on *InterDir*Reputation*, and *MulDir*Reputation* is negative and positive

on *CPR*Reputation* with a t-statistic of 1.7222, 0.3039 and 1.2673 respectively. This implies that the dispersion in analyst forecast does not increase / decrease significantly when a reputed CEO has power from different sources. Finally, columns 10 to 12 provide results for the impact of reputed CEOs with power on number of analyst following. Similar to primary results in Table 2.6, coefficients remain positive and significant on *InterDir*Reputation* and *CPR*Reputation,* but insignificant on *MulDir*Reputation* (*t*-statistic for *InterDir*Reputation* = 4.1644, *MulDir*Reputation* = 0.3029*, CPR*Reputation* = 6.129). The results suggest that analyst attraction is higher for firms with CEO having high reputation and power (acquired through high compensation and interdependent directors).[35]

2.5.4 Additional Analysis

2.5.4.1 Endogeneity Test – 2SLS

One of the concerns in this study could be that properties of analyst forecasts are influenced by a potential omitted variable in the models. In other words, CEO reputation may not be true predictor and the variation in properties of analyst forecasts could be caused by another omitted variable through CEO reputation, for example CEO ability. If this is the case, then any variation in analyst forecast properties indirectly depends upon the omitted variable (CEO ability) through endogenous CEO reputation. This creates a question mark on the validity of primary results of this study. Initially, to avoid the potential endogeneity of CEO reputation and properties of analyst forecasts, the firm fixed effects method has been applied. Firm fixed effects successfully control for firm unobserved sources of heterogeneity (Ferreira, Ferreira and Raposo 2011). Another way to address the potential endogeneity problem is the use of 2SLS. The use of 2SLS is an efficient way to deal with the problem of omitted variable and reverse causality (Wooldridge 2002; Gujarati 2011). Applying 2SLS could help us to isolate the effect of CEO reputation on properties of analyst forecasts. For this purpose, the statistical equations

[35] Additional analysis is also performed for the association between individual measures of CEO power (*InterDir*, *MulDir* and *CPR*) and properties of analyst forecast. Unreported results show that there is no significant evidence of the association.

Table 2.8: CEO Reputation with CEO Power and Analyst Mean Forecast Properties across a 12 Month Period

	Forecast Accuracy			Forecast Bias			Dispersion			Analyst Following		
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
*InterDir*Reputation*	-0.0265			0.0244			-0.0004			0.0240		
	(0.9155)			(0.8870)			(1.7222)*			(4.1644)***		
*MulDir*Reputation*		-0.0415			0.0392			-0.0001			0.0017	
		(1.7975)*			(1.9024)*			(0.3039)			(0.3029)	
*CPR*Reputation*			-0.0628			0.0715			0.0004			0.0450
			(1.9736)**			(2.3865)**			(1.2673)			(6.1291)***
Dispersion	9.6030	13.6387	8.2662	-8.9537	-9.7699	-6.5693						
	(2.8604)***	(3.3502)***	(2.2058)**	(2.9464)***	(2.4666)**	(1.7192)*						
Horizon	-1.1144	-1.0880	-1.1108	0.7666	0.7067	0.7344	0.0001	0.0034	0.0016	0.1552	0.2142	0.1592
	(5.9542)***	(4.9183)***	(5.6526)***	(4.7475)***	(3.8650)***	(4.3494)***	(0.0264)	(1.2328)	(0.7329)	(4.8482)***	(5.1074)***	(4.7783)***
Follow	-0.0001	-0.0127	0.0432	0.1620	0.1681	0.1380	0.0021	0.0010	-0.0017			
	(0.0011)	(0.1365)	(0.4188)	(2.0533)**	(1.9809)**	(1.5339)	(1.2520)	(0.6086)	(1.1705)			
Surp	-6.9000	-7.1011	-7.1024	4.0473	3.9713	4.1191	0.0682	0.0619	0.0439	-0.5391	-0.6107	-0.5688
	(9.7385)***	(8.9849)***	(9.3204)***	(6.2940)***	(5.6917)***	(5.9901)***	(5.3468)***	(5.0103)***	(4.3483)***	(10.2888)***	(10.6400)***	(10.5860)***
Lev	-0.0497	-0.0729	-0.0517	0.0513	0.0756	0.0509	-0.0003	-0.0004	0.0002	-0.0032	-0.0031	0.0027
	(0.6918)	(0.9625)	(0.6978)	(0.8320)	(1.1581)	(0.8002)	(0.7783)	(1.0773)	(0.5236)	(0.5135)	(0.4816)	(0.4744)
Sd_Roe	0.1132	0.0478	0.0892	0.1246	0.2117	0.1304	0.0027	0.0044	0.0039	0.1353	0.1349	0.1011
	(0.5115)	(0.2070)	(0.3837)	(0.5999)	(0.9743)	(0.6208)	(0.5306)	(0.8017)	(0.6368)	(3.5994)***	(3.3703)***	(2.8741)***
Size	0.0808	0.1228	0.0762	-0.0941	-0.1313	-0.1008	-0.0028	-0.0018	-0.0024	0.3318	0.3257	0.3149
	(1.9320)*	(2.5541)**	(1.6457)*	(2.3752)**	(2.9216)***	(2.3400)**	(4.1023)***	(3.8218)***	(3.4799)***	(49.1832)***	(44.3565)***	(44.7531)***
Big4	0.2338	0.1540	0.2500	-0.0964	-0.0437	-0.0782	0.0005	0.0021	0.0009	0.1491	0.1593	0.1559
	(1.3060)	(0.8089)	(1.3851)	(0.6116)	(0.2708)	(0.4957)	(0.1776)	(1.1137)	(0.3694)	(4.6653)***	(4.4879)***	(4.7332)***
Loss	-0.5734	-0.5882	-0.5286	1.1167	1.1517	1.1070	0.0103	0.0086	0.0071	-0.1501	-0.1693	-0.1657
	(3.0698)***	(2.8227)***	(2.6719)***	(6.9257)***	(6.4739)***	(6.5137)***	(3.0811)***	(2.7023)***	(2.8718)***	(4.6747)***	(4.8022)***	(5.0504)***
CEO_Age	0.0211	-0.1367	0.2083	0.4044	0.5439	0.1981	0.0077	0.0090	0.0011	-0.0877	0.0114	-0.2097
	(0.0521)	(0.3098)	(0.5333)	(1.0401)	(1.3067)	(0.5509)	(1.8475)*	(2.3238)**	(0.4045)	(0.8153)	(0.1003)	(2.2541)**
P_B_Ind	0.0463	0.1214	-0.0087	-0.0695	-0.1198	-0.0220	-0.0194	-0.0154	-0.0099	0.1555	0.1026	0.1974
	(0.1173)	(0.2857)	(0.0215)	(0.2027)	(0.3297)	(0.0640)	(2.9884)***	(2.4704)**	(1.6943)*	(1.7194)*	(1.0630)	(2.1844)**
P_Ac_Ind	0.1782	0.0111	0.2464	-0.1294	-0.0070	-0.2423	0.0131	0.0100	0.0079	0.0497	0.0920	0.0224
	(0.5663)	(0.0321)	(0.7819)	(0.4605)	(0.0230)	(0.8843)	(2.6621)***	(2.4364)**	(1.6596)*	(0.7695)	(1.3293)	(0.3454)
Inst_Own	-0.0030	-0.0018	-0.0035	0.0019	0.0001	0.0023	0.0000	0.0000	-0.0000	0.0063	0.0071	0.0072
	(0.9958)	(0.5312)	(1.0444)	(0.6732)	(0.0290)	(0.7507)	(0.3646)	(0.9730)	(0.2859)	(8.1283)***	(8.4736)***	(9.8201)***
Constant	4.1684	4.0631	3.6132	-4.0807	-3.7602	-3.0853	0.0160	-0.0228	0.0366	-5.9472	-6.5553	-5.2094
	(2.1483)**	(1.9325)*	(1.8677)*	(2.2439)**	(1.9397)*	(1.7160)*	(0.4302)	(0.9096)	(1.8992)*	(12.7707)***	(12.8525)***	(12.2640)***
Adj R-Sq	0.33	0.33	0.33	0.20	0.20	0.20	0.31	0.31	0.28	0.64	0.63	0.68
F statistic	3.70	3.27	3.42	2.29	2.10	2.17	5.54	5.96	6.67	274.68	227.36	294.00
N	2,560	2,293	2,400	2,560	2,293	2,400	1,623	1,533	1,561	2,567	2,298	2,406
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistics in parenthesis. Please refer to Appendix-1 for definition of variables

1 to 4 is re-estimated using 2SLS, to identify and remove the potential endogeneity problem.

To functionalise the 2SLS, the first step is to identify a variable (instrument) which is correlated with CEO reputation but not related with any of the properties of forecasts except indirectly through a variable on right hand side of the equation. Following Francis et al. (2008), the CEO age (*CEO_Age*) and CEO compensation (*CEO_Comp*) are used as an instrument for CEO reputation. It is likely that older CEOs have more reputation than their younger peers. Further highly paid CEOs have more ability and greater skills as compared to less paid CEOs. It is noteworthy that CEOs improve their compensation by providing better short and long term performance for their firms. Furthermore, prior literature suggests that the stock-based compensation is high for reputed CEOs (Milbourn 2003). Therefore, it is reasonable to assume that CEO compensation is correlated with their reputation in press.

Table 2.9 provides the results re-performed for equations 1 to 4 using 2SLS. Columns 1 and 2 show the relationship between CEO reputation and analyst forecast accuracy. Column 1 describes the results for the first stage regression using CEO reputation as a dependent variable, and *CEO_Age* and *CEO _Comp* with all other exogenous variables as explanatory variables. The F-test of 49.75 strongly rejects the null hypothesis to exclude the instruments from equation. Further, *CEO_Age* and *CEO _Comp* are significant with a t-statistic of 8.5307 and 4.8855 respectively. This suggests that the instruments pass the weak instruments test and are strongly correlated with CEO reputation. Similarly, first stage regression for the other three models (columns 3, 5 and 7) shows that, the instruments are correlated with CEO reputation and strong enough to use. To test whether included instruments pass the over-identification, that is at-least one of the instruments is not correlated with the error term (endogeneity of instrument), Sargan-test has been performed. Results suggest that the included instruments pass the identification test ($P > 0.1$) for all of the models except for analyst following.

Table 2.9: CEO Reputation and Analyst Forecast Properties – 2 Stage Least Square Approach

	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	First Stage Dependent Variable = Reputation	Second Stage Dependent Variable = Accuracy	First Stage Dependent Variable = Reputation	Second Stage Dependent Variable = Bias	First Stage Dependent Variable = Reputation	Second Stage Dependent Variable = Forecast Dispersion	First Stage Dependent Variable = Reputation	Second Stage Dependent Variable = Analyst Following
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Reputation		-0.4354**		0.5873***		0.0044**		0.2722***
		(-2.1393)		(3.1481)		(2.4306)		(5.9351)
Dispersion	-1.0488	8.3354***	-1.0488	-8.2447***				
	(-1.0193)	(3.9685)	(-1.0193)	(-4.2825)				
Horizon	0.1308*	-1.0527***	0.1308*	0.6916***	0.1715	0.0004	0.1928***	0.1039***
	(1.8730)	(-7.3003)	(1.8730)	(5.2326)	(0.8847)	(0.1464)	(2.7536)	(2.8864)
Follow	0.3083***	0.1510	0.3083***	-0.0360	0.4498***	-0.0037**		
	(6.9688)	(1.3080)	(8.2068)	(-0.7934)	(4.2917)	(-2.0597)		
Size	0.0708***	0.1622***	0.0708***	-0.2076***	0.0490	-0.0025***	0.1595***	0.2446***
	(2.7044)	(2.6959)	(2.7044)	(-3.7645)	(1.3544)	(-4.4146)	(6.8970)	(14.5898)
Lev	-0.0162	-0.0601*	-0.0162	0.0629*	-0.0106	-0.0004	-0.0191	0.0040
	(-0.9308)	(-1.6940)	(-0.9308)	(1.9347)	(-0.5487)	(-1.4064)	(-1.0914)	(0.4578)
Big4	-0.0178	0.2335*	-0.0178	-0.1028	-0.0881	0.0021	0.0140	0.1352***
	(-0.2553)	(1.6590)	(-0.2553)	(-0.7970)	(-0.7092)	(1.1986)	(0.1993)	(3.8937)
Surp	-0.0710	-7.0647***	-0.0710	4.1325***	-0.2496	0.0593***	-0.3042***	-0.4848***
	(-0.6165)	(-30.2653)	(-0.6165)	(19.3142)	(-1.1129)	(18.3232)	(-2.7733)	(-8.6528)
Sd_Roe	0.1817*	0.2244	0.1817*	-0.0082	0.3286	0.0039	0.2206**	0.0625
	(1.6976)	(1.0193)	(1.6976)	(-0.0409)	(1.4914)	(1.2110)	(2.0426)	(1.1434)
Loss	0.1043	-0.5441***	0.1043	1.0676***	0.1134	0.0060***	0.0661	-0.1632***
	(1.3974)	(-3.5717)	(1.3974)	(7.6463)	(0.9127)	(3.3710)	(0.8806)	(-4.3759)
P_B_Ind	0.5649***	0.4038	0.5649***	-0.5232	0.8797***	-0.0175***	0.5754***	-0.0666
	(2.8895)	(0.9487)	(2.8895)	(-1.3410)	(3.4310)	(-4.1378)	(2.9244)	(-0.6380)
P_Ac_Ind	-0.0578	0.0638	-0.0578	-0.0183	-0.2533	0.0100***	-0.0299	0.0888
	(-0.4084)	(0.2214)	(-0.4084)	(-0.0693)	(-1.2920)	(3.4621)	(-0.2096)	(1.2526)
Inst_Own	-0.0002	-0.0029	-0.0002	0.0017	-0.0021	0.0001**	0.0018	0.0064***
	(-0.1240)	(-0.8840)	(-0.1240)	(0.5830)	(-1.0334)	(1.9822)	(1.1029)	(7.9706)
CEO_Comp	0.3522***		0.3522***		0.3770***		0.3953***	
	(8.5307)		(8.5307)		(6.6900)		(9.5886)	
CEO_Age	0.9870***		0.9870***		1.1242***		0.9702***	
	(4.8855)		(4.8855)		(4.1723)		(4.7537)	
Constant	-8.3157***	3.4279***	-8.3157***	-1.2329	-9.0243***	0.0361**	-10.5393***	-5.0705***
	(-8.4837)	(2.9673)	(-8.4837)	(-1.1643)	(-5.7350)	(2.2219)	(-11.2055)	(-16.6472)
N	2,510	2,510	2,510	2,510	1,418	1,418	2,516	2,516
Adj R-Sq	0.3772	0.3147	0.3772	0.1470	0.3332	0.2689	0.3666	0.5862
IV F-Stat		49.75		49.75		31.56		58.75
Hausman (P-Value)		0.1060		0.0078		0.0136		0.0000
Sargan (P-Value)		0.1860		0.5645		0.7462		0.0004
Industry Year FE	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistics in parenthesis. Please refer to Appendix-1 for definition of variables

Table 2.9, column 2 illustrates the results for the second-stage regression where dependent variable is analyst forecast accuracy. The Durbin-Wu-Hausman test of endogeneity suggests that CEO reputation is not an endogenous variable (P = 0.1060). The coefficient on *Reputation* is significant and negative with the t-statistic of 2.1393. This supports the primary results of the study (H1) and shows that there is a causal relationship between CEO reputation and analyst forecast accuracy even after controlling for the potential endogeneity problem. Column 4 presents the results using forecast bias as the dependent variable. The Hausman test suggests that there is an endogeneity concern (P < 0.01). After correcting for endogeneity, the coefficient for *Reputation* is still significant (t-statistic = 3.1481) and supports the primary analysis of the study (H2). In column 6 dependent variable is the forecast dispersion, where the coefficient on *Reputation* is still significant with a t-statistic of 2.4306 after correcting for endogeneity (P < 0.05), supporting primary results as well (H3). Column 8 presents the results after controlling for endogeneity (P < 0.01), when the dependent variable is analyst following. As expected coefficient on *Reputation* is still significant and positive (t-statistic = 5.9351). Overall results suggest similar evidence as provided in Tables 2.6 and 2.7 even after controlling for potential endogeneity of CEO reputation.

2.5.4.2 Self-Selection Bias

One of the potential issues in this study is that, the factors determine the decision of analysts to follow a firm might also affect the properties of forecasts. For instance, analysts are more likely to follow the firms with more informative disclosure policies, higher institutional ownership, large size firms (Lang and Lundholm 1996; Bhushan 1989). And forecast accuracy is high for large firms and those provide greater level of disclosures information (Lang and Lundholm 1996). Barth, Kasznik, and McNichols (2001) suggests that analyst coverage depends on their personal costs and incentives, and analysts more likely to follow the large firms, growth firms and firms with more intangible assets. Therefore, it implies that forecast properties variables in this study are choice variables depending on the analyst coverage. Further, for this study, analyst forecast data is drawn from I/B/E/S, which does not cover all of the Australian public companies. Using data for forecast properties given for a part of population could lead to potential self-selection bias. As analyst coverage is a choice variable and data for properties of analyst forecast is

not available for a part of the sample, therefore, it is likely to exist the self-selection bias in the study.

To deal with the potential selection bias, Heckman (1976) two step model has been applied. In the first stage, the inverse mills ratio (*IMR*) is calculated from a model that predicts the choice of an analyst to provide forecast for a firm. In the second stage the *IMR* is used as an additional control variable in the main regression equations 1 to 4. To calculate *IMR,* In the first stage the firm characteristics are, which might determine the choice of an analyst to follow a firm. The equation 5 explains the first stage regression used to calculate *IMR.* In the first stage, all of the control variables except *P_Ac_Ind* and *ROA* are significant, thus considered as a strong predictors of *Accuracy.* Similarly, *IMR* is calculated for the remaining dependent variables (*Bias, Dispersion* and *Follow*).

$$Accuracy = \beta_0 + \beta_1 Size + \beta_2 Lev + \beta_3 Sd\_Roe + \beta_4 Big4 + \beta_5 ROA + \beta_6 Sales\_Vol + \beta_7 M/B + \beta_8 Inst\_Own + \beta_{11} B\_Size + \beta_{12} P\_B\_Ind + \beta_{13} P\_Ac\_Ind + \beta_{14} Inst\_Own + Industry + Year + \varepsilon \quad (5)$$

Table 2.10 reports the second stage results including *IMR* in the main analysis to control for the potential bias of self-selection. Table 2.10 columns 1 to 16 report the results for the relationship between CEO reputation and all four analyst forecast properties after including *IMR* to control for potential self-selection bias of analyst following. The results remain quantitatively similar and support the primary results in Table 2.6. For example, columns 1 and 2, show that coefficient for CEO reputation on *Press_5Y* and *Press_3Y* remains negative and significant (t-statistic = 2.7804 and 2.0397 respectively). Columns 3 and 4 show that there is a significant positive association between CEO reputation and analyst forecast bias (t-statistic for *Press_5Y* = 2.9152 and *Press_3Y* = 2.5991). Similarly results in columns 5 and 6 suggest that, analyst forecast dispersion is high for firms having reputed CEOs (t-statistic for *Press_5Y* = 1.7309 and *Press_3Y* = 2.0233). Columns 7 and 8 show that, there is a positive and significant coefficient on *Press_5Y* and *Press_3Y* (t-statistic for *Press_5Y* = 7.5698 and *Press_3Y* = 8.2991), suggesting that analyst following is higher firms with reputed CEOs. *IMR* also remains significant in all models except forecast dispersion. Results for the control variables yield similar results as reported for Table 2.6.

Table 2.10: CEO Reputation and Analyst Mean Forecast Properties across 12 Month Period after Controlling for Self-Selection Bias

	Robust Regression								Firm Fixed Effects							
	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following		Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	Press_5Y	Press_5Y	Press_5Y	Press_3Y	Press_5Y	Press_5Y	Press_3Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15	Column 16
Reputation	-0.1091	-0.0874	0.1040	0.0999	0.0009	0.0010	0.0680	0.0768	-0.1091	-0.0874	0.1040	0.0999	0.0009	0.0010	0.0680	0.0768
	(2.7804)***	(2.0397)**	(2.9152)***	(2.5991)***	(1.7309)*	(2.0233)**	(7.5698)***	(8.2991)***	(2.6091)***	(1.9636)*	(2.7989)***	(2.5246)**	(1.3851)	(1.6873)*	(4.4912)***	(5.1210)***
Dispersion	9.0772	9.1279	-8.5164	-8.5341					9.0772	9.1279	-8.5164	-8.5341				
	(2.8050)***	(2.7832)***	(2.8394)***	(2.8197)***					(2.6414)***	(2.6213)***	(2.8946)***	(2.8733)***				
Horizon	-1.0872	-1.0838	0.7425	0.7391	-0.0001	-0.0000	0.1474	0.1469	-1.0872	-1.0838	0.7425	0.7391	-0.0001	-0.0000	0.1474	0.1469
	(5.9162)***	(5.8745)***	(4.6902)***	(4.6520)***	(0.0188)	(0.0028)	(4.6656)***	(4.6455)***	(5.7666)***	(5.7248)***	(4.6467)***	(4.6055)***	(0.0183)	(0.0027)	(4.8631)***	(4.8546)***
Follow	-0.0080	-0.0117	0.1650	0.1657	0.0022	0.0021			-0.0080	-0.0117	0.1650	0.1657	0.0022	0.0021		
	(0.0869)	(0.1263)	(1.9811)**	(1.9973)**	(1.2586)	(1.1622)			(0.0823)	(0.1202)	(1.9045)*	(1.9259)*	(1.1092)	(1.0173)		
Surp	-6.8206	-6.8523	3.9822	3.9808	0.0679	0.0671	-0.4961	-0.4938	-6.8206	-6.8523	3.9822	3.9808	0.0679	0.0671	-0.4961	-0.4938
	(9.7756)***	(9.7219)***	(6.3034)***	(6.2434)***	(5.3071)***	(5.2332)***	(9.3665)***	(9.3459)***	(9.8645)***	(9.8179)***	(6.0494)***	(5.9904)***	(4.3972)***	(4.3320)***	(7.9124)***	(7.9311)***
Lev	-0.0304	-0.0277	0.0355	0.0345	-0.0004	-0.0004	0.0045	0.0040	-0.0304	-0.0277	0.0355	0.0345	-0.0004	-0.0004	0.0045	0.0040
	(0.4819)	(0.4358)	(0.6544)	(0.6318)	(0.9908)	(0.9469)	(0.7060)	(0.6304)	(0.4257)	(0.3865)	(0.6001)	(0.5804)	(0.8440)	(0.8050)	(0.4400)	(0.3983)
Sd_Roe	0.2428	0.2455	0.0135	0.0037	0.0016	0.0012	0.1417	0.1329	0.2428	0.2455	0.0135	0.0037	0.0016	0.0012	0.1417	0.1329
	(1.0561)	(1.0602)	(0.0645)	(0.0175)	(0.2996)	(0.2322)	(3.8475)***	(3.6954)***	(0.9463)	(0.9491)	(0.0589)	(0.0160)	(0.2243)	(0.1743)	(2.7916)***	(2.7098)***
Size	-0.0426	-0.0485	0.0063	0.0092	-0.0021	-0.0020	0.2700	0.2676	-0.0426	-0.0485	0.0063	0.0092	-0.0021	-0.0020	0.2700	0.2676
	(0.8817)	(0.9943)	(0.1492)	(0.2171)	(2.5616)**	(2.4025)**	(25.9541)***	(25.6940)***	(0.8329)	(0.9433)	(0.1438)	(0.2098)	(2.2710)**	(2.1473)**	(14.4182)***	(14.4552)***
Big4	0.0149	0.0053	0.0852	0.0916	0.0017	0.0020	0.0731	0.0701	0.0149	0.0053	0.0852	0.0916	0.0017	0.0020	0.0731	0.0701
	(0.0808)	(0.0282)	(0.5306)	(0.5616)	(0.6616)	(0.7558)	(2.1448)**	(2.0502)**	(0.0807)	(0.0283)	(0.5442)	(0.5761)	(0.6241)	(0.7146)	(1.1881)	(1.1626)
Loss	-0.3326	-0.3448	0.9151	0.9278	0.0087	0.0089	-0.0825	-0.0818	-0.3326	-0.3448	0.9151	0.9278	0.0087	0.0089	-0.0825	-0.0818
	(1.7459)*	(1.7915)*	(5.4420)***	(5.4434)***	(2.4967)**	(2.5268)**	(2.4224)**	(2.3939)**	(1.7723)*	(1.8168)*	(5.3585)***	(5.3536)***	(1.7573)*	(1.7756)*	(1.6494)*	(1.6336)
CEO_Age	0.1496	0.0723	0.2875	0.3462	0.0054	0.0055	-0.1013	-0.0679	0.1496	0.0723	0.2875	0.3462	0.0054	0.0055	-0.1013	-0.0679
	(0.3684)	(0.1770)	(0.7466)	(0.8921)	(1.3707)	(1.3500)	(0.9485)	(0.6375)	(0.3421)	(0.1643)	(0.7379)	(0.8845)	(1.0960)	(1.0628)	(0.4898)	(0.3338)
P_B_Ind	0.2472	0.2046	-0.2483	-0.2363	-0.0209	-0.0210	0.1230	0.1267	0.2472	0.2046	-0.2483	-0.2363	-0.0209	-0.0210	0.1230	0.1267
	(0.6089)	(0.4984)	(0.7069)	(0.6668)	(3.0792)***	(3.0968)***	(1.3663)	(1.4020)	(0.5934)	(0.4885)	(0.6810)	(0.6430)	(2.4948)**	(2.5226)**	(0.8020)	(0.8350)
P_Ac_Ind	-0.0103	-0.0008	0.0310	0.0308	0.0143	0.0145	0.0225	0.0193	-0.0103	-0.0008	0.0310	0.0308	0.0143	0.0145	0.0225	0.0193
	(0.0327)	(0.0024)	(0.1108)	(0.1086)	(2.7624)***	(2.7859)***	(0.3497)	(0.2980)	(0.0320)	(0.0024)	(0.1068)	(0.1047)	(2.4670)**	(2.4975)**	(0.2160)	(0.1848)
Inst_Own	-0.0139	-0.0141	0.0109	0.0112	0.0001	0.0001	0.0030	0.0031	-0.0139	-0.0141	0.0109	0.0112	0.0001	0.0001	0.0030	0.0031
	(2.9615)***	(2.9702)***	(2.5825)***	(2.6191)***	(1.1483)	(1.2570)	(3.0604)***	(3.2149)***	(2.9311)***	(2.9428)***	(2.5654)**	(2.6023)***	(1.0398)	(1.1427)	(1.6478)*	(1.7342)*
IMR	-1.2684	-1.2848	1.0575	1.0795	0.0108	0.0116	-0.3527	-0.3488	-1.2684	-1.2848	1.0575	1.0795	0.0108	0.0116	-0.3527	-0.3488
	(2.4617)**	(2.4808)**	(2.2660)**	(2.3028)**	(0.9688)	(1.0007)	(5.6330)***	(5.6187)***	(2.5338)**	(2.5495)**	(2.3211)**	(2.3547)**	(0.9452)	(0.9782)	(3.6213)***	(3.6374)***
Constant	7.1857	7.5640	-6.5297	-6.8094	0.0046	0.0016	-4.5370	-4.6407	7.1857	7.5640	-6.5297	-6.8094	0.0046	0.0016	-4.5370	-4.6407
	(3.0351)***	(3.1745)***	(2.9995)***	(3.1063)***	(0.1244)	(0.0438)	(9.0946)***	(9.3627)***	(2.9331)***	(3.0685)***	(3.0265)***	(3.1364)***	(0.1116)	(0.0391)	(5.0619)***	(5.2997)***
Adj R-Sq	0.33	0.33	0.21	0.21	0.31	0.31	0.65	0.65	0.33	0.33	0.21	0.21	0.31	0.31	0.65	0.65
F statistic	3.72	3.68	2.28	2.25	5.66	5.44	274.78	275.85	3.81	3.77	2.33	2.30	4.97	4.81	101.91	104.32
N	2,560	2,525	2,560	2,525	1,623	1,603	2,567	2,532	2,560	2,525	2,560	2,525	1,623	1,603	2,567	2,532
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to A1 for definition of variables

Table 2.11: CEO Reputation and Analyst Median Forecast Accuracy and Bias across 12, 9 and 6 Month Horizons

	Forecast Accuracy						Forecast Bias (Optimism)					
	12 Month Horizon		9 Month Horizon		6 Month Horizon		12 Month Horizon		9 Month Horizon		6 Month Horizon	
	Press_5Y Column 1	Press_3Y Column 2	Press_5Y Column 3	Press_3Y Column 4	Press_5Y Column 5	Press_3Y Column 6	Press_5Y Column 7	Press_3Y Column 8	Press_5Y Column 9	Press_3Y Column 10	Press_5Y Column 11	Press_3Y Column 12
Reputation	-0.1204	-0.0968	-0.1166	-0.0949	-0.1011	-0.0880	0.1134	0.1079	0.1149	0.1118	0.0858	0.0890
	(2.8475)***	(2.1418)**	(2.8325)***	(2.1632)**	(2.7231)***	(2.2465)**	(3.0118)***	(2.6815)***	(3.1152)***	(2.8386)***	(2.6445)***	(2.6080)***
Dispersion	9.5268	9.5898	10.0119	10.0736	8.2812	8.3676	-8.8978	-8.9296	-9.4169	-9.4470	-6.7976	-6.8282
	(2.6604)***	(2.6410)***	(2.7648)***	(2.7413)***	(2.2008)**	(2.1792)**	(2.9720)***	(2.9533)***	(3.1512)***	(3.1270)***	(2.2808)**	(2.2501)**
Horizon	-1.1015	-1.0992	-1.0204	-1.0159	-0.9957	-0.9885	0.7545	0.7520	0.7114	0.7072	0.5348	0.5285
	(5.7932)***	(5.7564)***	(4.7645)***	(4.7247)***	(4.2406)***	(4.2058)***	(4.6838)***	(4.6482)***	(3.9415)***	(3.9043)***	(3.2650)***	(3.2277)***
Follow	0.0319	0.0286	0.0076	0.0042	-0.0104	-0.0143	0.1321	0.1322	0.1474	0.1473	0.1447	0.1457
	(0.3499)	(0.3165)	(0.0867)	(0.0484)	(0.1546)	(0.2130)	(1.6523)*	(1.6633)*	(1.8981)*	(1.9083)*	(2.4988)**	(2.5061)**
Surp	-6.9132	-6.9475	-6.6093	-6.6411	-5.5139	-5.5415	4.0562	4.0575	4.0429	4.0447	3.0227	3.0191
	(9.8904)***	(9.8482)***	(9.6210)***	(9.5780)***	(8.7066)***	(8.6554)***	(6.0835)***	(6.0284)***	(6.2061)***	(6.1503)***	(5.3849)***	(5.3222)***
Lev	-0.0523	-0.0501	-0.0508	-0.0489	-0.0521	-0.0509	0.0539	0.0536	0.0506	0.0503	0.0515	0.0519
	(0.6630)	(0.6316)	(0.6751)	(0.6451)	(0.7759)	(0.7530)	(0.8224)	(0.8106)	(0.7995)	(0.7890)	(0.9471)	(0.9451)
Sd_Roe	0.1425	0.1439	0.1375	0.1385	0.1395	0.1409	0.0973	0.0892	0.0799	0.0719	0.0702	0.0634
	(0.5581)	(0.5592)	(0.5616)	(0.5610)	(0.6841)	(0.6844)	(0.4140)	(0.3781)	(0.3458)	(0.3096)	(0.3918)	(0.3516)
Size	0.1035	0.0986	0.0996	0.0953	0.0825	0.0806	-0.1160	-0.1148	-0.1162	-0.1158	-0.0889	-0.0904
	(2.1390)**	(1.9939)**	(2.1228)**	(1.9871)**	(2.0960)**	(2.0249)**	(2.6133)***	(2.5287)**	(2.6895)***	(2.6195)***	(2.5112)**	(2.5211)**
Big4	0.2455	0.2408	0.2241	0.2194	0.2394	0.2341	-0.1057	-0.1049	-0.0648	-0.0630	-0.0812	-0.0795
	(1.3609)	(1.3226)	(1.2796)	(1.2409)	(1.5461)	(1.4989)	(0.6806)	(0.6677)	(0.4279)	(0.4110)	(0.6407)	(0.6204)
Loss	-0.5683	-0.5832	-0.5497	-0.5642	-0.4452	-0.4572	1.1122	1.1285	1.0381	1.0531	0.8356	0.8471
	(3.0831)***	(3.1254)***	(3.0888)***	(3.1303)***	(2.8084)***	(2.8426)***	(6.7670)***	(6.7542)***	(6.5800)***	(6.5677)***	(6.1156)***	(6.0825)***
CEO_Age	0.0020	0.0006	0.0020	0.0006	0.0061	0.0050	0.0055	0.0066	0.0058	0.0069	0.0029	0.0037
	(0.2661)	(0.0753)	(0.2654)	(0.0778)	(0.9416)	(0.7629)	(0.8135)	(0.9741)	(0.8843)	(1.0468)	(0.5288)	(0.6756)
P_B_Ind	0.1544	0.1069	0.1968	0.1539	0.2812	0.2517	-0.1707	-0.1540	-0.1675	-0.1521	-0.2363	-0.2347
	(0.3721)	(0.2565)	(0.4898)	(0.3813)	(0.7913)	(0.7035)	(0.4660)	(0.4176)	(0.4678)	(0.4215)	(0.7768)	(0.7643)
P_Ac_Ind	0.1442	0.1564	0.0934	0.1040	-0.0356	-0.0279	-0.0984	-0.1019	-0.1029	-0.1068	0.0629	0.0628
	(0.4500)	(0.4848)	(0.3014)	(0.3331)	(0.1277)	(0.0993)	(0.3378)	(0.3462)	(0.3609)	(0.3706)	(0.2546)	(0.2516)
Inst_Own	-0.0028	-0.0029	-0.0028	-0.0028	0.0006	0.0006	0.0017	0.0018	0.0011	0.0012	-0.0019	-0.0019
	(0.9010)	(0.9106)	(0.9148)	(0.9223)	(0.2968)	(0.2931)	(0.5959)	(0.6231)	(0.3905)	(0.4169)	(1.1466)	(1.1216)
Constant	3.8973	4.0130	3.4707	3.5642	2.9637	3.0052	-2.5271	-2.5803	-2.2581	-2.2951	-1.4154	-1.4076
	(2.9572)***	(2.9940)***	(2.5908)***	(2.6228)***	(2.5411)**	(2.5647)**	(2.2522)**	(2.2547)**	(1.9764)**	(1.9761)**	(1.6073)	(1.5920)
Adj R-Sq	0.33	0.33	0.32	0.32	0.30	0.30	0.20	0.20	0.21	0.21	0.18	0.17
F statistic	3.81	3.77	3.62	3.58	3.05	3.00	2.34	2.31	2.30	2.27	1.85	1.82
N	2,560	2,525	2,553	2,518	2,511	2,476	2,560	2,525	2,553	2,518	2,511	2,476
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variables

2.5.4.3 Median Value of the Analyst Earnings Forecast

To support the primary analysis, median instead of mean value of the analyst earnings forecast is considered to calculate forecast accuracy and bias. Table 2.11 illustrates the results for the relationship between CEO reputation and median of the analyst forecast accuracy and bias across 12, 9 and 6 month periods.[36] Columns 1 and 2 show that the *Press_5Y* and *Press_3Y* is still negative and significant with a t-statistic of 2.8475 and 2.1418 respectively. Coefficient for control variables and model summary also yields similar results as provided in Table 2.6. is calculated using median value over 9 month horizon. Columns 3 and 4 show that the coefficients on *Press_5Y* and *Press_3Y* over the prior 9 month period are negative and significant with a t-statistic of 2.8325 and 2.1632 respectively. Results suggest similar results as for 12-month horizon. Results are similar when accuracy calculated for the 6-month horizon and supports the H1 of this study.

Table 2.11 columns 7 to 12 show that the relationship between CEO reputation and analyst forecast bias is still positive and significant, where the forecast bias has been calculated using median value across 12, 9 and 6 month horizon. For instance, columns 7 and 8 show that, the coefficient on Reputation for *Press_5Y* and *Press_3Y* is significant and positive with a t-statistic of 3.0118 and 2.6815 respectively. The results are also similar across 9 and 6 month horizon, thus, supports the H2 of this study.

2.5.4.4 Analyst Following Two or More

As prior research suggests that, the analyst forecast accuracy is high when greater number of analysts follows a firm. Therefore, further analysis has been performed by restricting the sample to the firm year observations when there are at-least 2 or more analysts following a firm.[37] Table 2.12 shows the relationship between CEO reputation and mean value of the forecast accuracy and bias across 12, 9 and 6 month, when there are at-least 2 analyst following a firm. As predicted columns 1 and 2 provides a significant and negative coefficient for Reputation on *Press_5Y* and *Press_3Y* with a t-statistic of 2.1531 and 1.9452 respectively. It

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[36] Regression holds the results using Huber White's robust regression including industry and year fixed effects.

[37] This restriction imposed only for the forecast accuracy and bias model and does not apply to forecast dispersion model. This is because, to calculate dispersion, our initial sample consists of observations having at-least 3 analysts following.

supports the primary results and suggests that analyst forecast accuracy is lower for firms with greater CEO reputation, even the number of analyst following is more 2 or more. Further results are also similar when forecast accuracy calculated across 9 and 6 month horizon (column 3 to 6) and supports the H1 of the study.

Table 2.12 columns 7 to 12 report the results for the relationship between CEO reputation and analyst forecast bias across 12, 9 and 6 month. As expected columns 7 and 8 indicate that there is a significant and positive coefficient for Reputation on *Press_5Y* and *Press_3Y* with a t-statistic of 2.0124 and 1.9155 respectively. It supports the primary results for H2 and show that there forecast bias increase with an increase in CEO reputation, when the number of analyst following is 2 or more. Results remain quantitatively similar when forecast bias calculated across 9 and 6 month period (columns 9 to 12).

2.5.4.5 Alternative Control Variables

To test the robustness of the primary results, analysis is performed implying new control variables. The *Size* variable is measured as log of market capitalization instead of total assets. The variable *Big4* a proxy for earnings quality replaced by *DD_R*, which is the residual from Dechow and Dichev (2002) accrual model. Further, *CEO_Tenure* variable is included, which is calculated as a log of number of years a CEO exists in a firm.

