

THE ROLE OF INDIVIDUAL ATTRIBUTES IN EARNINGS
MANAGEMENT INTENTION DECISIONS

by

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Abstract

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Much research has been conducted, at the firm level, to investigate the market effect of earnings management. However, there is a gap in the literature on individual attributes that may help to explain earnings management decisions. Of the available research at individual, the focus is primarily on the motives of the Chief Executive Officer or top executive teams and not the Chief Financial Officer (CFO). The limited research focusing on the CFO has produced conflicting results with regard to the motivations and decisions of the CFO to engage in earnings management. This conflict in findings stems from two opposing perspective. First, a traditional view of earnings management would indicate that CFOs manage earnings to take advantage of a financial incentive, such as executive stock options, or to meet or beat analysts' forecasts to maintain stock values (Jiang, Petroni, & Wang, 2010). Second, an alternative view suggests that CFOs are pressured by the CEO to manipulate the earnings figures (Feng, Ge, Lu and Shevlin; 2011).

This study attempts to address this gap and potentially offer some insight to clarify the conflicting perspectives by examining the influence of individual attributes (emotional intelligence, narcissism, and moral disengagement) on a CFO's intention to manage earnings. This research utilizes a behavioral design in order to add insight into

the primary research questions: are individual attributes important factors in the decision of the CFO to manipulate earnings, and when might these attributes be important? By investigating both motivations simultaneously, as well as examining how the individual attributes of emotional intelligence, narcissism, and moral disengagement may alter the motivation and earnings management intentions relationship, this research seeks to resolve conflict in the field and provide a new perspective through which to examine earnings management decisions.

Results of this investigation provide several key take-a-ways for researchers and practitioners concerned with earnings management decisions. Firstly, results indicated that motivations (i.e. financial pressure or CEO pressures) do not individually differ in their effect on earnings management intentions; both increase intentions to engage in earnings management. However, when combined, the additive nature of multiple types of pressure result in a decrease of earnings management intentions. Secondly, the results of this investigation revealed that individual attributes do influence earnings management intentions, especially when the proposal is a GAAP violation. More specifically, it was found that emotional intelligence was negatively related and moral disengagement was positively related to earnings management intentions in situations that violate GAAP.

Table of Contents

Acknowledgements	iii
Abstract	iv
List of Illustrations	x
List of Tables	xi
Chapter 1 Introduction.....	1
Chapter 2 Literature Review and Hypthoses Development.....	4
2.1 Earnings Management	5
2.1.1 Definition of Earnings Management	5
2.1.2 Methods Used to Manage Earnings	5
2.1.3 Impetus to Manage Earnings	8
2.1.3.1 Benchmarks are important and capital market rewards	8
2.1.3.2 The CEO and Compensation Contracts	10
2.2 The Chief Financial Officer	12
2.3 Emotional Intelligence	16
2.3.1 History and Definition of Emotional Intelligence.....	17
2.3.2 The Ability Based Model of Emotional Intelligence	18
2.3.3 Mixed Models of Emotional Intelligence	20
2.3.3.1 The Goleman Model	21
2.3.3.2 The Bar-On Model	22
2.3.4 Model Comparison	23
2.3.5 The Case Against Emotional Intelligence	24
2.3.6 Relevant Emotional Intelligence Research	24
2.4 Narcissism	29
2.4.1 Definition of Narcissism.....	29

2.4.2 Measurement and Dimensions of Narcissism	31
2.4.3 Relevant Narcissism Research	32
2.5 Moral Disengagement	36
2.5.1 Definition of Moral Disengagement	36
2.5.2 Framework of Moral Disengagement	37
2.5.3 Relevant Research in Moral Disengagement.....	38
Chapter 3 Methodology	41
3.1 Research Design and Participants	41
3.1.2 Use of Student Sample	42
3.1.2.1 Considerations: Type of Experiment.....	42
3.1.2.2. Considerations: Availability and Logistics.....	43
3.1.2.3 Considerations: Knowledge Needed of Participants	43
3.1.2.4. Considerations: Avoidance of Demand Effect	44
3.1.2.5. Use of Students Conclusion.....	44
3.2 Study Variables.....	44
3.2.1 Manipulated Variables	45
3.2.1.1 Financial Incentives	46
3.2.1.2 CEO Pressure	46
3.2.1.3 Allowability under GAAP	47
3.2.1.4 Manipulation Checks.....	48
3.2.2 Measured Variables	48
3.2.2.1 Earnings Management Intention	49
3.2.2.2 Emotional Intelligence.....	49
3.2.2.3 Narcissism.....	50
3.2.2.4 Moral Disengagement.....	51

3.3 Hypotheses Testing Methodology	52
3.3.1 Hypotheses 1 & 2 – Repeated Measure ANOVA and Planned Comparison	53
3.3.2 Hypotheses 3, 4, & 5 – Moderation Testing using Hierarchical Regression	56
3.4 Validation and Pilot Study.....	56
Chapter 4 Results	59
4.1 Participant Demographic Information	59
4.2 Preliminary Analyses	60
4.2.1 Manipulation Checks	61
4.2.1.1 GAAP Manipulation Check	61
4.2.1.2 Financial Pressure Manipulation Check	62
4.2.1.3 CEO Pressure Manipulation Check	63
4.2.2 Internal Reliability of Dependent Measures	63
4.2.3 Correlation Analysis	64
4.3 Hypotheses Testing.....	66
4.3.1 Repeated Measure ANOVA and Planned Comparisons.....	67
4.3.2 Hierarchical Regression	71
4.4 Supplemental Analyses	80
4.4.1 – Control for Assumed Power of CEO, Audit Committee, and Board of Director	80
4.4.2 – Orthogonal Polynomial Contrast	86
Chapter 5 Conclusions.....	89
5.1 Discussion	89
5.2 Contributions.....	93

5.3 Limitations.....	95
5.4 Future Research.....	96
5.5 Summary.....	97
Appendix A Scales used to Measure Independent Variables.....	99
Appendix B Scenarios Used to Measure Dependent Variables.....	104
References.....	114
Biographical Information.....	129

List of Illustrations

Figure 1 Research Framework	4
Figure 2 Illustrations of Hypotheses 1a, 1b, 2a, and 2b	16
Figure 3 Illustrations of Hypotheses 3a and 3b	29
Figure 4 Illustrations of Hypotheses 4a and 4b	35
Figure 5 Illustrations of Hypotheses 5a and 5b	40
Figure 6 Cell Mean Values.....	69
Figure 7 FP X CP Interaction.....	87

List of Tables

Table 1 Summary of Goleman’s Clusters and Competencies	22
Table 2. Summary of Bar-On’s Mixed Model of Emotional Intelligence	23
Table 3. Scenario Outline.....	46
Table 4. Treatment Effects Coding	48
Table 5. Participant Demographic Information	60
Table 6. GAAP Manipulation Check	62
Table 7. Means, Standard Deviations, Correlations, Reliabilities	65
Table 8. Analysis of Variance	68
Table 9. Pressure Profile, Cell Mean Values, and Planned Comparison Profile	68
Table 10. Results of Standardized Regression Analysis for the Moderating Effects of Emotional Intelligence – Median Split.....	73
Table 11. Results of Standardized Regression Analysis for the Moderating Effects of Emotional Intelligence – Continuous	74
Table 12. Results of Standardized Regression Analysis for the Moderating Effects of Narcissism – Median Split.....	75
Table 13. Results of Standardized Regression Analysis for the Moderating Effects of Narcissism – Continuous	76
Table 14. Results of Standardized Regression Analysis for the Moderating Effects of Moral Disengagement – Median Split.....	78
Table 15. Results of Standardized Regression Analysis for the Moderating Effects of Moral Disengagement – Continuous	79
Table 16. Means, Standard Deviations, and Correlations	82

Table 17. Results of Standardized Regression Analysis with Additional Controls – Emotional Intelligence	83
Table 18. Results of Standardized Regression Analysis with Additional Controls – Narcissism	84
Table 19. Results of Standardized Regression Analysis with Additional Controls – Moral Disengagement	85
Table 20. Results of the Orthogonal Polynomial Contrast.....	88

Chapter 1

Introduction

In this study, I examine the impact of individual attributes (emotional intelligence, narcissism, and moral disengagement) on a Chief Financial Officer's intention to manage earnings. This question is particularly of interest given the deterioration of investor confidence over the last decade. Earnings management, coupled with the accounting fraud epidemic of the 2000's, has eroded investor confidence and deteriorated the integrity of the accounting profession as a whole (Li, Pincus, Rego, 2008).

One definition of earnings management indicates that earnings management utilizes accounting discretion to alter the financial reports of the firm to either mislead stakeholders or influence contractual outcomes depending on such reports (Healy and Wahlen, 1999). As evidence of earnings management's prevalence in the real-world, prior research has documented the use of both accrual-based and real-earnings management (Cohen, Dey, and Lys, 2008; Graham, Harvey, and Rajgopal, 2005). If researchers could identify key factors in individual earnings management intentions, practitioners could potentially utilize this information in staff selection and training, to minimize this behavior. Therefore, it is important to understand what drives individuals to undertake earnings management behavior, specifically those individuals in the role of Chief Financial Officer.

CFOs hold a unique fiduciary position. Whereas they hold the technical skills to understand the implications of the financial statements, they are responsible for the accurate presentation of the statements, and they are required to sign-off on the statements, indicating they are fairly presented (Indjejikian & Matejka, 2009). With few exceptions, earnings management motivation has been investigated at the CEO level or

the executive level as a whole (Feng, Ge, Lu & Shevlin, 2011). Researchers have found that earnings are managed to achieve a financial benchmark, which will allow the executive to enjoy a financial incentive (Bergstressor & Phillipons, 2006; Burns & Kedia, 2006; Efendi, Srivastava, & Swanson, 2007). Two recent studies have examined earnings management motivation, specifically at the CFO position, with conflicting results. While one study agreed with the traditional view of earnings management, that CFOs were managing earnings in order to take advantage of an equity incentive (Jiang, Petroni, & Wang, 2010). An alternative view suggested by Feng et al. (2011) indicates that earnings management is an indication of CEO pressure on the CFO to manage earnings.

The goal of the current research is two-fold. Firstly, the author would like to add insight into the conflicting results of recent studies addressing CFO motivation to manage earnings. Secondly, this study will suggest individual attributes as moderating variables in the relationship. To achieve these goals, this study will utilize a behavioral design to address both views of earnings management (Financial Incentive and CEO Pressure) simultaneously. This study will also examine individual attributes of the CFO, such as emotional intelligence, narcissism, and emotional disengagement to determine any moderating effects these characteristics may have on the relationship.

Emotional intelligence or "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990), has previously been found to moderate relationships related to stress and coping in the workplace (Jordan, Askanasy, Hartel, 2002), indicating those with higher levels of emotional intelligence are better able to cope with workplace stress, such as pressures from a boss or CEO. Narcissism is essentially an over inflated self-image. It has been suggested that narcissistic CEOs make earnings

management decisions for the organization to uphold ego and preserve self-esteem (Amernic and Craig, 2010). Moral disengagement is an internal mechanism that allows people "... to behave unethically without feeling distress" (Moore, Detert, Trevino, Baker, & Mayer, 2012; p. 2). These individual attributes have the potential to influence the way an individual acts at work, reacts to pressures, and makes decisions. I intend to utilize these attributes to see what role they play in the relationship between motivation and earnings management intentions.

The remainder of this paper is organized as follows. First, I review the extant literature on earnings management and individual attributes of interest to this study, followed by development of the hypotheses of the paper. Next, I provide an explanation of the methodology utilized in this study. Then, a discussion of the results is offered. Finally, concluding remarks will be presented, including discussion of theoretical and practical contributions, potential limitations of the study, and areas of future research.

Chapter 2

Literature Review and Hypotheses Development

This chapter provides a discussion of the relevant literature and hypotheses development for my dissertation. Figure 1 presents my research framework, which I developed based on theoretical perspectives from psychology, organizational behavior, and accounting. My research framework suggests that the type of motivation (pressure) applied to a CFO can influence the earnings management intentions of the CFO. In addition, individual attributes can play a role in how influential this motivation is in the earnings management decision.