Table 2.13 provides the results after including the alternative control variables. The coefficient on *Reputation* remains significant in similar direction, as given in the Table 2.6. For instance, columns 1 and 2 show that the coefficient for *Reputation* variable is negative and significant (t-statistic for *Press_5Y* = 3.0393 and *Press_3Y* = 2.4175). In columns 3 and 4, when testing the relationship between CEO reputation and forecast bias, as predicted, the coefficient for *Reputation* is positive and significant (t-statistic for *Press_5Y* = 2.9708 and *Press_3Y* = 2.7010). Columns 5 and 6 suggest a positive coefficient on *Reputation*, however significant at *Press_3Y* only (t-statistic for *Press_5Y* = 1.5579 and *Press_3Y* = 1.8515). Results for the relationship between CEO reputation and analyst following have been reported in columns 7 and 8. The positive and significant coefficient on *Reputation* (t-statistic for *Press_5Y* = 7.4735 and *Press_3Y* = 7.8941) suggests that, analyst following remains high for firms having reputed CEOs.

2.5.4.6 Profit versus Loss Firms

To identify any significant variation of results between profit vs loss reporting firms, spate analysis is performed. Table 2.14 suggests that forecast accuracy is significantly lower for profit reporting firms with reputed CEOs (t-statistic for *Reputation* = 1.8242). Forecast bias and dispersion remain insignificant and no difference in results could be found. Analyst following remains significant for profit and loss firms with a t-statistic for *Reputation* 4.8037 and 5.3868 respectively.

2.5.4.7 CEO Reputation – Further Analysis

The primary analysis has been performed using log for number of press citations to measure the CEO reputation. Table 2.15 reports the results using untransformed value for CEO reputation (number of press citations) for further analysis.[38] As predicted the results remain quantitatively similar to the Table 2.6, however the coefficient decrease, which could be due to the normality issue in untransformed value of CEO reputation. For example, column 1 shows that coefficient on *Press_5Y* is negative and significant (t-statistic = 1.9521), but coefficient turns to 0.0005 as compared to 0.1200 in Table 2.6 (when transformed).

[38] The untransformed value face the problem of normality having high skewness and kurtosis. For instance the value of skewness for *Press_5Y* without transformation is 1.8632 and kurtosis is 6.099.

Table 2.12: CEO Reputation and Analyst Mean Forecast Accuracy and Bias across 12, 9 and 6 Month Horizons - Analyst Following is Two or more

	Forecast Accuracy						Forecast Bias (Optimism)					
	12 Month Horizon		9 Month Horizon		6 Month Horizon		12 Month Horizon		9 Month Horizon		6 Month Horizon	
	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12
Reputation	-0.0669	-0.0656	-0.0658	-0.0641	-0.0653	-0.0635	0.0579	0.0610	0.0592	0.0622	0.0567	0.0593
	(2.1531)**	(1.9452)*	(2.1616)**	(1.9397)*	(2.2318)**	(2.0068)**	(2.0124)**	(1.9155)*	(2.0893)**	(1.9816)**	(2.1480)**	(2.0509)**
Dispersion	0.5060	0.4398	0.9642	0.8972	2.3275	2.2838	-1.3737	-1.3533	-2.0497	-2.0270	-2.7784	-2.7724
	(0.1570)	(0.1349)	(0.2981)	(0.2740)	(0.6265)	(0.6042)	(0.4941)	(0.4827)	(0.7475)	(0.7320)	(0.9314)	(0.9145)
Horizon	-0.7432	-0.7460	-0.7676	-0.7692	-0.9982	-1.0014	0.4921	0.4925	0.5071	0.5068	0.6063	0.6080
	(2.3155)**	(2.3189)**	(2.0711)**	(2.0710)**	(1.7214)*	(1.7245)*	(2.2683)**	(2.2671)**	(2.0128)**	(2.0080)**	(1.7311)*	(1.7322)*
Follow	0.0289	0.0273	0.0261	0.0244	0.0551	0.0536	0.1179	0.1185	0.1235	0.1242	0.0953	0.0963
	(0.3552)	(0.3321)	(0.3354)	(0.3104)	(0.7533)	(0.7223)	(1.7641)*	(1.7544)*	(1.8719)*	(1.8655)*	(1.5911)	(1.5830)
Surp	-3.9576	-3.9698	-3.7782	-3.7887	-3.5498	-3.5602	1.8484	1.8495	1.9469	1.9484	1.8313	1.8340
	(4.8109)***	(4.8162)***	(4.7539)***	(4.7584)***	(4.8796)***	(4.8812)***	(2.4686)**	(2.4654)**	(2.6935)***	(2.6911)***	(2.8382)***	(2.8366)***
Lev	0.0016	0.0026	0.0021	0.0031	0.0049	0.0058	0.0148	0.0148	0.0116	0.0116	0.0069	0.0068
	(0.0481)	(0.0789)	(0.0666)	(0.0967)	(0.1750)	(0.2069)	(0.5717)	(0.5662)	(0.4682)	(0.4617)	(0.3267)	(0.3192)
Sd_Roe	-0.0409	-0.0353	-0.0331	-0.0275	-0.0006	0.0051	0.2284	0.2223	0.2060	0.1998	0.1484	0.1425
	(0.2369)	(0.2020)	(0.1948)	(0.1603)	(0.0039)	(0.0309)	(1.0020)	(0.9721)	(0.9318)	(0.9004)	(0.8129)	(0.7775)
Size	0.0590	0.0597	0.0526	0.0532	0.0399	0.0403	-0.0804	-0.0820	-0.0798	-0.0813	-0.0668	-0.0682
	(1.5177)	(1.5038)	(1.3768)	(1.3613)	(1.1786)	(1.1650)	(2.0558)**	(2.0502)**	(2.0903)**	(2.0839)**	(1.9775)**	(1.9745)**
Big4	0.2006	0.2024	0.1992	0.2013	0.1900	0.1917	-0.0990	-0.1002	-0.0922	-0.0934	-0.0961	-0.0969
	(1.2071)	(1.2044)	(1.2338)	(1.2331)	(1.3087)	(1.3097)	(0.7869)	(0.7861)	(0.7494)	(0.7501)	(0.8639)	(0.8618)
Loss	-0.1333	-0.1360	-0.1514	-0.1545	-0.1507	-0.1541	0.4759	0.4839	0.4526	0.4601	0.4188	0.4259
	(0.9693)	(0.9708)	(1.1110)	(1.1135)	(1.2475)	(1.2532)	(4.2045)***	(4.1791)***	(4.1499)***	(4.1248)***	(4.1838)***	(4.1577)***
CEO_Age	0.0102	0.0096	0.0100	0.0094	0.0094	0.0089	-0.0047	-0.0044	-0.0045	-0.0041	-0.0040	-0.0037
	(1.9441)*	(1.8518)*	(1.9875)**	(1.8937)*	(2.0594)**	(1.9564)*	(1.2053)	(1.1169)	(1.1783)	(1.0807)	(1.1782)	(1.0731)
P_B_Ind	-0.1889	-0.2239	-0.1956	-0.2290	-0.1296	-0.1600	0.0173	0.0313	0.0013	0.0155	-0.0395	-0.0267
	(0.7181)	(0.8386)	(0.7589)	(0.8756)	(0.5767)	(0.7017)	(0.0877)	(0.1570)	(0.0068)	(0.0797)	(0.2403)	(0.1603)
P_Ac_Ind	0.2927	0.3082	0.2938	0.3085	0.2585	0.2716	-0.1515	-0.1559	-0.1423	-0.1470	-0.1052	-0.1093
	(1.3265)	(1.3900)	(1.3651)	(1.4263)	(1.3088)	(1.3684)	(0.7686)	(0.7873)	(0.7364)	(0.7571)	(0.6085)	(0.6292)
Inst_Own	0.0004	0.0005	0.0002	0.0002	-0.0002	-0.0002	-0.0016	-0.0016	-0.0016	-0.0016	-0.0011	-0.0011
	(0.2673)	(0.3153)	(0.1037)	(0.1487)	(0.1815)	(0.1455)	(1.0807)	(1.0818)	(1.1311)	(1.1321)	(0.8936)	(0.8863)
Constant	2.1536	2.1859	2.3222	2.3497	3.2448	3.2805	-0.8557	-0.8557	-0.8951	-0.8934	-1.3506	-1.3589
	(1.3737)	(1.3842)	(1.2657)	(1.2723)	(1.2464)	(1.2554)	(0.7177)	(0.7154)	(0.6334)	(0.6298)	(0.7661)	(0.7687)
Adj R-Sq	0.22	0.22	0.22	0.22	0.22	0.22	0.09	0.09	0.10	0.10	0.10	0.11
F statistic	1.51	1.51	1.45	1.45	1.43	1.43	0.91	0.90	0.90	0.89	0.93	0.93
N	2,023	1,996	2,023	1,996	2,021	1,994	2,023	1,996	2,023	1,996	2,021	1,994
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variable

Table 2.13: CEO Reputation and Analyst Forecast Properties with Alternative Control Variables

	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Reputation	-0.1525	-0.1258	0.1346	0.1279	0.0011	0.0012	0.3955	0.4331
	(3.0393)***	(2.4175)**	(2.9708)***	(2.7010)***	(1.5579)	(1.8515)*	(7.4735)***	(7.8941)***
Dispersion	8.9740	9.0326	-8.8941	-8.9562				
	(2.3321)**	(2.3082)**	(2.4878)**	(2.5009)**				
Horizon	-1.1441	-1.1392	0.7607	0.7580	0.0042	0.0044	0.6046	0.5964
	(5.6786)***	(5.6273)***	(4.4026)***	(4.3812)***	(1.2152)	(1.2512)	(4.8771)***	(4.7832)***
Follow	0.1529	0.1507	0.0657	0.0628	0.0007	0.0005		
	(1.6081)	(1.5922)	(0.7548)	(0.7104)	(0.3210)	(0.2552)		
Surp	-7.6091	-7.6455	4.3450	4.3582	0.0629	0.0616	-1.4744	-1.5061
	(9.2807)***	(9.2629)***	(5.7894)***	(5.5530)***	(4.3094)***	(4.2108)***	(6.6162)***	(6.8261)***
Lev	-0.2359	-0.2368	0.1694	0.1699	0.0006	0.0007	0.2625	0.2616
	(1.4588)	(1.4572)	(1.1753)	(1.1467)	(0.7342)	(0.8061)	(4.3903)***	(4.3776)***
Sd_Roe	0.1514	0.1537	0.1713	0.1598	0.0045	0.0041	-0.2674	-0.3084
	(0.5612)	(0.5666)	(0.6926)	(0.5628)	(0.7295)	(0.6867)	(1.8070)*	(2.0852)**
Size	0.0511	0.0452	-0.0542	-0.0521	-0.0033	-0.0033	1.6196	1.6014
	(0.9294)	(0.8019)	(1.0124)	(0.9443)	(3.3997)***	(3.4494)***	(34.1162)***	(33.4801)***
DD_R	-0.2563	-0.2808	0.2819	0.3146	0.0095	0.0108	3.4524	3.5906
	(0.6504)	(0.7105)	(0.8634)	(0.8840)	(1.2210)	(1.3787)	(3.8571)***	(4.0001)***
Loss	-0.5521	-0.5649	1.1554	1.1756	0.0103	0.0106	-0.3554	-0.3332
	(2.6169)***	(2.6445)***	(6.3128)***	(6.1563)***	(3.2473)***	(3.3176)***	(2.0453)**	(1.8930)*
CEO_Age	-0.0008	-0.0024	0.0108	0.0118	0.0001	0.0001	0.0092	0.0114
	(0.0938)	(0.2667)	(1.3111)	(1.3814)	(1.1928)	(1.1712)	(0.9286)	(1.1483)
CEO_Tenure	0.1172	0.1028	-0.1194	-0.1092	-0.0016	-0.0017	-0.0496	-0.0274
	(1.4948)	(1.3306)	(1.6861)*	(1.5449)	(1.5716)	(1.7124)*	(0.6254)	(0.3486)
P_B_Ind	0.2027	0.1540	-0.2678	-0.2466	-0.0215	-0.0218	0.3840	0.4116
	(0.4145)	(0.3128)	(0.6161)	(0.5448)	(2.7930)***	(2.8169)***	(0.7615)	(0.8123)
P_Ac_Ind	0.2849	0.2998	-0.1877	-0.1941	0.0152	0.0155	0.3056	0.2799
	(0.7571)	(0.7896)	(0.5550)	(0.5530)	(2.7117)***	(2.7418)***	(0.8834)	(0.8044)
Inst_Own	-0.0038	-0.0039	0.0024	0.0027	-0.0000	0.0000	0.0257	0.0264
	(0.9671)	(0.9821)	(0.6651)	(0.7231)	(0.1682)	(0.0143)	(6.0903)***	(6.2584)***
Constant	5.7724	5.9093	-4.2674	-4.3385	0.0320	0.0322	-32.9579	-32.7958
	(3.7609)***	(3.7726)***	(3.0183)***	(2.8926)***	(1.4063)	(1.4054)	(26.8269)***	(26.5450)***
Adj R-Sq	0.36	0.36	0.21	0.21	0.33	0.33	0.66	0.66
F statistic	3.40	3.39	2.01	2.05	5.94	5.75	162.85	162.11
N	2,030	1,999	2,030	1,999	1,270	1,252	2,035	2,004
Year FE	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variables

Table 2.14: CEO Reputation and Analyst Forecast Properties – Profit vs Loss Firms

	Loss Reporting Firms				Profit Reporting Firms			
	Forecast Accuracy Column 1	Forecast Bias Column 2	Dispersion Column 3	Analyst Following Column 4	Forecast Accuracy Column 5	Forecast Bias Column 6	Dispersion Column 7	Analyst Following Column 8
Reputation	-0.1913	0.1911	0.0041	0.2930	-0.0363	0.0050	0.0002	0.2859
	(1.3868)	(1.5254)	(1.3930)	(4.8037)***	(1.8242)*	(0.5653)	(0.5395)	(5.3868)***
Dispersion	4.9771	-8.3145			7.1830	0.3695		
	(0.9021)	(1.7432)*			(2.4813)**	(0.2178)		
Horizon	-1.0857	1.0798	0.0187	0.0008	-0.7979	-0.0100	-0.0034	0.3924
	(3.2865)***	(3.4575)***	(1.0421)	(0.0053)	(3.3310)***	(0.0742)	(0.5789)	(2.2844)**
Follow	0.5769	-0.3417	0.0027		0.1261	-0.0436	-0.0001	
	(1.3229)	(0.8878)	(0.3257)		(2.0300)**	(0.9137)	(0.0487)	
Surp	-10.0964	9.5089	0.0709	-1.1024	-4.0130	-0.7825	0.0572	-2.5865
	(8.8508)***	(9.0006)***	(2.1914)**	(4.8327)***	(4.9872)***	(1.8390)*	(4.4761)***	(8.1480)***
Lev	-0.5001	0.3376	0.0050	-0.0368	0.0376	0.0060	-0.0005	-0.1134
	(1.4643)	(1.2067)	(1.2907)	(0.5037)	(2.3418)**	(0.8249)	(1.7878)*	(3.1117)***
Sd_Roe	0.2168	-0.1650	0.0025	0.3461	0.3342	0.0063	0.0115	1.3762
	(0.6416)	(0.5288)	(0.4646)	(2.5264)**	(1.3099)	(0.0821)	(1.7072)*	(1.8976)*
Size	0.2911	-0.3075	-0.0092	1.3551	0.0004	0.0197	-0.0018	1.8100
	(1.3118)	(1.4706)	(2.0911)**	(12.7014)***	(0.0154)	(1.1810)	(2.5636)**	(40.3754)***
Big4	0.2929	-0.2626	0.0096	0.0432	0.1768	0.0122	-0.0007	0.5668
	(0.7108)	(0.6680)	(0.8562)	(0.2752)	(1.0777)	(0.2244)	(0.3466)	(3.3223)***
CEO_Age	-0.0445	0.0325	-0.0002	0.0361	0.0105	0.0017	0.0001	-0.0163
	(1.2502)	(1.0445)	(0.4395)	(2.0212)**	(2.4785)**	(1.0030)	(1.6746)*	(1.7184)*
P_B_Ind	-0.4925	0.3281	-0.0599	-0.1782	0.1851	-0.0476	-0.0106	1.3411
	(0.3420)	(0.2431)	(1.3549)	(0.2393)	(0.5741)	(0.3998)	(2.3235)**	(2.5778)**
P_Ac_Ind	0.5187	-0.2659	0.0594	0.8874	0.0232	-0.0519	0.0047	-0.5049
	(0.5159)	(0.2815)	(1.8263)*	(1.9110)*	(0.1052)	(0.6127)	(1.4043)	(1.3570)
Inst_Own	-0.0093	0.0090	0.0002	0.0106	-0.0039	0.0024	0.0000	0.0203
	(0.8697)	(0.8635)	(0.6673)	(1.5644)	(1.2359)	(0.8478)	(1.0479)	(4.7327)***
Constant	1.4763	-0.5211	0.0242	-24.5218	3.3799	-0.3772	0.0472	-33.1638
	(0.3134)	(0.1165)	(0.1840)	(10.9366)***	(2.5989)***	(0.3964)	(1.3992)	(26.1784)***
Adj R-Sq	0.45	0.45	0.28	0.58	0.21	0.04	0.28	0.64
F statistic	4.22	4.21	2.36	13.73	1.38	1.55	7.06	171.83
N	558	558	188	560	2,002	2,002	1,435	2,007
Year FE	Included	Included	Included	Included	Included	Included	Included	Included

* $p<0.1$; ** $p<0.05$; *** $p<0.01$

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variables

2.5.4.8 Winsorising at Different Levels

Instead of winsorising at 1%, *Accuracy* and *Bias* variables have been winsorised at 2 and 3 percent. Un-tabulated results suggest that the results remain similar to as reported in Table 2.6, and are significant at 1 percent level. For instance, when the *Accuracy* included being winsorised at 2 and 3 percent the coefficient is negative on *Press_5Y* with a t-statistic of 3.8341 and 4.1572 respectively. Similarly, when *Bias is* winsorised at 2 and 3 percent, the coefficient on *Press_5Y* is positive with a t-statistic of 4.0449 and 3.9886 respectively. It implies that winsorising of forecast accuracy and bias at different points does not affect the primary results. In addition to this the variable surprise (*Surp*) has also been included as a control being winsorised at different points (2 percent, and 5 percent) instead of at the value of 1. Primary results remain unchanged, however adjusted R-Squarediffer. For instance, while testing the relationship between CEO reputation and forecast accuracy, the adjusted R-Square at 2 and 5 percent winsorisation of *Surp* increased to 0.8458 and 0.5126 respectively.

Table 2.15: CEO Reputation (Number of Press Citations) and Analyst Mean Forecast Properties across a 12 Month Horizon

	Robust Regression								Firm Fixed Effects							
	Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following		Forecast Accuracy		Forecast Bias		Dispersion		Analyst Following	
	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y	Press_5Y	Press_3Y
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14	Column 15	Column 16
Reputation	-0.0005	-0.0005	0.0005	0.0006	0.0000	0.0000	0.0005	0.0006	-0.0005	-0.0005	0.0005	0.0006	0.0000	0.0000	0.0005	0.0006
	(1.9252)*	(1.6151)	(2.2441)**	(1.9839)**	(0.7924)	(0.9144)	(7.0004)***	(7.1565)***	(1.6505)*	(1.4326)	(2.0182)**	(1.8387)*	(0.6153)	(0.7171)	(3.5525)***	(3.7128)***
Dispersion	10.9032	10.9109	-9.3607	-9.3647					10.9032	10.9109	-9.3607	-9.3647				
	(3.2748)***	(3.2724)***	(3.1301)***	(3.1328)***					(3.0499)***	(3.0473)***	(3.1325)***	(3.1336)***				
Horizon	-1.0254	-1.0251	0.6436	0.6429	-0.0015	-0.0015	0.1510	0.1498	-1.0254	-1.0251	0.6436	0.6429	-0.0015	-0.0015	0.1510	0.1498
	(5.1779)***	(5.1814)***	(3.7786)***	(3.7789)***	(0.3198)	(0.3264)	(5.0718)***	(5.0262)***	(4.9767)***	(4.9783)***	(3.6866)***	(3.6867)***	(0.3071)	(0.3131)	(5.0605)***	(5.0213)***
Follow	-0.0138	-0.0157	0.1561	0.1571	0.0016	0.0016			-0.0138	-0.0157	0.1561	0.1571	0.0016	0.0016		
	(0.1604)	(0.1826)	(2.0346)**	(2.0599)**	(1.0116)	(1.0000)			(0.1474)	(0.1681)	(1.8927)*	(1.9168)*	(0.8177)	(0.8072)		
Surp	-7.4995	-7.4981	4.4014	4.4001	0.0662	0.0662	-0.5017	-0.5021	-7.4995	-7.4981	4.4014	4.4001	0.0662	0.0662	-0.5017	-0.5021
	(10.4686)***	(10.4651)***	(6.8051)***	(6.8024)***	(5.6110)***	(5.6171)***	(10.4345)***	(10.4636)***	(10.3087)***	(10.3057)***	(6.4471)***	(6.4438)***	(4.6275)***	(4.6343)***	(8.6450)***	(8.6745)***
Lev	-0.0654	-0.0652	0.0646	0.0647	-0.0003	-0.0003	-0.0002	0.0003	-0.0654	-0.0652	0.0646	0.0647	-0.0003	-0.0003	-0.0002	0.0003
	(0.9296)	(0.9235)	(1.0623)	(1.0600)	(0.7014)	(0.6805)	(0.0292)	(0.0501)	(0.7550)	(0.7521)	(0.8830)	(0.8832)	(0.5963)	(0.5785)	(0.0180)	(0.0312)
Sd_Roe	-0.0212	-0.0192	0.2295	0.2262	0.0023	0.0022	0.1148	0.1098	-0.0212	-0.0192	0.2295	0.2262	0.0023	0.0022	0.1148	0.1098
	(0.0787)	(0.0712)	(0.9085)	(0.8941)	(0.4542)	(0.4415)	(3.3512)***	(3.2217)***	(0.0679)	(0.0614)	(0.7497)	(0.7382)	(0.3367)	(0.3272)	(2.4279)**	(2.3498)**
Size	0.1046	0.1019	-0.1000	-0.0983	-0.0027	-0.0027	0.3085	0.3080	0.1046	0.1019	-0.1000	-0.0983	-0.0027	-0.0027	0.3085	0.3080
	(2.2244)**	(2.1565)**	(2.2858)**	(2.2227)**	(3.8692)***	(3.8714)***	(39.6905)***	(39.7198)***	(1.9382)*	(1.8803)*	(2.0789)**	(2.0284)**	(3.4349)***	(3.4167)***	(20.3038)***	(20.5400)***
Big4	-0.0017	-0.0015	0.0328	0.0330	0.0012	0.0012	0.1462	0.1467	-0.0017	-0.0015	0.0328	0.0330	0.0012	0.0012	0.1462	0.1467
	(0.0094)	(0.0082)	(0.2026)	(0.2040)	(0.4728)	(0.4751)	(4.7987)***	(4.8172)***	(0.0094)	(0.0082)	(0.2072)	(0.2086)	(0.4382)	(0.4403)	(2.6098)***	(2.6239)***
Loss	-0.7149	-0.7170	1.2370	1.2384	0.0117	0.0116	-0.1638	-0.1638	-0.7149	-0.7170	1.2370	1.2384	0.0117	0.0116	-0.1638	-0.1638
	(3.5342)***	(3.5420)***	(7.0064)***	(7.0075)***	(3.4902)***	(3.4848)***	(5.3546)***	(5.3513)***	(3.3979)***	(3.4083)***	(6.6201)***	(6.6225)***	(2.4360)**	(2.4308)**	(3.5346)***	(3.5351)***
CEO_Age	0.0187	-0.0158	0.0050	0.0056	0.0065	0.0067	-0.1526	-0.1245	0.0187	-0.0158	0.0050	0.0056	0.0065	0.0067	-0.1526	-0.1245
	(0.0454)	(0.0383)	(0.7493)	(0.8457)	(1.7535)*	(1.7887)*	(1.4788)	(1.2146)	(0.0421)	(0.0356)	(0.7272)	(0.8222)	(1.3716)	(1.3810)	(0.7561)	(0.6216)
P_B_Ind	-0.2227	-0.2299	0.2429	0.2469	-0.0195	-0.0196	0.1095	0.1071	-0.2227	-0.2299	0.2429	0.2469	-0.0195	-0.0196	0.1095	0.1071
	(0.5038)	(0.5195)	(0.6232)	(0.6329)	(3.0892)***	(3.1023)***	(1.2267)	(1.2009)	(0.4936)	(0.5097)	(0.6060)	(0.6153)	(2.4722)**	(2.4870)**	(0.7326)	(0.7169)
P_Ac_Ind	0.5925	0.5960	-0.4774	-0.4798	0.0133	0.0133	0.0477	0.0476	0.5925	0.5960	-0.4774	-0.4798	0.0133	0.0133	0.0477	0.0476
	(1.5877)	(1.5960)	(1.4495)	(1.4563)	(2.8294)***	(2.8341)***	(0.7606)	(0.7603)	(1.5321)	(1.5413)	(1.3788)	(1.3853)	(2.4473)**	(2.4526)**	(0.4778)	(0.4779)
Inst_Own	-0.0012	-0.0012	0.0007	0.0006	-0.0000	-0.0000	0.0068	0.0068	-0.0012	-0.0012	0.0007	0.0006	-0.0000	-0.0000	0.0068	0.0068
	(0.4065)	(0.3901)	(0.2446)	(0.2315)	(0.0090)	(0.0061)	(8.8971)***	(8.9078)***	(0.3823)	(0.3666)	(0.2294)	(0.2171)	(0.0077)	(0.0052)	(4.3825)***	(4.3906)***
Constant	3.3030	3.4964	-2.0405	-2.1072	0.0278	0.0279	-5.1957	-5.2935	3.3030	3.4964	-2.0405	-2.1072	0.0278	0.0279	-5.1957	-5.2935
	(1.6114)	(1.7136)*	(1.7267)*	(1.7876)*	(0.8009)	(0.8115)	(11.2409)***	(11.6222)***	(1.4496)	(1.5410)	(1.6394)	(1.6975)*	(0.6819)	(0.6834)	(5.9814)***	(6.1976)***
Adj R-Sq	0.33	0.33	0.20	0.20	0.31	0.31	0.65	0.65	0.33	0.33	0.20	0.20	0.31	0.31	0.65	0.65
F statistic	4.11	4.11	2.54	2.53	6.08	6.08	294.78	298.05	4.14	4.13	2.47	2.47	5.37	5.36	98.11	99.37
N	2,722	2,722	2,722	2,722	1,718	1,718	2,729	2,729	2,722	2,722	2,722	2,722	1,718	1,718	2,729	2,729
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included

** p<0.1; ** p<0.05; *** p<0.01*

Robust t-statistic in parenthesis. Please refer to Appendix-1 for definition of variables

2.6 Conclusion and Implications

2.6.1 Study Overview

The primary objective of this study is to examine the relation between CEO reputation and analyst forecast properties. Most of the prior literature focuses on firm characteristics such as information quality (financial and non-financial disclosures) and earnings quality as a determinant of the analyst forecast properties. This study considers the managerial characteristic specifically reputation, to identify any variation in properties of forecasts. Relying on the study conducted by Francis et al. (2008), two conflicting arguments efficient contracting and rent extraction hypothesis are used to examine the relationship between CEO reputation and properties of analyst forecasts. Efficient contracting hypothesis suggests that, CEOs having reputation act in the best interest of the firms by improving earnings quality and information environment. Conversely, rent extraction hypothesis suggests that, the reputed CEOs promote their personal wealth and career by misreporting the earnings and creating information asymmetry between firm and stakeholders. Relying on the rent extraction behaviour of CEOs, four primary hypotheses have been developed for this study. The results and conclusions for each hypothesis are discussed below.

2.6.2 Results and Conclusions

The first hypothesis of this study (H1) predicts that, the analyst forecast accuracy is likely to be lower for firms with CEO reputation. As predicted, results support H1 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation significantly negatively related to analyst forecast accuracy (Table 2.6 Columns 1, 2). Further results suggest that, the forecast accuracy remain significantly lower when the CEO reputation is at higher levels (Table 2.7 Columns 1, 2). In addition to this, if a CEO is having high reputation as well as power (acquired through higher compensation and multiple directorships), forecast accuracy remains significantly low (Table 2.8 Columns 2, 3). Sensitivity analysis performed using 2SLS suggests that, excluding the effect of omitted variables on CEO reputation, forecast accuracy is still significantly negatively related to CEO reputation (Table 2.9 Columns 1, 2). To check robustness, analysis is performed in a number of different ways. For instance, using the median value of analyst forecasts instead of mean value, changing the forecast horizon to 9 and 6 month period, using

alternative control variables and restricting the sample when at-least two analysts follow a firm. In all additional analysis, results support the primary outcome of the study. Thus H1 is strongly accepted at different robustness tests, implying that reputed CEOs opportunistically withheld the information and create information asymmetry by providing poor quality disclosures. Further it can also be concluded that reputed CEOs yield poor quality earnings information to achieve their personal wealth and career incentives.

The second hypothesis of this study (H2) predicts that, analyst forecast bias is likely to be high for firms with CEO reputation. As predicted, results support H2 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation significantly positively related to analyst forecast bias (Table 2.6 Columns 3, 4). Further results suggest that, forecast bias remains significantly high, when the CEO reputation is at higher than normal levels (Table 2.7 Columns 3, 4). In addition to this, if a CEO is having high reputation as well as power (acquired through higher compensation and multiple directorships), forecast bias remains significantly high (Table 2.8 Columns 5, 6).

Additional analysis conducted using 2SLS suggests that, excluding the effect of omitted variables on CEO reputation, forecast bias is still significantly positively related to CEO reputation (Table 2.9 Columns 3, 4). To check further robustness of the results, analysis is performed considering the median value of analyst forecasts instead of mean value, changing the forecast horizon to 9 and 6 month period, using alternative control variables, and restricting the sample when at-least two analysts follow a firm, results support the primary outcome. Thus H2 is strongly accepted at different robustness tests, implying that reputed CEOs opportunistically withheld the information and create information asymmetry by providing poor quality disclosures. In addition to this, results suggest that, the analysts expect higher earnings quality from firms with reputed CEOs and produce optimistic earnings forecast. Another explanation could be that, the reputed CEOs yields poor quality earnings information to achieve their personal wealth and career incentives.

The third hypothesis of this study (H3) predicts that, the analyst forecast dispersion is likely to be high for firms with CEO reputation. As predicted, results

support H3 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation significantly positively related to analyst forecast dispersion (Table 2.6 Columns 5, 6). Further results suggest that forecast bias remain significantly higher when the CEO reputation is at higher than normal levels (Table 2.7 Columns 5, 6). However, the forecast dispersion is negatively related to CEO reputation, when a reputed CEO has power (acquired through percentage of interdictors and multiple directorships), (Table 2.8 Columns 7, 8).

Sensitivity analysis conducted using 2SLS suggests that, excluding the effect of omitted variables on CEO reputation, forecast dispersion is still significantly positively related to CEO reputation (Table 2.9 Columns 5, 6). In addition to this, using alternative control variables, forecast dispersion is still positively related to CEO reputation at lower levels. Thus H3 is strongly accepted at different robustness tests, implying that reputed CEOs opportunistically withheld the information and create information asymmetry by providing poor quality disclosures. This further suggests that reputed CEOs yield poor quality earnings information to achieve their personal wealth and career incentives.

The fourth and final hypothesis of this study (H4) predicts that, the number of analyst following is likely to be high for firms with reputed CEOs. As predicted, results support H4 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation significantly positively related to analyst following (Table 2.6 Columns 7, 8). Further results suggest that analyst following remain significantly higher when the CEO reputation is at higher than normal levels (Table 2.7 Columns 7, 8). In addition to this, if a CEO is having high reputation as well as power (acquired through percentage of inter-directorships and high compensation), analyst following remains significantly high (Table 2.8 Columns 10, 12).

Further analysis conducted using 2SLS suggests that, excluding the effect of omitted variables on CEO reputation, analyst following is significantly positively related to CEO reputation (Table 2.9 Columns 7, 8). Further tests performed using alternative control variables, results remain quantitatively similar. Thus, H4 is strongly accepted performing different robustness tests, implying that reputed CEOs opportunistically provide poor quality earnings that increase the demand for analysts to provide forecasts. This is because, it is not possible for investors to estimate future

firm performance when the earnings quality is low. Results further conclude that, the investors and institutions demand extra monitoring of the firms with reputed CEOs through independent monitors (analysts).

2.6.3 Implications

There are clear implications for analysts, investors and other stakeholders having valuable contracts with firms. As the quality of information is lower (less forecast accuracy, higher bias), when provided by reputed CEOs, analysts can consider the CEO reputation when relying on the firm provide guidelines for forecasting. Similarly, investors and other stakeholders can consider the rent extraction behaviour of CEO reputation, when expecting firm future outcome and relying on the financial statements information. The policy makers are required to formulate rules in order to regulate the CEO power and restrict the opportunistic behaviour of powerful CEOs in Australia.

Further the research academics are required to consider the CEO reputation in future research as an important factor influencing the firm outcomes and information environment. As concluded, CEOs can use their reputation to extract personal incentives compromising the long term benefits of the stakeholders. Therefore, research scholars need to shift the focus of their future research towards the CEO reputation and identify its further impact on firm and market participants.

2.6.4 Contributions

Prior research suggests a two-way role of reputed CEOs. For instance one class of scholars validates that, the reputed CEOs act according to efficient contracting hypothesis by improving earnings and information quality (Demerjian et al. 2013; Baik, Farber and Lee 2011). Whereas other group advocates that CEOs having reputation perform earnings management and create information asymmetry (Francis et al. 2008; Malmendier and Tate 2009). Recalling the results, forecast accuracy (bias, dispersion and analyst following) decreases (increases) when the CEO has high reputation. This implies that reputed CEOs provide lower earnings quality and information to the market and supports the rent extraction behaviour of the analysts. Thus, this study contributes to the prior discussion on conflicting behaviours of reputed CEOs (efficient contracting and rent extraction arguments) in Australian regulatory settings.

This is the first study in Australia measuring the CEO reputation using number of press articles, thus there is a methodological contribution for CEO reputation literature in Australia. As the results suggest that the CEO reputation and power negatively relate to the quality of earnings and information environment, this provides an evidence of the impact of reputed and powerful CEOs in Australian settings.

A number of studies document the consequences of the reputed CEOs on firm's outcomes (earnings and information quality provided by firms) (Demerjian et al. 2013; Francis et al. 2008; Baik, Farber and Lee 2011). However, the question, whether the reputed CEOs influence the analysts forecasting process through information environment, has not been tested before. This study therefore fills the gap by providing evidence that CEO reputation has negative consequences on analysts' decisions making about firm future outcomes.

Although prior research suggests a number of factors (such as earnings and information quality, analyst characteristics, regulation, firm characteristics) that could influence the analyst forecast properties. This study identifies an additional determinant of the analyst forecast accuracy, bias, dispersion and analyst following. The results suggest that, the predictability of earnings is strongly negatively influenced by CEOs with high reputation..

Despite the fact that CEOs having reputation can influence the internal and external environment significantly through their decision making power, there is still lack of research on their implications for firms and related stakeholders. Therefore, another contribution of this study is towards the CEO reputation literature specifically in Australian context. Further there is a contribution to the prior literature on analyst forecast accuracy, bias, dispersion and number of analyst following in Australian settings. Finally, the results of this study are likely to be generalizable to other countries, because CEOs having reputation could influence in similar behaviour across the globe.

2.6.5 Limitations

Despite of providing several contributions, this study is also subject to limitations. First, while a number of control variables such as earnings quality, firm characteristics and corporate governance quality are included to control for the

relationship between CEO reputation and forecast properties. Yet, all of the potential sources through which forecast properties are likely to be affected, such as level of financial and non-financial disclosures and regulatory changes have not been considered for this study. Therefore, it is not possible to rule out the impact of potential omitted control variables, and therefore, unable to link the change in properties of analyst forecasts solely with CEO reputation.

Second, there is no one particular way to measure the CEO reputation. For instance, Milbourn (2003), measures reputation using press articles and three other proxies (CEO tenure, CEO's prior performance and outsider CEO). This study uses only the number of press articles to measure CEO reputation, which is considered as a market perception of CEO ability and reputation. Further some of the research criticizes about the validity of the press based measure of the CEO reputation. While prior research provides evidence on the validity of the press based measure, yet the implications of this study depend on the validity of the measure used for CEO reputation. Other than these potential limitations, this study contributes how CEO reputation can affect properties of analyst forecasts.

CHAPTER 3: CEO REPUTATION AND EARNINGS MANAGEMENT

3.1 Introduction

3.1.1 Motivation, Objectives and Research Questions

This paper examines the relationship between CEO reputation and earnings management for Australian listed firms. CEOs are known to be the key player for the renowned accounting scandals such as Enron and WorldCom in US and most recently Toshiba in Japan. In Toshiba's case, CEOs boost the profit figures with at-least $1.2 billion by manipulating the accounting numbers during the period 2009 to 2015. Such opportunistic behaviour of CEOs provide them different incentives, such as high compensation and reputation (Malmendier and Tate 2009; Milbourn 2003). If the CEOs are unsuccessful to achieve the market expected outcomes, they have to lose in terms of their reputation and career promotions (Milbourn, 2003). Therefore, CEOs are known to meet the market expected performance benchmarks through manipulating the accounting numbers (Matsunaga and Park 2001; Cheng and Warfield 2005; Burgstahler and Dichev 1997).

Earnings are considered as a primary indicator of a firm performance, thus lower quality earnings can result intro loss of wealth for investors and related stakeholders. CEOs with conflict of interest having information advantage can perform earnings management to misguide economic stakeholders about the future earnings of a firm. For instance, research suggests that the cost of equity is high for firms with lower earnings quality (Francis et al. 2004). As the Generally Accepted Accounting Principles (GAAP) provide discretion to managers on choosing the accounting methods, reputed CEOs to extract personal rents can possibly manipulate the earnings by adopting a favourable accounting policy. For example, by misreporting the transactions and account balances involve judgements (Healy and Wahlen 1999).

The most relevant to this study, a US based research by Francis et al. (2008) suggest that firms with lower accruals quality hire reputed CEOs to bring improvements. Previous research suggests that, managers shift from accruals management to real earnings management due to strict rules and regulations implemented after major

accounting scandals (Cohen, Dey and Lys 2008).[39] Moreover, in order to avoid scrutiny of auditors and other stakeholders, managers prefer to perform real earnings management instead of accrual management (Cohen, Dey and Lys 2008; Achleitner et al. 2014). Thus, it is likely that reputed CEOs prefer to perform real earnings manipulation on accruals management to safeguard their reputation as well as receive economic incentives. Relying on the above arguments, following research question of the study is developed.

RQ1: *Is there any relationship between CEO reputation and accruals and real earnings management?*

3.1.2 Theoretical Background

The two conflicting arguments, efficient contracting and rent extraction hypotheses are used to support the relationship between CEO reputation and earnings management. According to efficient contracting hypothesis, CEOs act in the best interest of shareholders by improving firm performance and stakeholder's wealth. According to Fama (1980), the increment in shareholders wealth helps to improve reputation of CEOs. As the CEOs build their reputation over a several years, therefore to avoid loss of their valuable reputation, they are more likely provide high quality earnings and less likely to involve in earnings management (Fama 1980). Research support this argument and suggests that the reputed CEOs improve the quality of earnings and related information (Demerjian, Lev and McVay 2012; Baik, Farber and Lee 2011; Francis et al. 2008).

Opposite to efficient contracting hypothesis, the rent extraction hypothesis suggests that, to extract rents and personal incentives, CEOs involve in opportunistic behaviour and perform earnings manipulation to show high performance (Malmendier and Tate 2009).

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[39] In response to accounting scandals, a number of regulatory reforms are introduced, such as Sarbanes Oxley Act 2002 (SOX) in US, Corporate Law Economic Reform Program, 2004 (CLERP) and Principles of Good Corporate Governance, 2003 in Australia.

The CEO reputation is measured using number of press articles mentioning the name of a CEO along with the company name, consistent with prior literature The discretionary accruals models following (Dechow and Dichev 2002; McNichols 2002), and real earnings management model following (Roychowdhury 2006), to detect earnings management in firms with reputed CEOs is used.

To empirically test the hypothesis of this study (developed on rent extraction basis), a final sample of 6,344 Australian firm year observations is used for the recent 10 year period from 2004 to 2013.[40] CEO reputation and earnings management data is collected from Factiva and DatAnalysis respectively. For empirical analysis, a series of regressions are performed. Results from this study suggest a number of contributions and implications.

3.1.3 Significance of the Study

This study makes contributions to the economy in several ways. First, this study provides evidence about the behaviour of reputed CEOs for the corporate reporting decisions. Specifically results will suggest, whether reputed CEOs improve the quality of accounting numbers in line with efficient contracting hypothesis, or maximise their own wealth and reputation following rent extraction hypothesis. Therefore, there is a contribution towards the prior discussion on two conflicting arguments about reputed CEOs (efficient contracting and rent extraction).

Although, Francis et al. (2008) examine the relationship between CEO reputation and earnings management (accruals quality) in US. This study examines the impact of CEO reputation on accruals as well as real earnings numbers in Australian settings, thus differ from the study of Francis et al. (2008). Further, this study provides evidence examine the impact of reputed CEOs with high power on accruals and real earnings quality. Moreover, this study will also suggest that, whether reputed CEOs

[40] The sample has been restricted to the recent 10 year period because of manual data collection involving for the number of press articles to measure CEO reputation.

receive high compensation as an incentive of earnings manipulation in Australian listed firms.

Determinants of accruals and real earnings include such as firm characteristics, internal and external corporate governance attributes. This study is likely to identify an additional determinant (managerial characteristic i.e. reputation and power) of the accruals and real earnings management. Further, there is a contribution to the prior literature on earnings quality measured through accruals and real earnings management. Although CEOs having high reputation and power can influence the internal and external environment significantly through their decision making power, there is still lack of research on their consequences for firm, specifically in Australia. Therefore, another contribution of this study is towards the prior literature and implications of press-based CEO reputation and CEO power. To the best of the knowledge of author this is the first study in Australia using press-based measure of CEO reputation and its consequences for firms. Therefore, there is a methodological contribution for the measurement of CEO reputation in Australian context. In addition to this, the results of this study are generalizable to the countries with regulatory regime similar to Australia, because CEOs with high reputation and power are likely to have similar behaviour across different countries.

3.2 Literature Review

3.2.1 Earnings Management

This chapter uses earnings management (an accounting based approach) as a proxy to measure earnings quality. Earnings management is one of the useful tool to measure the earnings quality of the firms. The concept of earnings management has been defined by scholars in several ways. For instance, according to Schipper (1989):

> *"The purposeful intervention in the external financial reporting process, with the intent of obtaining some private gain (as opposed to say, merely facilitating the neutral operation of the process)".*

Further, Healy and Wahlen (1999) express the act of earnings management as follows:

> *"Earnings management occurs when managers use judgment in financial reporting and in structuring transactions to alter financial reports to either mislead some stakeholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers".*

One of the motives for managers to perform earnings management and meet earnings benchmarks could be the incentives, such as high equity compensation and career promotions (Bergstresser and Philippon 2006; Healy 1985; McAnally, Srivastava and Weaver 2008; Malmendier and Tate 2009). According to Healy and Wahlen (1999), managers having information advantage can perform earnings management to misguide economic stakeholders about the future earnings of the firm. As the GAAP provide managers with choices to decide on accounting policies, managers could potentially influence earnings through adopting the favourable accounting methods. For instance, by manipulating the transactions and account balances involve judgements (Healy and Wahlen 1999). Dechow and Skinner (2000) explain the circumstances, where a manager can potentially perform earnings management within or violating the GAAP. Dechow and Skinner (2000) suggest that:

Managers can choose to perform earnings manipulation within GAAP in several ways. Such as, over selection of depreciation method, inventory valuation, provision of doubtful debts, shifting the timing or volume of revenues and certain expenditures. Managers following conservative accounting could overstate the provision for bad debts and reserves, resulting into decrease of final profits. However, following aggressive accounting within the limits of GAAP, managers may choose reducing balance method of depreciation to show high profits. In addition to this, managers can play with real cash flow choices to gain the required earnings number. For instance, postponing the sales or increasing the research and development or advertisement expenses to decrease profits of a particular financial year. Other than this, manipulation of earnings could be done through violation of the GAAP. For example, recording fictitious sales and overstating the inventory to increase profits. According to Dechow and Skinner (2000), such practice can be categorised as an accounting fraud.

3.2.2 Accrual and Real Earnings Management

The accruals and real earnings management are the most common form of earnings manipulation performed by managers within the GAAP limits. Managers may use accruals management to meet the certain earnings thresholds at the near end of fiscal year (Dechow and Skinner 2000). Change in accruals impact on earnings directly without having any change in cash flows. A number of prior studies show that managers perform accruals management to manage earnings (Francis et al. 2008; McVay, Nagar and Tang 2006; Matsunaga and Park 2001; Burgstahler and Dichev 1997; Cheng and Warfield 2005; Cornett, Marcus and Tehranian 2007).

In addition to accruals management, research also shows an evidence of earnings management through manipulating the real activities of a firm (Roychowdhury 2006; Cohen, Dey and Lys 2008; Achleitner et al. 2014; Cohen and Zarowin 2010; Chi, Lisic and Pevzner 2011). According to Roychowdhury (2006), real earnings management is performed by managers through reduction or changing in the time of certain expenses (such as production and discretionary expenses) and sales. For instance, delaying the sales or doing extra advertisement expenses in a particular period

to reduce the final profits. The advantage of real earnings management is that, the managers can do manipulations in real transactions without any strict monitoring or check of auditors and other stakeholders (Graham, Harvey and Rajgopal 2005). Therefore, managers prefer real earnings management over accruals management due to less chances of being identified (Graham, Harvey and Rajgopal 2005). According to Cohen, Dey, and Lys (2008), managers prefer to perform real earnings management instead of accrual management after the implementation of strict rules and regulations through SOX. Similarly research shows that firms with high scrutiny of auditors (high audit quality) and strict accounting regulations have greater level of real earnings management and lower accruals management (Chi, Lisic and Pevzner 2011; Zang 2012).

3.2.3 Managerial Motivations for Earnings Management

3.2.3.1 To Meet Earnings Targets

Firms and managers both receive greater economic incentives for meeting the market earnings expectations. For instance, Bartov, Givoly, and Hayn (2002) report that, the firms meeting or beating analyst earnings targets receive positive abnormal stock returns. Further, managers sell their shares at higher value subsequent to the quarters of meeting or beating the analyst forecasts (McVay, Nagar and Tang 2006). Furthermore, managers perform upward earnings management through working capital accruals to meet earnings benchmarks (McVay, Nagar and Tang 2006). Failing to meet earnings targets could lead to negative consequences for the management and firms. For example, study conducted by Matsunaga and Park (2001) suggest that, failing to meet analyst earnings forecast or prior year earnings thresholds have negative effect on CEOs annual cash bonuses. Therefore, managers prefer to perform upward earnings management to meet or beat the expected earnings benchmarks in order to avoid the negative consequences of missing the earnings benchmarks.

A number of prior studies show that CEOs perform upward earnings management to meet or beat the earnings benchmarks (analyst forecasts and previous year earnings) (Frankel, Johnson and Nelson 2002; Burgstahler and Dichev 1997; Degeorge, Patel and Zeckhauser 1999; Matsunaga and Park 2001). For instance, a US

study conducted by Burgstahler and Dichev (1997) reports that, managers manage working capitals and cash flows for upward earnings management to avoid losses and negative earnings. Burgstahler and Dichev (1997) suggest that, the managers do this to avoid the severe costs imposed by stakeholders to the firms. Similarly, according to Degeorge, Patel, and Zeckhauser (1999), managers manage earnings upward to meet market earnings thresholds. Furthermore, study conducted by Matsumoto (2002) examine US firms for the period 1993 to 1997, whether institutional ownership exert the pressure on management to achieve earnings targets. His study suggests that, managers guide analyst downwards as well as manage earnings upward through accruals to avoid negative earnings surprise, when the institutional ownership is high.

3.2.3.2 CEO's Equity Compensation

The quality of the reported earnings could be at risk, if the managerial incentives are linked with the reported earnings. A number of studies suggest that, the managers perform upward earnings management to meet the earnings targets for their equity compensation incentives (Cheng and Warfield 2005; Cornett, Marcus and Tehranian 2007; Bergstresser and Philippon 2006). For instance, Bergstresser and Philippon (2006) examine the US firms for the period 1996 to test whether CEOs perform earnings management to show high performance if the CEO's compensation is linked with the share price of firm. According to Bergstresser and Philippon (2006), the CEO's manage earnings upward (through discretionary accruals) to show high performance and for their compensation incentives. Further, Bergstresser and Philippon (2006) suggest that, in the years of reporting high accruals, CEOs and other insiders sell more shares and exercise their options. It implies that managers perform upward earnings management to increase the value of shares and sell at high price.

In the similar vein, Cheng and Warfield (2005) shows that, there is a positive association between CEO stock option compensation and discretionary accruals earnings management. CEOs having equity incentives perform accruals management and meet or just beat the analysts' forecasts. This is because, the future wealth of the managers is closely related to the earnings of the firms, which motivates them to perform earnings management (Cheng and Warfield 2005). Likewise, Cornett, Marcus,

and Tehranian (2007) examine S&P 100 firms for the period 1994 to 2003, and show that the CEOs having stock based compensation perform accrual management to show positive performance, however strong monitoring through internal and external governance attributes (such as institutional ownership and independent directors) restrict the opportunist behaviour of CEOs. Laux and Laux (2009) conclude that, if there is a proper task separation on board through committees for effective monitoring of CEOs, equity incentives of CEOs are not significantly related to earnings management (Laux and Laux 2009).

3.2.3.3 Shares Issuance and Debt Contracts

A number of studies show that managers perform upward earnings management before the issuance of shares (initial public offerings and seasoned equity offerings) to show a positive performance and attracts more investors to buy stock (Chi, Lisic and Pevzner 2011; Teoh, Welch and Wong 1998a; Teoh, Wong and Rao 1998; Friedlan 1994). Such as, managers manage earnings upward through accruals to show high performance in the year of initial public offering (IPO) (Teoh, Welch and Wong 1998a; Teoh, Wong and Rao 1998). Further, such firms experience less stock returns after three years of IPO, because of previous accruals management. Similarly, Friedlan (1994) reports that the firms perform accruals management and report higher earnings in the financial statements before IPO. According to Teoh, Welch, and Wong (1998b), not only before IPO, firms also manage earnings upward (through discretionary accruals) before the time of seasoned equity offerings (SEO) and also suffer lower stock returns in post SEO period. Furthermore, there is an evidence that SEO firms perform earnings management through real earnings as well (Chi, Lisic and Pevzner 2011; Cohen and Zarowin 2010).

Research also suggests that the firms manage earnings upward to meet the loan agreements. For instance, research conducted by Jaggi and Lee (2002) recommend that financially distressed firms performs income increasing accruals management to get waiver from debt covenant violations. They further conclude that, discretionary accruals are significantly higher for waiver firms when compared with non-waiver firms. Similarly, study conducted by DeFond and Jiambalvo (1994) suggest that, debt covenant

violations motivate managers to show high performance. DeFond and Jiambalvo (1994) find that the firms having debt covenant violations in annual reports perform earnings management (through working capital accruals). Similarly, according to Dichev et al. (2013), managers perform earnings management to meet or beat earnings benchmarks, to receive compensation incentives and career concerns and to use in debt contracts.

3.2.4 Determinants of Earnings Management

3.2.4.1 Firm Characteristics

Research suggests that a number of firm characteristics (for instance firm size, audit firm, firm growth, volatility of sales and cash flows, leverage and loss) are significantly related to earnings management behaviour of firms (Cheng and Warfield 2005; Achleitner et al. 2014; Srinidhi and Gul 2007; Choi, Kwak and Choe 2014). Particularly, looking at individual firm characteristics, there is a mixed evidence that whether the level of earnings management varies with size of a firm. For instance, the earnings management is high for larger firms through real transactions (Achleitner et al. 2014), and through working capital accruals (Cheng and Warfield 2005). In contrast to this, research also suggests that, larger firms have lower earnings management due to having strong corporate governance policy and procedures through accruals and real earnings numbers (Francis et al. 2008; Jiang, Petroni and Wang 2010; Peni and Vahamaa 2010; Choi, Kwak and Choe 2014).

Looking at audit quality, most of the prior literature suggests that firms having high audit quality are less likely to involve in earnings management through accruals, because of strong checks and monitoring of auditors. Such firms therefore prefer to manipulate earnings though real transactions (Roychowdhury 2006). For instance the firms being audited by one of the big4 audit firms have lower accruals management (Achleitner et al. 2014) and high real earnings management (Chi, Lisic and Pevzner 2011). Similarly firms paying high audit fees (high audit quality) to their auditors also yield lower accruals earnings management (Srinidhi and Gul 2007). Exploring other firms characteristics specifically, research suggest that the growth firms are positively (Peni and Vahamaa 2010; Achleitner et al. 2014), high volatile firms (in terms of sales and cash flows) positively (Peni and Vahamaa 2010; Francis et al. 2008), loss firms

negatively (Frankel, Johnson and Nelson 2002) and high leveraged firms are positively associated with earnings management (Jiang, Petroni and Wang 2010; Choi, Kwak and Choe 2014).

3.2.4.2 Corporate Governance and other Attributes

Strong enforcement of corporate governance acts as an efficient monitor on managers and aids to prevent earnings management. A number of studies show that different corporate governance attributes helps to control the earnings management. For instance, research shows that, the external monitoring through institutional investors and analysts helps to reduce the earnings management through accruals (Cornett, Marcus and Tehranian 2007; Yu 2008). Looking at board characteristics, larger boards and greater number of independent directors on board are associated with lower earnings management (Peasnell, Pope and Young 2005; Cornett, Marcus and Tehranian 2007; Davidson, Stewart and Kent 2005). Further, according to Yu (2008) the boards having greater number of financial experts and greater number of board meetings also helps to improve earnings quality (reduce earnings management).

One of primary role of an audit committee is to improve the earnings quality. Research suggests that firms having greater number of independent members on audit committee have lower earnings management. Further, the audit committees with financial expert members and greater number of meetings also monitor effectively the insiders and decrease the propensity of earnings management (Davidson, Stewart and Kent 2005; Klein 2002; Yu 2008).

"Specifically in the Australian context, according to Davidson, Stewart, and Kent (2005) firms with the existence of audit committee and non-executive directors on board yield lower earnings management. Another Australian study suggests a positive (negative) accruals management at the time of retirement (resignation) of a CEO (Mather and Ramsay 2006). Further, the larger boards and a greater percentage of independent directors on board reduces the instances of downward earnings management (Mather and Ramsay 2006). According to Holland and Ramsay (2003), Australian firms perform earnings management through a small increase in earnings to meet market expected earnings benchmarks. However, contrary to this, the study

conducted by Habib and Hossain (2008) finds no evidence that the managers manage accruals in Australian firms to just meet or beat the analysts' earnings forecast targets.

CEOs are considered to be an important attribute of corporate governance. CEOs having different personal and professional characteristics can significantly influence the decision making and earnings quality Looking at personal characteristics, research suggests that female managers are more ethical, conservative and risk averse as compared to their male counter parts. For instance, there is evidence that, the female managers' report lowers discretionary accruals (follow conservative accounting) and performs less earnings management (Peni and Vahamaa 2010; Srinidhi, Gul and Tsui 2011; Barua, Legoria and Moffitt 2006). Further, looking at CEO age, there is mixed evidence about the behaviour of older CEOs towards earnings management. For instance, CEO age is positively related to earnings management (Cornett, Marcus and Tehranian 2007), as well as negatively related to meeting or beating analyst forecasts and financial restatements (Huang, Rose-Green and Lee 2012). Furthermore, CEO reputation is positively related to earnings management through discretionary accruals (Francis et al. 2008). Further, research show that, reputed mangers are more likely to perform earnings management and report positive performance to maintain their reputation and receive personal incentive such as high compensation (Malmendier and Tate 2009). Similarly, CEOs with high power, due to conflict of interest can influence the decision making and perform earnings management (Srinidhi, Gul and Tsui 2011).

3.3 Theoretical Framework

3.3.1 CEO Reputation and Earnings Management

As reported in section 2.3.1 of the chapter 2, efficient contracting hypothesis suggests that, reputed CEOs improve overall financial reporting quality of the firms (Baik, Farber and Lee 2011; Demerjian et al. 2013; Jian and Lee 2011). Specifically, reputed CEOs are associated with providing accurate management earnings forecasts and choose positive net present value projects to signal their ability. In contrast to this, rent extraction hypothesis suggests that CEOs with high reputation perform earnings manipulation in order to meet targets set by market participants (Malmendier and Tate 2009; Ball 2001)

Relying on the rent extraction perspectives, that the CEOs having significant influence over decision making involve in earnings management to meet market expectations for their personal incentives (Cheng and Warfield 2005; Cornett, Marcus and Tehranian 2007; Mande and Son 2012). Further, due to conflict of interest, CEOs restrict the timely flow of bad news information to the market (Lafond and Roychowdhury 2007), to avoid short term negative outcomes. According to Ball (2001), managers to achieve their personal incentives ,such as bonuses and personal reputation are less likely to report any future losses of cash flows which might incur from negative net present value projects. This is because managers timely reporting any future losses in current earnings, may face severe problems such as termination and loss of the reputation. Specifically in terms of CEO reputation, superstar CEOs perform earnings management and generate poor performance as compared to a non-reputed CEO, as well as compare to their own performance, prior to be a superstar CEO (Malmendier and Tate 2009). Relying on the above arguments, this study develops the following hypothesis.

H1: There is a positive relationship between CEO reputation and accrual and real earnings management.

3.4 Research Design

3.4.1 Sample Selection Details

3.4.1.1 Sample Data Collection

Table 3.1 describes the sample selection process. Panel A presents details regarding the sample selection approach used to examine the relationship between CEO reputation and earnings quality (H1). Initial sample consists of 13,446 firm year observations drawn from "All Managing Director/CEO" file available on Connect4 Boardroom database. In the first stage, the 2,039 delisted firms are removed from the sample. If a firm has more than one CEO in a given year, only the observations with current CEOs are kept. This process removes 1,698 firm year observations and provides with a sample of 9,709 firm year observations. Finally, in the first stage of exclusions, 1,168 firms belonging to financial industry are removed because of their unique regulatory environment. Thus, the first stage provides a sample of 8,541 firm year observations.

Table 3.1: Sample Selection Procedure

Firms available at Connect4 for the period 2004-2013	13,446
First Stage Exclusions:	
Less:	
Firms which are delisted	(2,039)
Firms having more than one CEO in a given year (duplicate observations)	(1,698)
Firms belong to Financial Industry	(1,168)
Firms After First Stage Exclusions	**8,541**
Second Stage Exclusions:	
Less:	
Firms with no information for accrual and real earnings management models	(1,773)
Firms with no information for sales growth variable	(374)
Firms with no information for cash flow volatility and sales volatility	(16)
Firms with no information for other control variables	(9)
Final Firm Year Observations	**6,344**

In the second stage, the CEO data is merged with financial data extracted from DatAnalysis. In the process of combining the CEO data with earnings management models data 1,773 firm year observations are lost due to unavailability of financial data related to accrual and real earnings management models on DatAnalysis and Capital IQ. Finally, after removing observations with missing data for control variables, a final

sample of 6,344 firm years' observations is used for the primary analysis. Please refer to the Table 3.1 for details regarding to sample selection procedure adopted for this study.

3.4.1.2 Source Documentation

A number of secondary sources are used for data collection purposes. Financial data to calculate accrual and real earnings management models (dependent variable of this study) is retrieved from DatAnalysis and Capital IQ. The number of press articles (a proxy for CEO reputation) is taken from the Dow Jones (Factiva) database.[41] Information regarding CEO and other corporate governance variables is collected from both Connect4 and SIRCA databases. Where information is missing for CEO age, it is collected from online sources. Financial data related to firm characteristics is extracted from DatAnalysis and Capital IQ. Please refer to Table 3.2 for list of sources used to obtain data for this study.

Table 3.2: Variables and Sources of Data Collected

Data	Database
Accrual and Real Earnings Management Data, and Financial Data related to Firm Characteristics	DatAnalysis and Capital IQ
CEO Name and Age	Connect4
Number of Press Articles (Proxy for CEO Reputation)	Factiva (Dow-Jones)
Corporate Governance Data (Board Independence, Audit Committee Independence and Financial Expertise)	SIRCA

3.4.1.3 Normality Check

One of the assumptions of a linear regression is that data must be normally distributed. Table 3.3 shows the skewness and kurtosis for the variables transformed to meet the normality assumption of a linear regression. For instance, dependent variable *Drank_DD* without transformation has a skewness of -1.4082 and kurtosis of 17.0215. Therefore, following Demerjian et al. (2013), *Drank_DD* is transformed taking the decile rank by industry and year for the absolute value of the residual of DD model. After transformation for the variable *Drank_DD* skewness is -0.0012 and kurtosis is 1.7744 respectively. Similarly the other dependent variables of this study (*Drank_MC*,

[41] Press articles mentioning the name of a CEO are manually collected from the Factiva database by entering the name of individual CEO along with the name of company for which he/she served over the time period of study.

Drank_RCP, *Drank_RCF* and *Drank_RCD*) are normalised by taking decile rank of their respective residual value. The independent variable of this study CEO reputation (*Drank_Rep5*) is positively skewed without transformation with a value of 3.1744, which could potentially lead to biased results. Therefore, following Demerjian et al. (2013), CEO reputation is transformed to decile rank by industry and year for the number of press citations. After transformation, *Drank_Rep5* shows skewness of -0.0593 and kurtosis of 1.7266. Furthermore, the control variables *Size*, *CEO_Age* and *B_Size* are transformed by taking natural logarithm of their respective values. Please refer to Table 3.3 for details.

Table 3.3: Skewness and Kurtosis of Variables

	Skewness		Kurtosis	
Variable Name	**Before Transformation**	**After Transformation**	**Before Transformation**	**After Transformation**
Drank_DD	-1.4082	-0.0012	17.0215	1.7744
Drank_MC	-0.9844	-0.0098	15.4227	1.7854
Drank_RCP	1.2274	-0.0519	8.7450	1.7843
Drank_RCF	0.7970	-0.07747	8.2994	1.7740
Drank_RCD	-0.5035	-0.0944	8.7736	1.8063
Drank_Rep5	3.1744	-0.0593	14.9444	1.7266
Size	14.8572	0.6634	272.9208	2.9625
CEO_Age	0.0181	-0.5318	3.8292	4.3747
B_Size	1.1546	0.1099	4.9857	2.7150

3.4.2 Variables Measurement

3.4.2.1 Accruals Management

The first proxy to assess the accruals quality is measured through discretionary accruals model by mapping the total accruals of a firm into operating cash flows and controlling for firm related inner characteristics following (Dechow and Dichev 2002). This model is used, because discretionary accruals models are helpful in detecting the fraudulent financial reporting (Jones, Krishnan and Melendrez 2008). According to Jones, Krishnan, and Melendrez (2008), the discretionary accruals model suggested by Dechow and Dichev (2002) provides highest explanatory power to identify the fraud as compared to other accruals models. In addition to this, discretionary accruals are the part of total accruals at manager choice to manipulate and investors give high importance to discretionary accruals as compared to other accruals (Francis et al.

2004; Dechow and Dichev 2002). Another reason to choose this model is that, managers have greater flexibility to manage accruals without violating the GAAP (Dechow and Skinner 2000). If the managers are not able to meet the expected earnings targets, they prefer to manipulate accruals to boost the earnings at near end of fiscal year (Dechow and Skinner 2000). Any change in accruals is not reflected in the cash flows but impact earnings. Thus unexplained portion of the accruals by cash flows refers to the manipulated / abnormal accruals (Dechow and Dichev 2002). Dechow and Dichev (2002) suggest the empirical way of calculating the unexplained portion of working capital accruals, by regressing the total accruals on current, prior and future period cash flows from operations. Greater values for unexplained portion of working capital accruals refer to the lower earnings quality (high accruals management). Following regression equation represents the Dechow and Dichev (2002) accruals model.

$$TCA_{it} / AVG\ TA_{it} = \beta_{0it} + \beta_1 CFO_{it-1} / AVG\ TA_{it} + \beta_2 CFO_{it} / AVG\ TA_{it} + \beta_3 CFO_{it+1} / AVG\ TA_{it} + \varepsilon_{it} \quad (1)$$

Where:

TCA_{it} = Total accruals of a firm calculated by subtracting the operating cashflow from net profit of a firm *i* in the time period *t*.

$AVG\ TA_{it}$ = Total assets of a firm *i* averaged across sample period of this study, and

CFO_{it}, CFO_{it-1} *and* CFO_{it+1} = Cash flow from operations of a firm *i* for the time period *t*, *t-1* and *t+1* respectively.

The approach to measure TCA_{it} in regression equation one is used following Ali and Zhang (2015). The residual from the regression equation 1 is measuerd by each industry and year. Higher values of the residual indicate greater unexplained portin of accruals and lower earnings quality. For second stage regression, this study uses the decile rank score by industry and year for the absolute value of the residual obtained from equation 1 (*Drank_DD*) which is consistent with prior studies (Demerjian et al. 2013).

The second measure of accruals quality is the modified version of Dechow and Dichev (2002), recommended by (McNichols 2002). McNichols (2002) suggests the advanceed version of Dechow and Dichev (2002) model by adding change in revenue and property, plant and equipment as an additional variables. A number of prior studies provide evidence of earnings management through McNichols (2002) accrual model (Barua, Legoria and Moffitt 2006; Francis et al. 2004; Srinidhi, Gul and Tsui 2011; Ali and Zhang 2015). Following regression equation represents the McNichols (2002) accruals model.

$$TCA_{it} / AVG\ TA_{it} = \beta_{0it} + \beta_1 CFO_{it-1} / AVG\ TA_{it} + \beta_2 CFO_{it} / AVG\ TA_{it} + \beta_3 CFO_{it+1} / AVG\ TA_{it} + \beta_4 \Delta REV_{it} / AVG\ TA_{it} + \beta_5 \Delta PPE_{it} / AVG\ TA_{it} + \varepsilon_{it} \quad (2)$$

Where:

ΔREV_{it} = Sales of a firm *i* for the time period *t* minus sales for the time period *t-1*, and

PPE_{it} = Gross property plant & equipment of a firm *i* for the time period *t*.

All of the variables remain same as provided in equation 1, except for the addition of ΔREV_{it} and PPE_{it}. The residual is measured by each industry and year from the regression equation 2. For second stage analysis, this study uses the decile rank by industry and year for the absolute value of the residual (*Drank_MC*).

3.4.2.2 Real Earnings Management

Research suggests that managers switch from accrual management to real earnings management after SOX to avoid the strict monitoring of auditors and regulators (Cohen, Dey and Lys 2008). Real earnings manipulations provide managers with a choice to shift the timing / volume of expenses to adjust the earnings (Roychowdhury 2006). This study considers the abnormal level of production expenses, discretionary expenses and cash flow from operations to identify the real earnings management following (Roychowdhury 2006). Prior studies provide empirical evidence of manipulation in the real earnings numbers (Achleitner et al. 2014; Cohen, Dey and Lys 2008).

The first possible way suggested by Roychowdhury (2006), through which managers can perform real earnings manipulation is the level of production expenses. Managers can overproduce and allocate the fixed cost to the large quantity of units produced. This results in reduction of per unit cost and total cost of goods sold, as long as the the fixed per unit cost is not offset by increase in veriable per unit cost. Overall, extra production leads to higher production costs which is not offset by relative increase in sales. Therfore, abnormal production cost refers to the earnings management.

The regression equation 3 represents the abnormal production expenses model to detect real earnings management(Roychowdhury 2006).

$$PROD_{it} / TA_{it-1} = \beta_{0it} + \beta_1(1 / TA_{it-1}) + \beta_2(Sales_{it} / TA_{it-1}) + \beta_3(\Delta Sales_{it} / TA_{it-1}) + \beta_4(\Delta \text{Sales}_{it-1} / TA_{it-1}) + \varepsilon_{it} \quad (3)$$

Where:

$PROD_{it}$ = Sum of the cost of goods sold and ΔInventory for a firm *i* in the time period. *t.*

TA_{it-1} = Dollar value of total assets of a firm *i* at the end of the time period *t-1*.

$\Delta Sales_{it}$ = Sales of a firm *i* for the time period *t* minus sales of a firm *i* for the time period *t-1, and*

$\Delta Sales_{it-1}$ = Sales of a firm *i* for the time period *t-1* minus sales of a firm *i* for the time period *t-2.*

ε_{it} = Error term.

The regression is performed for equation 3 by each GICS industry sector and year to consider the impact of time and industrial circumstances over the estimated coefficients. Greater value of the residual represents high abnormal level of production costs and higher real earnings manipulation (lower earnings quality). Finally, for second stage analysis, the residual is converted into decile rank by industry and year (*Drank_RCP*) following prior literature (Demerjian et al. 2013).

Managers may increase current year sales / earnings by providing flexible credit limits and reducing the prices near the period end. The large volume of sales at lower price leads to high profits for the current period at the cost of lower profits for future period. The large volume of sales at flexible credit limits leads to lower cash flows in current period and represents real earnings management through higher earnings and lower cash flows. The equation 4 presents the abnormal cash flows model to detect real earnings management through high sales and lower cash flows.

$$CFO_{it} / TA_{it-1} = \beta_{0it} + \beta_1(1 / TA_{it-1}) + \beta_2(Sales_{it} / TA_{it-1}) + \beta_3(\Delta Sales_{it} / TA_{it-1}) + \varepsilon_{it} \quad (4)$$

Where:

CFO_{it} = Cash flow from operations for a firm *i* in the time period. *t*.

Other variables remain same as explained in equation 3. The residual is obtained from the regression performed by industry and year and represents abnormal level of cash flows. Lower / negative value of the residual denotes higher real earnings management. For second stage analysis, the residual is converted into decile rank by industry and year (*Drank_RCF*).

According to Roychowdhury (2006), the third source of real earnings management for managers is through discretionary expenses The reduction in discretionary expenses such as research and development, advertisement and selling general and administrative expenses lead to higher profits for the current year. Thus, abnormally lower level of discretionary expenses represents higher real earnings manipulation. The equation 5 estimates the abnormal level of discretionary expenses.

$$DISC_{it} / TA_{it-1} = \beta_{0it} + \beta_1(1 / TA_{it-1}) + \beta_2(Sales_{it-1} / TA_{it-1}) + \varepsilon_{it} \quad (5)$$

Where:

$DISC_{it}$ = Discretionary expenses for a firm *i* in the time period. *t*.

Other variables remain same as explained in equation 3. The residual is obtained from the regression performed by industry and year and represents abnormal

level of discretionary expenses. Lower / negative value of the residual denotes higher earnings manipulation through discretionary expenses. For second stage analysis, the residual is converted into decile rank by industry and year (*Drank_RCD*).

3.4.2.3 CEO Reputation

The independent variable for this paper is CEO reputation (*Drank_Rep5*), which is measured using publicly available news channels (number of press articles). As explained in paper one of the thesis (section 2.4.3.2), the notion for the measure of CEO reputation is that a CEO who is perceived to be an expert is more likely to be interviewed and cited in press as compared to a CEO not being considered as an expert (Baik, Farber and Lee 2011). Please refer to section 2.4.3.2 for details about measure of CEO reputation.

3.4.2.4 Control Variables

Total accruals can be classified into the accruals at management discretion and the accruals influenced by firm inner characteristics (Dechow and Dichev 2002). The firm characteristics relate to accruals and cannot be influenced by managers are firm size, cash flow volatility, sales volatility, absolute value of change in working capital, and operating cycle. Following prior studies (Francis et al. 2008; Barua, Legoria and Moffitt 2006; Srinidhi, Gul and Tsui 2011), the firm related inner characteristics are included into regression such as *Size*, *Sales_Vol*, *CFO_Vol*, and *ΔSales_Grow* to identify the part of discretionary accruals influenced by reputed CEOs.[42]

The *Size* is included as a control variable, because prior research suggests that the smaller firms have high earnings management through accruals (Dechow and Dichev 2002; Barua, Legoria and Moffitt 2006). Therefore, the expectation is to get a negative coefficient on *Size*. Further, *Sales_Vol* and *CFO_Vol* variables are included, because greater fluctuations in sales and cash flows can influence the accruals significantly (Francis et al. 2008). The prior research suggests a positive relation

[42] For ease of explanation, the firm and time subscripts are removed while labelling the variables following prior literature (Behn, Choi and Kang 2008).

between firm growth and the accruals management (Barua, Legoria and Moffitt 2006; Klein 2002). To control for the prior and future growth of the firm, market to book ratio (*M/B*) and sales growth (*ΔSales_Grow*) are included respectively. Following prior studies, a positive coefficient on *M/B* and *ΔSales_Grow is expected*. There is an evidence that the accruals are higher for firms with poor performance (Dechow and Dichev 2002; Barua, Legoria and Moffitt 2006). Therefore, return on assets (*ROA*) has been included to control for the performance of the firm and a negative coefficient is expected on *ROA*.

In addition to the firm characteristics, corporate governance variables are also included in the regression. Governance attributes can potentially impact the relationship between CEO reputation and earnings management. Audit quality (*Big4*) variable is included, because the firms having high audit quality are less likely to perform earnings management (Barua, Legoria and Moffitt 2006), therefore a negative coefficient is expected on *Big4*. The CEO age (*CEO_Age*) is included to control for CEO reputation, as the older CEOs are likely to have more reputation as compared. The number of directors serving on board (*B_Size*) and percentage of independent board of directors (*P_B_Ind*) are included to control for the effect of board structure on earnings management. For additional analysis, the percentage of independent audit committee members (*P_Ac_Ind*) and percentage of financial expert audit committee members (*P_Ac_Fin*) are included, as reported in sensitivity analysis. Further, the operating cycle (*Op_Cycle*) is included, because research shows a negative relationship between accrual quality and number of days of an operating cycle of a firm.

3.4.3 Regression Models

The five regression equations used to test H1 are presented below respectively.

$$Drank\_DD = \beta_0 + \beta_1 Drank\_Rep5 + \beta_2 Size + \beta_3 M/B + \beta_4 Lev + \beta_5 ROA + \beta_6 \Delta Sales\_Grow + \beta_7 Sales\_Vol + \beta_8 CFO\_Vol + \beta_9 Big4 + \beta_{10} Loss + \beta_{11} CEO\_Age + \beta_{12} B\_Size + \beta_{13} P\_B\_Ind + Year + \varepsilon \quad (6)$$

$$Drank\_MC = \beta_0 + \beta_1 Drank\_Rep5 + \beta_2 Size + \beta_3 M/B + \beta_4 Lev + \beta_5 ROA + \beta_6 \Delta Sales\_Grow + \beta_7 Sales\_Vol + \beta_8 CFO\_Vol + \beta_9 Big4 + \beta_{10} Loss + \beta_{11} CEO\_Age + \beta_{12} B\_Size + \beta_{13} P\_B\_Ind + Year + \varepsilon \quad (7)$$

$$Drank\_RCP = \beta_0 + \beta_1 Drank\_Rep5 + \beta_2 Size + \beta_3 M/B + \beta_4 Lev + \beta_5 ROA + \beta_6 \Delta Sales\_Grow + \beta_7 Sales\_Vol + \beta_8 CFO\_Vol + \beta_9 Big4 + \beta_{10} Loss + \beta_{11} CEO\_Age + \beta_{12} B\_Size + \beta_{13} P\_B\_Ind + Year + \varepsilon \quad (8)$$

$$Drank\_RCF = \beta_0 + \beta_1 Drank\_Rep5 + \beta_2 Size + \beta_3 M/B + \beta_4 Lev + \beta_5 ROA + \beta_6 \Delta Sales\_Grow + \beta_7 Sales\_Vol + \beta_8 CFO\_Vol + \beta_9 Big4 + \beta_{10} Loss + \beta_{11} CEO\_Age + \beta_{12} B\_Size + \beta_{13} P\_B\_Ind + Year + \varepsilon \quad (9)$$

$$Drank\_RCD = \beta_0 + \beta_1 Drank\_Rep5 + \beta_2 Size + \beta_3 M/B + \beta_4 Lev + \beta_5 ROA + \beta_6 \Delta Sales\_Grow + \beta_7 Sales\_Vol + \beta_8 CFO\_Vol + \beta_9 Big4 + \beta_{10} Loss + \beta_{11} CEO\_Age + \beta_{12} B\_Size + \beta_{13} P\_B\_Ind + Year + \varepsilon \quad (10)$$

Please refer to Appendix 2 for definition of the variables.