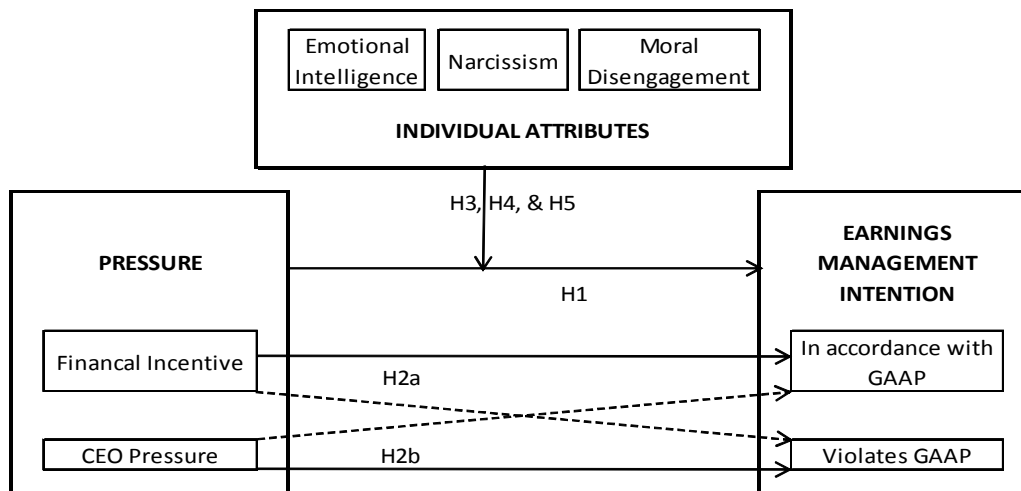


Figure 1 Research Framework

This literature review is presented as follows. First, I will discuss the accounting literature relating to earnings management to provide a definition of earnings management, an understanding of the various methods managers can utilize to manage earnings, and reasons given for why managers may undertake these practices. Second, I will discuss the role of the Chief Financial Officer in the earnings management decision. Next, I will draw on literature from the fields of psychology and management to define

and provide an overview on the individual attributes examined in this study. Finally, as I discuss each section, I will offer formal hypotheses based on the literature review provided.

2.1 Earnings Management

This section reviews the extant literature on earnings management. First, I discuss the definition of earnings management. Next, I review the methods used to manage earnings. Finally, I offer a discussion on why managers manipulate earnings figures, specifically looking at benchmarks, capital market rewards, and compensation contracts.

2.1.1 Definition of Earnings Management

One definition of earnings management¹ is the "...use of judgment in reporting and in structuring transactions to alter financial reports to either mislead some stockholders about the underlying economic performance of the company or to influence contractual outcomes that depend on reported accounting numbers" (Healy & Wahlen, 1999; p. 368). Another definition describes earnings management as a "purposeful intervention in the external financial reporting process, with the intention of obtaining some private gain" (Schipper, 1989; p. 92). These definitions indicate that some managers may take decisive actions to manipulate financial statements and earnings figures to reap benefits of some kind.

2.1.2 Methods Used to Manage Earnings

Prior research has documented that manager's doctor earnings, through various methods, in order to achieve a desired outcome (Graham et al, 2005). Earnings management studies "...typically consider a specific incentive for earnings management

¹ For a review of literature on earnings management surrounding earnings benchmarks, see Habib and Hansen, (2008) and Healy and Wahlen (1999).

(e.g. incentives related to executive bonus plans) and then test whether earnings have been managed assuming a particular earnings management method (e.g. management of accruals)” (Burgstahler & Dichev, 1997, p. 112). Some of the methods used may be allowable under Generally Accepted Accounting Principles (GAAP), while others may not be acceptable.

Research on earnings management delineates three methods utilized by managers to alter financial information, including; manipulation of discretionary accruals, real-earnings management, and classification shifting.

The first method, manipulation of discretionary accruals, results in increased income, with no change to the direct cash flow of the organization. In this case, the manager would book additional income (defer an expense) offset by a debit (credit) to a balance sheet account, other than cash. Examples of this type of earnings management could include recording additional revenues and receivables before they are realizable, under-estimating the provision for doubtful accounts, or delaying the write-off of obsolete inventory. This method may or may not be allowable under GAAP, depending on factors such as the appropriateness of the estimates used to determine the accrual.

There is a heavy stream of research centered on detecting abnormal accruals. To test for this type of earnings management, researchers have formulated various models to estimate the total accruals of a firm, and to bifurcate estimated total accruals into discretionary and non-discretionary components (Jones, 1991; Dechow, Sloan, & Sweeney, 1995; Kothari, Leone & Wasley, 2005). Most notably, this line of research has used the Jones Model (Jones, 1991) and subsequent modifications to the Jones Model (Dechow et al, 1995; Kothari et al., 2005).

Essentially, the original Jones Model formula indicates that total accruals are a function of the change in revenue from prior year to current year, and property plant and

equipment. In the first modification of this model, Dechow et al (1995) argues that not all revenues are non-discretionary, as implied by the original Jones Model. This means the firm could manage abnormal revenue by recording additional revenue at the end of the year, even if not yet realized. Another modification was offered by Kothari et al. (2005), where they added to the Dechow et al. model a term to control for firm performance.

The second method managers could utilize to manage earnings is the use of real earnings management strategies. Rowchowdhury (2006) defines real earnings management as “management actions that deviate from normal business practices, undertaken with the primary objective of meeting certain earnings thresholds” (p. 336). This means that the manager actually changes the activities of the firm to manage the income statement, such as reduction of research and development costs, advertising, or training expenses (discretionary expenses). Managers and business owners have the option to make these types of decisions, regardless of the impact they may have on the company. As such, this method is allowable under GAAP, however it may sacrifice future firm value, in exchange for achieving short-term goals. Rowchowdhury (2006; p. 336) reports instances of real earnings management including “price discounts to temporarily increase sales, engaging in overproduction to lower cost of goods sold, and reduction of discretionary expenditures aggressively to improve reported margin.”

The goal of both discretionary accrual earnings management and real earnings management is the same, to achieve a specific income level. Researchers have found that these two methods are substitutes. Specifically, Cohen et al. (2008) found that discretionary accruals earnings management increased in the period before Sarbanes-Oxley, and then decreased following it. Conversely, real earnings management decreased in the pre-SOX period, and then increased following the legislation.

Finally, the firm could intentionally shift items on the income statement. For example, McVay (2006) found that managers shifted from core expenses to special items. While this does not alter the bottom line of the firm, it does change the profit of the net income before special items line. Since special items are supposed to be one-time occurrences, it gives the appearance that these expenses are temporary, when in fact, they will continue into the future. This method is not allowable under GAAP.

2.1.3 Impetus to Manage Earnings

2.1.3.1 Benchmarks are important and capital market rewards

To answer the question “Why does earnings management occur?” a stream of research investigates earnings management to meet or beat various thresholds or benchmarks. Researchers have provided various benchmarks the firm attempts to reach by managing earnings. Specifically, managers might wish to avoid a loss (earnings level benchmark), show improvement from one year to the next (earnings change benchmark), or meet or beat an analyst forecast (analyst forecast benchmark) (Habib & Hansen, 2008).

When considering these three benchmarks, one might wonder which is the most important. Degeorge, Patel, and Zeckhauser (1999) indicate that avoiding losses and an earnings decrease are the most important thresholds; however, Brown and Caylor (2005) found a temporal shift in importance. Early in their study, they found results consistent with Degeorge et al. (1999); later in the study, they found that avoiding a negative earnings surprise was more important than avoiding losses or earnings decreases. In Graham et al's (2005, Tables 3 & 4) survey of CFO's, they found that all of these thresholds were important. When asked if a specific benchmark was important, 65.2% indicated it was important to avoid a loss, 73.5% indicated it was important to meet or beat an analyst forecast, and 85.1% indicated it was important to report an earnings

increase. Over 80% indicated that meeting these benchmarks was important to “build creditability with the capital markets” and “maintain or increase stock price.”

Prospect theory, or loss aversion (Kahneman & Tversky, 1979) has been used to explain that people value gains and losses differently, and as such investors find more value in firms that repeatedly report small gains than in firms that report a large profit one year and a loss the next (Koonce & Mercer, 2005). Therefore, managers want to avoid losses to maintain a positive image with shareholders. Burgstahler & Dichev (1997) identified that managers manage earnings to cross the threshold between small losses to small gains, and to avoid a decrease in earnings. They find a disproportionately small number of firms with small losses or earnings decreases, and a large number of firms with small gains and earnings increases.

Prospect theory has also been used to explain why firms might ‘take a big bath’ in years it is unlikely that a gain can be realized (Thaler, 1999). In this case, when a firm is not going to be able to cross the threshold into the black, the firm may shift additional future expenses into the loss year, and shift gains or revenue from the loss year into future years. The result would be to report the largest loss possible in the current year, and make future years appear more positive (Thaler, 1999). Thaler (1985, 2002) also explains that firms “Don’t wrap all the Christmas presents in one box.” Indicating that if there were a large gain, firms would prefer to spread out the good news into several years, rather than reporting the entire gain in one year.

From a capital market perspective, empirical studies have provided evidence that investors will pay a premium for stocks that meet or beat any of these three thresholds, and will demand a discount for stocks that fail to meet or beat these thresholds (Brown & Caylor, 2005). For example, when a firm suffers a loss, after several years of gains, the stock price suffers a disproportionate reduction in value (DeAngelo, DeAngelo, & Skinner,

1996). Opposed to findings that indicate firms that experience consecutive increases in income will enjoy disproportionate increases in stock price, compared to firms that do not have consecutive profits (Barth, Elliott, & Finn; 1999).

2.1.3.2 The CEO and Compensation Contracts

Another earnings management stream of research relates to executive stock options, and how they might motivate the CEO and the executive team to manipulate earnings. This provides additional motivation for meeting or beating benchmarks relates to the manager's personal desire to satisfy compensation contract requirements.

Typically, this research investigates the CEO or the executive team as a whole (Feng et al., 2011).

Agency Theory is often a starting point in this line of research. Jensen and Meckling's (1976) framework indicates that by awarding stock based compensation to managers, the firm may be able to align the best interest of the managers with the best interest of the organization, and therefore, reduce agency costs². In this scenario, a significant portion of the manager's portfolio and wealth is tied to the firm's stock price. As the manager attempts to diversify the portfolio, he or she will need to sell some of these shares. Cheng and Warfield (2005) find that managers looking to sell shares in the firm will manage earnings to increase the short-term stock price, maximizing the price received for the sold shares. Specifically, they find that firms with high equity incentives are more likely to just meet or beat the thresholds previously discussed. In addition to stock options, researchers have examined the relationship between meeting and beating benchmarks and CEO's cash compensation, including bonuses (Matsunga & Park, 2001; Gaver & Gaver, 1998). Their findings suggest that meeting or beating these thresholds will increase cash compensation and bonuses, but failing to meet or beat the threshold

² For a review on equity incentives, see Core, Guay, & Larker (2003).

will not reduce cash compensation and bonuses (Matsunga & Park, 2001; Gaver & Gaver, 1998), indicating an incentive to meeting or beating a benchmark, but no disincentive for failing to meet or beat the benchmark.

A related topic to earnings management and meeting or beating a threshold is negative analyst guidance. In this situation, the firm would release information to entice an analyst to lower the expectations of the firm, making it easier to reach the analyst forecast (Matsumoto, 2002). Earnings management and negative analyst guidance are found to be substitutes under certain circumstances (Brown and Pinello, 2007). As such, Bauman, Braswell, and Shaw (2005) report that when a large portion of the executives' compensation is tied to the firm's stock, the firm is more likely to utilize negative forecast guidance than abnormal accruals to increase income. Either method serves the same purpose; allowing the firm to reach the benchmark. However, negative forecast guidance would decrease the stock price, but the decrease would be more severe if the firm failed to meet the benchmark.

Finally, researchers have suggested the likelihood of misstated earnings increases with the correlation of CEO's pay and the firm's stock price increases (Bergstressor & Phillipons, 2006). For example, Bergstressor & Phillipons (2006) suggest that as the CEO's compensation relies more heavily on the stock price, the likelihood for earnings management increases. In addition, in years when a firm has higher than normal discretionary accruals, the CEO and other executives are more likely to sell shares in the firm (Bergstressor & Phillipons, 2006). Furthermore, researchers have found that CEO stock options are related to the likelihood of misreported earnings (Burns & Kedia, 2006), and subsequently, to the likelihood of restatements (Efendi, Srivastava, & Swanson, 2007).