3.5 Data Analysis

3.5.1 Univariate Analysis

Table 3.4 reports the descriptive statistics for the variables used in regression analysis. The mean (median) for the residual from Dechow and Dichev (2002) accruals model (*Drank_DD*[a]) is -0.0866 (-0.0196).[43] The mean (median) for the residual from McNichols (2002) model (*Drank_MC*[a]) is -0.0905 (-0.0226). Similarly the mean (median) for the residual from Roychowdhury (2006) real earnings management model (*Drank_RCP*[a]) is 0.0020 (-0.0412). The mean (median) number of press articles over the prior 5 year (*Drank_Rep5*[a]) is 79 (29). Furthermore, mean value for abnormally high CEO reputation (*High_Rep5*) is 0.2219, suggesting that almost 22 percent of the firms

Table 3.4: Descriptive Statistics

Variables	N	Mean	Median	Std	Min	Max	P25	P75
Drank_DD[a]	6369	-0.0866	-0.0196	1.0104	-5.5477	4.1224	-0.1169	0.0200
Drank_MC[a]	6369	-0.0905	-0.0227	1.0517	-5.3972	4.4095	-0.1359	0.0209
Drank_RCP[a]	6369	0.0021	-0.0412	1.0151	-3.0091	4.5156	-0.3583	0.2227
Drank_RCF[a]	6369	0.2202	0.0250	0.9217	-2.0817	3.9518	-0.1375	0.2825
Drank_RCD[a]	6369	-0.0516	0.0021	0.9595	-4.1282	3.1505	-0.3197	0.3164
Drank_Rep5[a]	6369	79.0607	29.0000	131.5703	0.0000	843.0000	8.0000	86.0000
High_Rep5	6369	0.2219	0.0000	0.4156	0.0000	1.0000	0.0000	0.0000
Size (000)[a]	6369	872,000	33,700	4,200,000	564,068	57,200,000	9,428,696	186,000
M/B	6369	2.6236	1.5900	3.4776	-3.0200	22.2100	0.8200	3.0200
Lev	6369	1.7160	1.3432	1.4306	-1.4452	12.2533	1.0713	1.9209
ROA	6369	-0.2114	-0.0412	0.6050	-4.1027	0.3527	-0.2459	0.0714
ΔSales_Grow	6369	6.2435	0.0526	32.3135	-1.0000	254.4941	-0.2302	0.4851
Sales_Vol	6369	0.1705	0.0801	0.2480	0.0000	1.4405	0.0225	0.2087
CFO_Vol	6369	0.0999	0.0573	0.1218	0.0022	0.7190	0.0263	0.1202
Big4	6369	0.4792	0.0000	0.4996	0.0000	1.0000	0.0000	1.0000
Loss	6369	0.5741	1.0000	0.4945	0.0000	1.0000	0.0000	1.0000
CEO_Age[a]	6369	58.1978	58	7	40	77	55	61
B_Size[a]	6369	6.3829	6.0000	2.3596	3.0000	14.0000	5.0000	8.0000
P_B_Ind	6369	0.3718	0.3750	0.2557	0.0000	0.8750	0.1667	0.5714

Please refer to Appendix-2 for definition of variables

a: *The statistics for variables with superscript "a" has been provided in untransformed form (raw variables form) for ease of explanation.*

[43] The statistics for variables with superscript "a" is presented in untransformed form for ease of explanation.

have abnormally high reputed CEOs.[44]

Analysing the control variables, the mean (median) value for the total assets (*Size*^{a}) is 872 million (33.7 million). The average market to book ratio is 2.6236 and leverage (*Lev*) is 2.0493. On average the 57 percent of the firms reported loss with the mean (median) *ROA* of -0.2114 (-0.0412) respectively. Furthermore, on average the sales growth (*ΔSales_Grow*) for the current year as compared to previous year remain 6.2 percent. The average value for sales volatility (*Sales_Vol*) and cash flow volatility (*CFO_Vol*) for the prior 5 year is 0.1705 and 0.0999. The mean value for *Big4* and *CEO_Age*^{a} is 0.4792 and 58.1978 respectively, suggesting that 48% of the sample firms have big 4 auditor and on average CEO age is 58 years. Finally, the mean value for board size (*B_Size*) and percentage of board independence (*P_B_Ind*) is 6.3829 and 0.3718, implying that on average, there are 6.4 directors serving on a board and 37 percent of the board members are independent on average.

3.5.2 Bi-Variate Analysis

Table 3.5 shows results for the Pearson correlation matrix for the regression variables with significance level. Most of the variables are significantly correlated at the 1 percent level. The univariate correlation suggests that the accruals quality models (*Drank_DD* and *Drank_MC*) are significantly correlated with CEO reputation (*Drank_Rep5 and High-Rep5*). Further, accruals management models (*Drank_DD* and *Drank_MC*) are significantly correlated with all control variables except for market to book ratio (M/B). Similarly, the real earnings management model (*Drank_RCP*) is significantly related to all control variables except *CEO_Age* and *B_Size*.

Furthermore, the CEO reputation (*Drank_Rep5*) appears to be positively correlated with *Size*, *M/B*, *Lev*, *ROA Big4*, *CEO_Age*, *B_Size*, and *P_B_Ind*, whereas negatively correlated with change in sales growth (*ΔSales_Grow*), sales volatility (*Sales_Vol*), cash flow volatility (*CFO_Vol*) and loss (*Loss*). The magnitude of

[44] Abnormally high CEO reputation calculated as a dummy variable equal to 1, if the decile rank by industry and year for the number of press articles for a CEO lies in the top quintile, otherwise 0.

correlation indicates that there are no significant multicollinearity issues in the analysis. The correlations among control variables are generally low, except the correlation between *Size* and *B_Size*, and *Size* and *ROA*. The positive correlation between *Drank_DD* and *Size*, also makes sense that larger firms tend to have greater accruals. Similarly, the positive high correlation between *Big4* and *Size* is also understandable, because the larger firms are more likely to be audited by big 4 auditing firms.

3.5.3 Multivariate Analysis

3.5.3.1 CEO Reputation and Earnings Management

Table 3.6 reports the results of the relationship between CEO reputation and all five earnings quality models. The regressions are performed using ordinary least squares (OLS) regressions using firm clustering and Huber – White robust t-statistics.[45] Table 3.6, Column 1 and 2 reports the results for the relationship between CEO reputation and accruals management. Column 1 reports the outcome for the relationship between CEO reputation (*Drank_Rep5*) and Dechow and Dichev (2002) accruals quality model (*Drank_DD*). The primary variable of interest is *Drank_Rep5*, and recalling H1, the expectation is to get a positive and significant coefficient on *Drank_Rep5* in the hypothesis development section. Column 1 shows that, the *Drank_Rep5* is significant with a positive coefficient (t-statistic = 3.9427). As predicted, results support H1 and bolster the argument of rent extraction behaviour of reputed CEOs, with CEO reputation positively related to abnormal discretionary accruals of a firm.

Results on control variables provide mixed results comparing with prior literature. The coefficient on all of the determinants of accruals quality (*Drank_DD*) is positively significant except for *ROA, CEO_Age* and *P_B_Ind*. Specifically, consistent with Achleitner et al. (2014), larger firms and firms with high leverage generate poor quality earnings (higher discretionary accruals). Further, consistent with prior literature, firms with high sales growth (*ΔSales_Grow*), high variation in sales (*Sales_Vol*), high

[45] Using White's robust regression successfully overcome the problem of heteroscedasticity and auto-correlation, whereas firm clustering allows each firm to have their own intercept for multiple years considering the heterogeneity of characteristics between firms (Gujarati 2011; Wooldridge 2002).

variation in cash flow from operations (*CFO_Vol*) (Barua, Legoria and Moffitt 2006; Francis et al. 2008). In addition to this, in the sample, firms with larger boards and being audited by *Big4* also produce lower quality earnings. The negative and significant coefficient on *ROA* implies that the firms with lower return on assets report high discretionary accruals in financial reports. The adjusted R-square of 56.4% reports the explanatory power of the model.

Table 3.6 column 2 reports the results for the relationship between CEO reputation and earnings quality (*Drank_MC*) measured following McNichols (2002) model. Column 2 indicates that, the coefficient on *Drank_Rep5* positive and significant (*t*-statistic = 3.9302). It further supports the H1 of this study, and shows that the firms with reputed CEOs yield higher discretionary accruals (*Drank_MC*). The adjusted R-square of 54.1% reports the explanatory power of the model.

Table 3.6 column 3 to 5 reports the results for the relationship between CEO reputation and real earnings management. Column 3 reports the results for the relationship between CEO reputation and real earnings management, calculated through abnormal production expenses following (Roychowdhury 2006). Column 3 demonstrates that, the coefficient on CEO reputation (*Drank_Rep5*) is positive and significant (t-statistic = 4.6801). The results suggest that the firms with reputed CEOs produce higher abnormal production expenses, thus further strengthen the rent extraction behaviour of the reputed CEOs. In terms of control variables results suggest that the smaller firms and firms with lower return on assets produce high abnormal production expenses. Furthermore, the firms with high sales growth (*ΔSales_Grow*), high variation in sales (*Sales_Vol*) and high variation in CFO (*CFO_Vol*) tend to have higher earnings management through production expenses, similar to the discretionary accruals (columns 1 and 2). However, in contrast to the discretionary accruals management, the results suggest that the profitable firms and firms with independent boards also tend to repot high abnormal production expenses. The adjusted R-square of 18.9% reports the explanatory power of the model.

Table 3.5: Pearson Correlation Matrix

Panel A: Variable *Drank_DD* to *Lev*

	Drank_DD	*Drank_MC*	*Drank_RCP*	*Drank_RCF*	*Drank_RCD*	*Drank_Rep5*	*High_Rep5*	*Size*	*M/B*	*Lev*
Drank_DD										
Drank_MC	0.7894***									
Drank_RCP	0.0646***	0.0407***								
Drank_RCP	-0.1034***	-0.0984***	0.2292***							
Drank_RCP	-0.0919***	-0.07***	0.2853***	0.329***						
Drank_Rep5	0.3095***	0.3086***	-0.0134	-0.0763***	-0.1129***					
High_Rep5	0.3424***	0.3437***	-0.016	-0.0737***	-0.0764***	0.7134***				
Size	0.6789***	0.6734***	-0.0459***	-0.2527***	-0.1926***	0.375***	0.4346***			
M/B	0.0097	-0.0002	0.1249***	0.221***	0.1363***	0.0205	0.0351***	-0.1242***		
Lev	0.171***	0.1606***	0.0896***	-0.0099	0.0232	0.0332**	0.0525***	0.2018***	0.392***	
ROA	0.0799***	0.1084***	-0.0836***	-0.1677***	-0.1545***	0.1318***	0.1217***	0.4713***	-0.1974***	0.0945***
ΔSales_Grow	-0.0029	-0.0265**	0.0308**	0.0514***	0.0045	-0.0199	-0.0216*	-0.0632***	0.0291**	-0.0202
Sales_Vol	0.0655***	0.0627***	0.3144***	0.1735***	0.1552***	-0.0437***	-0.0296**	0.0119	0.0509***	0.1342***
CFO_Vol	-0.056***	-0.0734***	0.1731***	0.3487***	0.1732***	-0.0916***	-0.0816***	-0.2525***	0.198***	0.0217***
Big4	0.4094***	0.4243***	0.0322**	-0.1164***	-0.0762***	0.1883***	0.2248***	0.5243***	-0.0045	0.1187***
Loss	-0.3084***	-0.3165***	-0.161***	0.0703***	0.0379***	-0.1909***	-0.2252***	-0.6029***	0.0564***	-0.1831***
CEO_Age	0.0597***	0.0727***	-0.0127	-0.0582***	-0.0276**	0.0759***	0.0779***	0.096***	-0.011	0.0341
B_Size	0.4242***	0.4281***	0.0149	-0.1031***	-0.0523***	0.1134***	0.2143***	0.5191***	-0.0072	0.1175***
P_B_Ind	0.2496***	0.258***	0.0364**	-0.0443***	-0.0431***	0.2212***	0.2317***	0.3794***	0.0142	0.0825***

Panel B: Variable *ROA* to *P_B_Ind*

	ROA	*ΔSales_Grow*	*Sales_Vol*	*CFO_Vol*	*Big4*	*Loss*	*CEO_Age*	*B_Size*	*P_B_Ind*
ROA									
ΔSales_Grow	-0.011								
Sales_Vol	0.0734***	0.0865***							
CFO_Vol	-0.2159***	0.0776***	0.3369***						
Big4	0.195***	-0.061***	0.0248***	-0.1392***					
Loss	-0.446***	0.0687***	-0.1652***	0.1329***	-0.3319***				
CEO_Age	0.058***	-0.006	-0.0433***	-0.0569***	0.0775***	-0.0837***			
B_Size	0.0899***	-0.0273**	0.0137	-0.0712***	0.325***	-0.2223***	0.001		
P_B_Ind	0.1631***	-0.0602***	-0.0361**	-0.0999***	0.2612***	-0.2798	0.0433***	0.0585***	

** p<0.1; ** p<0.05; *** p<0.01, Please refer to Appendix-2 for definition of variables*

Table 3.6: CEO Reputation and Earnings Management

	Earnings Management Models				
	Drank_DD	*Drank_MC*	*Drank_RCP*	*Drank_RCF*	*Drank_RCD*
	Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Drank_Rep5	0.0487***	0.0516***	0.0745***	0.0105	-0.0378
	(3.9427)	(3.9302)	(4.6801)	(0.7438)	(-1.1351)
Size	1.0438***	0.9581***	-0.2004***	-0.2877***	-0.2399***
	(32.3779)	(28.9781)	(-5.1054)	(-8.3273)	(-5.2600)
M/B	0.0273**	0.0276**	0.0337**	0.1148***	0.0650***
	(2.5338)	(2.5075)	(2.3304)	(8.1905)	(4.3042)
Lev	0.0626***	0.0414*	0.0524	-0.0914***	-0.0196
	(2.7864)	(1.6580)	(1.5877)	(-2.8290)	(-0.5268)
ROA	-1.2711***	-1.0622***	-0.6083***	-0.1618**	-0.4087***
	(-13.9979)	(-14.6101)	(-7.0738)	(-2.1385)	(-5.1705)
ΔSales_Grow	0.0024***	0.0006	0.0017*	0.0020*	0.0000
	(3.2642)	(0.6731)	(1.7119)	(1.8391)	(0.0125)
Sales_Vol	0.8037***	0.8196***	2.6823***	1.0333***	1.2737***
	(5.5055)	(5.2866)	(14.1104)	(6.1909)	(6.8925)
CFO_Vol	1.2988***	1.0310***	0.7587**	5.6786***	1.5862***
	(4.8188)	(3.5766)	(2.2080)	(16.4255)	(4.3067)
Big4	0.3183***	0.4617***	0.3376***	-0.0199	-0.0320
	(3.9449)	(5.5762)	(3.1267)	(-0.1944)	(-0.2513)
Loss	0.3678***	0.2972***	-1.1974***	-0.5777***	-0.2935**
	(3.7766)	(3.1586)	(-9.7284)	(-4.8461)	(-2.1216)
CEO_Age	0.0969	0.4569	0.4727	-0.5183	-0.0099
	(0.3608)	(1.4839)	(1.1949)	(-1.5313)	(-0.0246)
B_Sze	0.2234**	0.3878***	0.4889***	0.0901	0.2692*
	(2.2308)	(3.6621)	(3.6115)	(0.6820)	(1.7725)
P_B_Ind	-0.1393	-0.0027	0.4202**	0.4173**	0.3099
	(-1.1217)	(-0.0206)	(2.4240)	(2.4766)	(1.5804)
Constant	-15.9613***	-16.3300***	4.7323***	11.5574***	9.2405***
	(-13.0821)	(-12.0950)	(2.8704)	(8.3034)	(5.1818)
Observations	6,369	6,369	6,369	6,369	6,369
Adjusted R-squared	0.5643	0.5410	0.1895	0.2122	0.1285
Year FE	Included	Included	Included	Included	Included
F Statistic	128.8	125.8	40.84	41.75	20.42

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Column 4 presents the outcome of the relationship between CEO reputation (*Drank_Rep5*) and abnormal cash flows (*Drank_RCF*). Column 4 shows that, the coefficient on *Drank_Rep5* is positive but insignificant (t-statistic = 0.7438), suggesting that there is no evidence of earnings management through cash flows. The results for control variables provide similar results as reported in column 3. Model summary reports an adjusted R-square of 21.2%.

Column 5 shows the results for the relationship between CEO reputation (*Drank_Rep5*) and abnormal discretionary expenses (*Drank_RCD*). Column 5 shows

that, the coefficient on *Drank_Rep5* is negative but insignificant (t-statistic = 1.1351), suggesting that there is no evidence of earnings management through discretionary expenses, provided that the CEO have high reputation. The results for control variables provide similar results as reported in column 3. Model summary reports an adjusted R-square of 12.85%. As the primary results suggest no significant relationship between CEO reputation and real earnings management models of abnormal cash flows (*Drank_RCF*) and discretionary expenses (*Drank_RCD*), therefore *Drank_RCF* and *Drank_RCD* are not considered for additional analysis.

3.5.4 Additional Analysis

3.5.4.1 Abnormally High CEO Reputation and Earnings Management

If the CEO reputation is positively related to earnings management through reporting high discretionary accruals and abnormal production expenses, then this relationship should be stronger / exist in firms, where a CEO reputation is higher than normal levels. For this purpose, a dummy variable is created, which is equal to 1, if the decile rank for the number of press citations by industry and year, lies in the top quintile.

Table 3.7 reports the results for relationship between high CEO reputation (*High_Rep5*) and all three earnings quality models. Table 3.7 column 1 shows that, there is a positive coefficient on *High_Rep5* with a t-statistic of 1.6503 when the dependent variable is discretionary accruals model (*Drank_DD*). Thus results are consistent with the primary analysis (Table 3.6) and suggest that CEO high reputation than normal is also associated with earnings management. Table 3.7 column 2 reports the results for the relationship between CEO high reputation (*High_Rep5*) with McNichols (2002) discretionary accruals model (*Drank_MC*). As expected, the coefficient on High_Rep5 is positively significant with a t-statistic of 2.3161. Similarly, column 3 shows that the coefficient on *High_Rep5* remains positive and significant with a t-statistic of 2.6091, when dependent variable is abnormal production expenses. In summary, CEO abnormally high reputation is positively associated with all three measures of earnings management and supports the primary results and H1.

Table 3.7: High CEO Reputation and Earnings Management

	Earnings Management Models		
	Drank_DD	*Drank_MC*	*Drank_RCP*
	Column 1	Column 2	Column 3
High_Rep5	0.1487*	0.2074**	0.2957***
	(1.6503)	(2.3161)	(2.6091)
Size	1.0610***	0.9715***	-0.1808***
	(32.1647)	(29.0824)	(-4.6005)
M/B	0.0293***	0.0291***	0.0359**
	(2.7059)	(2.6508)	(2.4636)
Lev	0.0592***	0.0385	0.0483
	(2.6194)	(1.5380)	(1.4608)
ROA	-1.2757***	-1.0639***	-0.6111***
	(-13.8831)	(-14.5291)	(-7.0915)
ΔSales_Grow	0.0023***	0.0005	0.0017*
	(3.2109)	(0.6509)	(1.6783)
Sales_Vol	0.7987***	0.8150***	2.6756***
	(5.4532)	(5.2583)	(14.0130)
CFO_Vol	1.2829***	1.0126***	0.7323**
	(4.7331)	(3.5082)	(2.1242)
Big4	0.3191***	0.4629***	0.3394***
	(3.9255)	(5.5554)	(3.1356)
Loss	0.3740***	0.3043***	-1.1871***
	(3.8332)	(3.2273)	(-9.5666)
CEO_Age	0.1198	0.4743	0.4983
	(0.4437)	(1.5376)	(1.2567)
B_Sze	0.1842*	0.3476***	0.4308***
	(1.8340)	(3.2839)	(3.2114)
P_B_Ind	-0.1178	0.0148	0.4459***
	(-0.9488)	(0.1130)	(2.5815)
Constant	-16.0774***	-16.3472***	4.6997***
	(-12.8433)	(-11.8882)	(2.8220)
Observations	6,369	6,369	6,369
Adjusted R-squared	0.5626	0.5393	0.1860
Year FE	Included	Included	Included
F Statistic	126.9	123.5	39.06

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1, Please refer to Appendix-2 for variables definition*

3.5.4.2 Endogeneity Test – 2SLS

One of the concerns in this study could be that, the CEO reputation may not be a true predictor and the variation in earnings quality models could be caused by another omitted variable through CEO reputation, for example CEO ability. If this is the case, then any variation in accrual and real earnings management models indirectly depends upon the omitted variable (CEO ability) through endogenous CEO reputation. This creates a question mark on the validity of primary results of this study.

Initially, to avoid the potential endogeneity of CEO reputation and earnings management, the firm fixed effects method has been applied. Firm fixed effects

successfully control for firm unobserved sources of heterogeneity (Ferreira, Ferreira and Raposo 2011). Another way to address the potential endogeneity problem is the use of 2SLS. The use of 2SLS is an efficient way to deal with the problem of omitted variable and reverse causality (Wooldridge 2002; Gujarati 2011). Applying 2SLS could help to isolate the effect of CEO reputation on earnings management For this purpose the statistical equations 1 to 3 are re-estimated using 2SLS, to identify and remove the potential endogeneity problem.

To functionalise the 2SLS, the first step is to identify a variable (instrument) which is correlated with CEO reputation but not related with any of the earnings management models except indirectly through a variable on right hand side of the equation. Following Francis et al. (2008), the CEO age (*CEO_Age*) and CEO compensation (*CEO_Comp*) are used as an instrument for CEO reputation. It is likely that older CEOs have more reputation than their younger peers. Further highly paid CEOs have more ability and greater skills as compared to less paid CEOs. It is noteworthy that CEOs improve their compensation by providing better short and long term performance for their firms. Furthermore, prior literature suggests that the stock-based compensation is high for reputed CEOs (Milbourn 2003). Therefore it is reasonable to assume that CEO compensation is correlated with their reputation in press.

Table 3.8 provides the results re-performed for equations 1 to 3 using 2SLS. Columns 1 and 2 shows the relationship between CEO reputation and discretionary accruals quality following (Dechow and Dichev 2002). Column 1 describes the results for the first stage regression using CEO reputation as a dependent variable, and *CEO_Age* and *CEO _Comp* with all other exogenous variables as explanatory variables. The F-test of 85.52 strongly rejects the null hypothesis to exclude the instruments from equation. Further, *CEO_Age* and *CEO _Comp* are significantly related to CEO reputation with a t-statistic of 12.6995 and 3.2249 respectively. This suggests that, the instruments pass the weak instruments test and are strongly correlated with CEO reputation. Similarly, first stage regression for the other two earning management models (columns 3 and 5) shows that, the instruments are correlated with CEO reputation and strong enough to use. To test whether included instruments pass the over-

identification, that is at-least one of the instruments is not correlated with the error term (exogeneity of instrument), Sargan over identification test is performed. Results suggest that the included instruments pass the identification test for all of the models p = 0.6968.

Table 3.8: CEO Reputation and Earnings Management Using 2SLS

	Dechow and Dichev (2002)		McNichols (2002)		Roychowdhury (2006)	
	First Stage *Drank_P5*	Seecond Stage *Drank_DD*	First Stage *Drank_P5*	Second Stage *Drank_MC*	First Stage *Drank_P5*	Second Stage *Drank_RCP*
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Drank_Rep5		0.2361***		0.1578***		0.2532***
		(4.2012)		(2.8064)		(3.3553)
Size	0.3842***	0.9373***	0.3842***	0.9015***	0.3842***	-0.3085***
	(11.2987)	(22.6808)	(11.2987)	(21.8040)	(11.2987)	(-5.5595)
M/B	0.0481***	0.0113	0.0481***	0.0167*	0.0481***	0.0233*
	(4.1057)	(1.1936)	(4.1057)	(1.7683)	(4.1057)	(1.8386)
Lev	-0.0749***	0.0817***	-0.0749***	0.0515**	-0.0749***	0.0911***
	(-2.6600)	(3.8123)	(-2.6600)	(2.4046)	(-2.6600)	(3.1665)
ROA	-0.2009***	-1.2717***	-0.2009***	-1.0320***	-0.2009***	-0.5541***
	(-2.8694)	(-23.6781)	(-2.8694)	(-19.2073)	(-2.8694)	(-7.6831)
ΔSales_Grow	-0.0006	0.0027***	-0.0006	0.0008	-0.0006	0.0018*
	(-0.5495)	(3.3765)	(-0.5495)	(0.9706)	(-0.5495)	(1.6630)
Sales_Vol	-0.0296	0.8339***	-0.0296	0.7746***	-0.0296	2.7138***
	(-0.1919)	(7.3532)	(-0.1919)	(6.8275)	(-0.1919)	(17.8217)
CFO_Vol	-0.3051	1.3685***	-0.3051	1.1696***	-0.3051	0.7054**
	(-0.9547)	(5.8240)	(-0.9547)	(4.9755)	(-0.9547)	(2.2358)
Big4	-0.0978	0.2998***	-0.0978	0.4692***	-0.0978	0.3452***
	(-1.1922)	(4.9876)	(-1.1922)	(7.8046)	(-1.1922)	(4.2783)
Loss	0.0004	0.3763***	0.0004	0.3018***	0.0004	-1.2203***
	(0.0041)	(5.0075)	(0.0041)	(4.0142)	(0.0041)	(-12.0950)
B_Sze	-0.6584***	0.3441***	-0.6584***	0.4137***	-0.6584***	0.6157***
	(-5.6532)	(3.5954)	(-5.6532)	(4.3213)	(-5.6532)	(4.7918)
P_B_Ind	0.4803***	-0.2742**	0.4803***	-0.0624	0.4803***	0.2267
	(3.2260)	(-2.3792)	(3.2260)	(-0.5411)	(3.2260)	(1.4652)
Comp	0.6308***		0.6308***		0.6308***	
	(12.6995)		(12.6995)		(12.6995)	
CEO_Age	0.8894***		0.8894***		0.8894***	
	(3.2249)		(3.2249)		(3.2249)	
Constant	-12.4245***	-14.7615***	-12.4245***	-14.0373***	-12.4245***	7.4552***
	(-10.1149)	(-32.5118)	(-10.1149)	(-30.9039)	(-10.1149)	(12.2288)
Observations	6,140	6,140	6,140	6,140	6,140	6,140
Adjusted R-squared	0.1930	0.5371	0.1930	0.5342	0.1930	0.1614
IV F-Stat		85.52		85.52		85.52
Durbin pval		0.000477		0.0604		0.0126

t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.8 column 2 illustrates the results for the second-stage regression, where dependent variable is *Drank_DD*. The Durbin-Wu-Hausman test of endogeneity suggests that CEO reputation is an endogenous variable (P = 0.0004). After controlling for endogeneity successfully, the coefficient on *Drank_Rep5* is significant and positive with the t-statistic of 4.2012. This supports the primary results of the study (H1) and shows that the CEO reputation is positively related to earnings management through discretionary accruals after controlling for the potential endogeneity problem. Column 4 presents the results using *Drank_MC* as the dependent variable. The Hausman test suggests that there is an endogeneity concern (P = 0.0604). After correcting for

endogeneity, the coefficient for *Drank_Rep5* is still significant (t-statistic = 2.8064) and supports the primary analysis of the study (H1). In column 6 dependent variable is *Drank_RCP*, where the coefficient on *Drank_Rep5* is still significant with a t-statistic of 3.3553 after correcting for endogeneity (P = 0.0126), supporting primary results (H1). Overall results suggest similar evidence as provided in Table 3.6 and 3.7, after controlling for potential endogeneity of CEO reputation and earnings management.

3.5.4.3 Alternative / Additional Control Variables

To test further robustness of the primary results, analysis is performed implying new control variables. The firm inner characteristics are included, such as *R&D* and *Op_Cycle*. The *R&D* is calculated as a total research and development expenses divided by sales of a firm, whereas *Op_Cycle* refers to the cash conversion cycle. The governance variables included are percentage of audit committee independence (*P_Ac_Ind*) and percentage of audit committee financial expertise (*P_Ac_Fin*). Controlling for these additional firm and governance characteristics, the sample reduces to 4,466 firm year observations. Further, all three measures of earnings quality are combined through factor analysis using principal component factors method and retain the common factor having eigen value more than 1 (*EM_Factor*). The common factor produces the eigen value of 1.8415.

Table 3.9 provides the results for the relationship between CEO reputation and all three earnings quality models including additional control variables and using the common factor of all three measures of earnings quality (*EM_Factor*). Including additional firm and governance characteristics, the coefficient on *Drank_Rep5* remain positive and significant with all three measures of earnings quality (t-statistics on *Drank_Rep5* = 2.6655, 2.3731 and 3.8366 for *Drank_DD*, *Drank_MC* and *Drank_RCP* models respectively), thus supports the rent extraction behaviour of reputed CEOs. Furthermore, using the common factor variable (*EM_Factor*) of all three measures of earnings quality, the results suggest a positive significant coefficient on *Drank_Rep5* (t-statistic = 2.8888). In summary, the results remain consistent to the primary conclusion that the reputed CEOs provide low quality earnings by doing mismanagement in accruals and production expenses of the firm.

Table 3.9: CEO Reputation and Earnings Management – Additional Control Variables

	Earnings Management Models			
	Drank_DD	*Drank_MC*	*Drank_RCP*	*EM_Factor*
	Column 1	Column 2	Column 3	Column 4
Drank_Rep5	0.0358***	0.0346**	0.0764***	0.0124***
	(2.6655)	(2.3731)	(3.8366)	(2.8888)
Size	1.0433***	0.9408***	-0.1547***	0.3223***
	(29.7122)	(25.1633)	(-3.1425)	(28.5798)
M/B	0.0382***	0.0255*	0.0176	0.0106**
	(2.9421)	(1.8595)	(0.9221)	(2.5709)
Lev	0.0388	0.0312	0.0561	0.0121
	(1.5362)	(1.1447)	(1.4441)	(1.5468)
ROA	-1.1975***	-0.9959***	-0.4774***	-0.3636***
	(-12.5821)	(-10.5934)	(-4.3337)	(-12.5660)
ΔSales_Grow	0.0027***	-0.0004	0.0023*	0.0004
	(2.7496)	(-0.3222)	(1.6852)	(1.4104)
Sales_Vol	0.7053***	0.5785***	2.5227***	0.2381***
	(4.0492)	(3.1235)	(10.6707)	(4.3176)
CFO_Vol	1.6368***	1.6283***	1.3611***	0.5484***
	(4.5230)	(4.3748)	(2.8682)	(4.9948)
Big4	0.3633***	0.5010***	0.3133**	0.1446***
	(3.8571)	(5.0344)	(2.3671)	(4.8409)
Loss	0.4984***	0.4057***	-1.0072***	0.1363***
	(4.6547)	(4.0144)	(-7.1452)	(4.3707)
R&D	0.0000***	0.0000*	-0.0000***	0.0000***
	(3.4683)	(1.9422)	(-3.1208)	(2.6514)
Op_Cycle	0.0000*	0.0000***	0.0000	0.0000***
	(1.8065)	(2.8532)	(0.0350)	(2.6612)
CEO_Age	0.1900	0.4771	0.0817	0.1097
	(0.5983)	(1.2919)	(0.1606)	(1.0439)
B_Sze	0.0293	0.2884**	0.3047*	0.0552
	(0.2348)	(2.1099)	(1.6796)	(1.4111)
P_B_Ind	-0.9337***	-0.5210*	1.1168***	-0.2252***
	(-3.7560)	(-1.8989)	(2.9313)	(-2.8698)
P_Ac_Ind	0.5133***	0.3316*	-0.5837**	0.1315***
	(3.2895)	(1.8910)	(-2.3133)	(2.6813)
P_Ac_ Fin	0.1012	0.0182	0.2586	0.0224
	(0.7427)	(0.1192)	(1.2172)	(0.5024)
Constant	-15.7811***	-15.6961***	5.9383***	-6.8899***
	(-11.1454)	(-9.7517)	(2.8683)	(-14.7578)
Observations	4,466	4,466	4,466	4,466
Adjusted R-squared	0.5632	0.5329	0.1650	0.6135
Industry and Year FE	Included	Included	Included	Included

Robust t-statistics in parentheses
**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

3.5.4.4 The Role of CEO Power

CEOs having high power may act as a steward and perform in the best interest of shareholders or alternatively could get conflict of interest under agency theory. As a leading authority in management, the CEO is able to significantly influence the decisions regarding firm's financial reporting. For instance, the managers being align with the shareholders interest, could provide voluntary disclosures (Baik, Farber and Lee 2011), and precise earnings (Han et al. 2014). However, managers facing conflict of interest could perform earnings management and provide poor quality information in capital markets (Mande and Son 2012; Lafond and Roychowdhury 2007). Relying on the above arguments, it is hypothesised that, if the CEO reputation consequences into

lower earnings quality, then this result is significant, when a reputed CEO has high power in a firm. [46]

To measure the CEO power, first proxy has been considered following Daily and Johnson (1997), as a percentage of interdependent directors on board (*InterDir*). Interdependent directors are those appointed by a CEO. Such directors may have loyalty for the CEO because of being recruited on board (Daily and Johnson 1997). Therefore CEO power could be identified through such loyalties and personal connections between the board members and the CEO (Daily and Johnson 1997). A CEO is considered more powerful if greater number of interdependent directors exists on board. Second proxy used to measure CEO power is the dummy variable equal to 1 if a CEO is the only insider (*Insider*)on the board, otherwise 0. Srinidhi, Gul, and Tsui (2011) states that the CEO can have information advantage and power to influence decision making provided that all of the information is transformed to the directors through the CEO. Third proxy used to measure CEO power is the CEO tenure, measured as a total number of years, a CEO serving in a firm (*Tenure*).[47] Finally, a factor analysis is performed using principal component factor analysis on all three measures of CEO power and used the common factor variable (*Factor_P*), whose Eigen value is more than 1. The common factor (*Factor_P*) provides the eigen value of 1.5857.

The descriptive statistics (un-tabulated) for the CEO power variables suggests that, on average percentage of board of directors appointed by a CEO are 42.5 percent in the sample firms for this study. Further, there are five percent of the sample firms, where, CEO is the only insider (*Insider*) on board and all other board of directors are non-executive (outsiders) directors. Finally, the mean value for the CEO tenure (*Tenure*) in the sample firms is 4.85 years.

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[46] In this context prior research suggests that the earnings quality proxy by accruals quality does not worsen when a reputed CEO also has high power in a firm (Francis et al. 2008). In our study a different approach than Francis et al. (2008) has been used to measure CEO power and its impact on earnings quality.

[47] For analysis purposes, the logged value for the CEO tenure is used to normalize for regression purposes.

Table 3.10: CEO Reputation, CEO Power and Earnings Management Using Dechow and Dichev (2002)

	Earnings Quality: Dechow and Dichev (2002) Model								
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Drank_Rep5	0.0487***								
	(3.9427)								
IntDir		0.0591							
		(0.5828)							
IntDir#Drank_Rep5			0.0303**						
			(2.1450)						
Insider				0.1287					
				(0.9216)					
Insider#Drank_Rep5					0.0468**				
					(2.0190)				
Tenure						0.0190			
						(0.5894)			
Tenure#Drank_Rep5							0.0103**		
							(2.1252)		
Factor_P								0.0215	
								(0.6998)	
Factor_P#Drank_Rep5									0.0007
									(0.1277)
Size	1.0438***	1.0754***	1.0671***	1.0677***	1.0655***	1.0798***	1.0686***	1.0737***	1.0742***
	(32.3779)	(35.4647)	(34.5535)	(35.2707)	(35.2766)	(34.5412)	(33.0036)	(34.4399)	(34.3465)
M/B	0.0273**	0.0310***	0.0302***	0.0271**	0.0268**	0.0347***	0.0333***	0.0311***	0.0310***
	(2.5338)	(2.8555)	(2.7776)	(2.4933)	(2.4677)	(3.1018)	(2.9792)	(2.7575)	(2.7567)
Lev	0.0626***	0.0568**	0.0581***	0.0591***	0.0603***	0.0460**	0.0475**	0.0482**	0.0483**
	(2.7864)	(2.5197)	(2.5887)	(2.6252)	(2.6785)	(1.9647)	(2.0402)	(2.0672)	(2.0645)
ROA	-1.2711***	-1.2851***	-1.2811***	-1.2645***	-1.2636***	-1.2841***	-1.2788***	-1.2672***	-1.2668***
	(-13.9979)	(-14.0596)	(-14.0342)	(-13.8267)	(-13.8532)	(-13.4988)	(-13.4486)	(-13.2451)	(-13.2667)
ΔSales_Grow	0.0024***	0.0023***	0.0023***	0.0025***	0.0025***	0.0025***	0.0025***	0.0026***	0.0026***
	(3.2642)	(3.2056)	(3.2329)	(3.3489)	(3.3465)	(3.2815)	(3.2997)	(3.4688)	(3.4626)
Sales_Vol	0.8037***	0.7984***	0.7984***	0.7602***	0.7561***	0.7929***	0.7937***	0.7627***	0.7585***
	(5.5055)	(5.4337)	(5.4564)	(5.1489)	(5.1337)	(5.0434)	(5.0750)	(4.8737)	(4.8474)
CFO_Vol	1.2988***	1.2855***	1.2881***	1.3385***	1.3451***	1.2813***	1.2940***	1.3184***	1.3198***
	(4.8188)	(4.7122)	(4.7351)	(4.8876)	(4.9106)	(4.4997)	(4.5578)	(4.6096)	(4.6143)
Big4	0.3183***	0.3194***	0.3230***	0.3249***	0.3257***	0.2987***	0.2978***	0.3071***	0.3063***
	(3.9449)	(3.9154)	(3.9547)	(3.9763)	(3.9976)	(3.5547)	(3.5481)	(3.6206)	(3.6108)
Loss	0.3678***	0.3718***	0.3699***	0.3816***	0.3814***	0.3801***	0.3835***	0.3903***	0.3887***
	(3.7766)	(3.7980)	(3.7782)	(3.8728)	(3.8739)	(3.7939)	(3.8276)	(3.8673)	(3.8572)
CEO_Age	0.0969	0.1287	0.0900	0.0655	0.0527	0.1784	0.1121	0.1057	0.1241
	(0.3608)	(0.4761)	(0.3307)	(0.2416)	(0.1946)	(0.6234)	(0.3893)	(0.3703)	(0.4339)
B_Sze	0.2234**	0.1705	0.1617	0.2579**	0.2758***	0.2064*	0.2335**	0.2509**	0.2535**
	(2.2308)	(1.6395)	(1.5857)	(2.5408)	(2.7537)	(1.9608)	(2.2253)	(2.3527)	(2.3761)
P_B_Ind	-0.1393	-0.1042	-0.1173	-0.0468	-0.0412	-0.1421	-0.1558	-0.0936	-0.0897
	(-1.1217)	(-0.8423)	(-0.9452)	(-0.3790)	(-0.3353)	(-1.1066)	(-1.2117)	(-0.7305)	(-0.7010)
Constant	-15.9613***	-16.3578***	-16.0703***	-16.1283***	-16.0811***	-16.7891***	-16.4079***	-16.4639***	-16.5511***
	(-13.0821)	(-13.5414)	(-13.0283)	(-13.2822)	(-13.2788)	(-13.2255)	(-12.5815)	(-12.8932)	(-12.8836)
Observations	6,369	6,369	6,369	6,258	6,258	5,944	5,944	5,838	5,838
Adjusted R-squared	0.5643	0.5623	0.5628	0.5629	0.5633	0.5668	0.5673	0.5673	0.5673
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included
F Statistic	128.8	126.9	128.9	124.6	124.5	123.1	124	121.6	121.7

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.11: CEO Reputation, Power and Earnings Management Using McNichols Accrual Model (2002)

	Earnings Quality: McNichols (2002) Model								
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Drank_Rep5	0.0516***								
	(3.9302)								
IntDir		0.0058							
		(0.0566)							
IntDir#Drank_Rep5			0.0281**						
			(1.9620)						
Insider				0.0053					
				(0.0381)					
Insider#Drank_Rep5					0.0328				
					(1.5198)				
Tenure						0.0132			
						(0.3919)			
Tenure#Drank_Rep5							0.0103**		
							(2.0185)		
Factor_P								0.0037	
								(0.1169)	
Factor_P#Drank_Rep5									-0.0018
									(-0.3481)
Size	0.9581***	0.9915***	0.9839***	0.9848***	0.9829***	0.9973***	0.9856***	0.9918***	0.9923***
	(28.9781)	(31.9566)	(31.1284)	(31.7839)	(31.7784)	(30.8914)	(29.4762)	(30.8831)	(30.8193)
M/B	0.0276**	0.0314***	0.0307***	0.0290***	0.0286***	0.0336***	0.0322***	0.0316***	0.0316***
	(2.5075)	(2.8665)	(2.7855)	(2.6359)	(2.6160)	(2.9287)	(2.7962)	(2.7304)	(2.7344)
Lev	0.0414*	0.0353	0.0364	0.0373	0.0382	0.0241	0.0257	0.0245	0.0245
	(1.6580)	(1.4136)	(1.4588)	(1.4913)	(1.5285)	(0.9277)	(0.9938)	(0.9442)	(0.9441)
ROA	-1.0622***	-1.0767***	-1.0732***	-1.0619***	-1.0599***	-1.0830***	-1.0777***	-1.0667***	-1.0668***
	(-14.6101)	(-14.7124)	(-14.6672)	(-14.4399)	(-14.4679)	(-14.3698)	(-14.2986)	(-14.0948)	(-14.1136)
ΔSales_Grow	0.0006	0.0005	0.0005	0.0007	0.0007	0.0007	0.0007	0.0008	0.0008
	(0.6731)	(0.6314)	(0.6510)	(0.7978)	(0.8157)	(0.8392)	(0.8601)	(0.9636)	(0.9597)
Sales_Vol	0.8196***	0.8125***	0.8138***	0.7726***	0.7668***	0.8391***	0.8415***	0.7877***	0.7865***
	(5.2866)	(5.2107)	(5.2367)	(4.9603)	(4.9341)	(5.0450)	(5.0852)	(4.7919)	(4.7878)
CFO_Vol	1.0310***	1.0186***	1.0194***	1.0652***	1.0741***	0.8611***	0.8744***	0.9121***	0.9117***
	(3.5766)	(3.5043)	(3.5129)	(3.6426)	(3.6743)	(2.8403)	(2.8902)	(2.9933)	(2.9914)
Big4	0.4617***	0.4614***	0.4660***	0.4638***	0.4643***	0.4443***	0.4433***	0.4451***	0.4445***
	(5.5762)	(5.5225)	(5.5729)	(5.5325)	(5.5530)	(5.1724)	(5.1704)	(5.1560)	(5.1474)
Loss	0.2972***	0.3016***	0.2996***	0.3068***	0.3070***	0.3351***	0.3395***	0.3408***	0.3399***
	(3.1586)	(3.1807)	(3.1619)	(3.2148)	(3.2203)	(3.4213)	(3.4681)	(3.4548)	(3.4488)
CEO_Age	0.4569	0.5015	0.4562	0.4570	0.4454	0.5706*	0.4966	0.5368	0.5529*
	(1.4839)	(1.6136)	(1.4589)	(1.4674)	(1.4325)	(1.7253)	(1.5032)	(1.6259)	(1.6722)
B_Sze	0.3878***	0.3412***	0.3249***	0.3992***	0.4229***	0.3741***	0.4043***	0.4217***	0.4244***
	(3.6621)	(3.1450)	(3.0371)	(3.6577)	(3.9168)	(3.3646)	(3.6475)	(3.7947)	(3.8188)
P_B_Ind	-0.0027	0.0363	0.0226	0.0905	0.0997	0.0135	-0.0013	0.0703	0.0728
	(-0.0206)	(0.2783)	(0.1726)	(0.6947)	(0.7698)	(0.1008)	(-0.0095)	(0.5296)	(0.5484)
Constant	-16.3300***	-16.7849***	-16.4888***	-16.5901***	-16.5667***	-17.3078***	-16.9008***	-17.1415***	-17.2198***
	(-12.0950)	(-12.4778)	(-12.0202)	(-12.2703)	(-12.2868)	(-12.1403)	(-11.6531)	(-11.9497)	(-11.9603)
Observations	6,369	6,369	6,369	6,258	6,258	5,944	5,944	5,838	5,838
Adjusted R-squared	0.5410	0.5386	0.5391	0.5393	0.5395	0.5438	0.5443	0.5443	0.5443
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included
F Statistic	125.8	124.1	125	123.2	122.4	120.4	120.3	118.7	118.3

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.12: CEO Reputation, Power and Earnings Management Using RoyChowdhury (2006) Real Earnings Model

	Earnings Quality: Roychowdhury Model								
VARIABLES	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Drank_Rep5	0.0745***								
	(4.6801)								
IntDir		-0.0964							
		(-0.7069)							
IntDir#Drank_Rep5			0.0385**						
			(2.0015)						
Insider				-0.0100					
				(-0.0447)					
Insider#Drank_Rep5					0.0105				
					(0.2631)				
Tenure						0.1527***			
						(3.2245)			
Tenure#Drank_Rep5							0.0299***		
							(4.5223)		
Factor_P								0.0539	
								(1.2572)	
Factor_P#Drank_Rep5									0.0102
									(1.3803)
Size	-0.2004***	-0.1525***	-0.1626***	-0.1477***	-0.1484***	-0.1706***	-0.1962***	-0.1560***	-0.1567***
	(-5.1054)	(-4.1044)	(-4.2847)	(-3.9278)	(-3.9498)	(-4.4128)	(-4.9595)	(-4.0255)	(-4.0421)
M/B	0.0337**	0.0392***	0.0383***	0.0376**	0.0374**	0.0397***	0.0362**	0.0383**	0.0380**
	(2.3304)	(2.6748)	(2.6113)	(2.4960)	(2.4940)	(2.6136)	(2.4247)	(2.4637)	(2.4519)
Lev	0.0524	0.0439	0.0452	0.0467	0.0470	0.0458	0.0499	0.0491	0.0491
	(1.5877)	(1.3290)	(1.3635)	(1.3975)	(1.4088)	(1.3362)	(1.4646)	(1.4239)	(1.4270)
ROA	-0.6083***	-0.6288***	-0.6245***	-0.6482***	-0.6474***	-0.6614***	-0.6455***	-0.6812***	-0.6797***
	(-7.0738)	(-7.3076)	(-7.2494)	(-7.4684)	(-7.4727)	(-7.5225)	(-7.3541)	(-7.7122)	(-7.6949)
ΔSales_Grow	0.0017*	0.0017*	0.0017*	0.0017	0.0017	0.0016	0.0016	0.0015	0.0015
	(1.7119)	(1.6516)	(1.6736)	(1.6361)	(1.6403)	(1.4801)	(1.5044)	(1.4547)	(1.4580)
Sales_Vol	2.6823***	2.6692***	2.6738***	2.6489***	2.6466***	2.7258***	2.7031***	2.6785***	2.6699***
	(14.1104)	(13.9102)	(13.9973)	(13.6323)	(13.6350)	(13.6335)	(13.5419)	(13.1947)	(13.1574)
CFO_Vol	0.7587**	0.7442**	0.7420**	0.7676**	0.7711**	0.5992*	0.6260*	0.6086*	0.6146*
	(2.2080)	(2.1411)	(2.1397)	(2.1849)	(2.1957)	(1.6703)	(1.7512)	(1.6739)	(1.6896)
Big4	0.3376***	0.3343***	0.3434***	0.3295***	0.3297***	0.3051***	0.3046***	0.3032***	0.3034***
	(3.1267)	(3.0851)	(3.1620)	(3.0039)	(3.0080)	(2.7826)	(2.7966)	(2.7376)	(2.7424)
Loss	-1.1974***	-1.1905***	-1.1937***	-1.1967***	-1.1966***	-1.2101***	-1.2172***	-1.2353***	-1.2365***
	(-9.7284)	(-9.5710)	(-9.6165)	(-9.5043)	(-9.5069)	(-9.4300)	(-9.5767)	(-9.5449)	(-9.5572)
CEO_Age	0.4727	0.5572	0.4751	0.6018	0.5978	0.3276	0.2669	0.5496	0.5396
	(1.1949)	(1.4095)	(1.1939)	(1.5128)	(1.5045)	(0.7968)	(0.6496)	(1.3342)	(1.3068)
B_Sze	0.4889***	0.4390***	0.3993***	0.3860***	0.3952***	0.5503***	0.5756***	0.4208***	0.4174***
	(3.6115)	(3.2081)	(2.9573)	(2.6980)	(2.7614)	(3.9118)	(4.0895)	(2.9212)	(2.8979)
P_B_Ind	0.4202**	0.4800***	0.4578***	0.4468**	0.4505**	0.4259**	0.4061**	0.4115**	0.4131**
	(2.4240)	(2.7759)	(2.6481)	(2.5290)	(2.5476)	(2.3967)	(2.2868)	(2.2653)	(2.2757)
Constant	4.7323***	4.0122**	4.4815***	3.8373**	3.8435**	4.8453***	5.5084***	4.1503**	4.2093**
	(2.8704)	(2.4562)	(2.6948)	(2.3289)	(2.3367)	(2.8579)	(3.2107)	(2.4271)	(2.4504)
Observations	6,369	6,369	6,369	6,258	6,258	5,944	5,944	5,838	5,838
Adjusted R-squared	0.1895	0.1847	0.1854	0.1821	0.1822	0.1906	0.1930	0.1865	0.1866
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included
F Statistic	40.84	37.63	37.79	35.99	36.05	36.34	38.12	34.73	34.82

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.10 reports the results for the relationship between CEO reputation with power and Dechow and Dichev (2002) discretionary accruals model. The CEO power variables are interacted with CEO reputation to find whether CEO power increases the rent-extraction behaviour of reputed CEO. Therefore, the expectation is to get a positive and significant coefficient on the interaction of CEO power with CEO reputation. Table 3.10, columns 3, 5 and 7 show that the coefficient on interaction between CEO power and reputation is significantly different from zero (t-statistics for *IntDir#Drank_Rep5* = 2.1450, *Insider#Drank_Rep5* = 2.0190 and *Tenure#Drank_Rep5* = 2.1252). This suggests that the individual CEO power attributes facilitate the reputed CEOs to perform earnings management. However, using the common factor score for CEO power, the coefficient is not significantly different from zero (t-statistic for *Factor_P#Drank_Rep5* = 0.1277).

The *Drank_MC* and *Drank_RCP* are used as a dependent variable for further analysis. Table 3.11 reports the results for the relationship between CEO reputation with power interaction and accruals quality model (*Drank_MC*) following McNichols (2002). Results suggest a positive and significant coefficient on *IntDir#Drank_Rep5* and *Tenure#Drank_Rep5* with a t-statistics of 1.9620 and 2.0185 respectively. Further, the coefficient on *Insider#Drank_Rep5* and *Factor_P#Drank_Rep5* is not significantly different from zero.

Table 3.12 reports the results, when abnormal production expenses model (*Drank_RCP*) is used as a dependent variable following Roychowdhury (2006). Results remain similar to the McNichols (2002) model, a positive and significant coefficient on *IntDir#Drank_Rep5* and *Tenure#Drank_Rep5* with a t-statistics of 2.0015 and 4.5223 respectively. Overall, results suggest that the individual attributes of CEO power are found to be relevant in aiding reputed CEOs to perform earnings management. However, combining the all three sources of the power does not show any significant improvement towards the rent extraction behaviour of the reputed CEOs.

3.5.4.5 CEO Reputation, CEO Power and CEO Compensation

The Australian regulations require listed companies to disclose the compensation of key executives and directors in annual report (Commonwealth of

Australia 2004). Further the Commonwealth of Australia (2004) also provide shareholders right to vote for acceptance or rejection of the compensation report of key executives. The policy makers, press and other stakeholders in the economy have a lot of concerns about the CEO compensation. One of the reasons which gave rise to the issue of CEO compensation is the direct involvement of CEOs in major corporate accounting Scandals such as Enron and WorldCom. Prior research suggest that super-star CEOs generate poor performance, perform earnings management and receive greater economic incentives such as compensation (Malmendier and Tate 2009).Further, one of US study suggests that, the reputed CEOs receive high stock-based compensation (Milbourn 2003). Yet, the CEO reputation in press impacts their compensation in Australia is to be answered. Reputed CEOs due to their skills and expertise are likely to have higher demand in the industry and thus receive greater compensation. Furthermore, the CEOs having high power can also influence the decision making for the sake their personal incentives. Therefore, it is likely that powerful CEOs receive high compensation than their less powerful peers. Relying on this, further analysis is performed to examine whether CEO reputation with power influence their compensation packages.

Table 3.13 illustrates the relationship between CEO reputation, CEO power and CEO compensation. The dependent variable is CEO compensation, calculated as a natural log of total compensation a CEO received during the financial year. Column 1 shows the relationship between CEO reputation and CEO compensation, and columns 2 to 9 provides detail for the relationship between CEO reputation with power interaction and CEO compensation. Column 1 suggests a positive and significant coefficient on *Drank_Rep5* (t-statistic = 7.8656), implying that reputed CEOs receive high compensation. The relationship between CEO power and CEO compensation is significant on *Tenure* (t-statistic = 3.2921), suggesting that the CEO compensation increase with their tenure. However, the coefficient is not statistically different from zero on *IntDir*, *Insider*, *Factor_P*, implying that CEO power, from hiring greater board of directors and being only the insider on board, does not add value to their compensation significantly. The interaction of the CEO reputation with power is found significant and positive at *IntDir#Drank_Rep5*, *Tenure#Drank_Rep5* and

Table 3.13: CEO Reputation, CEO Power and CEO Compensation

	CEO Compensation								
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9
Drank_Rep5	0.0408***								
	(7.8656)								
IntDir		0.0070							
		(0.1570)							
IntDir#Drank_Rep5			0.0314***						
			(5.2645)						
Insider				-0.0129					
				(-0.2394)					
Insider#Drank_Rep5					0.0053				
					(0.5738)				
Tenure						0.0516***			
						(3.2921)			
Tenure#Drank_Rep5							0.0118***		
							(5.3699)		
Factor_P								0.0184	
								(1.3282)	
Factor_P#Drank_Rep5									0.0040*
									(1.6949)
Size	0.3735***	0.3968***	0.3910***	0.3963***	0.3986***	0.3891***	0.3810***	0.3920***	0.3945***
	(30.2559)	(32.6286)	(32.1900)	(32.2024)	(32.3133)	(31.4419)	(30.7674)	(31.4931)	(31.7627)
M/B	0.0371***	0.0401***	0.0393***	0.0412***	0.0412***	0.0393***	0.0379***	0.0410***	0.0409***
	(8.5245)	(9.2659)	(9.1284)	(9.3342)	(9.3371)	(8.9611)	(8.6460)	(9.0539)	(9.0511)
Lev	-0.0426***	-0.0484***	-0.0458***	-0.0490***	-0.0474***	-0.0519***	-0.0488***	-0.0528***	-0.0510***
	(-5.2323)	(-5.9594)	(-5.6363)	(-5.9455)	(-5.7125)	(-6.1635)	(-5.7577)	(-6.1344)	(-5.8777)
ROA	-0.1248***	-0.1346***	-0.1327***	-0.1307***	-0.1320***	-0.1446***	-0.1405***	-0.1407***	-0.1426***
	(-5.2620)	(-5.5920)	(-5.5739)	(-5.3797)	(-5.4424)	(-5.8982)	(-5.7418)	(-5.6443)	(-5.7214)
ΔSales_Grow	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0002	-0.0001	-0.0002	-0.0002
	(-0.6806)	(-0.8128)	(-0.7102)	(-0.8186)	(-0.7579)	(-0.6305)	(-0.5152)	(-0.6280)	(-0.5576)
Sales_Vol	-0.0725	-0.0753	-0.0754	-0.0764	-0.0782	-0.0745	-0.0814	-0.0845	-0.0871*
	(-1.4415)	(-1.4917)	(-1.5056)	(-1.4891)	(-1.5160)	(-1.4419)	(-1.5755)	(-1.6114)	(-1.6569)
CFO_Vol	0.2063*	0.2147*	0.1974*	0.2140*	0.1999	0.1981	0.1924	0.1863	0.1713
	(1.7447)	(1.7925)	(1.6613)	(1.7587)	(1.6366)	(1.5987)	(1.5556)	(1.4745)	(1.3506)
Big4	0.1127***	0.1104***	0.1174***	0.1085***	0.1101***	0.1145***	0.1160***	0.1148***	0.1164***
	(3.4124)	(3.3067)	(3.4977)	(3.2084)	(3.2437)	(3.3905)	(3.4394)	(3.3678)	(3.3979)
Loss	0.0255	0.0254	0.0244	0.0267	0.0276	0.0339	0.0321	0.0283	0.0273
	(0.7585)	(0.7389)	(0.7099)	(0.7672)	(0.7870)	(1.0070)	(0.9546)	(0.8249)	(0.7897)
CEO_Age	-0.0798	-0.0146	-0.0948	-0.0113	-0.0453	-0.0906	-0.1629	-0.0407	-0.0844
	(-0.7061)	(-0.1294)	(-0.8574)	(-0.0985)	(-0.3993)	(-0.7895)	(-1.4584)	(-0.3504)	(-0.7395)
B_Sze	-0.1213***	-0.1460***	-0.1737***	-0.1449***	-0.1462***	-0.0791*	-0.0746*	-0.1115**	-0.1228***
	(-2.8177)	(-3.2924)	(-3.9943)	(-3.1126)	(-3.1624)	(-1.7836)	(-1.7067)	(-2.4387)	(-2.6929)
P_B_Ind	0.2876***	0.3116***	0.3012***	0.3139***	0.3197***	0.2699***	0.2631***	0.2780***	0.2800***
	(5.5998)	(5.9354)	(5.7727)	(5.8002)	(5.9175)	(5.2979)	(5.1888)	(5.2905)	(5.3229)
Constant	6.1335***	5.6974***	6.1062***	5.6971***	5.7832***	6.0193***	6.4291***	5.8953***	6.0382***
	(12.5944)	(11.7376)	(12.7720)	(11.5185)	(11.7846)	(12.1454)	(13.2586)	(11.7515)	(12.2778)
Observations	6,140	6,204	6,140	6,096	6,032	5,832	5,770	5,729	5,667
Adjusted R-squared	0.6236	0.6103	0.6177	0.6093	0.6127	0.6215	0.6281	0.6187	0.6222
Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included
F Statistic	139.3	124.2	137	120.6	128.2	123.8	136.3	119.4	128.6

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.14: CEO Reputation, Earnings Management and CEO Compensation

	Compensation							Percentage of Variable Compensation						
VARIABLES	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8	Column 9	Column 10	Column 11	Column 12	Column 13	Column 14
Drank_Rep5	0.0372***							0.0042**						
	(7.1117)							(2.2091)						
Drank_DD		0.0220***							0.0041**					
		(4.1632)							(2.1406)					
Drank_Rep5#Drank_DD			0.0051***							0.0007***				
			(8.3644)							(3.3171)				
Drank_MC				0.0133**							-0.0010			
				(2.4649)							(-0.5056)			
Drank_Rep5#Drank_MC					0.0046***							0.0005**		
					(7.3917)							(2.3200)		
Drank_RCP						0.0095**							0.0030**	
						(2.3173)							(2.0070)	
Drank_Rep5#Drank_RCP							0.0037***							0.0006***
							(6.5324)							(2.7341)
Size	0.3697***	0.3679***	0.3402***	0.3786***	0.3478***	0.3936***	0.3824***	0.0366***	0.0346***	0.0324***	0.0401***	0.0346***	0.0396***	0.0377***
	(29.7406)	(28.6733)	(25.6626)	(29.7143)	(26.3204)	(31.6267)	(31.4987)	(9.2977)	(8.2376)	(7.7221)	(9.9741)	(8.4287)	(10.2381)	(9.7363)
M/B	0.0367***	0.0386***	0.0363***	0.0389***	0.0366***	0.0389***	0.0367***	0.0095***	0.0097***	0.0094***	0.0099***	0.0096***	0.0097***	0.0094***
	(8.2711)	(8.8591)	(8.1832)	(8.9038)	(8.2629)	(8.8737)	(8.2944)	(6.3977)	(6.5250)	(6.3276)	(6.6122)	(6.4085)	(6.4517)	(6.2571)
Lev	-0.0467***	-0.0512***	-0.0487***	-0.0506***	-0.0485***	-0.0508***	-0.0488***	-0.0145***	-0.0151***	-0.0147***	-0.0149***	-0.0148***	-0.0151***	-0.0147***
	(-5.5042)	(-6.0647)	(-5.7995)	(-5.9970)	(-5.8111)	(-5.9653)	(-5.7152)	(-4.7481)	(-4.8935)	(-4.7857)	(-4.8509)	(-4.8009)	(-4.9123)	(-4.7734)
ROA	-0.1356***	-0.1177***	-0.0991***	-0.1326***	-0.1093***	-0.1408***	-0.1308***	-0.0073	-0.0031	-0.0024	-0.0096	-0.0048	-0.0066	-0.0061
	(-5.5709)	(-4.6470)	(-3.9961)	(-5.3545)	(-4.4593)	(-5.7785)	(-5.4511)	(-0.9084)	(-0.3732)	(-0.2885)	(-1.1634)	(-0.5819)	(-0.8237)	(-0.7657)
ΔSales_Grow	-0.0001	-0.0002	-0.0002	-0.0002	-0.0001	-0.0002	-0.0002	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001	0.0001
	(-0.4929)	(-0.7641)	(-0.7386)	(-0.6000)	(-0.5188)	(-0.6210)	(-0.6706)	(1.1276)	(1.0302)	(1.0668)	(1.1116)	(1.1181)	(1.0768)	(1.0807)
Sales_Vol	-0.0774	-0.0919*	-0.0982*	-0.0848	-0.0964*	-0.1001*	-0.1265**	-0.0036	-0.0065	-0.0063	-0.0024	-0.0054	-0.0115	-0.0111
	(-1.4915)	(-1.7630)	(-1.8783)	(-1.6183)	(-1.8342)	(-1.8842)	(-2.3819)	(-0.1903)	(-0.3436)	(-0.3345)	(-0.1264)	(-0.2887)	(-0.6062)	(-0.5846)
CFO_Vol	0.1900	0.1530	0.1468	0.1699	0.1587	0.1778	0.1686	-0.0120	-0.0184	-0.0175	-0.0118	-0.0152	-0.0144	-0.0150
	(1.5479)	(1.2296)	(1.1916)	(1.3650)	(1.2849)	(1.4314)	(1.3662)	(-0.2988)	(-0.4624)	(-0.4377)	(-0.2978)	(-0.3818)	(-0.3614)	(-0.3735)
Big4	0.1164***	0.1092***	0.1080***	0.1096***	0.1050***	0.1126***	0.1122***	0.0303***	0.0290***	0.0292***	0.0306***	0.0291***	0.0293***	0.0297***
	(3.4855)	(3.2275)	(3.2512)	(3.2310)	(3.1573)	(3.3460)	(3.3928)	(2.7545)	(2.6116)	(2.6509)	(2.7554)	(2.6376)	(2.6458)	(2.7006)
Loss	0.0278	0.0249	0.0231	0.0292	0.0260	0.0452	0.0565*	0.0063	0.0053	0.0056	0.0073	0.0062	0.0106	0.0104
	(0.8431)	(0.7386)	(0.6987)	(0.8635)	(0.7887)	(1.3159)	(1.6738)	(0.4486)	(0.3788)	(0.3991)	(0.5172)	(0.4412)	(0.7506)	(0.7322)
CEO_Age	-0.1287	-0.1316	-0.1340	-0.1349	-0.1424	-0.1302	-0.1330	0.0428	0.0421	0.0421	0.0435	0.0414	0.0420	0.0421
	(-1.1149)	(-1.1579)	(-1.1615)	(-1.1847)	(-1.2331)	(-1.1536)	(-1.1741)	(0.9141)	(0.8953)	(0.8922)	(0.9294)	(0.8780)	(0.9057)	(0.9075)
CEO_Tenure	0.0288*	0.0518***	0.0341**	0.0519***	0.0360**	0.0506***	0.0362**	-0.0074	-0.0049	-0.0071	-0.0048	-0.0064	-0.0053	-0.0072
	(1.8441)	(3.2928)	(2.1875)	(3.2985)	(2.2904)	(3.1990)	(2.2871)	(-1.3353)	(-0.8880)	(-1.2970)	(-0.8774)	(-1.1699)	(-0.9620)	(-1.3008)
B_Sze	-0.0717	-0.0921**	-0.0827*	-0.0924**	-0.0871**	-0.0933**	-0.0896**	-0.0174	-0.0200	-0.0185	-0.0189	-0.0191	-0.0209	-0.0194
	(-1.6380)	(-2.0687)	(-1.8872)	(-2.0719)	(-1.9837)	(-2.0835)	(-2.0205)	(-1.0224)	(-1.1592)	(-1.0840)	(-1.0941)	(-1.1164)	(-1.2138)	(-1.1393)
P_B_Ind	0.2510***	0.2746***	0.2497***	0.2712***	0.2480***	0.2681***	0.2518***	-0.0105	-0.0076	-0.0110	-0.0082	-0.0106	-0.0093	-0.0112
	(5.0000)	(5.3984)	(5.0177)	(5.3267)	(4.9556)	(5.2868)	(5.0348)	(-0.5551)	(-0.3992)	(-0.5850)	(-0.4302)	(-0.5591)	(-0.4873)	(-0.5899)
Constant	6.3486***	6.4968***	6.9948***	6.3525***	6.9129***	6.0762***	6.2599***	-0.5155**	-0.4711**	-0.4279**	-0.5576***	-0.4609**	-0.5556***	-0.5202***
	(12.7989)	(13.0222)	(14.0856)	(12.7322)	(13.8723)	(12.3269)	(12.7859)	(-2.5770)	(-2.2949)	(-2.0930)	(-2.7449)	(-2.2589)	(-2.7851)	(-2.6339)
Observations	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770	5,770
Adjusted R-squared	0.6328	0.6262	0.6339	0.6253	0.6323	0.6252	0.6304	0.1144	0.1135	0.1152	0.1127	0.1139	0.1135	0.1148
Industry and Year FE	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included	Included
F Statistic	133.7299	125.7363	133.8980	126.5788	133.0394	127.3409	131.3062	15.2386	14.7540	15.0681	15.8346	15.0202	15.2000	15.4816

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Table 3.15: CEO Reputation over Prior 3 Year Period and Earnings Management

	Earnings Management Models		
	Drank_DD	*Drank_MC*	*Drank_RCP*
	Column 1	Column 2	Column 3
Drank_Rep3	0.0484***	0.0485***	0.0580***
	(3.9431)	(3.7345)	(3.6564)
Size	1.0436***	0.9597***	-0.1902***
	(32.2908)	(28.9340)	(-4.8335)
M/B	0.0272**	0.0276**	0.0347**
	(2.5155)	(2.5063)	(2.3854)
Lev	0.0631***	0.0415*	0.0511
	(2.8031)	(1.6566)	(1.5490)
ROA	-1.2724***	-1.0642***	-0.6144***
	(-14.0534)	(-14.6789)	(-7.1449)
ΔSales_Grow	0.0024***	0.0006	0.0017*
	(3.2634)	(0.6794)	(1.7059)
Sales_Vol	0.8039***	0.8195***	2.6803***
	(5.5018)	(5.2750)	(14.0482)
CFO_Vol	1.2891***	1.0205***	0.7432**
	(4.7806)	(3.5416)	(2.1559)
Big4	0.3189***	0.4623***	0.3383***
	(3.9512)	(5.5765)	(3.1271)
Loss	0.3660***	0.2956***	-1.1982***
	(3.7625)	(3.1428)	(-9.7088)
CEO_Age	0.1229	0.4854	0.5181
	(0.4587)	(1.5771)	(1.3143)
B_Sze	0.2207**	0.3826***	0.4714***
	(2.2023)	(3.6085)	(3.4800)
P_B_Ind	-0.1368	0.0019	0.4355**
	(-1.1015)	(0.0146)	(2.5122)
Constant	-16.0560***	-16.4501***	4.4752***
	(-13.2323)	(-12.2234)	(2.7295)
Observations	6,369	6,369	6,369
Adjusted R-squared	0.5643	0.5408	0.1876
Industry and Year FE	Included	Included	Included
F Statistic	128.7	125.2	39.87

Robust t-statistics in parentheses
**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix-2 for variables definition*

Factor_P#Drank_Rep5 (t-statistics = 5.2645, 5.3699 and 1.6949 respectively). This recommends that the reputed CEOs with power receive higher economic incentives such as greater compensation.

3.5.4.6 CEO Reputation, Earnings Management and CEO Compensation

Prior research suggests that the managers perform earnings management show high performance for the sake their personal incentives such as stock based compensation. As part of further analysis, the argument, whether reputed CEOs perform earnings management to receive high compensation is tested. Table 3.14 shows the relationship between CEO reputation, earnings management and CEO compensation. Columns 1 to 7 show the relationship between CEO reputation, earnings management and total compensation of a CEO. Column 1 suggests that the CEO reputation is significantly positively related to the total compensation (t-statistic = 7.1117). Columns

2, 4 and 6 show the coefficient on earnings management variables is positive and significantly related to CEO compensation (t-statistic for *Drank_DD* = 4.1632, *Drank_MC* = 2.4649, *Drank_RCP* = 2.3173). The interaction term between CEO reputation and earnings management is created to check whether reputed CEO performs earnings management to receive high compensation. Columns 3, 5 and 7 suggest that the reputed CEOs performing earnings management receive significantly high compensation (t-statistic for *Drank_Rep5#Drank_DD* = 8.3644, *Drank_Rep5#Drank_MC* = 7.3917, *Drank_Rep5#Drank_RCP* = 6.5324). In columns 8 to 14, analysis is performed when the dependent variable is the ratio of variable compensation to total compensation. Results suggest remain similar and suggest that the reputed CEOs perform earnings management to receive high compensation.

3.5.4.7 CEO Reputation - Further Analysis

For further analysis, this study measures the CEO reputation by taking the decile rank for the sum of number of articles over the prior 3 year (*Drank_Rep3*), instead of 5 year and repeat the analysis performed in Table 3.6. Table 3.15 shows the results for the relationship between CEO reputation and all three earnings management models. The coefficient on *Drank_Rep3* remains statistically different from zero with a t-static of 3.9431, 3.7345 and 3.6564 for *Drank_DD*, *Drank_MC* and *Drank_RCP* models respectively. Thus, the reputation variable across different time horizons yields consistent results.

3.6 Conclusion and Implications

3.6.1 Study Overview

The primary objective of this study is to examine the relation between CEO reputation and earnings management. This study extends the research by Francis et al. (2008), inspecting the relationship between CEO reputation and accruals and real earnings management in Australia. This study considers the managerial characteristic specifically reputation, to identify any variation in earnings quality. Relying on the study conducted by Francis et al. (2008), two conflicting arguments efficient contracting and rent extraction hypothesis are used to examine the relationship between CEO reputation and earnings quality. Efficient contracting hypothesis suggests that, CEOs having reputation act in the best interest of the firms by improving earnings quality. Conversely, rent extraction hypothesis suggests that, the reputed CEOs promote their personal wealth and career by misreporting the earnings and creating information asymmetry between firm and stakeholders. Relying on the rent extraction behaviour of CEOs, hypothesis is developed for this study. The results and conclusions for each hypothesis are discussed below.

3.6.2 Results and Conclusions

The primary hypothesis of this study (H1) predicts that, the earnings management is high for firms with CEO reputation. As predicted, results support H1 and bolster the argument of rent extraction behaviour of reputed CEOs, with reputation significantly positively (negatively) related to accruals and real earnings management (earnings quality) (Table 3.6 Columns 1, 2, 3). It can be concluded that the reputed CEOs involve in both accruals as well as real earnings numbers. Additional analysis suggests that, the earnings management remain high, when the CEO reputation is at higher than normal levels (Table 3.7 Columns 1, 2, 3). Sensitivity analysis performed using 2SLS suggests that, excluding the effect of omitted variables on CEO reputation, earnings management is still significantly positively related to CEO reputation (Table 3.8).

In addition to this, if a reputed CEO has power (acquired through recruitment of directors on board, acting as a sole insider on board and with longer tenure in a firm),

accruals management and real earnings management persists significantly (Table 3.10, 11, 12). It is concluded that the reputed CEOs with or without power, receive high economic incentives such as high compensation in Australia (Table 3.13). Further, reputed CEOs perform accrual and real earnings management to increase their compensation (Table 3.14).

3.6.3 Implications

There are clear implications for investors and other stakeholders having valuable contracts with firms. As the quality of earnings and related information is lower (high accruals and real earnings management), when provided by reputed CEOs, investors and other contracting parties can consider the CEO reputation, relying on the firm provided financial reports. As CEO reputation and power is negatively related to earnings quality, investors should perform extra monitoring of such CEOs through independent internal and external monitors. Policy makers such as Australian Securities Exchange Corporate Governance Council in Australia are required to formulate the rules in order to restrict the sources of power for CEOs.

The research academics are required to consider the CEO reputation in future research as an important factor influencing the firm outcomes and information environment. As concluded, CEOs can use their reputation to extract personal incentives such compensation, compromising the long term benefits of the stakeholders. Therefore, research scholars need to shift the focus of their future research towards the CEO reputation and identify its further impact on firm and market participants.

3.6.4 Contributions

Prior research suggests a two-way role of reputed CEOs (rent extraction and efficient contracting behaviour). Recalling the results, there is a high accruals and real earnings management provided that the CEO has high reputation. This implies that reputed CEOs provide lower earnings quality to the market and supports the rent extraction behaviour of the reputed CEOs. Thus, this study contributes to the prior discussion on conflicting behaviours of reputed CEOs (efficient contracting and rent extraction arguments) in Australian settings.

Although, previous research suggests a number of factors (such as firm characteristics and internal and external governance factors), that influence earnings management. This study identifies additional determinants of accrual and real earnings management, which is press-based CEO reputation and CEO power (acquired as a sole insider on board, recruitment of directors on board and longer tenure). Despite the fact that CEOs having reputation and power can influence the internal and external environment significantly, there is still lack of research on their implications for firms and related stakeholders. Therefore, another contribution of this study is towards the CEO reputation and CEO power literature in Australian context. Further, there is a contribution towards CEO compensation literature in Australia, providing an additional determinant (press-based CEO reputation). Finally, the results of this study are generalizable to the countries with regulatory regime similar to Australia, because CEOs having reputation could influence the firm outcomes in a similar behaviour.

3.6.5 Limitations

Despite of providing several contributions, this study is also subject to a few limitations. First, while a number of firm related inner characteristics are included to classify the discretionary part of the total accruals influenced by reputed CEOs, yet it is not possible to completely rule out the discretionary accruals part due to unavailability of complete set of firm related inner characteristics (Dechow and Dichev 2002; Francis et al. 2004). However, this study uses real earnings management as an additional measure of earnings quality. Although, this study controls for several governance and firm related factors, and endogeneity concerns of CEO reputation, yet it is not possible to draw the causal relationship between CEO reputation and earnings management. While prior research provides evidence on the validity of the press based measure of CEO reputation, yet the implications of this study depend on the validity of the measure used for CEO reputation. Other than these potential limitations, this study contributes how CEO reputation and power can affect accruals and real earnings quality.

CHAPTER 4: CEO REPUTATION AND ACCOUNTING CONSERVATISM

4.1 Introduction

4.1.1 Motivation, Objectives and Research Questions

This paper examines the relationship between CEO reputation and accounting conservatism. The first paper (chapter 2) of this thesis concludes that the reputed CEOs reduce the quality of earnings and information, which leads to a reduction in the accuracy of analysts' forecasts and increase analysts forecast bias and dispersion. The second paper (chapter 3) suggests that the CEO reputation is positively related to abnormal accruals and abnormal real earnings numbers. This paper (chapter 4) is motivated from the first two papers of the thesis and specifically the question of interest is to examine the impact of CEO reputation on accounting conservatism. If the reputed CEOs use their previous reputation to get the incentives and report lower quality of accruals and real earnings numbers, it is likely that the reputed CEOs influence the timely recognition of bad news (an important property of corporate reporting known as accounting conservatism).

Conservatism in accounting improves monitoring over management (Watts 2003), reduces managerial agency problems and improves the contracts between mangers and shareholders (Ball and Shivakumar 2005). The timely recognition of bad news and delaying the good news is considered a crucial property of high quality earnings. Conservative accounting serves several benefits to the firm and its stakeholders. For instance, conservatism acts as a safeguard against managerial ex-post opportunism (Gao 2013), improves the corporate governance structure and avoid agency conflicts (Ahmed and Henry 2012), and streamline the debt contracting (Beatty, Weber and Yu 2008; Nikolaev 2010). Further, managers timely reporting bad news and recognizing lower value of net assets into accounting face lower litigation risk (Lara, Osma and Penalva 2009b; Qiang 2007; Chung and Wynn 2008). In addition to this, firms having high conservatism also faces less regulatory restrictions (Alam and Petruska 2012; Lobo and Zhou 2006).