Anderson and Tirrell (2004) offer additional psychological insight into why a CEO might manipulate earnings. They suggest that CEOs that excessively identify personal success with the success of the business, have a strong ego, or a family connection to the business may undertake earnings management strategies to protect the public image of the organization, and the CEOs personal self-esteem.

2.2 The Chief Financial Officer

The CFO of an organization is typically responsible for the accounting function, including such tasks as budgeting, internal controls, financial planning, and financial reporting (Feng et al, 2011; Gore, Matsunga, Yeung, 2007; Kaufman, 2003) and therefore wields significant influence in the accurate reporting of the financial statements of the organization (Ge, et al, 2010; Geiger & North, 2006). However, the CEO may also influence the financial reporting of the firm, albeit in a more indirect manner. The CEO may control the chain of command in the organization, indicating whether the CFO may report to the board, or may only report directly to the CEO (Adams et al. 2005, Finkelstein, 1992). CEOs with extensive power will be more likely to influence corporate decisions, such as decisions that would affect the CFO personally, including hiring, firing, compensation, and promotion (Indjejikian & Matejka, 2009). CEOs with such power can put pressure on the CFO to assure the company is meeting specific financial goals. This pressure could come in the form of direct threats (in an extreme case, job loss) or creating an environment that emphasizes achieving accounting goals (Feng et al. 2011).

While attempting to answer the question of why CFOs become involved in material accounting manipulations, Feng et al. (2011) analyzed firms with and without material accounting misstatement, as indicated by Security and Exchange Commission Accounting and Auditing Enforcement Releases (SEC AAER) involving material misstatements that involve GAAP violations. They found little difference in the pay-for-

performance measure of the CFO between the manipulating and the control firms; however, there was a significant difference in the pay-for-performance measure of the CEO between the manipulating and control firms. The authors also found that manipulating firms had more powerful CEOs (as measured by whether the CEO was also the founder, chair on board, and the percentage of pay-slice in the top 5 executives) compared to the control firms. The authors concluded that CFOs are pressured by powerful CEOs to manipulate earnings, and not that CFOs manipulated earnings for immediate financial gains. The result of this study, specifically, the idea that earnings management has less to do with incentive than with corporate pressure, runs contrary to other studies on compensation, incentives, and earnings management.

Jiang and colleagues also focus on the role of the CFO on earnings management and provided results more in line with expectations that earnings management is influenced by equity incentive. This study found “that the magnitude of accruals and the likelihood of beating analyst forecasts are more sensitive to CFO equity incentives than to those of the CEO” (Jiang et al., 2010, p. 513). This substantiates concerns regarding stock option incentives for CFOs. These individuals must exercise a fiduciary duty to the company, in assuring that the financial statements are accurately presented, yet their personal wealth is also tied to these statements. Due to this duality of the CFO position, the SEC requires firms to disclose CFO pay. The SEC states that “compensation of the principal financial officer is important to shareholders because along with the principal executive officer, the principal financial officer provides the certifications required with the company’s periodic reports and has important responsibility for the fair presentation of the company’s financial statements and financial information” (Securities and Exchange Commission, 2006, p. 117).

One possible reason for the difference in the findings of these two studies may relate to how earnings management was investigated and defined in the studies. Jiang et al. (2010) investigated accrual-based earnings management, generally allowable under GAAP, whereas Feng et al. (2010) utilized a sample of egregious misstatements that were violations of GAAP.

Based on the implications for CFOs in both studies, hypotheses can be drawn that address both types of motivation. Firstly, when a CFO feels pressured, from either a financial tie to performance or from the CEO, the CFO will be more likely to engage in earnings management behaviors. Hypotheses 1a and 1b suggest main effects of both types of pressure. Additionally, when the CFO feels pressure from the CEO, the resulting earnings management intention will likely increase in both the GAAP and the Non-GAAP scenarios, consistent with findings from Feng et al (2010). However, if the CFO is managing earnings solely to take advantage of personal financial incentives, the resulting earnings management intention will more likely be allowable under GAAP; this is consistent with the findings from Jiang et al. (2010). In a comparison of the two types of pressure, I predict that CEO pressure will induce greater earnings management intentions than a financial incentive. Hypotheses 2a, 2b, and 2c address these predictions.

Formally stated hypotheses and research questions are followed by a graphical representation of the hypotheses in Figure 2.

H1a: Pressure on the CFO, from either the CEO or in the form of financial incentives, will result in an increase in earnings management intention.

H1b: Financial pressure, independently, will result in an increase in earnings management. In general, CFOs experiencing financial pressure will increase earnings management intentions.

H1c: CEO pressure, independently, will result in an increase in earnings management. In general, CFOs experiencing pressure from the CEO will increase earnings management intentions.

H1d: The effect of CEO pressure motivation will result in greater earnings management intentions of the CFO than financial pressure motivations.

H2a: The relationship between financial incentive motivations and earnings managing practices will be stronger under the scenarios in accordance with GAAP than in scenarios in violation of GAAP.

H2b: The relationship between CEO pressure motivation and earnings management practices will be stronger under the scenarios in accordance with GAAP than in scenarios in violation of GAAP

Specifically, is there an interaction between financial pressure and CEO pressure, or are these types of pressure additive? It is unlikely that a CFO will encounter only one type of pressure in his or her day-to-day job functions. A more likely situation would involve the CFO encountering both types of pressure simultaneously. What happens in this situation, indicating a two-way interaction? Does the resulting earnings management intention change depending on the degree of earnings management involved, namely earnings management that is allowable under GAAP and earnings management that violates GAAP, indicating a three-way interaction? Does the financial pressure push the CFO to manipulate earnings to a degree allowable under GAAP, and then when the CEO adds more pressure, this is what induces the CFO to violate GAAP? To address these questions, research questions 1 and 2 are presented for consideration.

RQ1: Does the combination of CEO and financial pressures produce an effect beyond the effect of each? (Two-way interaction)

RQ2: Does the potential combined effect of CEO and financial pressures change under conditions in accordance with GAAP and conditions that violate GAAP?

(Three-way interaction)

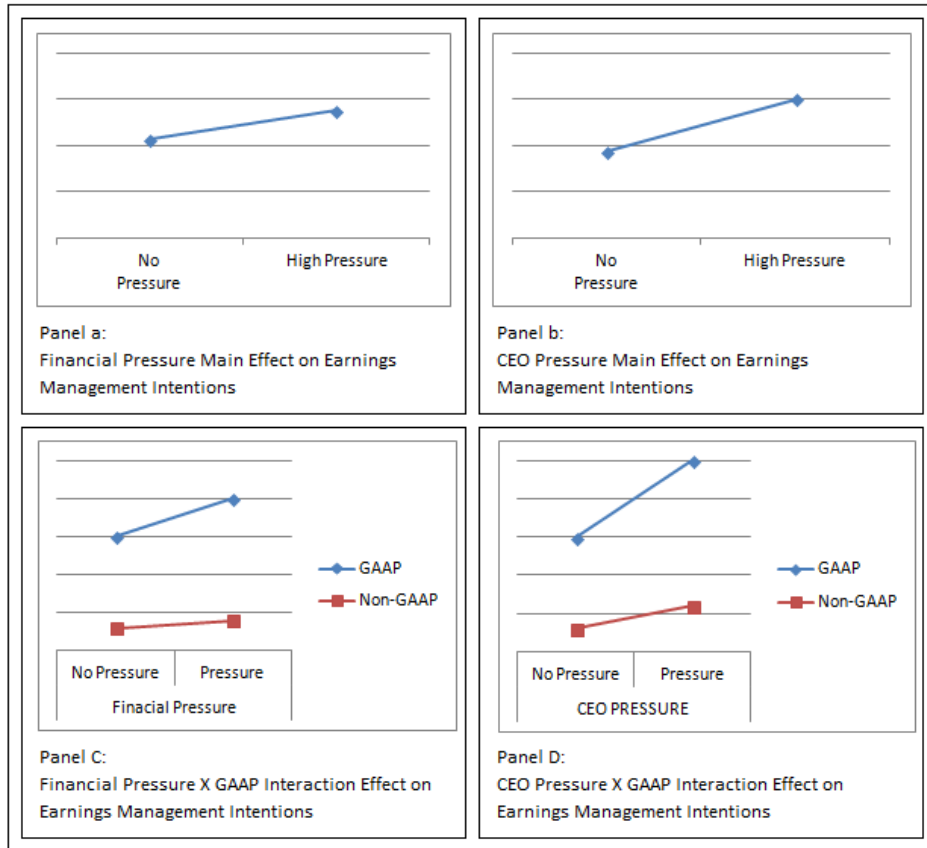


Figure 2 Illustrations of Hypotheses 1 and 2

2.3 Emotional Intelligence

While there are several reasons why CFOs may engage in earnings management (e.g. incentives and pressure) the research is lacking in terms of examining the potential influences of individual attributes on the intention to engage in such activities. The following section discusses one attribute (i.e. emotional intelligence) that may influence CFO motivations and their ultimate decision to engage in earnings management. First, I provide a review of the emotional intelligence literature as a

foundation. Second, I draw from this foundation to develop an argument on how emotional intelligence may influence the CFOs decision to manage earnings.

2.3.1 History and Definition of Emotional Intelligence

Emotional intelligence is founded in the work of Edward Thorndike (1920). Prior to 1920, intelligence was thought of as a single cognitive construct. However, in Thorndike's work he argued there was more than one type of intelligence. Specifically, he indicated that intelligence was more than the abstract intelligence (or cognitive intelligence) used in intelligence testing at the time, but intelligence also included non-cognitive components, such as mechanical intelligence and social intelligence. Thorndike defined social intelligence as the broad ability to function in social settings and interpersonal relationships (1920). Emotional intelligence is thought to be a subset of the broader social intelligence construct.

Throughout the 1900's there was much research on the ideas of 'intelligence' and 'emotions', but the term 'emotional intelligence' was not used until 1986, in an unpublished dissertation by Wayne Payne. Significant academic research began on emotional intelligence after Salovey and Mayer published their seminal piece in 1990. They defined emotional intelligence as a type of social intelligence, involving "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189). This model indicated emotional intelligence had three prongs: knowledge of emotions, perception of emotion, and utilization of emotions. They later added a fourth dimension, and redefined emotional intelligence as "the ability to perceive and express emotions, assimilate emotions in thought, understand and reason with emotion, and regulate emotion in self and others" (Mayer & Salovey, 1997, p. 401). This is the most

widely accepted scientific definition of emotional intelligence (Zeidner, Matthews, & Roberts, 2004).

2.3.2 The Ability Based Model of Emotional Intelligence

There are two schools of thought regarding the appropriate model to represent emotional intelligence. The first is called the Ability Based Model (e.g., Mayer & Salovey, 1997). This model acknowledges the relationship between emotion and cognitive intelligence, recognizing that certain mental abilities allow individuals to be more emotionally attuned to their environment. The ability model, as first presented by Mayer and Salovey (1997), indicates that emotional intelligence is a four-dimensional construct, referred to as branches. These dimensions (or branches) of emotional intelligence include 1) identifying emotions, 2) facilitating emotions, 3) understanding emotions, and 4) regulation of emotions (Mayer, Roberts, & Barsade, 2008; Cherniss, 2010). Each of these branches is discussed below.

The first branch, identifying or perceiving emotions, is twofold. Not only must the individual be able to accurately identify their own feelings, but must also be able to distinguish feelings of others (Caruso & Wolfe, 2004). In order to read emotions of others effectively, an individual must be able to identify both verbal and non-verbal cues provided by others. These cues can appear in facial expressions, body language, tone of voice, and even works of art (Salovey & Mayer, 1990). Researchers have found that some emotions are more easily identified than others in an organizational setting. For example, anger is the most commonly expressed emotion, whereas joy is the least expressed emotion (Gibson, 1997).