Previous research suggests various determinants of conservatism, such as firm characteristics (Pae, Thornton and Welker 2005; Charitou, Lambertides and Trigeorgis 2007; Wen-Hsin Hsu, O'Hanlon and Peasnell 2011), institutional factors (Iatridis 2012; Dai and Ngo 2014) and corporate governance characteristics (Sultana

and Van der Zahn 2015; Sultana 2015; Ahmed and Henry 2012). Specifically, there is evidence that, the conservative accounting improves with the quality of the corporate governance structure. For example, audit committee experience, financial expertise and number of meetings improves the level of accounting conservatism (Sultana and Van der Zahn 2015; Sultana 2015). Similarly, board independence and smaller board size also improves the accounting conservatism (Ahmed and Henry 2012). CEOs are considered an important part of the corporate governance and can significantly impact the corporate reporting decisions. The previous research provides evidence that, the CEOs with different characteristics influence the quality of conservatism on opportunistic basis. For instance, overconfident CEOs report lower accounting conservatism (Ahmed and Duellman 2013) and CEOs with high stock ownership provide high conservatism in accounting (Lafond and Roychowdhury 2007). As the CEO reputation is strongly related to the quality of accounting numbers (Francis et al. 2008; Baik, Farber and Lee 2011), it is likely that the conservatism is also effected by reputed CEOs. Relying on this the primary question of this study is as follows:

RQ: Is there any relationship between CEO reputation and accounting conservatism

4.1.2 Significance of the Study

This study makes several contributions to the economy. First, this study will provide evidence about the behaviour of reputed CEOs towards reporting accounting conservatism. Specifically, results will suggest that, whether the reputed CEOs promote the timely recognition of bad news (supports efficient contracting hypothesis) or reduce the timeliness of earnings (supports rent-extraction hypothesis). Therefore, the study will contribute to the CEO reputation literature in terms of two opposite theories. Further, there will be contribution towards the literature on accounting conservatism.

Determinants of accounting conservatism include firm characteristics, regulatory environment and internal and external corporate governance attributes. This study is likely to identify an additional determinant (CEO reputation) of accounting conservatism. To the best of the knowledge of author, there is no previous study examining the role of CEO reputation towards the quality of accounting conservatism. In addition to this, the results of this study are

generalizable to countries other than Australia, because CEOs with multiple directorships likely to have similar behaviour across different countries with similar regulatory environment.

4.2 Literature Review

4.2.1 Accounting Conservatism

Conservatism defined by Basu (1997) as a "tendency to require a higher degree of verification to recognise good news as gains than to recognise bad news as losses". According to Basu (1997), conservatism exists only if the good news is verified more than bad news and a firm is considered highly conservative if the bad news is recorded as early as possible. According to Watts (2003), conservatism is the application of high degree of verification for favourable information. Chapter three measures earnings quality using earnings management (specifically accruals and real earnings management). Accounting conservatism is considered an important attribute of high quality earnings. Therefore, this chapter applies accounting conservatism to measure the level of earnings quality.

4.2.2 Explanations for Conservatism

The prior literature suggests primarily four reasons conservative accounting a) Contracting b) Litigation c) Taxation and d) Regulation (Watts 2003). Accounting conservatism provides benefits to mangers, shareholders and other stakeholders in a number of different ways. A brief explanation for each of these reasons is as follows:

4.2.2.1 Management and Debt Contracting:

Managers due to conflict interest, having information advantage over shareholders are likely to manipulate the accounting numbers to increase their personal wealth. To achieve the private incentives, managers may exploit the net assets value and future earnings under compensation plan (Watts 2003). According to Ball and Shivakumar (2005), conservatism is the main factor in improving the contracts efficiency. Further, the conditional conservatism improves monitoring over management and verify any future negative net present value projects (Watts 2003).

A number of previous studies show that the conservatism helps to cut-down the agency costs, streamline the contract of a firm with managers and shareholders and improves the quality of overall corporate governance (Gao 2013; Ahmed and Henry 2012; Hui, Klasa and Yeung 2012). For instance, according to Gao (2013), managers with control over financial reporting are able to do manipulations in their own favour. As the conservatism requires high degree of

verification of good news to managers, this acts as a safeguard against the managerial ex - post opportunism (Gao 2013). Further, Ahmed and Henry (2012) show that both the conditional and unconditional conservatism plays a key role in removing agency conflicts and improving governance structure. Similarly, the study conducted by Hui, Klasa, and Yeung (2012), explore the role of conservatism towards the efficiency of contract between external stakeholders (suppliers and customers) and a firm. Their study suggests that, the suppliers and customers (engage with firm in both short and long term) are concerned with the accounting practices of firm and focus on bad news more than good news.

The debt holders are known to be highly interested about the future losses and risks associated with a firm at the time of approving loan (Watts 2003; Basu 1997). Further, the debt holder are also concerned with the lowest value of net assets, because at the time of liquidation, managers may be unable to generate the sufficient amount from net assets to meet the debt holder's claim (Watts 2003). In addition to this, accounting conservatism helps the debt holders to make their debt contracts more efficiently and find out any violation in debt contract on timely basis in different ways. For instance, conservative accounting protects the debt holders by reporting lowest value of net assets and any future losses on timely manner in the financial statements (Ball and Shivakumar 2005). A number of studies provides an empirical evidence that, the conservatism is an important factor influencing the debt contracting (Li 2013; Nikolaev 2010; Beatty, Weber and Yu 2008; Ahmed et al. 2002; Haw, Lee and Lee 2014).

For instance, Li (2013) demonstrates that, the conservatism reduces the predicted renegotiation cost for efficient liquidation of negative net present value project. Further, if the expectation to get positive return from a project is lower, accounting conservatism increases the projected payoff for the investors. Likewise, Nikolaev (2010), using the sample of 5000 debt issuers shows that, the timely recognition of loss acts as a monitoring for debt holders on the debt contracts with

high debt covenants.[48] Further, according to Beatty, Weber, and Yu (2008), on the lender's demand side, conservatism is positively related to having income escalators, whereas, on the shareholder's demand side, accounting conservatism is negatively related to the inclusion of income escalators for managers. Furthermore, Ahmed et al. (2002) suggest that, the firms facing dividend policy conflicts follow conservative accounting and conservatism helps in mitigating bondholder and shareholder conflict on dividend policy.[49]

4.2.2.2 Litigation & Taxation

Firms reporting high value of net assets and avoiding timely recognition of bad news in financial statements are likely to face litigation in the future period (Watts 2003). According to Lara, Osma, and Penalva (2009a), litigation occurs when any of the stakeholders sue against managers, auditors or shareholders to recover their losses as a result of not stating the true economic performance of the firm. Conservatism acts here a key factor eliminating the litigation risk, agency problem and removes the information asymmetry between the parties (Lara, Osma and Penalva 2009a). Previous studies indicate that the conservatism is strongly related to litigation costs associated with firms (Qiang 2007; Chung and Wynn 2008).

For instance, Chung and Wynn (2008), show that the conservative accounting is strongly related to the level of legal liability coverage for managers, provided that the litigation risk is high. Specifically, Chung and Wynn (2008) conclude that higher the managerial legal liability coverage, lower the conservative accounting followed (bad news is not recorded on timely basis). This implies that managers imply more conservatism in accounting to avoid the litigation risk. Similar to this, study by Qiang (2007) provides an evidence that, the both forms of conservatism (conditional and unconditional) acts as a safeguard to the managers on litigation.

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[48] The research also suggests that the private firms with public debt report high conservatism (timely recognition of loss) as compared to the private firms with the private debt only, implying that the bondholders demand for higher conservatism as compared to the debt holders (Haw, Lee and Lee 2014).

[49] In contrast to this, research also shows that the conservatism decrease the efficiency of debt contracts (Gigler et al. 2009).

Tax planning includes managerial choice of accounting policies and practices in order to lower the net present value of taxation liability. Previous research demonstrates that, both forms of conservatism (conditional and unconditional) are strongly related to tax related manipulations in earnings (Heltzer 2009; Qiang 2007; Lara, Osma and Penalva 2009b). For instance, according to Heltzer (2009), conditional and unconditional conservatism is high in the firms, where the reported income is more than taxable income. According to Lara, Osma, and Penalva (2009b), managers use conservatism to lower the present value of taxes. Lara, Osma, and Penalva (2009b) argue that the managers use conditional conservatism to shift their income from a period, where the tax rate and tax burden is high to a period when tax rate and tax burden is lower to decrease the net present value of tax liability. Furthermore, managers may reduce earnings in a book-tax way by not recognising revenues timely and immediately considering the operating expenses, thereby reducing the present value of tax payments (Lara, Osma and Penalva 2009b). This is done by either recognizing economic losses or transferring current economic gains to a future period (Lara, Osma and Penalva 2009b). Likewise, Qiang (2007) concludes that unconditional conservatism helps to reduce taxation costs for firms. According to Qiang (2007), the unconditional conservatism is an easier way to follow the taxation rules allowed to record extra expenses such as increase in cost of goods sold by following Last in First Out (LIFO).

4.2.2.3 Regulation

Regulators and standard setters known to be strong determinants of conservative accounting (Watts 2003). High accounting conservatism reduce the risk for regulators not to be blamed by the stakeholders in the economy (Qiang 2007). According to Qiang (2007), regulators favour the type (conditional or unconditional) of conservatism to be implemented by firms following the demand of stakeholders. For instance, conditional conservatism (timely recognition of bad news in earnings) results in negative reporting, which is not favourable to some stakeholders such as debtholders and investors. Further, the firms following unconditional conservatism are under fewer chances of being interrupted and questioned by regulators. Conversely, the firms with high conditional conservatism are likely to announce greater number of negative announcements, therefore high chance of becoming the target of regulators.

Previous studies indicate that the regulatory and political environment is a strong driver of accounting conservatism (Alam and Petruska 2012; Lobo and Zhou 2006). The US study conducted by Alam and Petruska (2012) suggest that, the fraud firms have significantly lower conservatism in the period before committing of fraud, as compared to non-fraud firms. Further, the fraud firms increase the level of conservatism during the period of investigation by Securities and Exchange Commission (SEC). Likewise, the study conducted by Lobo and Zhou (2006) finds that, during the period after enforcing SOX firms report high conditional conservatism as compared to pre-SOX period. Furthermore, according to Lara, Osma, and Penalva (2009b), firms make huge profits from the high market prices of goods and service. Regulators in this case may implement new taxes on high income and new regulatory enforcements to restrict the market price. Therefore, in order to avoid the regulatory interventions, management is likely to implement the conditional conservatism and report lower earnings.

It can be summarised that, the conservatism have different economic consequences for managers, auditors, shareholders, debt holders, regulators and other key stakeholders. Conditional and unconditional conservatism improves the efficiency of managerial contracts by taking into account any future bad news in earnings and net value of assets on lower end. Further, as debt holders are concerned with the lower end of earnings and lowest value of net assets in order to recover the debts, therefore both forms of conservatism improve the efficiency of debt contracts. Furthermore, management uses conditional conservatism to manipulate the taxation liability of firm and shift income to low pressure period from high pressure period. In addition to this, managers and auditors having high litigation risk follow more conservative accounting. Finally, high conservatism acts as a safeguard from strict regulatory interventions, whereas lower conservatism may lead to implementation of new laws and regulations.

4.2.3 Determinants of Conservatism

Previous studies discuss three main determinants, which influence the conservatism in accounting a) Firm characteristics b) Institutional factors and c) Corporate governance factors. A brief overview of each attribute is as follows:

4.2.3.1 Firm Characteristics

A number of studies show that the firm characteristics i.e. firm size, firm risk and growth options have a strong influence on accounting conservatism (Charitou, Lambertides and Trigeorgis 2007; Pae, Thornton and Welker 2005; Khan and Watts 2009; Wen-Hsin Hsu, O'Hanlon and Peasnell 2011; Mak, Strong and Walker 2011). A brief overview of the firm characteristics and their impact on conservatism is as follows.

The research performed by Pae, Thornton, and Welker (2005) examine the association between firm risk and conservatism. Their study classifies the firms into different risk portfolios on the basis of lower and high price to book ratio and uses 119,983 firm year observations for the period 1970 to 2001. The study measures the conservatism using the difference between slope coefficient between bad news and good news. Results suggest that the firms having greater price to book ratio have lower conservatism and the firms with lower price to book ratio have higher conservative accounting.

Similarly, the research conducted by Charitou, Lambertides, and Trigeorgis (2007) examine, whether the financial situation of a firm (distressed, healthy and growth firms) influences the level of accounting conservatism. The study utilises a total of 15, 049 US firm year observations for the period 1990 to 2004 and measures accounting conservatism using Basu (1997) timely loss recognition approach. The results suggest that, the earnings of firms in financially distressed have a lower response to bad news and high response to good news (lower conservatism), whereas earnings of healthy firms quickly response to bad news as compared good news (high conservatism). Further, extending the research to growth firms, study reveals that the earnings of firms in growth stage quickly response to bad news than good news, whereas, the value firms do not response to bad news in a timely manner.

The study conducted by Khan and Watts (2009) measure the impact of different firm characteristics on conservatism. The study considers the C_Score

approach to measure conservatism.[50] Further, the study uses a total of 115,516 firm year observations for the period 1962 to 2005. The results suggest that, the firms with longer investment horizon, higher distinctive uncertainty and high information asymmetry are more conservative. Further results indicate that the level of conservatism is also influenced by change in information irregularity, likelihood of litigation and stock return uncertainty.

Similarly, the research accomplished by Wen-Hsin Hsu, O'Hanlon, and Peasnell (2011) examine, whether the earnings response to good news or bad news in financially distressed firms is due to accrual component or cash flow component of earnings. To measure conservatism, the study applies conditional conservatism approach suggested by Ball and Shivakumar (2005) and Basu (1997). The study applies total of 21,513 firm year observations for the non-financial firms listed on American Stock Exchange for the period 1989 to 2005. The results suggest that, in the financially distressed firms timely recognition of bad news in earnings is due to the accrual component of earnings.

In UK, accounting and tax regulation require that the public and private companies must follow the same set of procedures while preparing the financial statements for audit and taxation purposes. Study conducted by Ball and Shivakumar (2005) evaluate, whether there is any difference in the earnings quality of UK private and public firms governed under the same regulation. The study takes into account a total of 54,778 private and 1478 public firm's data for the period 1990 to 2000. To measure conservatism, the study considers the accruals to cash flow approach provided by Ball and Shivakumar (2005) and persistence of earnings approach suggested by (Basu 1997). The results suggest that, the conservatism in the private firms is lower as compared to public firms governed under the same regulation.

[50] The C_Score conservatism approach captures the news even a firm have positive stock return values. In this way the khan & watts conservatism approach is different from the conservatism model provided by Basu (1997) which do not capture conservatism of firms having positive returns. Further, C_Score conservatism approach measure conservatism up to 3 years ahead.

Another UK based study by Mak, Strong, and Walker (2011) examine the impact of firm's corporate refocusing activities on conservatism.[51] To measure conservatism, the research considers Basu (1997) approach of timely loss recognition. The sample consists of 1,986 UK listed firms for the period 1990 to 1999. Further classifying the sample, the 753 firms involve in refocusing event, firms facing downsizing are 425, involve in investing activity are 304 and the firms entering into a new business are 24. After controlling for the size, industry and previous year news, the results suggest that, the conservatism is high in corporate refocusing event year and the year following the event.

Likewise, a US study conducted by Ramalingegowda and Yu (2012) examine, whether the institutional ownership impact the practice of conservative accounting. The study measures the conservatism using Basu (1997) approach and sample consists of 16,911 firm year observations for the period 1995 to 2006. The study finds that, the firms having high ownership by institutions follow more conservative accounting. Further, the ownership effect on conservatism is stronger in the firms having greater growth options and greater information asymmetry.

4.2.3.2 Institutional Factors

A number of studies exhibit that the institutional factors such as legal and corporate policies, accounting policies, political condition and cross sectional variations have strong influence on conservatism (Iatridis 2012; Dai and Ngo 2014; Gotti and Mastrolia 2012; Lobo and Zhou 2006). A brief description of the institutional factors and how they influence conservative accounting practices is as follows:

A recent study by Iatridis (2012), examines the level of accounting conservatism being followed by the firms from different regions. For this purpose, the study considers the sample firms being audited by Big 4 auditors belongs to common law of South Africa and common law of Brazil. The final sample consists of 188 firms from South Africa and 187 firms belong to Brazil being audited by one of the big 4 auditing firm. Further, the study calculates conservatism by using Basu

[51] According to Mak, Strong, and Walker (2011), corporate refocusing activities may involve selling of underperforming assets, change of management, change to strategic planning and realization of losses.

(1997) timely loss recognition approach. The results recommend that, the firms either audited by big 4 auditors, their institutional differences highly influence the amount of conservative accounting, agency costs and cost of equity. Specifically, study shows that the firms being audited by big 4 auditor in South Africa produce more conservatism as compared to the firms audited by big 4 auditor in Brazil.

Similarly, a US study by Dai and Ngo (2014) examines the impact of US presidential election on accounting conservatism. The sample consists of 147,894 firm year observations for the period 1971 – 2011 for the US public listed firms and the study considers the C_Score conservatism approach of Khan and Watts (2009). The study indicates that the accounting conservatism is highly driven by political situation of country. Specifically, a year before the US presidential election, conservative accounting increased by 20 percent. Further, such conservative accounting continues in the next year of election, if the opposition party wins, and reduces if the ruling party wins the election.

In US, foreign private issuers are required to register for cross listing according to Securities and Exchange Commission (SEC) act 1934 (Gotti and Mastrolia 2012). In addition to this, these foreign issuers are subject to certain filing / reporting i.e. submission of form 20-F each year, under section 12-G. However, the foreign firms having total assets less than $10 million are subject to an exemption from the reporting condition. As this reporting incurs a lot of cost, many of the foreign firms take the benefit of such exemption from reporting. To measure the effect of this exemption on accounting conservatism, Gotti and Mastrolia (2012) conducted a study taking the data of foreign firms cross listed in US. The final sample consists of 6,682 firm year observations for the period 2000 to 2006. The final results suggest that, foreign firms cross listed in US exempt from reporting produce lower conservatism as compared to foreign firms complying with reporting obligations.[52]

Finally, the research by Lobo and Zhou (2006) investigates that, whether the implementation of SOX influences the level of conservatism in accounting. The

[52] Further results reveal that the abnormal accruals are also high for the non-reporting firms as compared to reporting firms.

study uses a sample of 11,960 firm year observations and Basu (1997) timeliness of earnings approach is used to measure conservatism. The results suggest that the firms in the post-SOX have higher conservatism as compared to pre-SOX period.

4.2.3.3 Corporate Governance Characteristics

A consensus of literature shows that the corporate governance characteristics i.e. audit committee, board of directors, and CEO strongly influence the accounting conservatism (Sultana 2015; Sultana and Van der Zahn 2015; Ahmed and Henry 2012; Ahmed and Duellman 2007; Ho et al. 2015; Francis et al. 2015). A brief overview of these characteristics is as follows:

A recent study conducted by Sultana and Van der Zahn (2015) in Australian context examine the relationship between audit committee financial expertise and level of conservatism in Australia. The study utilises the random sample of 494 firm-year observations for the period 2004 to 2008 and considers the Ball and Shivakumar (2005) and Basu (1997) conditional conservatism approach. The study demonstrates that the audit committee having financial expert members perform more efficiently. Specifically, the results show that the conservatism is high for firms with audit committee members having accounting and financial expertise. Similar to this, the research conducted by Sultana (2015) shows that, the conservatism for Australian firms is positively related to the meetings held by audit committee members, experience and financial expertise of audit committee members

Likewise, the Australian study by Ahmed and Henry (2012) examine the relationship between corporate governance mechanisms (board size, board independence and voluntary formation of an audit committee) and accounting conservatism. The study considers the conditional conservatism approach provided by Ball and Shivakumar (2005), Basu (1997), Givoly and Hayn (2000) and Beaver and Ryan (2000). The study concludes that the voluntary formation of audit committee, high board independence and smaller board size increase the accounting conservatism practice.

In addition to audit committee characteristics, board characteristics are also considered to be associated with the conservatism (Lara, Osma and Penalva 2009a, 2007; Ahmed and Duellman 2007). For instance, Lara, Osma, and Penalva (2009a) examine, whether good corporate governance results in high conservatism.

The corporate governance factors include the level of external monitoring, board composition, board effectiveness and CEO involvement. Overall results suggest that, the firms having strong corporate governance yield high level of conditional conservatism. Similarly, Lara, Osma, and Penalva (2007) also shows that the high quality corporate governance improves accounting conservatism.[53]

In a similar instance, the study conducted by Ahmed and Duellman (2007) examine, whether conservatism influenced by percentage of inside directors in the board, outside directorship, board size, separation of chairman and CEO position and the number of additional directorships held by board members. To measure conservatism, the study considers market based conservatism approach suggested by Beaver and Ryan (2000), total accruals approach recommended by Givoly and Hayn (2000) and timeliness of earnings approach provided by Roychowdhury and Watts (2007). The study demonstrates that, the percentage of inside directors on board have a negative and percentage of shares held by outside directors have a positive relationship with accounting conservatism. Further, the number of multiple directorships held by directors is negatively related accrual-based approach of conservatism (Ahmed and Duellman 2007).[54]

CEO's with high power and being a supreme authority can significantly influence the financial reporting decisions. The most relevant study to this chapter is conducted by Koh (2011), suggests that the celebrity CEOs report high conservative accounting and exhibit higher firm performance after the achievement of celebrity award. Further, a number of studies show that, the CEO characteristics are strongly related to the accounting conservatism. For instance, Ahmed and Duellman (2013) suggest that, the overconfident CEOs report lower accounting conservatism (high value of net assets and less timely recognition of bad news). According to Ho et al. (2015), female CEOs are more conservative as compared to their male counterparts. Similarly, the research suggests that, the conservatism increases with the

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[53] Strong corporate governance is associated with lesser influence of CEO over board of directors The CEO influence over board of directors is measured using eight difference characteristics of board of directors (board size, proportion of non-executive directors, independent directors, whether the chairman of the board is executive director, board meetings, and audit / remuneration / nomination committee) (Lara, Osma and Penalva 2007).

[54] Similarly, Beekes, Pope, and Young (2004) suggests that the asymmetric timeliness of earnings is higher for firms with greater number of outside directors on board.

appointment of female CFO (Francis et al. 2015). Similarly, Lafond and Roychowdhury (2007) states that the agency problems associated with a CEO can be minimized by providing the stock ownership to a CEO. The study conducted by Lafond and Roychowdhury (2007) suggest that, the CEO stock ownership is positively related to timely recognition of bad news.

The previous research also suggests that the conservatism increases, when the non-founding CEO have high stock ownership and conservatism remain same with an increase in stock ownership of a founder CEO in family firms (Chen, Chen and Cheng 2014). As the CEO characteristics effect conservatism in several ways, yet the question, how CEO reputation in press influence accounting conservatism is yet to be answered? Therefore, this study expands the prior literature by examining the association between CEO reputation and accounting conservatism.

4.3 Theoretical Framework

4.3.1 CEO Reputation and Accounting Conservatism

As reported in the paper one and two of this thesis, efficient contracting hypothesis suggests that the reputed CEOs are likely to report high quality earnings to secure their reputation and career incentives (Francis et al. 2008). Furthermore, reputed CEOs are known to provide accurate management earnings forecasts (Baik, Farber and Lee 2011), increase firm value and more likely to select the positive net present value projects (Jian and Lee 2011). In contrast to this, rent-extraction hypothesis recommends that, the stakeholders have higher performance expectations from reputed CEOs, therefore CEOs with higher reputation perform earnings management to meet market expected and receive economic incentives (Malmendier and Tate 2009). Such incentives for CEOs to manipulate earnings and show high profits include high stock based compensation and career promotions (Cheng and Warfield 2005; Cornett, Marcus and Tehranian 2007; Ball 2001).

The hypothesis is developed relying on the rent extraction behaviour of the reputed CEOs, which is motivated and consistent with the first two papers of this thesis. In order to secure their reputation and receive the personal incentives such as high compensation and career advantages, reputed CEOs are more likely to restrict the bad news to the market and show greater value of net total assets of the firm. As the accounting conservatism is associated with the effectiveness and quality of the corporate governance level (Ahmed and Henry 2012; Sultana and Van der Zahn 2015; Sultana, Singh and Van der Zahn 2015), it is expected that the reputed CEOs could use reduce the quality of corporate governance and conservative accounting practices by significantly influencing the financial reporting decisions for the sake of personal incentives. Relying on the above arguments, following hypothesis of this study is developed.

H1: There is a negative relationship between CEO reputation and accounting conservatism.

4.4 Research Design

4.4.1 Sample Data Collection

Table 4.1 presents the sample selection process for this study. Initial sample consists of 13,446 firm year observations downloaded from "All Managing Director / CEO" file available on Connect4 Boardroom database for the period 2004-2013. In the first stage of data cleaning, the delisted firms and the firms belong to financial industry are removed. Further, if a firm has two CEOs in a given year, the firm year observation with the current (at closing date) CEO is used. The first-stage data screening yields 8,541 firm year observations for the period 2004 - 2013.

Table 4.1: Sample Selection Procedure

Firms available at Connect4 for the period 2004-2013	13,446
First Stage Exclusions:	
Less:	
Firms which are delisted	(2,039)
Firms having more than one CEO in a given year (duplicate observations)	(1,698)
Firms belong to Financial Industry	(1,168)
Firms After First Stage Exclusions	**8,541**
Panel A: Second Stage Exclusions for Ball & Shivakumar (2005) Conservatism Model	
Less:	
Firms with no information for Ball & Shivakumar (2005) conservatism model	(4,313)
Final Firm Year Observations for Ball & Shivakumar (2005) Conservatism Model	**4,228**
Firms After First Stage Exclusions	**8,541**
Second Stage Exclusions:	
Less:	
Firms with no information for Roychowdhury & Watts (2007) conservatism model	(4,313)
Final Firm Year Observations for Roychowdhury & Watts (2007) conservatism model	**4,228**
Firms After First Stage Exclusions	**8,541**
Second Stage Exclusions:	
Less:	
Firms with no information for Givoly & Hayn (2000) conservatism model	(3,392)
Final Firm Year Observations for Givoly & Hayn (2000) conservatism model	**5,149**

In the second stage of data screening, the CEO reputation data is combined with the earnings conservatism and financial data (control variables). In this process, the final sample differs for each earnings conservatism model together with CEO reputation data. Please refer to the Table 4.1 for details regarding to sample selection procedure used for this study.

4.4.2 Source Documentation

A number of secondary sources are used for data collection purposes. Financial data is collected from DatAnalysis and stock price data is downloaded from *DataStream*. Information regarding CEO reputation and other corporate governance variables are taken from Factiva and SIRCA databases respectively. Please refer to the Table 4.2 for list of sources used to obtain data for this study.

Table 4.2: Variables and Sources of Data Collected

Data	Database
Financial Data	*DatAnalysis*
CEO reputation and Corporate Governance Data	*Factiva and SIRCA*
Stock Price Data	*DataStream*

4.4.3 Variables Measurement

4.4.3.1 Dependent Variable

The dependent variable of this study is accounting conservatism as a proxy to measure the earnings quality. Accounting conservatism is considered as an important characteristic of reliable accounting and it decreases the probability of problems caused by agency issue e.g. managerial choice to do earnings management, information asymmetry and moral hazard problems (Lim 2011; Sultana and Van der Zahn 2015; Watts 2003). Further, conservatism also enhances the efficiency of debt covenant arrangements and reduces both litigation risk and political costs (Krishnan and Vishanathan 2008; Lara, Osma and Penalva 2009a). In addition to this, conservatism also supports ex ante loan pricing by increasing the probability that ex post loan agreement violations will be triggered (Ruddock, Taylor and Taylor 2006).

A number of prior studies argue that conservatism is an important attribute of governance mechanism (Ahmed and Duellman 2007; Sultana 2015; Sultana and Van der Zahn 2015). For instance, according to Ahmed and Duellman (2007), higher the number of insider directors on board leads, lower conservatism in earnings. Further, conservatism in reported earnings is higher for firms having financial expert on audit committee, experienced director on audit committee and higher number of audit committee meetings (Sultana 2015).

4.4.3.2 Conditional Conservatism

Conservatism within earnings is documented as a main attribute of earnings quality (Ball and Shivakumar 2005; Watts 2003). Conditional conservatism (news dependent conservatism) helps in efficient monitoring of the management decision making about financial reporting (Ball and Shivakumar 2005; Watts 2003).

For instance, if managers are unable to postpone timely loss recognition into earnings, it will limits their incentives to proceed for ex ante negative net present value projects (Ruddock, Taylor and Taylor 2006). One of the significant elements in earnings quality is the timely recognition of bad news in earnings, when earnings are used for contracting purposes. As the audited financial statements are joint output of managerial assertions and auditor assurance, news based conservatism in earnings also provides overview of audit quality. To measure conditional conservatism, this study considers the accruals to cash flow approach suggested by Ball and Shivakumar (2005) and earnings to stock return method suggested by Basu (1997), later advanced by Roychowdhury and Watts (2007).

4.4.3.3 Accruals to Cash Flow Approach Following Ball & Shivakumar (2005)

The conditional conservatism proxy developed by Ball and Shivakumar (2005) is an accounting-based approach and therefore also useful to capture the level of conservative accounting practices for private companies. Contrary to this, Basu (1997) provides an estimate of conditional conservatism, which require stock market price to capture the bad news, therefore useful for public companies only. Ball and Shivakumar (2005) conservatism model uses operating cash flow to measure the bad news. The underlying construct for conservatism is that the bad news in operating cash flow should reflect quickly into accruals. Thus, a high level of conservatism requires a strong relationship between cash flows and accruals of a company, presented in the following regression equation:

$$ACC = \beta_0 + \beta_1 CFO + \beta_2 DCFO + \beta_3 CFO*DCFO + \varepsilon \quad (1)$$

Where:

ACC	=	Accruals, calculated as a difference between net income before extraordinary items and operating cash flows for the period *t*, divided by book value of total assets at the beginning of the period *t*.
CFO	=	Cash flow from operations for divided by book value of total assets at the beginning of the period *t*.
DCFO	=	Dummy variable equal to 1, if the *CFO* is negative, otherwise 0.
*CFO*DCFO*	=	Interaction term between *CFO* and *DCFO*
ε	=	Error term

In the regression equation 1, *CFO* is the cash flow from operations and *DCFO* is the dummy variable if the *CFO* is negative (bad news). The primary variable of interest is β_3, and greater value of coefficient on β_3 represents greater accounting conservatism.

4.4.3.4 Timeliness of Earnings Following Roychowdhury & Watts (2007)

Basu (1997) implements the asymmetric timeliness of earnings approach and assesses that, how quickly the firm's earnings reflect the bad news lies in future stock returns. Negative stock return is considered as a bad news, whereas positive stock return is referred to the good news. The model is based on the premise that, the stock price reflects the news from sources other than financial statements. If the earnings reflect the bad news (negative returns) timelier than good news, there should be strong association between earnings and bad news in stock return. A positive association between negative returns and earnings shows timely recognition of bad news and higher conservatism. The following regression equation explains the Basu (1997) asymmetric timeliness of earnings approach for conservatism:

$$X\_R = \beta_0 + \beta_1 CRT + \beta_2 DCRT + \beta_3 CRT*DCRT + \varepsilon \quad (2)$$

Where:

X_R	=	Earnings before extra-ordinary items (profit after tax) divided by amount of market capitalization at the beginning of the period *t*.
CRT	=	*CRT* refers to the value of market adjusted stock return, calculated as a difference of the stock price three months later the end of period *t* and stock price three month later the end of period *t-1*.
DCRT	=	*DCRT* is a dummy variable equal to 1 if *CRT* < 0, otherwise 0.
*CRT*DCRT*	=	Refers to two way interaction between *CRT* and *DCRT*.
ε	=	Error term.

In the regression equation 2, *CRT* refers to the stock return and *DCRT* denotes the dummy variable for negative stock returns (bad news). The β_3 is the

primary variable of interest and captures the conservatism. A positive and higher value at β_3 represents higher level of conservatism. Roychowdhury and Watts (2007) argue that cumulating the conservatism approach provided by Basu (1997) over several previous years provide better estimate as compared to calculating it for single year. Therefore, following Roychowdhury and Watts (2007)**,** this study calculates conservatism model provided by Basu (1997) cumulating it over prior 3 year period (*t* to *t-3*).

4.4.3.5 Un-Conditional Conservatism Following Givoly & Hayn (2000)

For additional analysis, this study considers the unconditional conservatism approach, suggested by Givoly and Hayn (2000). According to Givoly and Hayn (2000).if the net income is higher than cash flow from operations in current year, it leads to negative accruals for the future periods. Firms with negative accruals over several years represent the existence of conservatism. Low value of accruals refers to the high level of conservatism. Following regression equation is used to measure total accruals as measure of conservatism:

$$TACC\_Giv = Total\ income + Depreciation - CFO \quad (3)$$

Where:

TACC_Giv = Refers to total accruals which are calculated as total income before extraordinary items plus depreciation minus cash flow from operations divided by total assets, averaged over the 3 years period centred over period *t*.

4.4.4 Independent & Control Variables

The independent variable for this study is the CEO reputation (*Press_5Y* and *Press_3Y*), which is calculated using the number of press articles (as explained above in paper one and two). The control variables added for the regression purposes include *Firm_Size*, because, according to LaFond and Watts (2008) firms with large size demand less conservatism in accounting because of less information asymmetry as a result of high level of publicly available information. Further, *M/B* is included, because, firms having high market-to-book ratio yield lower accounting conservatism (Givoly and Hayn 2000).

Furthermore, *Leverage* is included, since high leveraged firms are more pronounced to bond-holder conflicts thus influence the level of accounting conservatism (Ahmed and Duellman 2007). In addition to this, financial and corporate governance variables included as a control variables are *Sales_Grow, Loss, ROA, Tenure*, *Duality*, *B_Size* and *P_B_Ind*.[55] Please refer to *Appendix-3* for details about measurement of these variables.

4.4.5 Regression Models

The three regression equations used to test H1 are as follows:

Ball & Shivakumar (2005) Accruals to Cash Flow Model:

$$ACC = \beta_0 + \beta_1 CFO + \beta_2 DCFO + \beta_3 CFO*DCFO + \beta_4 CFO*Press\_5Y + \beta_5 DCFO*Press\_5Y + \beta_6 CFO*DCFO*Press\_5Y + \beta_7 M/B + \beta_8 CFO*M/B + \beta_9 DCFO*M/B + \beta_{10} CFO*DCFO*M/B + \beta_{11} Firm\_Size + \beta_{12} CFO*Firm\_Size + \beta_{13} DCFO*Firm\_Size + \beta_{14} CFO*DCFO*Firm\_Size + \beta_{15} Lev + \beta_{16} CFO*Leverage + \beta_{17} DCFO*Leverage + \beta_{18} CFO*DCFO*Leverage + \beta_{19} Tenure + \beta_{20} CFO*Tenure + \beta_{21} DCFO*Tenure + \beta_{22} CFO*DCFO*Tenure + \beta_{23} Duality + \beta_{24} CFO*Duality + \beta_{25} DCFO*Duality + \beta_{26} CFO*DCFO*Duality + \beta_{27} B\_Size + \beta_{28} CFO*B\_Size + \beta_{29} DCFO*B\_Size + \beta_{30} CFO*DCFO*B\_Size + \beta_{31} P\_B\_Ind + \beta_{32} CFO*P\_B\_Ind + \beta_{33} DCFO*P\_B\_Ind + \beta_{34} CFO*DCFO*P\_B\_Ind + Year + \varepsilon \quad (4)$$

Roychowdhury & Watts (2007) Cumulative Timeliness of Earnings Model:

$$X\_R = \beta_0 + \beta_1 CRT + \beta_2 DCRT + \beta_3 CRT*DCRT + \beta_4 CRT*Press\_5Y + \beta_5 DCRT*Press\_5Y + \beta_6 CRT*DCRT*Press\_5Y + \beta_7 M/B + \beta_8 CRT*M/B + \beta_9 DCRT*M/B + \beta_{10} CRT*DCRT*M/B + \beta_{11} Firm\_Size + \beta_{12} CRT*Firm\_Size + \beta_{13} DCRT*Firm\_Size + \beta_{14} CRT*DCRT*Firm\_Size + \beta_{15} Lev + \beta_{16} CRT*Leverage + \beta_{17} DCRT*Leverage + \beta_{18} CRT*DCRT*Leverage + \beta_{19} Tenure + \beta_{20} CRT*Tenure + \beta_{21} DCRT*Tenure + \beta_{22} CRT*DCRT*Tenure + \beta_{23} Duality + \beta_{24} CRT*Duality + \beta_{25} DCRT*Duality + \beta_{26} CRT*DCRT*Duality + \beta_{27} B\_Size + \beta_{28} CRT*B\_Size +$$

[55] For ease of explanation, firm and time subscripts are removed while labelling the variables following prior literature (Behn, Choi and Kang 2008).

$\beta_{29}DCRT*B\_Size + \beta_{30}CRT*DCRT*B\_Size + \beta_{31}P\_B\_Ind + \beta_{32}CRT*P\_B\_Ind + \beta_{33}DCRT*P\_B\_Ind + \beta_{34}CRT*DCRT*P\_B\_Ind + Year + \varepsilon$ (5)

Givoly & Hayn (2000) Total Accruals Approach:

$TACC\_Giv = \beta_0 + \beta_1 Press\_5Y + \beta_2 M/B + \beta_3 Firm\_Size + \beta_4 Leverage + \beta_5 ROA + \beta_6 Sales\_Grow + \beta_7 Loss + \beta_8 + \beta_9 Tenure + \beta_{10} Duality + \beta_{11} B\_Size + \beta_{12} P\_B\_Ind + Year + \varepsilon$ (6)

Please refer to Appendix 3 for definition of the variables.

4.5 Data Analysis

4.5.1 Univariate Analysis

Table 4.3 reports the descriptive statistics for the variables used in the regression analysis. For Ball and Shivakumar (2005) conservatism model, the mean (median) for the accruals (*ACC*) is -0.0966 (-0.0459), which shows an evidence for the existence of conservatism in the sample. The mean (median) value for the cash flow from operations (*CFO*) in the sample is -0.1134 (-0.0341), suggesting that on average, the operating cash flows are negative. In terms of Roychowdhury and Watts (2007)**,** the mean (median) value for the earnings (*X_R*) deflated by market capitalization (cumulated over the prior three year period) is -0.0819 (-0.0374).