After the emotions are sensed, they influence thought in the second branch. This branch addresses the ability to use emotion to facilitate thought. This includes the ability to “use emotions to redirect attention to important events, generate emotions that

facilitate decision making, use mood swings as a means to consider multiple points of view, and use different emotions to encourage different approaches to problem solving” (Caruso & Wolfe, 2004). While the first branch dealt with the emotions of oneself as well as others, this branch relates only to an individual’s thought process once the emotion is sensed.

Once emotions are perceived, and thought has been given to the emotion, an individual must consider the emotional implications; this takes place in the understanding emotions phase. Caruso and Wolfe (2004) describe this branch as “the ability to understand complex emotions and emotional chains, understand how emotions undergo transitions from one stage to another, recognize the causes of emotions, and understand relationships among emotions”. This branch includes understanding the implications of one’s own emotions, as well as having empathy for others regarding their emotional display. This branch also requires the individual to reason with emotional knowledge, comprehend complex emotions, understanding similarities and differences among emotions, and interpreting the origins and meanings of various emotions (Salovey & Mayer, 1990)

Finally, after considering emotions, an individual must manage or regulate them. This branch, managing emotions, includes the ability to manage both one’s own emotions and the emotions of others by suppressing, minimizing, maximizing, or altering emotions as a situation demands (Brackett, Rivers, Shiffman, Lerner, & Salovey, 2011). This branch requires that an individual “stay aware of one’s emotions, even those that are unpleasant, the ability to determine whether an emotion is clear or typical, and the ability to solve emotion-laden problems without necessarily suppressing negative emotions” (Caruso & Wolfe, 2004).

There is a debate in the literature regarding whether emotional intelligence is truly a form of intelligence, or rather an extension of personality traits. Researchers contend that the ability-based model (but not the mixed model) is a form of intelligence (Brackett & Mayer, 2003; Mayer et al., 2008). To be considered a form of intelligence, emotional intelligence must meet three criteria. First, it must consist of mental abilities; secondly, these abilities must correlation with other forms of intelligence; and third, the abilities must develop with age (Mayer, Caruso, & Salovey, 2000). To support emotional intelligence as a distinct type of intelligence, researchers first developed a scale to measure emotional intelligence. This scale is called the Mayer, Salovey, Caruso Emotional Intelligence Test Version 2.0 or MSCEIT V2.0. This test is similar in format to other mental ability tests, such as IQ tests (Matthews et al., 2002). Researchers utilizing this test found moderate and significant correlations between emotional intelligence and both general intelligence and verbal intelligence (Mayer et al., 2000), supporting the claim that emotional intelligence is related to, but distinct from, other types of intelligence. Finally, researchers found that in comparing emotional intelligence results of adults and adolescents, the adults outperformed the adolescents, providing support that emotional intelligence develops with age. By empirically supporting the three criteria outlined above, researchers have concluded that emotional intelligence is a distinct form of general intelligence (Mayer, et. al., 2000).

2.3.3 Mixed Models of Emotional Intelligence

The second school of thought regarding the appropriate model to represent emotional intelligence is called the mixed model. This model views emotional intelligence as a broader collection of skills, including aspects of competency and personality. There are two similar models within this viewpoint: The Goleman Model and the Bar-On Model. I will discuss each below in the following section.

2.3.3.1 The Goleman Model

Shortly after Salovey and Mayer introduced emotional intelligence in the academic journals, Goleman offered and expanded the idea of emotional intelligence in the popular press. In his 1995 book, *Emotional Intelligence: why it can matter more than IQ*, he describes emotional intelligence as “being able to motivate oneself and persist in the face of frustration; to control impulse and delay gratification; to regulate one’s emotions and keep distress from swamping the ability to think, to empathize, and to hope” (Goleman, 1995: p. 34).

This definition of emotional intelligence adds ideas related to personality and learned competencies over and above innate abilities, resulting in confusion and disagreement on the basic definition of the term. Specifically, whereas Salovey and Mayer’s ability model contends that emotional intelligence is an innate ability that a person is born with, and develops with age; Goleman and other mixed model supporters argue that emotional intelligence is a learned competency, which can be developed and learned over time. This distinction allowed the mixed model to become famous in the business management industry, as firms wished to train their employees to be more emotionally intelligent, as a means to promote success, and profits.

Goleman further elaborated on his definition in his 1998 book, *Working with Emotional Intelligence*. In this book, he focused his description of emotional intelligence, describing emotional intelligence as 25 competencies, subdivided into 5 clusters, which can enhance performance and leadership skills (Brown & Moshavi, 2005; Goleman, 1998). Goleman’s clusters and related competencies are shown in the table below in Table 1.

Table 1. Summary of Goleman's Clusters and Competencies

<i>Self-Awareness Cluster</i>	<i>Self-Regulation Cluster</i>	<i>Motivation Cluster</i>	<i>Empathy Cluster</i>	<i>Social Skills Cluster</i>
Emotional awareness	Self-control	Achievement drive	Understanding others	Influence
Accurate self-assessment	Trustworthiness	Commitment	Developing others	Communication
Self-confidence	Conscientiousness	Initiative	Service orientation	Conflict management
	Adaptability	Optimism	Leveraging diversity	Leadership
	Innovation		Political awareness	Change catalyst
				Building bonds
				Collaboration and cooperation
				Team capabilities

2.3.3.2 The Bar-On Model

Bar-On (1997) offered another mixed model of emotional intelligence, grounded in personality trait research. He defined emotional intelligence as “an array of noncognitive capabilities, competencies, and skills that influence one’s ability to succeed in coping with environmental demands and pressures” (Bar-On, 1997: p.12). This model is focuses on personality traits and individual characteristics that promote emotional health (Brown & Moshavi, 2005).

Bar-On later claims that emotional intelligence is “a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others, and relate with them, and cope with daily demands” (Bar-On, 2005: p. 3). In 2000, Bar-On and Parker also created the first self-report scale, published by a psychological test publisher, to measure

emotional intelligence. They called the called the EQ-i, or Emotional Quotient Inventory, and marketed it as a counterpart to the intelligence quotient or IQ (Matthews et al., 2002).

The Bar-On Mixed Model of Emotional Intelligence is broken down into five dimensions, each with various traits or characteristics used to make an individual successful in various situations (Bar-On, 2005). The dimensions and related characteristics are shown in Table 2 below.

Table 2. Summary of Bar-On's Mixed Model of Emotional Intelligence

<i>Intrapersonal Skills</i>	<i>Interpersonal Skills</i>	<i>Adaptation</i>	<i>Stress Management</i>	<i>General Emotion</i>
Self-regard	Empathy	Reality-testing	Stress tolerance	Optimism
Emotional self-awareness	Social responsibility	Flexibility	Impulse control	Happiness
Assertiveness	Interpersonal relationships	Problem solving		
Independence				
Self-actualization				

2.3.4 Model Comparison

Even though the underlying premise of the ability based model and the mixed models are similar (Ciarrochi, Chan, and Caputi, 2000), the models are positioned in the literature as distinct and competing. This has lead some researchers to investigate the two models simultaneously (Brackett and Mayer, 2003; Van Rooy, Viswesvaran, and Pluta, 2005; Joseph and Newman, 2010).

One study compares the measures of emotional intelligence, MSCEIT (ability based measure) and EQ-i (mixed model measure), to traditional personality measures. This study found that only the MSCEIT was different from other personality measures (Brackett and Mayer, 2003). A similar study found that the models “diverge more than they converge, indicating that two different constructs are being tapped” (Van Rooy,

Viswesvaran, & Pluta, 2005). Specifically, they find that the ability and mixed models are distinct; the mixed model relates more with personality than the ability model; and the ability model relates more with cognitive abilities than the mixed model.

2.3.5 The Case Against Emotional Intelligence

Even though emotional intelligence has exploded in the number of researchers currently interested in the topic, there has been an ongoing debate in the literature regarding the empirical support of emotional intelligence (Eysenck, 1998; Matthews, Zeidner, and Roberts, 2004; Locke, 2005; Conte, 2005, Landy, 2005; Waterhouse, 2006). These critics contend that emotional intelligence is too broadly defined (Locke, 2005), emotional intelligence is simply a new name for an old idea (Eysenck, 1998), and emotional intelligence cannot be adequately measured (Landy, 2005; Conte, 2005). Specifically, these critics state that the evidence does not support the claim that emotional intelligence explains anything beyond IQ and personality. Some supporters of emotional intelligence agree with this claim, when discussing the mixed model, and the measures presented by Goleman (1998) and Bar-On (1997), but refute arguments that emotional intelligence, as a whole is an invalid construct (Ashkanasy & Daus, 2005).

Critics of emotional intelligence take issue with the mixed model. As previously indicated, the mixed model does not meet the criteria of a distinct type of intelligence. Also, critics claim that the mixed models of emotional intelligence do not offer incremental value beyond IQ, the Big Five Personality Traits, and theories of motivation (Zeidner et al., 2004). Therefore, for the remainder of this paper, I will discuss only pertinent information related to the ability-based model of emotional intelligence.

2.3.6 Relevant Emotional Intelligence Research

While emotional intelligence got its start in the psychology literature, it has spilled over into several other disciplines, including, management, education, criminal justice,

and political science. Emotional intelligence has been used in research related to various performance measures, including social relations of children (Eisenberg et al., 2000, Schultz et al., 2004) and adults (Lopes et al., 2004), scholastic outcomes (Izard et al., 2001), and psychological and physical well-being (Brackett & Mayer, 2003, Brackett et al., 2006). However, most importantly for this study is the relation between emotional intelligence and workplace performance (Mayer, Roberts, & Barsade, 2008). Specifically, I am interested in how interpersonal relationships, stress, problem solving abilities, and decision-making can influence the workplace performance outcome.

Workplace performance findings suggest a positive association between levels of emotional intelligence and job performance. Specifically, a meta-analysis of 57 previous emotional intelligence studies found that emotional intelligence attributed to 5% of the variance in workplace performance (Van Rooy & Viswesvaran, 2004).

One explanation for the positive association between workplace performance and emotional intelligence is that those with higher levels of emotional intelligence are better at developing interpersonal relationships with colleagues (Ashkanasy & Daus, 2005), because those with higher levels of emotional intelligence are better capable to build strong relationships in general (Cooper, 1997). Individuals with lower levels of emotional intelligence could be referred to as socially inept, have low quality social relationships, and be interpersonally insensitive (Brackett et al., 2005, 2011; Lopes et al., 2004, 2006; Schutte et al., 2001). Findings suggest these individuals are more antagonistic and create a source of conflict with friends and family (Lopes et al., 2004, 2006). Individuals with higher levels of emotional intelligence may be better equipped to detect and empathize with the emotions in others, resulting in effective communication and positive social interactions (Brackett et al., 2011).

In addition, the enhanced interpersonal relationships demonstrated by those with higher levels of emotional intelligence enables them to manage stress and workplace conflict better than individuals with lower levels of emotional intelligence (Ashkanasy & Daus, 2005). In an empirical test, emotional intelligence moderated the relationship between stress and coping in the workplace (Jordan, Ashkanasy, & Hartel, 2002), specifically, this study indicates that employees with low emotional intelligence are more likely to adopt negative coping strategies when faced with job insecurity, perhaps succumbing to pressures of others. Individuals with higher levels of emotional intelligence are able to reduce stress because they are able to regulate their emotions, therefore keeping emotions and emotional stress out of the workplace (Kafetsios & Zampetakis, 2008). In addition, these individuals can help others to manage emotions, and subsequently create a less stressful workplace environment (Sy et al., 2006).

Individuals with higher levels of emotional intelligence also demonstrate enhanced problem solving and decision making abilities (Matthews et al., 2004; Schutte et al., 2000). The literature presents emotions as an available resource, useful in making decisions and managing social environments (Matthews et al., 2004). The second branch of the ability-based model requires use of emotions to facilitate thought, including decision-making (Mayer & Salovey, 2007). This was tested by asking participants to complete difficult and frustrating problems. Findings revealed that those with higher levels of emotional intelligence performed better at this task (Schutte et al., 2000).

As previously discussed, evidence supports the claim that emotional intelligence improves workplace performance in a variety of contexts (e.g. Ashkanasy & Daus, 2005; Jordan, et al., 2002; Matthews et al., 2004; Schutte et al., 2000). The purpose of this research is to determine how emotional intelligence will moderate the relationship between CFO motivation (CEO pressure or financial motivation) and earnings

management intentions (in accordance with GAAP or violating GAAP). I hypothesize that given the case of CEO pressure to manage earnings; the CFO with higher levels of emotional intelligence will be better equipped to avert the CEO pressure to manage earnings that would violate GAAP. I predict this because those that have higher ability based emotional intelligence are suggested to have improved interpersonal relationships, enhanced ability to cope with stress, and superior decision-making skills associated with high levels of emotional intelligence. These skills would allow the CFO to resist the pressure from the CEO, when failing to do so could be harmful to the organization.

When we consider each of the branches of the ability model of emotional intelligence, we can see how each branch could relate to this hypothesis. The first branch of the model indicates that CFOs with higher levels of emotional intelligence will be better able to detect subtle emotional cues from the CEO regarding the pressure he or she is applying. In the second branch, the CFO applies thought to the emotional information detected from the first branch. In this case, the CFO can use the emotions detected from the CEO, as well the CFOs own emotions, in the decision making process. In the third branch, the CFO understands the implications of the emotions on the decisions reached in the third branch. Here, the CFO can consider the motivations for the pressure, as well as the future implications the decisions could have on the organization. Finally, in the fourth branch, the CFO can use all this emotional knowledge to carry out the decision, and to maintain relationships with the CEO.

The decisions reached by the CFO may differ depending on the severity of the proposal of the CEO. For example, if the pressure is to manage earnings in a manner that does not violate GAAP, the CFO may be more likely to acquiesce with the CEO, in order to keep the peace or maintain positive working relationships. These findings would suggest that CFOs with higher levels of emotional intelligence would be better equipped

at dealing with CEO pressure to manage earnings, and therefore able to deflect the pressure that could ultimately harm the organization, while still managing or maintain the relationship.

With regard to the financial incentive motivation, generally, we would expect emotional intelligence to play a role in an interpersonal relationship, which is not present in this case. However, the four branches of emotional intelligence also relate to one's own emotions. As such, an emotionally intelligent individual would be better able to assess, manage, understand and constrain one's own emotions related to the proposal to manage earnings given a financial incentive. As such, I would expect CFOs with higher levels of emotional intelligence would be able to resist earnings management intentions, of either type, that could prove harmful to the organization. When considering both CEO pressure motivation and financial incentive motivation simultaneously, and the interpersonal nature of the emotional intelligence construct, I would expect that the moderating effect would be stronger in the CEO pressure motivation scenarios. Following the formally stated hypotheses, you will find a graphical representation of the hypotheses.

H3a: Emotional Intelligence of the CFO will moderate the relationship between financial motivation and earnings management intentions. Such that, when CFOs with low levels of emotional intelligence experience financial pressure, the intention to earnings management will increase at a greater rate than individuals with high levels of emotional intelligence.

H3b: Emotional intelligence of the CFO will moderate the relationship between CEO pressure motivation and earnings management intentions. Such that, when CFOs with low levels of emotional intelligence experience CEO pressure, the

intention to manage earnings will increase at a greater rate than individuals with higher levels of emotional intelligence.

H3c: The moderating effect of emotional intelligence of the CFO will be stronger for the relationship between CEO pressure and earnings management intention, than for financial pressure and earnings management intention.

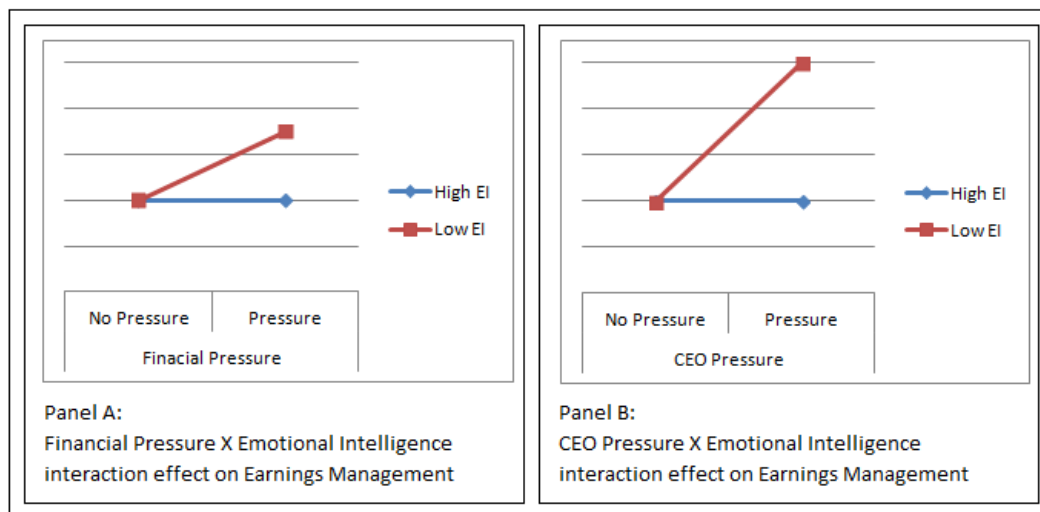


Figure 3 Illustrations of Hypotheses 3a and 3b

2.4 Narcissism

The following section discusses another attribute (i.e. narcissism) that may significantly influence the CFOs motivation and their ultimate decision to engage in earnings management. First, I provide a review of the narcissism literature as a foundation. Second, I draw from this foundation to develop an argument on how narcissism may influence the CFOs decision to manage earnings.

2.4.1 Definition of Narcissism

The word narcissism comes from the Greek myth of Narcissus. Narcissus was a young man that became so infatuated with his own reflection in a lake that he died beside the lake because he could not bear to be away from his own image. Narcissism is

essentially an over inflated self-image. Narcissism is similar to the colloquial term of hubris, however as I will discuss in more detail below, narcissism goes beyond the self-confidence and pride generally attributed to hubris (Hiller & Hambrick, 2005).

The term narcissism has been used both in the clinical psychology literature to describe a personality disorder, and in the personality psychology literature to describe a specific personality trait. While these branches may operationalize (or diagnose) narcissism in different ways, the underlying definition is the same. According to the Diagnostic and Statistical Manual of Mental Disorders (DSM-IV; American Psychiatric Association, 2000) a narcissist is described as exhibiting a “pervasive pattern of grandiosity, need for admiration, and lack of empathy” (American Psychiatric Association, 1994, p. 714). While these individuals view themselves as being better than others, they cannot handle criticism, and resort to belittling or punishing those that cross them. These individuals have unrealistic fantasies of unlimited success, beauty, power, and intelligence; exaggerate their importance, achievements, and talents; take advantage of others; require excessive attention and positive feedback from others; have a sense of entitlement; are easily hurt or rejected; lack empathy; and are arrogant and jealous (Campbell & Miller, 2011).

In an attempt to understand the individual characteristics and underlying causes of narcissism, two distinct types of narcissism have emerged in the literature: Grandiose Narcissism and Vulnerable Narcissism (Dickinson & Pincus, 2003).

Grandiose narcissism describes an individual that demonstrates grandiosity, aggression and dominance. Individuals with this type of narcissism have an overt sense of self-worth, and utilize self-enhancement to maintain or achieve validation of this self-worth (Dickinson & Pincus, 2003). Any conflict arising from their actions are viewed as external in nature, as these narcissists take little responsibility for their actions (Dickinson

& Pincus, 2003). Those suffering from grandiose narcissism have also been called “oblivious narcissist,” because they are unaware of the impact their actions have on those around them. (Gabbard, 1989, 1998).

Vulnerable narcissism, on the other hand, describes an individual that uses over-inflated self-ego to mask feelings of inadequacy. These individuals are thought to be defensive and display fragile grandiosity, alternate between feelings of superiority and worthlessness. These individuals may appear shy, controlled, and empathetic to observers, but there is still the underlying sense of self-worth and entitlement, depicted by a narcissist (Dickinson & Pincus, 2003). Unlike grandiose narcissists, these individuals do not pump themselves up with self-enhancements, but rather, require outside validation of their excellence. When this outside validation is lacking, the vulnerable narcissist will display frustration, anger, and depression, causing them to withdraw from social situations (Dickinson & Pincus, 2003).

While one study estimated, that 6.2% of the population suffers from Narcissistic Personality Disorder (Stinson et al., 2008); everyone may have some narcissistic tendencies, or trait narcissism (Emmons, 1987). This idea indicates that narcissism is not automatically a pathological disorder, but rather a part of one’s germane personality and that narcissism is a matter of degree, rather than a type or category of narcissism (Miller & Campbell; 2010). To assure the convergence of both the clinical and personality conceptualizations of narcissism, researchers have found that levels of trait narcissism predict clinical behaviors, such as entitlement, fantasies of success, and a desire for admiration (Miller & Campbell, 2008).

2.4.2 Measurement and Dimensions of Narcissism

In a clinical setting, narcissism is diagnosed through patient interviews. In non-clinical settings, and in the personality trait research, narcissism is a part of normal

personality, set on a continuum (Pincus & Lukowitsky, 2010). To measure this characteristic, one self-report measure has been used in over 77% of trait narcissism research (Cain, Pincus, & Ansell, 2008), the Narcissistic Personality Inventory (NPI; Raskin & Terry, 1988). Both the clinical psychology and the personality trait literatures described the narcissism construct as multi-dimensional.

The NPI is a multi-dimensional scale, used to measure the following underlying factors of narcissism: exploitativeness/entitlement, leadership/authority, superiority/arrogance, and self-absorption/self-admiration. The initial scale utilized 80 dyadic items (Raskin, 1980), but was later reduced to 40 items (Raskin & Hall, 1981). Ames and colleagues (2006) noted that while the NPI had four distinct factors, researchers generally use it as a single construct. As such, they pared down the original 40 items and developed the NPI-16. While this is a unidimensional scale of 16 items, it mimics the original NPI scale, with regard to relation with the Big 5 personality traits, and prediction of dependent variables.

As previously stated, the original NPI measured four dimensions of narcissism. Three of these dimensions are described to be adaptive (i.e. leadership/authority, superiority/arrogance, self-absorption/self-admiration), meaning these personality traits can lead to “normal functioning narcissism” (Emmons, 1987: p. 14). However, the last dimension (exploitativeness/entitlement) is described as maladaptive, and indicating possible psychological issues and pathological narcissism (Emmons, 1984, 1987).

2.4.3 Relevant Narcissism Research

It has been noted that there is an abundance of narcissism interest in the field of social, personality, and clinical psychology, including research related to the association with implicit and explicit self-esteem, self-preservation, decision making, romantic relationships, and externalized behaviors (Miller & Campbell, 2008). Unfortunately, there

is limited research in industrial-organizational psychology or organizational behavior in the field of management (Judge, LePine, Rich, 2006). What limited research there is in this area typically relates to work performance, and leadership roles. According to Hiller & Hambrick (2005) “A considerable amount has been written about narcissism in executives though most writings have been theoretical or case study observations rather than large-sample empirical research”.

Workplace Performance: Narcissism might account for part of the difference between self and peer/supervisor reports (Penney & Spector, 2002). Narcissists generally are not self-critical, and therefore, rate themselves higher than the rating of peers or supervisors. This study also found that narcissism was positively related to workplace deviance and counterproductive work behaviors (Penny & Spector, 2002). These behaviors may bolster the employee’s opinions of himself or herself, but are harmful to the organization as a whole. Additionally, narcissism has been used as a predictor of leadership success (negative relationship), workplace deviance (positive relationship), in-role job performance or task performance (negative relationship), and organizational citizenship behaviors or contextual performance (negative relationship), after controlling for the Big Five Personality Traits (Judge et al. 2006).

Leadership Roles: In Freud’s discussion of the narcissist, he states they “readily assume the role of leader” (1931). This claim was supported when researchers found that individuals with higher levels of narcissism were predisposed to emerge as a leader in leaderless group discussions (Brunell, Gentry, Campbell, Hoffman, & Kuhnert, 2008). However, because narcissists emerge as a leader does not necessarily indicate they will succeed in the leadership role. Judge et al (2006) found a negative association between narcissism and leadership success.