Table 4.3: Descriptive Statistics

Variables	N	Mean	Median	Std	Min	Max	P25	P75
ACC	6130	-0.0966	-0.0459	0.2738	-1.5509	0.9599	-0.1344	0.0004
CFO	6130	-0.1134	-0.0341	0.4266	-3.0394	0.5531	-0.1715	0.0904
DCFO	6130	0.5779						
X_R	5233	-0.0819	-0.0374	0.2078	-1.3801	0.2607	-0.1561	0.0606
CRT	4641	0.6420	0.2307	2.5669	-2.9574	38.2434	-0.5714	1.1883
DCRT	4641	0.4287						
TACC_Giv	5890	-0.1226	-0.0717	0.1859	-0.9206	0.2494	-0.1648	-0.0210
Press_5Y[a]	5627	3.5047	3.5835	1.5229	0	6.7369	2.5649	4.5747
Press_3Y[a]	5553	3.3494	3.4339	1.4639	0	6.4167	2.3978	4.4067
Firm_Size[a]	6130	17.6718	17.2544	2.2256	14.1020	24.7727	16.0243	18.9711
M/B	6130	2.5597	1.5600	3.4079	-3.02	22.21	0.8	2.9700
Lev	6130	1.6772	1.3009	1.3977	-1.4452	12.2533	1.0617	1.8823
ROA	6129	-0.2218	-0.0516	0.6144	-4.1027	0.3527	-0.2523	0.0683
Sales_Grow	5787	6.0679	0.0520	31.9102	-1	254.4941	-0.226	0.4748
Loss	6130	0.5955						
B_Size[a]	6130	1.7734	1.7917	0.3620	1.0986	2.9957	1.6094	2.0794
P_B_Ind	6130	0.3706	0.3750	0.2565	0	0.875	0.1666	0.5714
Tenure[a]	6130	1.1611	1.2035	0.9431	-1.9105	3.2406	0.5922	1.7817
Duality	6130	0.0998						

Please refer to Appendix 3 for definition of variables
a: The variables are presented into logged form

The mean (median) value for the market-adjusted stock return (*CRT*) is 0.6420 (0.2307). As the average value for *X_R* (*CRT*) is negative (positive), suggests the existence of conservatism in the sample data used for this study. Further, in terms of Givoly and Hayn (2000) conservatism model, the mean (median) value for total accruals (*TACC_Giv*) is -0.1226 (-0.0717), reports the existence of conservatism.

For the independent variable of the study, the mean value for the number of press articles accumulated over the prior 5 year period (*Press_5Y*) is 3.5047, suggests that on average 33.5 articles published with the name of a CEO in the sample. The statistics for control variables suggests that the mean (median) value for the total assets (*Firm_Size*) is $47.2 million ($31.2 million). The average market to book ratio (*M/B*) is 2.5597 and leverage (*Lev*) is 1.6772. On average the 59.5 percent of the firms reported loss and the mean (median) *ROA* of -0.2218 (-0.0516). Furthermore, on average the sales growth (*Sales_Grow*), the change in sales for the current year as compared to previous year remains 6.1 percent. Furthermore, the mean value for board size (*B_Size*) and percentage of board independence (*P_B_Ind*) is 6.0 and 0.3706, implying that on average, there are 6.0 directors serving on a board and 37 percent of the board members are independent. Finally, on average, the tenure of a CEO serving in a firm is 3.2 years and almost 10 percent of the CEOs are acting as a chairman of the board in the sample of this study.

4.5.2 Bi-Variate Analysis

Table 4.4 shows results for the Pearson correlation matrix for the regression variables with significance level. Most of the variables are significantly correlated at the 1 percent level. The univariate correlation suggests that, in general, all three conservatism models are significantly correlated with CEO reputation. Specifically, the conservatism variables, *DCFO, DCRT and TACC_Giv (X_R and CFO)* are negatively (positively) and significantly related to the *Press_5Y* and *Press_3Y*. Further, the correlation between conservatism model variables and control variables is also significant except for the correlation between *ACC* and *Sales_Grow*, *CRT* and *Loss*, *CRT* and *B_Size*, *CRT* and *P_B_Ind*, *DCRT* and *Sales_Grow*, *DCRT* and *B_Size*, *TACC_Giv* and *Sales_Grow*, *TACC_Giv* and *Lev*. Further, the correlation between CEO reputation and control variables is also significant except for the correlation between *Press_5Y* and *M/B*, and *Press_3Y* and *M/B*.

Furthermore, the magnitude of correlation indicates that there are no significant multicollinearity issues in the analysis except for the correlation between *Press_5Y and Press_3Y*. The correlations among control variables are generally low, except for the correlation between *Firm_Size* and *Loss*, and *Firm_Size* and *B_Size*. The positive correlation between *Press_5Y* and *Firm_Size* is also understandable, that the CEOs in larger firms are more likely to be cited in press. Similarly, the

positive high correlation between *Firm_Size* and *B_Size* also makes sense that larger firms tend to have greater number of board members as compared to small firms.

4.5.3 Multivariate Analysis

4.5.3.1 CEO Reputation and Ball & Shivakumar (2004) Conservatism Model

Table 4.5 reports the results of the relationship between CEO reputation and Ball and Shivakumar (2005) accruals to cash flow conservatism model. Consistent with paper one and two, the regressions are performed using ordinary least squares (OLS) regressions using firm clustering and Huber – White robust t-statistics. Table 4.5, column 1 reports the results for base model to examine the relationship between Ball and Shivakumar (2005) conservatism model and control variables without inclusion of the independent variable of this study. Column 1 shows that, the coefficient on *CFO*DCFO* is negative but insignificant, suggesting that the level of accruals to cash flows conservatism is lower in the sample of Australian companies used for this study. Table 4.5, column 2 reports the outcome for the relationship between CEO reputation measured as a sum of the articles over prior five year period in press (*Press_5Y*) and Ball and Shivakumar (2005) conservatism approach.[56] The coefficient on the primary variable of interest (*CFO*DCFO*Press_5Y*) is insignificant and negative (t-statistic = 0.2713). Column 3 reports the results for the relationship between CEO reputation measured as a sum of the articles over prior three year period for a particular CEO (*Press_3Y*) and Ball and Shivakumar (2005) conservatism model. The coefficient on *CFO*DCFO*Press_3Y* is insignificant and negative (t-statistic = 0.0718).

In terms of control variables, columns 1 – 3 show that the coefficient on firm size (*CFO*DCFO*Firm_Size*) is insignifivant. Further, the coefficient on leverage (*CFO*DCFO*Lev*) is negatively significant suggesting that high leveraged firms report lower accounting conservatism.

[56] For regression purposes, the logged value for number of press articles (*Press_5Y*) is used. Using the actual number of press articles also yield quantitatively similar results.

Table 4.4: Pearson Correlation Matrix

Panel A: Variable *ACC* to *Firm_Size*

	ACC	*CFO*	*DCFO*	*X_R*	*CRT*	*DCRT*	*TACC_Giv*	*Press_5Y*	*Press_3Y*	*Firm_Size*
ACC										
CFO	0.1033***									
DCFO	-0.061***	-0.5122***								
X_R	0.2565***	0.3912***	-0.5086***							
CRT	-0.0231	0.0132	0.0032	0.1841***						
DCRT	-0.0587***	-0.1365***	0.1435***	-0.307***	-0.4935***					
TACC_Giv	0.4582***	-0.0238**	-0.0321**	0.233***	0.026*	-0.0775***				
Press_5Y	0.0142	0.13***	-0.1719***	0.1334***	-0.0214	-0.0374**	-0.062***			
Press_3Y	0.0092	0.1318***	-0.1713***	0.1478***	-0.0103	-0.0482***	-0.0618***	0.9757***		
Firm_Size	0.1718***	0.4279***	-0.6144***	0.5199***	0.0613***	-0.1706***	0.0615***	0.3765***	0.3873***	-0.11***
M/B	-0.0992***	-0.1769***	0.0551***	-0.0102	0.2334***	-0.2069***	-0.0162	-0.0177	-0.0147	-0.11***
Lev	0.0248**	0.115***	-0.2227***	0.0607***	-0.0422***	-0.0075	0.0031	0.0311**	0.036***	0.2243***
ROA	0.4792***	0.4557***	-0.3745***	0.4649***	0.0907***	-0.1692***	0.2847***	0.0866***	0.0879***	0.4617***
Sales_Grow	-0.0124	-0.0776***	0.1013***	-0.044***	0.0397***	-0.0009	-0.0111	-0.0292**	-0.0303**	-0.0661***
Loss	-0.2467***	-0.4491***	0.7664***	-0.5604***	-0.0171	0.1896***	-0.1773***	-0.155***	-0.1566***	-0.6077***
B_Size	-0.0115	0.0994***	-0.2577***	0.1538***	-0.0223	0.0076	-0.037***	0.179***	0.1916***	0.5287***
P_B_Ind	0.0766***	0.1758***	-0.2899***	0.225***	0.0071	-0.081***	0.0351***	0.2214***	0.2214***	0.387***
Tenure	0.0897***	0.1569***	-0.2005***	0.1972***	0.0404***	-0.1239***	0.061***	0.2303***	0.1867***	0.1568***
Duality	-0.0078	-0.0372***	0.0499***	-0.0556***	-0.0211	-0.0039	-0.0003	-0.0925***	-0.0961***	-0.091***

Panel B: Variable *M/B to Duality*

	M/B	*Lev*	*ROA*	*Sales_Grow*	*Loss*	*B_Size*	*P_B_Ind*	*Tenure*	*Duality*
M/B									
Lev	0.3847***								
ROA	-0.1855***	0.1008***							
Sales_Grow	0.028**	-0.0242*	-0.0113						
Loss	0.0442***	-0.203***	-0.4299***	0.0686***					
B_Size	-0.0049	0.1304***	0.0898***	-0.0324***	-0.235***				
P_B_Ind	0.0061	0.0976***	0.1544***	-0.062***	-0.2857***	0.0778***			
Tenure	-0.0008***	0.0352***	0.1182***	-0.0355***	-0.1887***	-0.0995***	0.1565***		
Duality	0.0211*	-0.0009	-0.0357***	-0.0078	0.0438***	-0.0542***	-0.1428***	-0.0476***	

** p<0.1; ** p<0.05; *** p<0.01, Please refer to Appendix 3 for definition of variables*

The model summary shows an adjusted *R-Square* of 45.2 percent for baseline model (column 1) and 46.8 percent for full models (columns 2 and 3). Summing up, overall results suggest that the reputed CEOs do not influence the accruals to cash flow conditional conservatism suggested by Ball and Shivakumar (2005).

Table 4.5: CEO Reputation and Ball & Shivakumar (2005) Conservatism Model

	Column 1	**Column 2**	**Column 3**
VARIABLES	***Base +CVs***	***Reputation_5Year***	***Reputation_3Year***
CFO	0.5670	0.6967*	0.6480
	(1.5955)	(1.7467)	(1.6079)
DCFO	-0.5952***	-0.5986***	-0.6169***
	(-6.4152)	(-5.9477)	(-6.0865)
*CFO*DCFO*	-0.4207	-0.5527	-0.5154
	(-1.1195)	(-1.3229)	(-1.2232)
Press_5		-0.0019	
		(-0.4912)	
*CFO*Press_5*		-0.0070	
		(-0.4168)	
*DCFO*Press_5*		-0.0047	
		(-0.9173)	
*CFO*DCFO*Press_5*		-0.0051	
		(-0.2713)	
Press_3			-0.0007
			(-0.1673)
*CFO*Press_3*			-0.0104
			(-0.6145)
*DCFO*Press_3*			-0.0032
			(-0.6057)
*CFO*DCFO*Press_3*			-0.0013
			(-0.0718)
Firm_Size	0.0263***	0.0262***	0.0255***
	(6.2852)	(6.0369)	(5.7514)
*CFO*Firm_Size*	-0.0145	-0.0169	-0.0132
	(-0.6400)	(-0.6688)	(-0.5104)
*DCFO*Firm_Size*	0.0342***	0.0369***	0.0379***
	(5.7463)	(5.9772)	(6.0397)
*CFO*DCFO*Firm_Size*	0.0099	0.0160	0.0130
	(0.4146)	(0.6149)	(0.4868)
M/B	-0.0015	0.0004	0.0003
	(-0.5257)	(0.1320)	(0.0956)
*CFO*M/B*	-0.0087	-0.0141	-0.0139
	(-1.0405)	(-1.5527)	(-1.5210)
*DCFO*M/B*	0.0119***	0.0122***	0.0125***
	(3.7379)	(3.8619)	(3.9021)
*CFO*DCFO*M/B*	0.0066	0.0134	0.0133
	(0.7699)	(1.4118)	(1.3901)

Lev	-0.0168***	-0.0202***	-0.0200***
	(-2.6628)	(-3.1880)	(-3.1477)
*CFO*Lev*	0.0561**	0.0760***	0.0750***
	(2.5005)	(3.3432)	(3.3052)
*DCFO*Lev*	-0.0090	-0.0082	-0.0085
	(-1.1061)	(-1.0005)	(-1.0112)
*CFO*DCFO*Lev*	-0.0572**	-0.0793***	-0.0785***
	(-2.4452)	(-3.2780)	(-3.2374)
B_Size	-0.0307	-0.0191	-0.0185
	(-1.2382)	(-0.7896)	(-0.7572)
*CFO*B_Size*	-0.0812	-0.1183	-0.1231
	(-0.7472)	(-1.0430)	(-1.0749)
*DCFO*B_Size*	-0.0389	-0.0578**	-0.0597**
	(-1.3139)	(-1.9661)	(-2.0083)
*CFO*DCFO*B_Size*	0.0614	0.0805	0.0840
	(0.5403)	(0.6790)	(0.7027)
P_B_Ind	0.0254	0.0199	0.0206
	(1.2527)	(0.9427)	(0.9669)
*CFO*P_B_Ind*	-0.0556	-0.0123	-0.0107
	(-0.6969)	(-0.1508)	(-0.1295)
*DCFO*P_B_Ind*	-0.0543*	-0.0519*	-0.0537*
	(-1.9165)	(-1.7738)	(-1.8123)
*CFO*DCFO*P_B_Ind*	0.0570	0.0323	0.0312
	(0.6329)	(0.3468)	(0.3301)
Tenure	0.0189***	0.0200***	0.0199***
	(3.1793)	(3.2322)	(3.1688)
*CFO*Tenure*	-0.0242	-0.0477*	-0.0473*
	(-0.9945)	(-1.8974)	(-1.8529)
*DCFO*Tenure*	0.0000	0.0000	-0.0015
	(0.0062)	(0.0039)	(-0.1730)
*CFO*DCFO*Tenure*	0.0411	0.0676**	0.0659**
	(1.5702)	(2.3554)	(2.2789)
Duality	-0.0432*	-0.0480*	-0.0474*
	(-1.6667)	(-1.7114)	(-1.6476)
*CFO*Duality*	0.1052	0.1137	0.1090
	(1.2912)	(1.2758)	(1.1956)
*DCFO*Duality*	0.0565*	0.0625**	0.0632**
	(1.9386)	(1.9855)	(1.9652)
*CFO*DCFO*Duality*	-0.0796	-0.0698	-0.0639
	(-0.9319)	(-0.7424)	(-0.6662)
Constant	-0.3884***	-0.4004***	-0.3911***
	(-5.9237)	(-5.4691)	(-5.3196)
Observations	4,610	4,228	4,157
Adjusted R-squared	0.4523	0.4686	0.4685
Industry and Year FE	Included	Included	Included
F Statistic	29.25	27.57	27.18

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix 3 for variables definition*

4.5.3.2 CEO Reputation and Roychowdhury & Watts (2006) Conservatism Model.

Table 4.6 reports the results for the relationship between CEO reputation and Roychowdhury and Watts (2007) backward cumulated timeliness of earnings conservatism model. The regressions are performed using ordinary least squares (OLS) regressions using firm clustering and Huber – White robust t-statistics. Table 4.6, column 1 reports the results for base model to examine the relationship between Roychowdhury and Watts (2007) conservatism model and control variables without inclusion of the independent variable of this study. Column 1 shows that, the coefficient on *CRT*DCRT* is significant and positive, suggesting that the

Table 4.6: CEO Reputation and Roychowdhury & Watts (2007) Conservatism Model

	Column 1	**Column 2**	**Column 3**
VARIABLES	***Base +CVs***	***Reputation_5Year***	***Reputation_3Year***
CRT	0.0071	0.0180	0.0186
	(0.4717)	(1.4827)	(1.5172)
DCRT	-0.0511	-0.0372	-0.0400
	(-0.7501)	(-0.5394)	(-0.5700)
*CRT*DCRT*	0.4351***	0.4693***	0.4620***
	(4.6547)	(4.9797)	(4.8532)
Press_5		-0.0044	
		(-1.5497)	
*CRT*Press_5*		-0.0003	
		(-0.7144)	
*DCRT*Press_5*		-0.0160***	
		(-2.7109)	
*CRT*DCRT*Press_5*		-0.0248***	
		(-2.9118)	
Press_3			-0.0036
			(-1.1881)
*CRT*Press_3*			-0.0005
			(-1.1369)
*DCRT*Press_3*			-0.0170***
			(-2.7886)
*CRT*DCRT*Press_3*			-0.0278***
			(-3.0514)
Firm_Size	0.0380***	0.0394***	0.0393***
	(11.7664)	(12.2806)	(12.0280)
*CRT*Firm_Size*	-0.0008	-0.0014**	-0.0014**
	(-0.8374)	(-2.1330)	(-2.0690)
*DCRT*Firm_Size*	0.0008	0.0033	0.0036
	(0.1541)	(0.6197)	(0.6699)
*CRT*DCRT*Firm_Size*	-0.0172***	-0.0140**	-0.0131*
	(-2.6236)	(-2.0825)	(-1.9275)
M/B	0.0009	0.0015	0.0015
	(0.5566)	(0.9064)	(0.8702)
*CRT*M/B*	-0.0003	-0.0003	-0.0003
	(-1.1104)	(-1.2830)	(-1.2771)
*DCRT*M/B*	-0.0046	-0.0025	-0.0026
	(-1.2206)	(-0.7204)	(-0.7236)
*CRT*DCRT*M/B*	-0.0050	-0.0024	-0.0024
	(-1.0652)	(-0.5220)	(-0.5256)

Lev	-0.0124**	-0.0115**	-0.0110**
	(-2.3636)	(-2.1909)	(-2.0409)
*CRT*Lev*	0.0020*	0.0020**	0.0019**
	(1.9617)	(2.1281)	(2.0045)
*DCRT*Lev*	0.0010	-0.0045	-0.0027
	(0.1162)	(-0.5739)	(-0.3145)
*CRT*DCRT*Lev*	-0.0032	-0.0069	-0.0051
	(-0.3403)	(-0.7397)	(-0.5273)
B_Size	-0.0593***	-0.0611***	-0.0608***
	(-4.4345)	(-4.4091)	(-4.2953)
*CRT*B_Size*	0.0023	0.0029	0.0028
	(0.8455)	(1.2732)	(1.2050)
*DCRT*B_Size*	0.0231	0.0319	0.0310
	(0.7867)	(1.0988)	(1.0638)
*CRT*DCRT*B_Size*	0.0079	0.0159	0.0162
	(0.2220)	(0.4450)	(0.4518)
P_B_Ind	-0.0139	-0.0165	-0.0175
	(-0.9317)	(-1.0724)	(-1.1287)
*CRT*P_B_Ind*	0.0041	0.0072**	0.0076**
	(0.9864)	(1.9946)	(2.1389)
*DCRT*P_B_Ind*	-0.0018	-0.0209	-0.0203
	(-0.0449)	(-0.5294)	(-0.5186)
*CRT*DCRT*P_B_Ind*	-0.0212	-0.0341	-0.0390
	(-0.3595)	(-0.5695)	(-0.6647)
Tenure	0.0066	0.0056	0.0050
	(1.3881)	(1.0172)	(0.9104)
*CRT*Tenure*	0.0009	0.0008	0.0007
	(1.0544)	(0.8611)	(0.7315)
*DCRT*Tenure*	0.0121	0.0122	0.0086
	(1.2591)	(1.2006)	(0.8552)
*CRT*DCRT*Tenure*	-0.0050	-0.0067	-0.0116
	(-0.4592)	(-0.5616)	(-1.0020)
Duality	-0.0289**	-0.0363**	-0.0359**
	(-2.1693)	(-2.5093)	(-2.4977)
*CRT*Duality*	0.0060*	0.0138***	0.0139***
	(1.9207)	(2.7813)	(2.8139)
*DCRT*Duality*	0.0245	0.0259	0.0264
	(0.8187)	(0.7821)	(0.7661)
*CRT*DCRT*Duality*	-0.0194	-0.0247	-0.0262
	(-0.5374)	(-0.6362)	(-0.6624)
Constant	-0.5102***	-0.5285***	-0.5284***
	(-10.7115)	(-11.2804)	(-11.1494)
Observations	4,610	4,228	4,157
Adjusted R-squared	0.4523	0.4686	0.4685
Industry and Year FE	Included	Included	Included
F Statistic	29.25	27.57	27.18

Robust t-statistics in parentheses
**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix 3 for variables definition*

conservatism exist in the sample used for this study purposes. Table 4.6, columns 2 and 3 report the outcome for the relationship between CEO reputation and Roychowdhury and Watts (2007) conservatism approach. Consistent with the hypothesis, column 2 shows that, the coefficient on the primary variable of interest (*CRT*DCRT*Press_5Y*) is significant and negative (t-statistic = 2.9118). Similarly,

column 3 reports that, the coefficient on the primary variable of interest (*CRT*DCRT*Press_3Y*) is also significant and negative (t-statistic = 3.0514).

In terms of control variables, column 1 – 3 show that the coefficient on *CRT*DCRT*Firm_Size* is negative and significant, suggests that the larger firms produce lower timeliness of earnings conservatism as compared to small firms The model summary shows an adjusted *R-Square* of 45.2 percent for the baseline model (column 1) and 46.8 percent for full models (column 2 and 3). Summing up, overall results suggest that the firms with reputed CEOs are negatively related to timeliness of earnings conservatism approach suggested by Roychowdhury and Watts (2007).

4.5.4 Additional Analysis

4.5.4.1 Alternative Approach to Measure Accounting Conservatism

For additional analysis the unconditional conservatism approach (news independent) suggested by Givoly and Hayn (2000) is used. Table 4.7 reports the results for the relationship between CEO reputation and Givoly and Hayn (2000) total accruals (unconditional) conservatism model. The regressions are performed using ordinary least squares (OLS) regressions using firm clustering and Huber – White robust t-statistics. Columns 1 and 2 show that, the coefficient on *Press_5Y* and *Press_3Y* is insignificant and negative, suggesting no significant association between CEO reputation and unconditional conservatism.

In terms of control variables, columns 1 and 2 show that the coefficient on *Firm_Size*, *Lev*, and *Loss* is negatively significant. This shows that, the larger firms, firms with high leverage and those reporting loss tend to have high conservatism (low accruals). Further, the coefficient on *ROA* and *M/B* remains positively significant, suggesting that growth firms and firms with high market to book ratio report high accruals and lower accounting conservatism. The model summary shows an adjusted *R-Square* of 12.4 percent for columns 1 and 2. In summary, results suggest that CEO reputation does not influence unconditional conservatism.

4.5.4.2 The Role of CEO Power

Shareholders suffer severe agency costs arise due to the strategic decisions and actions taken by the CEOs due to conflict of interest (Jensen and Meckling 1976). From the agency theory perspectives, CEOs are hired to invest their entire

efforts for the welfare of the shareholders, however, CEOs give priority to their personal interests at the cost of the shareholders (Jensen and Meckling 1976).

Table 4.7: CEO Reputation and Givoly & Hayn (2000) Conservatism Model

	Column 1	**Column 2**
VARIABLES	***Reputation_5Year***	***Reputation_3Year***
Press_5	-0.0028	
	(-0.9270)	
Press_3		-0.0027
		(-0.8488)
Firm_Size	-0.0099***	-0.0101***
	(-3.8880)	(-3.8947)
M/B	0.0023*	0.0024*
	(1.9121)	(1.9317)
Lev	-0.0060**	-0.0060**
	(-2.2452)	(-2.2225)
ROA	0.0896***	0.0901***
	(8.0972)	(7.8792)
Sales_Growth	-0.0000	-0.0000
	(-0.0490)	(-0.3042)
Loss	-0.0335***	-0.0327***
	(-3.4060)	(-3.3016)
B_Size	-0.0136	-0.0135
	(-1.0235)	(-1.0084)
P_B_Ind	0.0025	0.0036
	(0.1774)	(0.2574)
Tenure	0.0046	0.0042
	(1.3100)	(1.1767)
Duality	-0.0067	-0.0075
	(-0.5488)	(-0.6026)
Constant	0.1794***	0.1814***
	(4.4511)	(4.4348)
Observations	5,149	5,075
Adjusted R-squared	0.1245	0.1235
Industry and Year FE	Included	Included
F Statistic	11.80	11.49

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix 3 for variables definition*

Although, shareholders incur extra cost to monitor the managers, yet, it is not possible to accurately evaluate the efforts made by managers in the best interest of the firm's owners (Fama 1980). Additional analysis aims to examine the impact of CEO power on the conservative accounting practices. CEOs with high power for the sake of personal incentive are likely to report lower accounting conservatism and shows high performance of firm. However, powerful CEOs may act as best steward of the firms (stewardship theory).

Similar to those used in chapter two and three, this chapter uses three measures of CEO power. The first measure of CEO power is the number of multiple directorships held by CEO on the external boards. For this purpose, a dummy variable (*MulDir*) is created, which is equal to 1, if a CEO have at-least one outside directorship, otherwise 0. Second measure of CEO power is the percentage of inter-directorships on board (*InterDir*). Under this approach, a CEO is considered powerful with the number of directors appointed by a CEO on board. Third measure of CEO power is the compensation ratio of the CEO (*CPR*) to the top five executives of the firm.

The descriptive statistics (un-tabulated) for the measures of CEO power concludes that there are 17 percent of the board of directors sits on the multiple board of firms (*MulDir*). Further, on average, 43 percent of the board of directors are appointed by a CEO (*InterDir*) in the sample firms. Finally, on average the compensation (*CPR*) of a CEO is 2.83 times of the top five executives of a firm

Table 4.8 Panel A, B and C reports the results for the relationship between CEO power and all three conservatism models. Panel A shows the results for the relationship between CEO power and Ball and Shivakumar (2005) conservatism approach. Panel A, column 1 suggests an insignificant and negative coefficient on *CFO*DCFO*MulDir*, implying that the CEO's outside directorships do not influence accruals to cash flow conservatism. Similarly, the coefficient on *CFO*DCFO*InterDir* (column2) and *CFO*DCFO*CPR* (column 3) remain positively insignificant, suggesting no significant impact of CEO power through inter-directorships and compensation ratio on Ball and Shivakumar (2005) conservatism model. Overall, model summary yields an adjusted R-Square in the range of 11 to 17 percent.

Table 4.8, Panel B indicates the results for the relationship between CEO power and Roychowdhury and Watts (2007) conservatism approach. Panel B, column 1 shows that the coefficient on *CRT*DCRT*MulDir* is negatively significant (t-statistic = 1.7747), suggesting a negative relationship between CEOs outsider directorships and cumulated timeliness of earnings conservatism approach. Columns 2 and 3 show that the coefficient on *CRT*DCRT*InterDir* and *CRT*DCRT*CPR* is

Table 4.8: CEO Power and Accounting Conservatism

Panel A: CEO Power and Ball & Shivakumar (2005) Conservatism Model			
	Column 1	**Column 2**	**Column 3**
VARIABLES	***Multiple Directorships***	***Inter-Directorships***	***Compensation Ratio***
CFO	1.2076	1.2840*	0.8260
	(1.6117)	(1.7384)	(1.2833)
DCFO	-0.0887	-0.0757	-0.1853
	(-0.7082)	(-0.5910)	(-1.5076)
*CFO*DCFO*	-1.6049*	-1.6203*	-0.5959
	(-1.9576)	(-1.9294)	(-0.8165)
MulDir	-0.0091		
	(-0.5117)		
*CFO*MulDir*	-0.1218		
	(-0.8506)		
*DCFO*MulDir*	-0.0518*		
	(-1.9201)		
*CFO*DCFO*MulDir*	-0.1091		
	(-0.6612)		
InterDir		0.0276	
		(0.8738)	
*CFO*InterDir*		-0.3023	
		(-1.2447)	
*DCFO*InterDir*		-0.0317	
		(-0.6848)	
*CFO*DCFO*InterDir*		0.3335	
		(1.2084)	
CPR			-0.0063
			(-1.2086)
*CFO*CPR*			-0.0296
			(-0.8847)
*DCFO*CPR*			0.0001
			(0.0153)
*CFO*DCFO*CPR*			0.0257
			(0.7271)
Constant	-0.5398***	-0.5323***	-0.3751***
	(-5.8443)	(-5.8776)	(-4.7528)
Observations	6,118	6,118	4,833
Adjusted R-squared	0.1256	0.1154	0.1708
Industry and Year FE	Included	Included	Included
CVs	Included	Included	Included
F Statistic	11.14	11.17	10.71

Panel B: CEO Power and Roychowdhury & Watts (2007) Conservatism Model			
	Column 1	**Column 2**	**Column 3**
VARIABLES	***Multiple Directorships***	***Inter-Directorships***	***Compensation Ratio***
CRT	0.0074	0.0047	0.0126
	(0.5042)	(0.3230)	(0.8399)
DCRT	-0.0525	-0.0625	0.0096
	(-0.7331)	(-0.9137)	(0.1362)
*CRT*DCRT*	0.4175***	0.4223***	0.4770***

	(4.3599)	(4.5460)	(4.9918)
MulDir	-0.0126		
	(-1.3629)		
*CRT*MulDir*	0.0002		
	(0.0689)		
*DCRT*MulDir*	-0.0090		
	(-0.4274)		
*CRT*DCRT*MulDir*	-0.0547*		
	(-1.7747)		
InterDir		-0.0081	
		(-0.4068)	
*CRT*InterDir*		-0.0061	
		(-0.8794)	
*DCRT*InterDir*		0.0163	
		(0.3731)	
*CRT*DCRT*InterDir*		0.0838	
		(1.3712)	
CPR			0.0000
			(0.0154)
*CRT*CPR*			-0.0001
			(-0.8900)
*DCRT*CPR*			-0.0009
			(-0.1588)
*CRT*DCRT*CPR*			-0.0020
			(-0.3456)
Constant	-0.5217***	-0.5071***	-0.4905***
	(-10.6324)	(-10.6513)	(-10.5128)
Observations	4,610	4,610	3,774
Adjusted R-squared	0.4534	0.4542	0.4748
Industry and Year FE	Included	Included	Included
CVs	Included	Included	Included
F Statistic	27.36	27.42	24.41

Panel C: CEO Power and Givoly & Hayn (2000) Conservatism Model

VARIABLES	**Column 1** ***Multiple Directorships***	**Column 2** ***Inter-Directorships***	**Column 3** ***Compensation Ratio***
MulDir	0.0148*		
	(1.7677)		
InterDir		-0.0214	
		(-1.3082)	
CPR			0.0013
			(0.8399)
Constant	0.1974***	0.1874***	0.1388***
	(5.3854)	(5.2156)	(3.5059)
Observations	5,600	5,600	4,502
Adjusted R-squared	0.1258	0.1256	0.1212
Industry and Year FE	Included	Included	Included
CVs	Included	Included	Included
F Statistic	12.50	12.38	10.01

Robust t-statistics in parentheses

**** p<0.01, ** p<0.05, * p<0.1. Please refer to Appendix 3 for variables definition*

insignificant (consistent with Panel A results), indicating no significant impact of CEO power through inter-directorships and compensation ratio on timeliness of earnings conservatism model. Overall model summary reports an adjusted R-Square of 45 to 47 percent.

Table 4.8, Panel C illustrates the results for the relationship between CEO power and Givoly and Hayn (2000) total accruals (unconditional) conservatism approach. Panel C, column 1 indicates that the coefficient on *MulDir* is significant and positive (t-statistic = 1.7677), suggesting a positive relationship between CEOs outside directorships and unconditional accounting conservatism. Columns 2 and 3 reports that the coefficient on *InterDir* and *CPR* is statistically insignificant, recommending no significant relationship between percentage of inter-directorships and compensation ratio. Overall model summary provides an adjusted R-Square of 12 percent.

4.6 Conclusion and Implications

4.6.1 Study Overview

This paper examines the relationship between CEO reputation and accounting conservatism. The rent-extraction argument suggests that the CEOs with high reputation are likely to report lower accounting conservatism. In contrast to this efficient contracting hypothesis suggests that reputed CEOs are more likely to report higher accounting conservatism. The results and conclusions are discussed below.

4.6.2 Results and Conclusions

The primary hypothesis of this study (H1) predicts that, the CEO reputation is negatively related to accounting conservatism. Empirical analysis shows that the CEO reputation have no significant relationship with accruals to cash flow conditional conservatism model of Ball and Shivakumar (2005) and total accruals unconditional conservatism approach suggested by Givoly and Hayn (2000). However, the results provide an evidence of the significant and negative relationship between CEO reputation and accumulated timeliness of earnings conservatism model provided by Roychowdhury and Watts (2007). This is consistent with the hypothesis of the study and suggests that the reputed CEOs less likely to report timely bad news. This strengthens the argument of rent-extraction behaviour of the reputed CEOs. Further, this study finds evidence that the CEO outside directorships is negatively related to both (conditional and unconditional) conservatism approaches. This suggests that the CEOs with outside directorships pioritise their personal incentives and more likely to report the good news earlier than bad news for their own firms. Finally, this study unable to finds any significant relationship between CEO power (through inter-directorships and compensation ratio) and accounting conservatism.

4.6.3 Implications

There are clear implications for investors and other stakeholders having valuable contracts with firms. As the reputed CEOs are not associated with timely recognition of bad news, investors and other contracting parties can consider the CEO reputation, relying on the firm provided financial reports. Shareholders and debt holders are required to invest extra monitoring over the activities of reputed CEOs and CEOs with multiple directorships. Further, policy makers are required to consider the role of CEOs with outside directorships and restrict them from acting on

the boards of external firms. Finally, research academics are required to consider the CEOs multiple directorships and CEO reputation as an important determinant of the accounting conservatism and overall earnings quality in their future research.

4.6.4 Contributions

There is a theoretical contribution to the two different arguments about CEO reputation (rent-extraction and efficient contracting hypotheses). Although previous research suggests a number of factors (such as firm characteristics, internal and external governance factors and regulatory environment) related to accounting conservatism. This study identifies an additional determinant (CEO reputation and outside directorships) of accounting conservatism. Further, there is a contribution towards the previous literature on CEO reputation and power. Finally, the results of this study are generalizable to other countries with similar regulatory regime, because CEOs with reputation and power can have similar behaviour across different countries.

4.6.5 Limitations

Despite of providing several contributions, this study is also subject to a few limitations. First, the data for this study is collected for Australian public companies, therefore, results may not be similar in the case of the Australian private firms or the countries with different regulatory and institutional settings. Second, although, this control for several governance and firm related factors, yet it is not possible to draw the causal relationship between CEO reputation, power and accounting conservatism. Third, CEO reputation is measured using number of press articles from Factiva database. Results may be different using a different approach to measure CEO reputation. Fourth, the data for CEOs power is collected from SIRCA database, there may be different proxies to measure the CEOs power such direct interview and questionnaire. Other than these potential limitations, this study contributes how CEOs outside directorships impact on accounting conservatism.

Appendices

Appendix 1

Accuracy	Analyst forecast accuracy calculated as a negative of the absolute difference between actual EPS and mean or median consensus analysts forecasted EPS (averaged over fiscal months 1-12), scaled by stock price of a firm *i* for time period *t-1*.
Bias	Analyst forecast Bias (optimism) calculated as a difference between mean consensus analysts forecasted EPS and actual EPS (averaged over fiscal months 1-12), scaled by stock price of a firm *i* for time period *t-1*.
Dispersion	Standard deviation of inter analyst forecasts scaled by stock price for the time period *t-1*, averaged over fiscal months 1-12.
Follow	Natural logarithm of the number of analyst following a firm *i* at the end of period *t* averaged over fiscal months 1-12.
Reputation	CEO reputation measured as a sum of the number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and company name, accumulated over different time horizons for a firm *i* at the end of period *t*.
Press_5Y	Number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 5 year period for a firm *i* at the end of period *t*.
Press_3Y	Number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 3 year period for a firm *i* at the end of period *t*.
High_5Y	Dummy variable equal to 1, if the decile rank of number of press articles (accumulated over prior 5 year period) for a CEO lies in the top quintile by industry and year of a firm *i* for time period *t.*
High_3Y	Dummy variable equal to 1, if the decile rank of number of press articles (accumulated over prior 3 year period) for a CEO lies in the top quintile by industry and year of a firm *i* for time period *t.*
InterDir	Dummy variable equals to 1, if more than 70 percent of the directors on board are appointed by the CEO of a firm *i* for time period *t.*
MulDir	Dummy variable equals to 1, if the CEO of a firm *i* for time period *t.* have 2 or more directorships at the same time.
CPR	Dummy variable equals to 1, if the CEO compensation is higher than the total compensation of the top 5 executives of a firm for time period *t.*
Horizon	Number of calendar days between forecast announcement day and fiscal year end day of firm *i* for time period *t*, averaged over fiscal months 1-12.
Surp	Absolute value of the EPS of a firm *i* for the time period *t* minus EPS of the firm *i* for the time period *t-1*, divided by stock price the end of time period *t-1*.
Size	Natural log of total assets of a firm *i* for the period *t*.
Lev	Total liabilities divided by total assets of a firm i in period t.
Sd_Roe	Volatility measured as standard deviation of return on equity over the prior five year rolling period window (*t-1* to *t-5*), of firm *i* at the end of period *t*.
Loss	Dummy variable equal to 1 if a firm *i* for time period *t* reported a loss, otherwise 0.
Big4	Dummy variable equal to 1 if auditor of firm *i* for time period *t* is from a top 4 audit firm, otherwise 0.
CEO_Age	Natural logarithm of CEO age in years of firm *i* for time period *t*.
P_B_Ind	Percentage of board of directors sit on board, who are independent of firm *i* for the time period *t*.
P_Ac_Ind	Percentage of independent board members on the audit committee of firm *i* for time period *t*.
Inst_Own	Percentage of stock hold by institutional investors for a firm *i* at the end of time period *t*.
ε	Error term.