Narcissist leaders tend to be selfish, and utilize exploitive leadership tactics to manipulate situations for their individual benefits. These tactics can result in short-term benefits or gains for the individual and the organization, at the cost of long-term viability (Campbell, Bush, Brunell, & Shelton, 2005). One laboratory study found that narcissistic leaders exploited resources, resulting in short-term gains that benefited them individually, but resulted in long-term consequences to other group members, the organization, and the common-good (Campbell et al., 2005).

Research related to risk and the narcissist has found that narcissists tend to be “strongly motivated to approach desirable outcomes, but only weakly motivated to avoid negative outcomes” (Foster & Trimm, 2008). As such, when a CEO demonstrates high narcissistic tendencies, the prospect of glory will be a greater motivational factor to risk taking, then the fear of failure if the risks do not pan out. Chatterjee & Hambrick (2007) find CEO narcissism can predict corporate risk taking. If these risks went in the company’s favor, the company realized positive performance. However, if the risk went unfavorably, the results were devastating for the firm. Finally, Duchon and Drake (2009) discuss the extent to which an organization can be narcissistic, causing it to act unethically. Using a tone-from-the-top perspective, they expand on this, and suggest that narcissistic CEOs make earnings management decisions for the organization to uphold ego and preserve self-esteem.

When considering the aforementioned narcissism research, it can be assumed that higher levels of narcissism in the CFO may lead to feelings of an inflated self-image, a sense of “I can do no wrong,” and increased risk-taking. Actions taken by such a CFO could benefit the individual and the organization in the short-term, however be detrimental to the long-term success and stability of the firm. Therefore, the level of CFO narcissism will moderate the relationship between pressure and earnings management

intentions. Accordingly, I predict that higher levels of narcissism will result in higher levels of earnings management, regardless of the type of pressure applied. Following the formally stated hypotheses relating to narcissism, you will find a graphical representation of the suggested moderating effects.

H4a: Narcissism of the CFO will moderate the relationship between financial pressure motivation and earnings management intentions. Such that, when CFOs with high levels of narcissism experience financial pressure, the intention to manage earnings will increase at a greater rate than for individuals with lower levels of narcissism.

H4b: Narcissism of the CFO will moderate the relationship between CEO pressure motivation and earnings management intentions. Such that, when CFOs with high levels of narcissism experience CEO pressure, the intention to manage earnings will increase at a greater rate than for individuals with lower levels of narcissism.

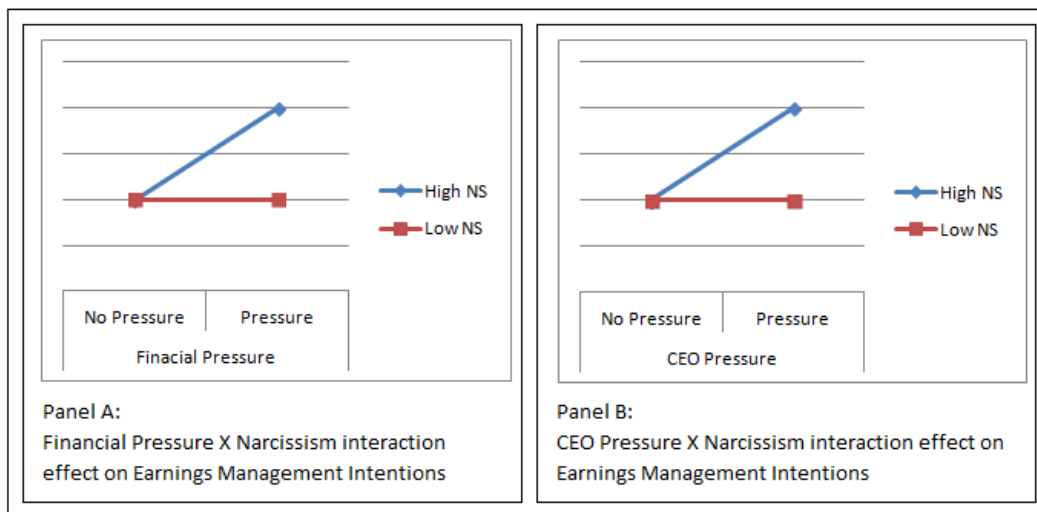


Figure 4 Illustrations of Hypotheses 4a and 4b

2.5 Moral Disengagement

The following section discusses another attribute (i.e. moral disengagement) that may significantly influence the CFOs motivation and their ultimate decision to engage in earnings management. First, I provide a review of the moral disengagement literature as a foundation. Second, I draw from this foundation to develop an argument on how moral disengagement may influence the CFOs decision to manage earnings.

2.5.1 Definition of Moral Disengagement

Moral disengagement describes mechanisms for people "... to behave unethically without feeling distress" (Moore, Detert, Trevino, Baker, & Mayer, 2012; p. 2). Social cognitive theory (Bandura, 1986) states that individuals utilize a three-step process to keep moral conduct in-line with what the individual feels is socially acceptable. These steps include self-monitoring, judgment, and self-reaction (Bandura, 1986). Self-monitoring indicates an individual controls their conduct, in order to act in accordance with their own moral standards. Next, the individual appraises this conduct through self-judgment, to assure conduct was appropriate, given the moral standard. Finally, the individual self-reaction process allows the person to anticipate how they would feel given a specific action. For example, if the individual anticipates feeling guilty for stealing from petty cash at work, they will refrain from such actions. Through this process, individuals will "...do things that give them satisfaction and build their sense of self-worth. They refrain from behaving in ways that violate their moral standards, because such conduct will bring self-condemnation" (Bandura, 1999; p. 193).

However, this process may not always be working properly, and individuals may 'disengage' the process. In this way, they may act in a manner that goes against what they feel is socially acceptable, however, they will not suffer from cognitive distress.

2.5.2 Framework of Moral Disengagement

Bandura (1986, p 376) provides a framework, where reprehensible conduct will result in detrimental effects to a victim. He further describes how eight interrelated mechanisms of disengagement can break down the self-regulatory process at different points in the framework, and allow the dissociation effects illustrated with moral disengagement³.

Restructuring unethical or reprehensible acts makes these acts seem harmless. To achieve this end, individuals may use moral justification, euphemistic labeling, or advantageous comparison. Moral justification means individuals dissuade themselves to think a harmful act was in service of the greater good (Kramer, 1990). Euphemistic labeling gives a positive label to otherwise harmful acts (Bolinger, 1982). Advantageous comparison compares the current harmful act with something worse, making the current act not seem so bad (Bandura, 2001).

Obscure moral agency refers to the mechanisms used to shift responsibility, either to a superior or a group. Displacement of responsibility refers to shifting responsibility to a supervisor that condoned or ordered the behavior (Kelman & Hamilton, 1989; Milgram, 1974; Sykes & Matza, 1957). Diffusion of responsibility lessens the blame by shifting it to a group (Vaughn, 1996)

The final mechanism category is to alter the perception of the victim. This can be achieved by dehumanization, distortion of consequences, or attribution of blame the victim. Dehumanization indicates that the victim does not deserve moral treatment (Deutsch, 1990). Distortion of consequences reduces the seriousness of the offence in

³ For a more detailed review of his framework and the mechanisms of disengagements, see Bandura, 1999.

the mind of the offender (Benson, 1985). Finally, attribution of blame essentially blames the victim for the individual's actions (Bandura, 2002).

2.5.3 Relevant Research in Moral Disengagement

Bandura (1986) described how these eight mechanisms work together in individuals, resulting in a trait of moral disengagement, or a propensity to disengage. This trait influences how individuals consider ethical situations, and ultimately the decisions they make. Outside of the business environment, this construct has been used to examine political and military violence (Bandura 1990 a & b; Kramer, 1990), a juror's ability to sentence a prisoner to death (Haney, 1996), and an executioner's ability to carry out the death penalty (Osofsky, Bandura, & Zimbardo 2005) hazing, (McCreary, 2012), and criminal computer behaviors (Rogers, 2001), among others.

This construct has also been discussed within the context of the business environment, as it relates to corporate fraud and corruption. However, very little empirical work to examine this relationship has been provided to date.

In a theoretical work, Moore (2008) hypothesizes that moral disengagement will result in increased initiation, facilitation, and perception of corruption within an organization. She states that if an individual is high on moral disengagement, it will be easier to make an unethical decision (initiation), which will result in a benefit for the organization (facilitation). If this practice is rewarded and prevalent within the organization, it the organization could then be perceived as corrupt. Unfortunately, no empirical tests are available to test these hypotheses. Others have provided several examples how moral disengagement encourages fraud and corruption, through the use of case studies and anecdotal evidence (Bandura, Caprara, Zsolnai 2000; Brief, Buttram, Dukerich, 2001).

One study does stand out in disengaging the relationships between moral disengagement and the business environment. Moore and colleagues (2012), provided empirical evidence that suggests that the propensity to morally disengage predicts several unethical outcomes, including self-reported unethical behavior, self-serving attitudes in the workplace, and an inclination to commit fraud.

Although the empirical tests of moral disengagement are limited, using the prior theoretical work on the construct, I make some predictions related to how moral disengagement may impact the results of the current study. Specifically, as it has previously been discussed that individuals with higher levels of moral disengagement are more readily able to perform unethical acts in a business setting, it should follow that individuals with higher levels of moral disengagement will undertake a higher degree of earnings management. This should be true regardless of the type of pressure the individual is facing. Following the formally stated hypotheses relating to moral disengagement, you will find a graphical representation of the suggested moderating effects.

H5a: Moral disengagement of the CFO will moderate the relationship between financial pressure motivation and earnings management intentions. Such that, when CFOs with a higher propensity to morally disengage experience financial pressure, the intention to manage earnings will increase at a greater rate than for individuals with a lower propensity to morally disengage.

H5b: Moral disengagement of the CFO will moderate the relationship between CEO pressure motivation and earnings management intentions. Such that, when CFOs with a higher propensity to morally disengage experience CEO pressure, the intention to manage earnings will increase at a greater rate than for

individuals with a lower propensity to morally disengage.

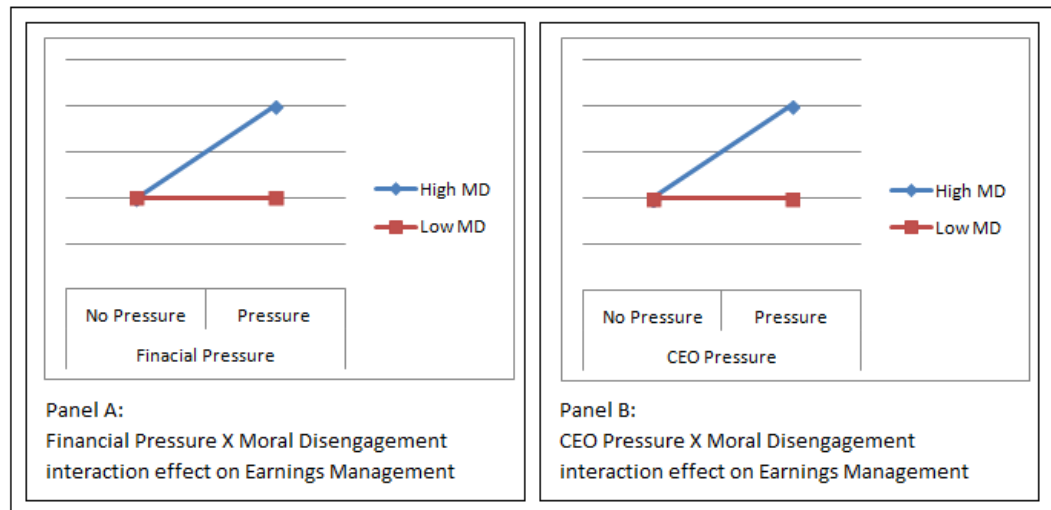


Figure 5 Illustrations of Hypotheses 5a and 5b

Chapter 3

Methodology

This chapter describes the methodology used to test my hypotheses. I test my hypotheses through a survey instrument given to junior and senior level accounting students currently enrolled in an auditing course. In the following sections, I discuss my research design, the various variables used in this study, measurement and testing of hypotheses, and pilot testing.

3.1 Research Design and Participants

I used a 2 x 2 x 2 mixed between-and-within design, with a repeated measure of the dependent variable to examine the likelihood of participating in earnings management behaviors. I manipulated financial incentive (high or none), CEO pressure (high or none), and the acceptability under GAAP (acceptable or violates). Then, I used a repeated measure, and measured the individual's intention to engage in earnings manipulation under both manipulations in accordance with GAAP and in violation of GAAP.

To test the hypotheses, I will utilize junior, senior, and master's level accounting students currently enrolled in an auditing course at one of two southern universities. I use G*Power 3.1.0 to predict the number of participants needed in this study. Using an F test of ANOVA: repeated measures, within-between interactions, with 8 groups, and 2 repetitions, I determined the minimum number of participants needed to achieve a power of .95 is 96 participants (Faul, Erdfelder, Buchner, & Lang, 2009; Faul, Erdfelder, Lang, & Buchner 2007). My total population is 198 students, therefore if I achieve a 48% response rate, I should be able to complete this study.

3.1.2 Use of Student Sample

As students are readily available, they are often used in experimental research. But is this sample an appropriate proxy for professionals? Researchers have suggested that using a student sample is an acceptable methodological choice, if the students have sufficient background knowledge to complete the task (Elliot, Hodge, Kennedy, and Pronk, 2007). Croson (2010) elaborates by providing a number of considerations the researcher should address when using a student sample in experimental research. These considerations include the type of experiment, the availability of participants, any background knowledge needed of the participants, and avoidance of demand effect. In the following paragraphs, I will address each of these considerations with respect to this study.

3.1.2.1 Considerations: Type of Experiment

Experiments are performed for one of three reasons: to test a theory, to explain an anomaly, or to investigate a policy-change (Roth, 1986). When considering the use of students, an experimenter must consider if one group of people (i.e. students) would perform differently from another group (i.e. professionals). If the aim of the experiment is to test a theory, this theory should hold regardless of the population, indicating a student sample is appropriate. It may not be advisable to utilize a student sample when exploring an anomaly or investigating a policy change, because different groups may perform differently on the experimental task (Croson, 2010).

I contend that this study is testing a theory; specifically the application of pressure will induce changes in behavior. Although I frame this specific study in terms of a CFO, the results could be telling in any employee framework. Specifically, the idea that increased CEO pressure could result in increased earnings management behavior, could easily translate into a discussion of supervisor pressure on subordinates to undertake

any questionable or unethical decision. In addition, the discussion of financial pressure is equally transferable to many other settings and topics.

3.1.2.2. Considerations: Availability and Logistics

The experimenter must next consider how to obtain the subjects. Croson (2010) accurately states that professional subjects pose a unique challenge. Not only is it difficult to find professional subjects, but also to provide the incentive to entice professionals to engage in the experiment. Additionally, when considering the length of the experiment, professionals generally will be available for a limited amount of time, and may not give you full attention during this time. This could result in noise in the experiment. Conversely, students are readily available, easier to entice into participation, instill fewer time restrictions, and more apt to give full attention. For this reason, if a student sample is acceptable given the other considerations discussed, it may be the optimal source.

3.1.2.3 Considerations: Knowledge Needed of Participants

When considering the participants of the study, an experimenter should think about what background knowledge the participant should possess in order to complete the study. If the study is complex, and students would not have the prerequisite knowledge, then use of students is inadvisable. If the experiment requires only basic knowledge, then the use of students is acceptable.

This experiment requires that participants have a basic understanding of GAAP. To assure the participants are aware of the acceptability under GAAP, modification of the scenarios indicated if the specific scenario was in accordance with or in violation of GAAP. Also, the student used in this study had completed prerequisite courses in accounting to assure this basic understanding.

3.1.2.4. Considerations: Avoidance of Demand Effect

A definition of demand effect is "... a participant in an experiment chooses an action simply to please the experimenter." A similar issue would be social desirability, or selecting the response that is right or ethical, even if it is not what the participant would do in the real world. Both of these issues could be potential limitations in this study, however these limitations would not be mitigated by a change in the participant pool.

I am asking the participants to what degree they would support proposals that might improve the short term performance of the organization in the short-run, but may pose future issues for the organization and may violate GAAP. Participants may select the most ethical option; however, if we were to observe the individual in practice, their actions may be different. This would be the case for both students and professionals.

3.1.2.5. Use of Students Conclusion

Following Croson's (2010) framework, we see that using a student sample may not only be sufficient in this study, but may be the optimal choice. Based on the following discussion, I believe this study will not result in a difference between the performance of students and professionals. First, I am testing theory, and the idea of a theory is that it will hold regardless of the population. Next, this study does not require the participants to have any knowledge above what is presented in low-level accounting classes, and the foreseeable limitations of demand effect and social desirability would be the same for both professionals and students. Finally, students are readily available, when compared to professionals. As such, I will be utilizing a student sample for this study.

3.2 Study Variables

Recall, the goal of this study is two-fold. Firstly, I would like to add insight into the conflicting results of recent studies addressing CFO motivation to manage earnings. To achieve this goal, I must answer two questions. Are CFO's motivated by financial

incentive, CEO pressure, or both? Does the impacting motivation differ with regard to the degree of the earnings management behavior; earnings management that is in accordance with GAAP versus earnings management that violates GAAP? To accomplish this first goal, I manipulate two independent variables, CEO pressure and financial incentive, and ask the participants to respond to two scenarios, one that is in accordance with GAAP, and one that violates GAAP.

Secondly, this study will suggest individual attributes (i.e.: emotional intelligence, narcissism, and moral disengagement) as moderating variables into the relationship. The goal here is to see if individuals with higher or lower levels of these attributes would result in variance of earnings management intention demonstrated in the study. To satisfy this goal, I provide the participants with previously validated scales, representing each of the moderating variables. I discuss each of these variables at length below.

3.2.1 Manipulated Variables

In this section, I will discuss the manipulated variables used in this study. I adopted scenarios from Clikeman and Henning (2000). The adaptation resulted in eight scenarios. In these scenarios, I manipulate the financial incentive, the amount of CEO pressure, and the acceptability under GAAP. Participants were presented with one scenario at random, and asked to answer four questions related to the participant's intentions regarding the proposal made in the scenario, such as "What is the likelihood that you would support this proposal." Next, the participants were presented with another scenario and asked the same questions. The only difference in this scenario was whether the proposal was allowable under GAAP. All other manipulations remained constant, so that each participant answered both scenarios within one cell, as presented in Table 3. Notice, that in cell 1, there is no pressure; cells 2 and 3 represent only one type of pressure, and cell 4 has both types of pressure.

Table 3. Scenario Outline

		CEO PRESSURE	
		None	High
FINANCIAL PRESSURE	None	Cell 1: Scenario #4,8	Cell 3: Scenario #2,6
	High	Cell 2: Scenario #3,7	Cell 4: Scenario #1,5
<p>Scenarios in accordance with GAAP: 1, 2, 3, 4 Scenarios violating GAAP: 5, 6, 7, 8 Each participant was randomly assigned one of the eight scenarios presented in Table 1, after completing questions on this scenario; the participant was then given the other scenario within the same cell, and asked the same set of questions relating to this scenario.</p>			

3.2.1.1 Financial Incentives

To manipulate high financial incentive pressure, the scenarios indicated individuals would receive a 15% bonus for achieving financial targets. To achieve a pressure baseline, I also included scenarios that included no discussion of financial incentives.

As this treatment has two levels, I only need one variable to represent the treatment. This variable is called *FP*, to indicate high financial pressure. The high-pressure scenario is coded as a 1 and the no pressure scenario is coded as a -1.

3.2.1.2 CEO Pressure

To manipulate high CEO pressure, I stated, “The CEO was worried that failure to achieve forecasted profits will severely hurt the company’s stock price and bond ratings. He has charged all employees to do whatever it takes to assure the forecast is met, and instituted mandatory weekend work sessions to come up with ideas for improving the bottom line. He has indicated that failure to meet these benchmarks could result in failure to secure needed financing and layoffs.” To achieve a pressure baseline, I also included scenarios that included no discussion of the CEO pressure.

Again, this treatment has two levels, and needs only one variable to represent the treatment. This variable is called *CP*, to indicate CEO pressure. The high-pressure scenario is coded as a 1, and the no pressure scenario is coded as a -1.

3.2.1.3 Allowability under GAAP

Each participant responded to two scenarios. In one scenario, I measured their intention to engage in earnings management when the manipulation was in accordance with GAAP. In these scenarios, the participant evaluates a proposal to postpone maintenance until the following year. To assure the participant understood the scenario was in accordance with GAAP, this scenario stated “While you are aware this does not violate GAAP, you are concerned that this may affect the comparability of the financial statements from one year to the next.” In a second scenario, I measured participants’ intention to engage in earnings management when the manipulation was in violation of GAAP. In the scenarios that violate GAAP, the proposal is to capitalize the routine maintenance, and depreciate it over 10 years. To assure the participant understood the scenario was not in accordance with GAAP, this scenario stated, “You have concerns regarding this proposal because GAAP indicates that expenses of this nature should be expensed as incurred.” All scenarios asked the participant to assume the role of CFO in a fictitious organization, and make decisions based on the proposal presented in the scenario. The order of the scenarios presented to the participants was randomized, to mitigate any order effect that may have resulted if, for example, all participants responded to the scenario that violated GAAP first, and the scenario in accordance with GAAP second.

As this treatment has two levels, I will be using one variable to represent the treatment. It will be called *GAAP*, to indicate if the proposal suggested in the scenario

was in accordance with GAAP. Scenarios that were in accordance with GAAP will be coded with a 1, and scenarios that violated GAAP were coded with a -1.

To see the full effects coding for the study, see Table 4.

To see the complete scenarios, see Appendix B.

Table 4. Treatment Effects Coding

	<i>CP</i>	<i>FP</i>	<i>GAAP</i>
Scenario 1	1	1	1
Scenario 2	1	-1	1
Scenario 3	-1	1	1
Scenario 4	-1	-1	1
Scenario 5	1	1	-1
Scenario 6	1	-1	-1
Scenario 7	-1	1	-1
Scenario 8	-1	-1	-1

3.2.1.4 Manipulation Checks

To confirm accurate perception of the manipulations of CEO pressure and financial incentive, I asked the participants the degree to which they felt this type of pressure from the scenarios. These questions are given at the end of the survey, and asked the participant to rate on a five point scale how much pressure (both financial pressure, and CEO pressure) the individual believed was applied in the scenarios presented at the beginning of the survey. To assure the participants understood the acceptability under GAAP, following each scenario, the participant was also asked if they believed the scenario was in accordance with GAAP.

3.2.2 Measured Variables

In this section, I will discuss the variables measured in this study. The measured variables in this study include the dependent variable: earnings management intention, and the moderating variables: emotional intelligence, narcissism, and moral

disengagement. I measure the dependent variable using questions following the scenarios, and the moderating variables using previously validated scales.

3.2.2.1 Earnings Management Intention

In the previous section, I discussed the scenarios presented to the participants to manipulate CEO pressure, financial incentive, and allowability under GAAP. I presented the participants two scenarios, one that was in accordance with GAAP, and one that violated GAAP. The participants answered four questions relating to their intentions regarding each proposal made in the scenarios, two are positively worded and two are negatively worded. After reverse coding the negatively coded questions, I averaged the responses to these four questions to measure the level of earnings management intention. The results can be viewed in two different ways. First, you could view this as two dependent variables. One derived from the averaged score from the scenario in accordance with GAAP, and another from the averaged score from the scenario that violated GAAP. I call these variables *EMI_A* and *EMI_V*, respectively. Second, you could consider this as one dependent variable (*EMI*) measured at two different levels. I utilized both methods in preparing my analysis. When preparing the repeated measure ANOVA, and investigating cell mean differences, I utilized the *EMI* measure. When preparing regression analysis to investigate moderation effects, I utilized the *EMI_A* and *EMI_V* measures.

3.2.2.2 Emotional Intelligence

In chapter 2 of this document, I discuss two distinct models of emotional intelligence, the ability-based model, and the mixed model. I also discuss the issues critics have provided related to the mixed model, specifically that this model provides little incremental value beyond personality traits, and IQ. As such, this dissertation utilizes an ability-based measure of emotional intelligence.