Appendix 2

Drank_DD	Decile rank by industry and year for the absolute value of the residual of accruals quality calculated following Dechow and Dichev (2002) of a firm *i* for time period *t*.
Drank_MC	Decile rank by industry and year for the absolute value of the residual of accruals quality calculated following McNichols (2002) of a firm *i* for time period *t*.
Drank_RCP	Decile rank by industry and year for the absolute value of the residual of abnormal production expenses calculated following Roychowdhury (2006) of a firm *i* for time period *t*.
Drank_RCF	Decile rank by industry and year for the absolute value of the residual of abnormal cash flows calculated following Roychowdhury (2006) of a firm *i* for time period *t.*
Drank_RCD	Decile rank by industry and year for the absolute value of the residual of abnormal discretionary expenses calculated following Roychowdhury (2006) of a firm *i* for time period *t*.
Drank_Rep5	Decile Rank by industry and year for the number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 5 year period for a firm *i* at the end of period *t.*
Drank_Rep3	Decile rank by industry and year for the number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 3 year period for a firm *i* at the end of period *t.*
High_Rep5	Dummy variable equal to 1, if the decile rank of number of press articles (accumulated over prior 5 year period) for a CEO lies in the top quintile by industry and year of a firm *i* for time period *t.*
Size	Natural log of total assets of a firm *i* for the period *t.*
M/B	Market to book ratio of a firm *i* for time period *t.*
Lev	Total liabilities divided by total assets of a firm i in period *t.*
ROA	Net profit after tax divided by total assets of a firm *i* at beginning of the period *t.*
ΔSales_Grow	Current year's sales growth (percentage increase in sales) minus previous year's sales growth of a firm i in period t.
Sales_Vol	Standard deviation of the sales of a firm i at the end of year t (here sales of year t are divided by average total assets of at least 3 years of last 5 years).
CFO_Vol	Standard deviation of cash flow from operations of a firm i at the end of year t (here cash flow from operations is divided by average total assets of at least 3 years of last 5 years.
Big4	Dummy variable equal to 1 if auditor of a firm *i* for time period *t* is from a top 4 audit firm, otherwise 0.
Loss	Dummy variable equal to 1 of a firm *i* for time period *t* reported a loss, otherwise 0.
CEO_Age	Natural log of CEO age in years of a firm *i* for time period *t.*
B_Sze	Natural log of number of directors sitting on board of a firm *i* for time period *t.*
P_B_Ind	Percentage of board of directors sit on board, who are independent of a firm *i* for the time period *t.*
Comp	Natural log of total remuneration received by a CEO of a firm *i* for time period *t.*
IntDir	Percentage of board members appointed by a CEO of a firm *i* for time period *t.*
Insider	Dummy variable equal to 1 if the CEO of a firm *i* for time period *t* is only the insider on board, otherwise 0.
Tenure	Natural Log of number of years a CEO is serving in a firm *i* for time period *t.*
Factor_P	Factor variable having eigen value more than 1, calculated through factor analysis using principal composite factor analysis for the three CEO power variables *IntDir, Insider* and *Tenure.*
Factor_EM	Factor variable having eigen value more than 1, calculated through factor analysis using principal composite factor analysis for the three earnings quality variables *Drank_DD*, *Drank_MC* and *Drank_RCP* of a firm *i* for time period *t.*
R&D	Total amount of research and development expenditures divided by total sales of a firm
Op_Cycle	Operating cycle of a firm *i* for time period *t.*
P_Ac_Ind	Percentage of independent board members on the audit committee of a firm *i* for time period *t.*
P_Ac_Ind	Number of independent directors divided by total directors sitting on audit committee of a firm *i* for time period *t.*
P_AC_Fin	Number of financial directors divided by total number of directors sitting on audit

	committee of a firm *i* for time period *t*.
ε	Error term.

Appendix 3

ACC	The amount of accruals for a firm *i* in the time period *t*, calculated as a difference of the net income after tax and operating cash flow for the period *t*, divided by the amount of total assets at the beginning of the period *t*.
CFO	Cash flow from operations at the end of period t divided by book value of total assets at the beginning for the firm *i* in the time period *t*.
DCFO	Dummy variable equal to 1 if the value of CFO is less than zero for the firm *i* in the time period *t*, otherwise 0.
X_R	Earnings after tax of the firm *i* for the period *t* divided by amount of market capitalization for the firm *i* at the beginning of the period *t* accumulated over the prior 3 year period (*t* to *t-3*).
CRT	Value of the market adjusted stock return of a firm *i* for the time period *t* (calculated as the share price three months after the end of the period *t* minus share price three month later the period *t-1*, divided by the share price three month later the period *t-1)* accumulated over the prior three year period *(t* to *t-3).*
DCRT	Dummy variable equal to 1 of the value of the *CRT* for the firm *i* in the time period *t* is less than zero, otherwise 0.
TACC_Giv	Total income after tax for the firm *i* at the end of period *t* plus depreciation for the firm *i* at the end of period t, minus cash flow from operations at the end of period for the firm t, divided by average total assets, averaged over three year period centred over the period *t*.
Press_5Y	Number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 5 year period for a firm *i* at the end of period *t*.
Press_3Y	Number of articles published in all local and international major publications (including all newswires and newspapers) with the name of CEO and Company name, accumulated over the prior 3 year period for a firm *i* at the end of period *t*.
MulDir	Dummy variable equals to 1, if the CEO of a firm *i* for time period *t.* have 2 or more directorships at the same time.
InterDir	Dummy variable equals to 1, if more than 70 percent of the directors on board are appointed by the CEO of a firm *i* for time period *t.*
CPR	Dummy variable equals to 1, if the CEO compensation is higher than the total compensation of the top 5 executives of a firm for time period *t.*
Firm_Size	Natural log of total assets of a firm *i* for the period *t.*
M/B	Market to book ratio of a firm *i* for time period *t.*
Lev	Total liabilities divided by total assets of a firm *i* in period *t.*
ROA	Net profit after tax divided by total assets of a firm *i* at beginning of the period *t.*
Sales_Grow	The difference between the sales of a firm *i* for the time period *t* and the sales of a firm *i* for the period *t-1*, divided by the sales of a firm for the period *t-1*.
Loss	Dummy variable equal to 1 of a firm *i* for time period *t* reported a loss, otherwise 0.
B_Size	Natural log of number of directors sitting on board of a firm *i* for time period *t.*
P_B_Ind	Percentage of board of directors sit on board, who are independent of a firm *i* for the time period *t.*
Tenure	Natural Log of number of years a CEO is serving in a firm *i* for time period *t.*
Duality	Dummy variable equal to 1 if the CEO is acting as a chairman of the board in a firm *i* for time period *t.*
ε	Error term.

References

Abarbanell, J. S., and B. J. Bushee. 1997. "Fundamental Analysis, Future Earnings, and Stock Prices." *Journal of Accounting Research* 35 (1): 1-24.

Achleitner, A. K., N. Günther, C. Kaserer, and G. Siciliano. 2014. "Real Earnings Management and Accrual-Based Earnings Management in Family Firms." *European Accounting Review* 23 (3): 431-461.

Aerts, W., D. Cormier, and M. Magnan. 2007. "The Association between Web-Based Corporate Performance Disclosure and Financial Analyst Behaviour under Different Governance Regimes." *Corporate Governance* 15 (6): 1301-1329.

Ahmed, A. S., B. K. Billings, R. M. Morton, and M. Stanford-Harris. 2002. "The Role of Accounting Conservatism in Mitigating Bondholder-Shareholder Conflicts over Dividend Policy and in Reducing Debt Costs." *The Accounting Review* 77 (4): 867-890.

Ahmed, A. S., and S. Duellman. 2013. "Managerial Overconfidence and Accounting Conservatism." *Journal of Accounting Research* 50 (1): 1-30.

Ahmed, Anwer S, and Scott Duellman. 2007. "Accounting Conservatism and Board of Director Characteristics: An Empirical Analysis." *Journal of Accounting and Economics* 43 (2): 411-437.

Ahmed, K., and D. Henry. 2012. "Accounting Conservatism and Voluntary Corporate Governance Mechanisms by Australian Firms." *Accounting & Finance* 52 (3): 631-662.

Alam, P., and K. A. Petruska. 2012. "Conservatism, Sec Investigation, and Fraud." *Journal of Accounting and Public Policy* 31 (4): 399-431.

Ali, A., and W. Zhang. 2015. "Ceo Tenure and Earnings Management." *Journal of Accounting and Economics* 59 (1): 60-79.

American Institute of Certified Public Accountants. 1994. *Improving Business Reporting-a Customer Focus: A Comprehensive Report of the Special Committee on Financial Reporting*. New York, USA. http://www.aicpa.org/InterestAreas/FRC/AccountingFinancialReporting/DownloadableDocuments/Jenkins%20Committee%20Report.pdf.

ASX CGC. 2003. "Principles of Good Corporate Governance and Best Practice Recommendations." edited by ASX Corporate Governance Council, Sydney, NSW Australia.

Baik, B., D. B. Farber, and S. Lee. 2011. "Ceo Ability and Management Earnings Forecasts." *Contemporary Accounting Research* 28 (5): 1645-1668.

Bailey, W., H. Li, C. X. Mao, and R. Zhong. 2003. "Regulation Fair Disclosure and Earnings Information: Market, Analyst, and Corporate Responses." *Journal of Finance* 58 (6): 2487-2514.

Ball, R. 2001. "Infrastructure Requirements for an Economically Efficient System of Public Financial Reporting and Disclosure." *Brookings-Wharton Papers on Financial Services* 2001 (1): 127-169.

Ball, R., and L. Shivakumar. 2005. "Earnings Quality in Uk Private Firms: Comparative Loss Recognistion Timeliness." *Journal of Accounting and Economics* 39 (1): 83-128.

Barth, M. E., R. Kasznik, and M. F. McNichols. 2001. "Analyst Coverage and Intangible Assets." *Journal of Accounting Research* 39 (1): 1-34.

Bartov, E., D. Givoly, and C. Hayn. 2002. "The Rewards to Meeting or Beating Earnings Expectations." *Journal of Accounting and Economics* 33 (2): 173-204.

Barua, A., J. Legoria, and J. S. Moffitt. 2006. "Accruals Management to Achieve Earnings Benchmark: A Comparison of Pre-Managed Profit and Loss Firms." *Journal of Business Finance & Accounting* 33 (5): 653-670.

Basu, Sudipta. 1997. "The Conservatism Principle and the Asymmetric Timeliness of Earnings." *Journal of Accounting and Economics* 24 (1): 3-37.

Beatty, A., J. Weber, and J. J. Yu. 2008. "Conservatism and Debt." *Journal of Accounting and Economics* 45 (2): 154-174.

Beaver, W. H., and S. G. Ryan. 2000. "Biases and Lags in Book Value and Their Effects on the Ability of the Book-to-Market Ratio to Predict Book Return on Equity." *Journal of Accounting Research* 38 (1): 127-148.

Bebchuk, L. A., K. J. M. Cremers, and U. C. Peyer. 2011. "The Ceo Pay Slice." *Journal of Financial Economics* 102 (1): 199-221.

Beekes, W., and P. Brown. 2006. "Do Better-Governed Australian Firms Make More Informative Disclosures?" *Journal of Business Finance & Accounting* 33 (3-4): 422-450.

Beekes, W., P. Pope, and S. Young. 2004. "The Link between Earnings Timeliness, Earnings Conservatism and Board Composition: Evidence from the Uk." *Corporate Governance: An International Review* 12 (1): 47-59.

Behn, B. K., J. H. Choi, and T. Kang. 2008. "Audit Quality and Properties of Analyst Earnings Forecasts." *The Accounting Review* 83 (2): 327-349.

Bergstresser, D., and T. Philippon. 2006. "Ceo Incentives and Earnings Management." *Journal of Financial Economics* 80 (3): 511-529.

Bhat, G., O. K. Hope, and T. Kang. 2006. "Does Corporate Governance Transparency Affect the Accuracy of Analyst Forecasts?" *Accounting & Finance* 46 (5): 715-732.

Bhushan, R. 1989. "Firm Characteristics and Analyst Following." *Journal of Accounting and Economics* 11 (2): 255-274.

Briggs, A., T. Clark, J. Wolstenholme, and P. Clarke. 2002. "Missing.... Presumed at Random: Cost-Analysis of Incomplete Data." *Health Economics* 12 (5): 377-392.

Brown, S., and S. A. Hillegeist. 2007. "How Disclosure Quality Affects the Level of Information Asymmetry." *Review of Accounting Studies* 12 (2): 443-477.

Brown, S., S. A. Hillegeist, and K. Lo. 2004. "Conference Calls and Information Asymmetry." *Journal of Accounting and Economics* 37 (3): 343-366.

Burgstahler, D., and L. Dichev. 1997. "Earnings Management to Avoid Earnings Decreases and Losses." *Journal of Accounting and Economics* 24 (1): 99-126.

Bushee, B. J., J. E. Core, W. Guay, and S. J. W. Hamm. 2010. "The Role of the Business Press as an Information Intermediary." *Journal of Accounting Research* 48 (1).

Byard, D., Y. Li, and J. Weintrop. 2006. "Corporate Governance and the Quality of Financial Analysts' Information." *Journal of Accounting and Public Policy* 25 (5): 609-625.

Chang, M., L. Hooi, and M. Wee. 2014. "How Does Investor Relations Disclosure Affect Analysts' Forecasts?" *Accounting & Finance* 54 (2): 365-391.

Charitou, A., N. Lambertides, and L. Trigeorgis. 2007. "Earnings Behaviour of Financially Distressed Firms: The Role of Institutional Ownership." *Abacus* 43 (3): 271-296.

Chen, S., X. Chen, and Q. Cheng. 2014. "Conservatism and Equity Ownership of the Founding Family." *European Accounting Review* 23 (3): 403-430.

Cheng, Q., and T. D. Warfield. 2005. "Equity Incentives and Earnings Management." *The Accounting Review* 80 (2): 441-476.

Cheong, C. S., and M. Al Masum. 2010. "Financial Analysts' Forecast Accuracy: Before and after the Introduction of Australian International Financial Reporting Standards." *Australasian Accounting Business & Finance Journal* 4 (3): 65-81.

Chi, W., L. L. Lisic, and M. Pevzner. 2011. "Is Enhanced Audit Quality Associated with Greater Real Earnings Management?" *Accounting Horizons* 25 (2): 315-35.

Choi, J. S., Y. M. Kwak, and C. Choe. 2014. "Earnings Management Surrounding Ceo Turnover: Evidence from Korea." *Abacus* 50 (1): 25-55.

Chung, H. H., and J. P. Wynn. 2008. "Managerial Legal Liability Coverage and Earnings Conservatism." *Journal of Accounting and Economics* 46 (1): 135-153.

Cianci, A. M., and S. E. Kaplan. 2010. "The Effect of Ceo Reputation and Explanations for Poor Performance on Investors' Judgments About the Company's Future Performance and Management." *Accounting, Organizations and Society* 35 (4): 478-495.

Clement, M. B. 1999. "Analyst Forecast Accuracy: Do Ability, Resources, and Portfolio Complexity Matter?" *Journal of Accounting and Economics* 27 (3): 285-303.

Cohen, D. A., A. Dey, and T. Z. Lys. 2008. "Real and Accrual-Based Earnings Management in the Pre- and Post-Sarbanes-Oxley Periods." *The Accounting Review* 83 (3): 757-787.

Cohen, D. A., and P. Zarowin. 2010. "Accrual-Based and Real Earnings Management Activities around Seasoned Equity Offerings." *Journal of Accounting and Economics* 50 (1): 2-19.

Commonwealth of Australia. 2004. "Corporate Law Economic Reform Program." edited by Commonwealth of Australia, Australia.

Cornett, M. M., A. J. Marcus, and Tehranian. 2007. "Corporate Governance and Pay-for-Performance: The Impact of Earnings Management." *Journal of Financial Economics* 87 (2): 357-373.

Cornett, M. M., J. J. McNutt, and H. Tehranian. 2009. "Corporate Governance and Earnings Management at Large Us Bank Holding Companies." *Journal of Corporate Finance* 15 (4): 412-430.

Cotter, J., A. Tarca, and M. Wee. 2012. "Ifrs Adoption and Analysts' Earnings Forecasts: Australian Evidence." *Accounting & Finance* 52 (2): 395-419.

Dai, L., and P. T. H. Ngo. 2014. "Political Uncertainty and Accounting Conservatism." *Available at SSRN 2196224*.

Daily, C. M., and J. L. Johnson. 1997. "Sources of Ceo Power and Firm Financial Performance: A Longitudinal Assessment." *Journal of Management* 23 (2): 97-117.

Das, S., C. B. Levine, and K. Sivaramakrishnan. 1998. "Earnings Predictability and Bias in Analysts' Earnings Forecasts." *The Accounting Review* 73 (2): 277-294.

Davidson, R., J. G. Stewart, and P. Kent. 2005. "Internal Governance Structures and Earnings Management." *Accounting & Finance* 45 (2): 241-267.

Dechow, P. M., and I. D. Dichev. 2002. "The Quality of Accruals and Earnings: The Role of Accrual Estimation Errors." *The Accounting Review* 77 (35-59).

Dechow, P. M., and D. J. Skinner. 2000. "Earnings Management: Reconciling the Views of Accounting Academics, Practitioners, and Regulators." *Accounting Horizons* 14 (2): 235-250.

DeFond, M. L., and J. Jiambalvo. 1994. "Debt Covenant Violation and Manipulation of Accruals." *Journal of accounting and economics* 17 (1): 145-176.

Degeorge, F., J. Patel, and R. Zeckhauser. 1999. "Earnings Management to Exceed Thresholds." *Journal of Business* 72 (1): 1-33.

Demerjian, P. R., B. Lev, M. F. Lewis, and S. E. McVay. 2013. "Managerial Ability and Earnings Quality." *The Accounting Review* 88 (2): 463-498.

Demerjian, P. R., B. Lev, and S. E. McVay. 2012. "Quantifying Managerial Ability: A New Measure and Validity Tests." *Management Science* 58 (7): 1229-1248.

Dhaliwal, D. S., S. Radhakrishnan, A. Tsang, and Y. G. Yang. 2012. "Nonfinancial Disclosure and Analyst Forecast Accuracy: International Evidence on Corporate Social Responsibility Disclosure." *The Accounting Review* 87 (3): 723-759.

Dichev, I. D., J. R. Graham, C. R. Harvey, and S. Rajgopal. 2013. "Earnings Quality: Evidence from the Field." *Journal of Accounting and Economics* 56 (2): 1-33.

Donaldson, L., and J. H. Davis. 1991. "Stewardship Theory or Agency Theory: Ceo Governance and Shareholder Returns." *Australian Journal of Management* 16 (1): 49-64.

Drake, M. S., and L. A. Myers. 2011. "Analysts' Accrual-Related over-Optimism: Do Analyst Characteristics Play a Role?" *Review of Accounting Studies* 16 (1): 59-88.

Duru, A., and D. M. Reeb. 2002. "International Diversification and Analysts' Forecast Accuracy and Bias." *The Accounting Review* 77 (2): 415-433.

Eleswarapu, V. R., R. Thompson, and K. Venkataraman. 2004. "The Impact of Regulation Fair Disclosure: Trading Costs and Information Asymmetry." *Journal of Financial and Quantitative Analysis* 39 (02): 209-225.

Eng, L. L., and H. K. Teo. 1999. "The Relation between Annual Report Disclosures, Analysts' Earnings Forecasts and Analyst Following: Evidence from Singapore." *Pacific Accounting Review* 11 (1): 219-239.

Fama, E. F. 1980. "Agency Problems and the Theory of the Firm." *Journal of Political Economy* 88 (2): 288-307.

Fang, L. H., and A. Yasuda. 2014. "Are Stars' Opinions Worth More? The Relation between Analyst Reputation and Recommendation Values." *Journal of Financial Services Research* 46 (3): 235-269.

Ferreira, D., M. A. Ferreira, and C. C. Raposo. 2011. "Board Structure and Price Informativeness." *Journal of Financial Economics* 99 (3): 523-545.

Finkelstein, S. 1992. "Power in Top Management Teams: Dimensions, Measurement, and Validation." *Academy of Management Journal* 35 (3): 505-538.

Francis, B., I. Hasan, J. C. Park, and Q. Wu. 2015. "Gender Differences in Financial Reporting Decision Making: Evidence from Accounting Conservatism." *Contemporary Accounting Research* 32 (3): 1285-1318.

Francis, J., A. H. Huang, S. Rajgopal, and A. Y. Zang. 2008. "Ceo Reputation and Earnings Quality." *Contemporary Accounting Research* 25 (1): 109-147.
Francis, J., R. LaFond, P. M. Olsson, and K. Schipper. 2004. "Costs of Equity and Earnings Attributes." *The Accounting Review* 79 (4): 967-1010.
Frankel, R. M., M. F. Johnson, and K. K. Nelson. 2002. "The Relation between Auditors' Fees for Nonaudit Services and Earnings Management." *The Accounting Review* 77 (4): 71-105.
Friedlan, J. M. 1994. "Accounting Choices of Issuers of Initial Public Offerings." *Contemporary Accounting Research* 11 (1): 1-31.
Gao, P. 2013. "A Measurement Approach to Conservatism and Earnings Management." *Journal of Accounting and Economics* 55 (2): 251-268.
Ghosh, A., and D. Moon. 2010. "The Effect of Ceo Ownership on the Information Content of Reported Earnings." *Review of Quantitative Finance and Accounting* 35 (4): 393-410.
Gigler, F., C. Kanodia, H. Sapra, and R. Venugopalan. 2009. "Accounting Conservatism and the Efficiency of Debt Contracts." *Journal of Accounting Research* 47 (3): 767-797.
Givoly, D., and C. Hayn. 2000. "The Changing Time-Series Properties of Earnings, Cash Flows and Accruals: Has Financial Reporting Become More Conservative." *Journal of Accounting and Economics* 29 (3): 287-320.
Gotti, Giorgio, and Stacy Mastrolia. 2012. "The Effect on Financial Reporting Quality of an Exemption from the Sec Reporting Requirements for Foreign Private Issuers." *The International Journal of Accounting* 47 (1): 44-71.
Graham, J. R., C. R. Harvey, and M. Puri. 2013. "Managerial Attitudes and Corporate Actions." *Journal of Financial Economics* 109 (1): 103-121.
Graham, J. R., C. R. Harvey, and S. Rajgopal. 2005. "The Economic Implications of Corporate Financial Reporting." *Journal of Accounting and Economics* 40 (1): 3-73.
Gujarati, D. 2011. *Econometrics by Example*. London, UK: Palgrave Macmillan.
Gul, F. A., M. Hutchinson, and K. M. Y. Lai. 2013. "Gender-Diverse Boards and Properties of Analyst Earnings Forecasts." *Accounting Horizons* 27 (3): 511-538.
Guo, S., and M. W. Fraser. 2014. *Propensity Score Analysis : Statistical Methods and Applications*. 2nd ed. California, USA: Sage Publications, Inc.
Habib, A., and M. Hossain. 2008. "Do Managers Manage Earnings to 'Just Meet or Beat Analyst Forecasts? Evidence from Australia." *Journal of International Accounting, Auditing and Taxation* 17 (2): 79-91.
Han, S., J. Y. Jin, T. Kang, and G. Lobo. 2014. "Managerial Ownership and Financial Analysts' Information Environment." *Journal of Business Finance & Accounting* 41 (3): 328-362.
Haw, I. M., J. J. Lee, and W. J. Lee. 2014. "Debt Financing and Accounting Conservatism in Private Firms." *Contemporary Accounting Research* 31 (4): 1220-1259.
Hayward, M. L.A., V. P. Rindova, and T. G. Pollock. 2004. "Believing One's Own Press: The Causes and Consequences of Ceo Celebrity." *Strategic Management Journal* 25 (7): 637-653.
Healy, P. M. 1985. "The Effect of Bonus Schemes on Accounting Decisions." *Journal of Accounting and Economics* 7 (1): 85-107.

Healy, P. M., and J. M. Wahlen. 1999. "A Review of the Earnings Management Literature and Its Implications for Standard Setting." *Accounting Horizons* 13 (4): 365-383.

Heckman, J. J. 1976. "The Common Structure of Statistical Models of Trunction, Sample Selection and Limited Dependent Variables and a Simple Estimator for Such Models." *Annals of Economic and Social Measurement* 5 (4): 475-492.

Heltzer, W. 2009. "Conservatism and Book-Tax Differences." *Journal of Accounting, Auditing & Finance* 24 (3): 469-504.

Herrmann, D., and W. B. Thomas. 2005. "Rounding of Analyst Forecasts." *The Accounting Review* 80 (3): 805-823.

Hirshleifer, D. 1993. "Managerial Reputation and Corporate Investment Decisions." *Financial Management* 22 (2): 145-160.

Hirshleifer, D., and A. V. Thakor. 1992. "Managerial Conservatism, Project Choice, and Debt." *Review of Financial Studies* 5 (3): 437-470.

Ho, S. S. M., A. Y. Li, K. Tam, and F. Zhang. 2015. "Ceo Gender, Ethical Leadership, and Accounting Conservatism." *Journal of Business Ethics* 127 (2): 351-370.

Holland, David, and Alan Ramsay. 2003. "Do Australian Companies Manage Earnings to Meet Simple Earnings Benchmarks?" *Accounting & Finance* 43 (1): 41-62.

Hope, O. K. 2003. "Disclosure Practices, Enforcement of Accounting Standards, and Analysts' Forecast Accuracy: An International Study." *Journal of Accounting Research* 41 (2): 235-272.

Horton, J., G. Serafeim, and I. Serafeim. 2013. "Does Mandatory Ifrs Adoption Improve the Information Environment?" *Contemporary Accounting Research* 30 (1): 388-423.

Hovakimian, A., and E. Saenyasiri. 2014. "Us Analyst Regulation and the Earnings Forecast Bias around the World." *European Financial Management* 20 (3): 435-461.

Huang, H. W., E. Rose-Green, and C. C. Lee. 2012. "Ceo Age and Financial Reporting Quality." *Accounting Horizons* 26 (4): 725-740.

Hui, K. W., S. Klasa, and P. E. Yeung. 2012. "Corporate Suppliers and Customers and Accounting Conservatism." *Journal of Accounting and Economics* 53 (1): 115-135.

Hwang, L. S., C. L. Jan, and S. Basu. 1996. "Loss Firms and Analysts' Earnings Forecast Errors." *Journal of Financial Statement Analysis* 1 (2): 18-31.

Iatridis, G. E. 2012. "Audit Quality in Common-Law and Code-Law Emerging Markets: Evidence on Earnings Conservatism, Agency Costs and Cost of Equity." *Emerging Markets Review* 13 (2): 101-117.

Imhoff Jr, E. A., and G. J. Lobo. 1992. "The Effect of Ex-Ante Earnings Uncertainty on Earnings Response Coefficients." *The Accounting Review* 67 (2): 427-439.

Jacob, J., T. Z. Lys, and M. A. Neale. 1999. "Expertise in Forecasting Performance of Security Analysts." *Journal of Accounting and Economics* 28 (1): 51-82.

Jaggi, B., and P. Lee. 2002. "Earnings Management Response to Debt Covenant Violations and Debt Restructuring." *Journal of Accounting, Auditing & Finance* 17 (4): 295-324.

Jensen, M. C., and W. H. Meckling. 1976. "Theory of the Firm: Managerial Behavior, Agency Costs, and Ownership Structure." *Journal of Financial Economics* 3: 305-360.

Jian, M., and K. W. Lee. 2011. "Does Ceo Reputation Matter for Capital Investments?" *Journal of Corporate Finance* 17 (4): 929-946.

Jiang, J., K. R. Petroni, and I. Y. Wang. 2010. "Cfos and Ceos: Who Have the Most Influence on Earnings Management?" *Journal of Financial Economics* 96 (3): 513-526.

Jiao, T., M. Koning, G. Mertens, and P. Roosenboom. 2012. "Mandatory Ifrs Adoption and Its Impact on Analysts' Forecasts." *International Review of Financial Analysis* 21 (1): 56-63.

Jones, K., G. V. Krishnan, and K. D. Melendrez. 2008. "Do Models of Discretionary Accruls Detect Actual Cases of Fraudulent and Restated Earnigs? An Empirical Analysis." *Contemporary Accounting Research* 25 (2): 499-531.

Kanagaretnam, K., G. J Lobo, and D. J. Whalen. 2007. "Does Good Corporate Governance Reduce Information Asymmetry around Quarterly Earnings Announcements?" *Journal of Accounting and Public Policy* 26 (4): 497-522.

Kanagaretnam, K., G. J. Lobo, and R. Mathieu. 2012. "Ceo Stock Options and Analysts' Forecast Accuracy and Bias." *Review of Quantitative Finance and Accounting* 38 (3): 299-322.

Kaplan, S. E., J. A. Samuels, and J. Cohen. 2013. "An Examination of the Effect of Ceo Social Ties and Ceo Reputation on Nonprofessional Investors' Say-on-Pay Judgments." *Journal of Business Ethics* 126 (1): 103-117.

———. 2015. "An Examination of the Effect of Ceo Social Ties and Ceo Reputation on Nonprofessional Investors' Say-on-Pay Judgments." *Journal of Business Ethics* 126 (1): 103-117.

Ke, B., and Y. Yu. 2006. "The Effect of Issuing Biased Earnings Forecasts on Analysts' Access to Management and Survival." *Journal of Accounting Research* 44 (5): 965-999.

Ketchen Jr, D. J., G. L. Adams, and C. L. Shook. 2008. "Understanding and Managing Ceo Celebrity." *Business Horizons* 51 (6): 529-534.

Khan, M., and R. L. Watts. 2009. "Estimation and Empirical Properties of a Firm-Year Measure of Accounting Conservatism." *Journal of Accounting and Economics* 48 (2): 132-150.

Klein, A. 2002. "Audit Committee, Board of Director Characteristics, and Earnings Management." *Journal of Accounting and Economics* 33 (3): 375-400.

Koh, Kevin. 2011. "Value or Glamour? An Empirical Investigation of the Effect of Celebrity Ceos on Financial Reporting Practices and Firm Performance." *Accounting & Finance* 51 (2): 517-547.

Kothari, S. P. 2001. "Capital Markets Research in Accounting." *Journal of Accounting and Economics* 31 (1): 105-231.

Kothari, S. P., X. Li, and J. E. Short. 2009. "The Effect of Disclosures by Management, Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: A Study Using Content Analysis." *The Accounting Review* 84 (5): 1639-1670.

Krishnan, G. V., and G. Vishanathan. 2008. "Does the Sox Definition of an Accounting Expert Matter? The Association between Audit Committee Directors' Accounting Expertise and Accounting Conservatism." *Contemporary Accounting Research* 25 (3): 827-857.

Kross, W., B. Ro, and D. Schroeder. 1990. "Earnings Expectations: The Analysts' Information Advantage." *The Accounting Review* 65 (2): 461-476.

Kross, W., and I. Suk. 2012. "Does Regulation Fd Work? Evidence from Analysts' Reliance on Public Disclosure." *Journal of Accounting and Economics* 53 (1): 225-248.

Lafond, R., and S. Roychowdhury. 2007. "Managerial Ownership and Accounting Conservatism." *Journal of Accounting Research* 46 (1): 101-135.

LaFond, R., and R. L. Watts. 2008. "The Information Role of Conservatism." *The Accounting Review* 83 (2): 447-478.

Lang, M. H., and R. J. Lundholm. 1996. "Corporate Disclosure Policy and Analyst Behavior." *The Accounting Review* 71 (4): 467-492.

Lara, J. M. G., B. G. Osma, and F. Penalva. 2007. "Board of Directors' Characteristics and Conditional Accounting Conservatism: Spanish Evidence." *European Accounting Review* 16 (4): 727-755.

———. 2009a. "Accounting Conservatism and Corporate Governance." *Review of Accounting Studies* 14 (1): 161-201.

———. 2009b. "The Economic Determinants of Conditional Conservatism." *Journal of Business Finance & Accounting* 36 (3-4): 336-372.

Laux, C., and V. Laux. 2009. "Board Committees, Ceo Compensation and Earnings Management." *The Accounting Review* 84 (3): 869-891.

Li, J. 2013. "Accounting Conservatism and Debt Contracts: Efficient Liquidation and Covenant Renegotiation." *Contemporary Accounting Research* 30 (3): 1082-1098.

Lim, R. 2011. "Are Corporate Governance Attributes Associated with Accounting Conservatism?" *Accounting & Finance* 51 (4): 1007-1030.

Lim, T. 2001. "Rationality and Analysts' Forecast Bias." *The Journal of Finance* 56 (1): 369-385.

Lobo, G. J., and J. Zhou. 2006. "Did Conservatism in Financial Reporting Increase after the Sarbanes-Oxley Act? Initial Evidence." *Accounting Horizons* 20 (1): 57-73.

Mak, C. Y., N. Strong, and M. Walker. 2011. "Conditional Earnings Conservatism and Corporate Refocusing Activities." *Journal of Accounting Research* 49 (4): 1041-1082.

Malmendier, U., and G. Tate. 2009. "Superstar Ceos." *The Quarterly Journal of Economics* 124 (4): 1593-1638.

Mande, V., and M. Son. 2012. "Ceo Centrality and Meeting or Beating Analysts Earnings Forecasts." *Journal of Business Finance & Accounting* 39 (1-2): 82-112.

Mather, P., and A. Ramsay. 2006. "The Effects of Board Characteristics on Earnings Management around Australian Ceo Changes." *Accounting Research Journal* 19 (2): 78-93.

Matsumoto, D. A. 2002. "Management's Incentives to Avoid Negative Earnings Surprises." *The Accounting Review* 77 (3): 483-514.

Matsunaga, S. R., and C. W. Park. 2001. "The Effect of Missing a Quarterly Earnings Benchmark on the Ceo's Annual Bonus." *The Accounting Review* 76 (3): 313-332.

McAnally, M. L., A. Srivastava, and C. D. Weaver. 2008. "Executive Stock Options, Missed Earnings Targets, and Earnings Management." *The Accounting Review* 83 (1): 185-216.

McNichols, M. F. 2002. "Discussion of the Quality of Accruals and Earnings: The Role of Accrual Estimation Erros." *The Accounting Review* 77 (61-69).

McVay, S., V. Nagar, and V. W. Tang. 2006. "Trading Incentives to Meet the Analyst Forecast." *Review of Accounting Studies* 11 (4): 575-598.

Mikhail, M. B., B. R. Walther, and R. H. Willis. 2003a. "The Effect of Experience on Security Analyst Underreaction." *Journal of Accounting and Economics* 35 (1): 101-116.

———. 2003b. "Security Analyst Experience and Post-Earnings-Announcement Drift." *Journal of Accounting, Auditing & Finance* 18 (4): 529-550.

Milbourn, T. T. 2003. "Ceo Reputation and Stock-Based Compensation." *Journal of Financial Economics* 68 (2): 233-262.

Mohanram, P. S., and S. V. Sunder. 2006. "How Has Regulation Fd Affected the Operations of Financial Analysts." *Contemporary Accounting Research* 23 (2): 491-525.

Muth, M. M., and L. Donaldson. 1998. "Stewardship Theory and Board Structure: A Contingency Approach." *Corporate governance* 6 (1): 5-28.

Nikolaev, V. V. 2010. "Debt Covenants and Accounting Conservatism." *Journal of Accounting Research* 48 (1): 51-89.

O'Brien, P. C., and R. Bhushan. 1990. "Analyst Following and Institutional Ownership." *Journal of Accounting Research* 28 (1): 55-82.

Pae, J., D. B. Thornton, and M. Welker. 2005. "The Link between Earnings Conservatism and the Price-to-Book Ratio." *Contemporary Accounting Research* 22 (3): 693-717.

Peasnell, K. V., P. F. Pope, and S. Young. 2005. "Board Monitoring and Earnings Management: Do Outside Directors Influence Abnormal Accruals?" *Journal of Business Finance & Accounting* 32 (7-8): 1311-1346.

Peni, E., and S. Vahamaa. 2010. "Female Executives and Earnings Management." *Managerial Finance* 36 (7): 629-645.

Qiang, Xinrong. 2007. "The Effects of Contracting, Litigation, Regulation, and Tax Costs on Conditional and Unconditional Conservatism: Cross-Sectional Evidence at the Firm Level." *The Accounting Review* 82 (3): 759-796.

Rajgopal, S., T. Shevlin, and V. Zamora. 2006. "Ceo's Outside Employment Opportunities and the Lack of Relative Performance Evaluation in Compensation Contracts." *The Journal of Finance* 61 (4): 1813-1844.

Ramalingegowda, S., and Y. Yu. 2012. "Institutional Ownership and Conservatism." *Journal of Accounting and Economics* 53 (1): 98-114.

Roychowdhury, S. 2006. "Earnings Management through Real Activities Manipulation." *Journal of Accounting and Economics* 42 (3): 335-370.

Roychowdhury, S., and R. L. Watts. 2007. "Asymmetric Timeliness of Earnings, Market-to-Book and Conservatism in Financial Reporting." *Journal of Accounting and Economics* 44 (1): 2-31.

Ruddock, C., S. J. Taylor, and S. L. Taylor. 2006. "Non-Audit Services and Earnings Conservatism: Is Auditor Independence Impaired?" *Contemporary Accounting Research* 23 (3): 701-746.

Schipper, K. 1989. "Commentary on Earnings Management." *Accounting Horizons* 3 (4): 91-102.

———. 1991. "Commentary on Analysts Forecasts." *Accounting Horizons* 5 (4): 105-121.

Srinidhi, B., and F. A. Gul. 2007. "The Differential Effects of Auditors' Non-Audit and Audit Fees on Accrual Quality." *Contemporary Accounting Research* 24 (2): 595-629.

Srinidhi, B., F. A. Gul, and J. Tsui. 2011. "Female Directors and Earnings Quality." *Contemporary Accounting Research* 28 (5): 1610-1644.

Sultana, N. 2015. "Audit Committee Characteristics and Accounting Conservatism." *International Journal of Auditing* 19 (2): 88-102.

Sultana, N., H. Singh, and M. Van der Zahn. 2015. "Audit Committee Characteristics and Audit Report Lag." *International Journal of Auditing* 19 (2): 72-87.

Sultana, N., and M. Van der Zahn. 2015. "Earnings Conservatism and Audit Committee Financial Expertise." *Accounting & Finance* 55 (1): 279-310.

Teoh, S. H., I. Welch, and T. J. Wong. 1998a. "Earnings Management and the Long-Run Market Performance of Initial Public Offerings." *The Journal of Finance* 53 (6): 1935-1974.

———. 1998b. "Earnings Management and the Underperformance of Seasoned Equity Offerings." *Journal of Financial Economics* 50 (1): 63-99.

Teoh, S. H., T. J. Wong, and G. R. Rao. 1998. "Are Accruals During Initial Public Offerings Opportunistic?" *Review of Accounting Studies* 3 (1-2): 175-208.

Trueman, B. 1986. "Why Do Managers Voluntarily Release Earnings Forecasts?" *Journal of Accounting and Economics* 8 (1): 53-71.

Watts, R. L. 2003. "Conservatism in Accounting Part I: Explanations and Implications." *Accounting Horizons* 17 (3): 207-221.

Wen-Hsin Hsu, A., J. O'Hanlon, and K. Peasnell. 2011. "Financial Distress and the Earnings-Sensitivity-Difference Measure of Conservatism." *Abacus* 47 (3): 284-314.

Wooldridge, J. M. 2002. *Econometric Analysis of Cross Section and Panel Data*. Massachusetts London, UK: The MIT press Cambridge.

Xu, L., and A. Tang. 2015. "Internal Control Material Weakness, Analysts Accuracy and Bias, and Brokerage Reputation." In *Handbook of Financial Econometrics and Statistics*, eds C. Lee and J. C. Lee, 1719-1751. Springer New York, USA.

Yu, F. 2008. "Analyst Coverage and Earnings Management." *Journal of Financial Economics* 88: 245-271.

Zang, A. Y. 2012. "Evidence on the Trade-Off between Real Activities Manipulation and Accrual-Based Earnings Management." *The Accounting Review* 87 (2): 675-703.