The participants completed scale items related to a self-assessment of emotional intelligence. This study utilized the emotional intelligence scale created by Groves, McEnrue, & Shen (2008). This scale consisted of four dimensions of emotional intelligence; perception and appraisal of emotions, facilitating thinking with emotions, understanding emotions, and regulation and management of emotions. Each dimension is measured with 6 items, for 24 total items, a sample item from this scale included “I can accurately identify a range of emotions that I feel from day to day.” The complete scale appears in Appendix A.1.

I use this variable to moderate the relationship between pressure and earnings management intentions, therefore transforming this variable into a dichotomous or categorical variable will allow for easier interpretation of the results. As such, I will create a median split, whereby those with self-rated scores above the median will be coded with a 1, indicating a high level of emotional intelligence, and those with scores below the median will be coded with a 0 indicating a low level of emotional intelligence. I also present results using a continuous measure of the variable. As such, the variable must be centered by creating z-scores to remove the potential collinearity of the data. The variable representing an individual's reported level of emotional intelligence will be called *EI*. The variable representing the median split of emotional intelligence will be called *EIS*. The centered variable is called ZScore EI.

3.2.2.3 Narcissism

Original research in narcissism resulted in a four-factor model (Emmons, 1984), represented by a 40-item scale, called the Narcissistic Personality Inventory (NPI, Raskin & Hall, 1981). These factors represent beliefs that the individuals feel about themselves, regardless of whether these beliefs are founded or unfounded. These beliefs are exploitiveness/entitlement, leadership/authority, superiority/arrogance, and self-

absorption/self-admiration. In an attempt to create a shorter, more efficient scale, Ames and colleagues (2006) noted that while the NPI had four distinct factors, researchers generally use it as a single construct. As such, they pared down the original 40 items and developed the NPI-16. This is a 16-item scale that mimics the original NPI scale, with regard to relation with the Big 5 personality traits, and prediction of dependent variables. I will be using the NPI-16 to measure participant narcissism in this study.

The NPI-16 has 16 pairs of statements, and participants select the statement that most accurately describes their feelings or opinion. An example of one pair of statements includes (a) "I really like to be the center of attention" and (b) "It makes me uncomfortable to be the center of attention." The complete scale appears in Appendix A.2.

I use this variable to moderate the relationship between pressure and earnings management intentions, therefore transforming this variable into a dichotomous or categorical variable will allow for easier interpretation of the results. As such, I will create a median split, whereby those with self-rated scores above the median will be coded with a 1, indicating a high level of narcissism, and those with scores below the median will be coded with a 0 indicating a low level of narcissism. I also present results using a continuous measure of the variable. As such, the variable must be centered by creating z-scores to remove the potential collinearity of the data. The variable representing an individual's reported level of narcissism will be called *NC*. The variable representing the median split of narcissism will be called *NCS*. The centered variable is called *ZScore NC*.

3.2.2.4 Moral Disengagement

Moral disengagement is an individual attribute that allows people "... to behave unethically without feeling distress" (Moore, et al 2012). The participants completed scale items related to a self-assessment of the propensity to moral disengage. This scale

was created by Moore et al. (2012). This scale included 8 items, one item for each of the 8 mechanisms Bandura (1986) outlined that can allow disengagement. An example of the item related to moral justification included It is okay to spread rumors to defend those you care about. The complete scale appears in Appendix A.3.

I use this variable to moderate the relationship between pressure and earnings management intentions, therefore transforming this variable into a dichotomous or categorical variable will allow for easier interpretation of the results. As such, I will create a median split, whereby those with self-rated scores above the median will be coded with a 1, indicating a high level of moral disengagement, and those with scores below the median will be coded with a 0 indicating a low level of moral disengagement. I also present results using a continuous measure of the variable. As such, the variable must be centered by creating z-scores to remove the potential collinearity of the data. The variable representing an individual's reported level of moral disengagement will be called *MD*. The variable representing the median split of emotional intelligence will be called *MDS*. The centered variable is called *ZScore MD*.

3.3 Hypotheses Testing Methodology

In this section, I provide a detailed discussion of the methods I used to test each hypothesis. Recall, the treatments used in this study include CEO Pressure (*CP*), financial pressure (*FP*), and acceptability under GAAP (*GAAP*). This study measured earnings management intention (*EMI*) as the dependent variable. This variable was measured twice, earnings management intention allowable under GAAP (*EMI_A*), and earnings management intention that violate GAAP (*EMI_V*). In addition, this study measures three moderating variables, emotional intelligence (*EI*), narcissism (*NS*), and moral disengagement (*MD*).

Recall, that hypothesis 1a suggests an increase in earnings management intentions with increased pressure, of either type. To test this hypothesis, I will utilize an ANOVA planned comparison to compare the treatment level means in the study. Hypotheses 1b and 1c suggest the specific type of pressure (financial pressure and CEO pressure, respectively) will result in increased earnings management intentions. To test these hypotheses, I will investigate the main effects of *FP* and *CP* on *EMI*, as well as planned comparisons of the treatment level means. Specifically, I will compare the cells with only one type of pressure to the cells with no pressure to see if this type of pressure increased *EMI* above the baseline. Finally, hypothesis 1d compared the result of the type of pressure on earnings management intentions. Specifically, this hypothesis indicated that *CP* will result in higher *EMI* than *FP*. I will examine the main effects of *CP* and *FP*, and prepare a planned comparison to evaluate this hypothesis.

Hypothesis 2a and 2b further examine this relationship, by focusing on the type of pressure examined, specifically, these hypotheses suggest a two-way interaction between pressures and whether or not the scenario was in accordance with GAAP. An ANOVA F-test will be used to determine if these two-way interactions are significant.

Finally, hypotheses three, four, and five relate to the moderation, and interaction, effects individual attributes (i.e. emotional intelligence, narcissism, and moral disengagement) have on the relationship between pressure and earnings management intention. To test these hypotheses, I will discuss the hierarchical regression method used to examine these individual moderating effects of each variable on the relationships. I will test each moderator individually, and then test all three simultaneously.

3.3.1 Hypotheses 1 & 2 – Repeated Measure ANOVA and Planned Comparison

To test hypotheses one and two, I begin my analysis with a repeated measure ANOVA test with planned comparisons. I specify *EMI* as the response variable,

Participant as the subject variable, *CP* and *FP* as between factor variable, and *GAAP* as the within factor variable. The main analysis of this test will provide preliminary information regarding the significance of the main effects (*CP*, *FP*, and *GAAP*), two-way interactions (*CP X FP*, *CP X GAAP* or *FP X GAAP*), and the three-way interaction (*CP X FP X GAAP*) on *EMI*. The Mean Square Error from this analysis is used in the planned comparisons of cell means. This will allow me to investigate the differences between cell means of each scenario. The series of planned comparisons will pinpoint the cell mean differences, as outlined in the various parts of hypotheses 1 and 2.

Hypothesis 1a is concerned with the relationship between pressure and earnings management intentions. This hypothesis posits that an increase in pressure will result in an increase in earnings management intention. The first planned comparison will provide evidence if the mean earnings management intentions score in cells where at least one type of pressure is present increases over the baseline where no pressure is present. Specifically, this test will compare the cell mean differences of *EMI*, of the cells shown in Table 1. I expect that the earnings management intentions will be lowest when there is no pressure indicated in the scenario (Cell 1: Scenario #4 and #8), when compared to all other cells. I formally state the null and alternative hypotheses for this comparison test below:

$$H_{0a}: (\mu_4 + \mu_8)/2 = (\mu_1 + \mu_2 + \mu_3 + \mu_5 + \mu_6 + \mu_7)/6$$

$$H_{1a}: (\mu_4 + \mu_8)/2 < (\mu_1 + \mu_2 + \mu_3 + \mu_5 + \mu_6 + \mu_7)/6$$

Hypothesis 1b suggests that financial pressure, independently, will increase earnings management intentions. In the second planned comparison, I will compare the cell means from scenarios that have only financial pressure (Cell 2: Scenarios 3 & 7) to cell means from scenarios that have neither type of pressure (Cell 1: Scenario #4 and #8). Formally Stated:

$$H_{0b}: (\mu_4 + \mu_8)/2 = (\mu_3 + \mu_7)/2$$

$$H_{1b}: (\mu_4 + \mu_8)/2 < (\mu_3 + \mu_7)/2$$

Hypothesis 1c states that CEO pressure, independently, will increase earnings management intentions. The third planned comparison I compare the cell means from scenarios that have only CEO pressure (Cell 3: Scenarios 2 & 6) to cell means from scenarios that have neither type of pressure (Cell 1: Scenario #4 and #8). I formally state the null and alternative hypotheses for this comparison test below:

$$H_{0c}: (\mu_4 + \mu_8)/2 = (\mu_2 + \mu_6)/2$$

$$H_{1c}: (\mu_4 + \mu_8)/2 < (\mu_2 + \mu_6)/2$$

Hypothesis 1d posits that *CP* will result in greater *EMI* than *FP*. To test this hypothesis, I will utilize a fourth planned contrast. Here, I will examine the mean differences in the cells that contain only CEO pressure (Cell 2: Scenarios 2, 6) to the cells that contain only Financial Pressure (Cell 3: Scenarios 4, 8) I formally state the null and alternative hypotheses for this comparison test below:

$$H_{0d}: (\mu_3 + \mu_7)/2 = (\mu_2 + \mu_6)/2$$

$$H_{1d}: (\mu_3 + \mu_7)/2 < (\mu_2 + \mu_6)/2$$

Hypothesis 2a and 2b examine this relationship by focusing on the type of pressure presented and the type of earnings management intention. Specifically, hypothesis 2a suggests *FP* is more likely to result in *EMI* in situations that are in accordance with GAAP than in scenarios that violate GAAP. Similarly, hypothesis 2b suggests *CP* is more likely to result in *EMI* in situations that are in accordance with GAAP than in scenarios that violate GAAP. To test these hypotheses, I will examine the interactions of *FP X GAAP* and *CP X GAAP* from the main ANOVA analysis.

3.3.2 Hypotheses 3, 4, & 5 – Moderation Testing using Hierarchical Regression

In this section, I discuss the hierarchical regression models used to test the individual moderation hypotheses of this study. Each of hypotheses three, four, and five suggest an individual attribute that may moderate these relationships. These attributes are emotional intelligence, narcissism, and moral disengagement, respectively.

To test these hypotheses, I utilize a four stage hierarchical regression approach. Using this method, I first enter the first dependent variable (*EMI_A*) and the necessary⁴ control variables into the equation. Second, I enter all the main effects, or independent variables, including the pressure variables and median split⁵ main effect variable for the moderator in question, (*CP and FP; EIS, NCS, or MDS*). Third, I enter the two way interactions (*CP X FP; CP X EIS & FP X EIS, CP X NCS & FP X NCS, or CP X MDS & FP X MDS*). Finally, I enter the three-way interaction variables into the equation (*FP X CP X EIS, FP X CP X NCS or, FP X CP X MDS*). I must repeat this process with the other dependent variable (*EMI_V*) in the study.

I expect that emotional intelligence will negatively affect this relationship, such that higher levels of emotional intelligence will result in lower levels of earnings management intention. I expect the opposite of narcissism and moral disengagement. I expect that higher levels of narcissism or moral disengagement will result in higher levels of earnings management intentions.

3.4 Validation and Pilot Study

To test the survey instrument, I conducted a pilot test using 21 students enrolled in an undergraduate auditing class (9 males and 12 females) with a mean age of 24.76

⁴ I determine if a control variable is necessary by evaluating the correlation table shown in Table 7. Any control that is significantly correlated with one of the dependant variables of interest in this study is subsequently used as a control in the analysis.

⁵ I also report the regression utilizing continuous moderating variables, centered using z-scores.

years. The purpose of this pilot was not only to ensure the survey website correctly randomized the scenarios, providing both scenarios within the same cell to a participant, but also to determine if the manipulations of CEO pressure, financial pressure, and allowability under GAAP are appropriate.

In the pilot test of the instrument, the average rating of the high-pressure scenario was higher than the low-pressure scenario, however, I found that most individuals in the low-pressure scenario also indicated a sense of pressure. These findings were true for both the CEO pressure and the financial pressure manipulation checks. One possible explanation for these findings could be the participants have an innate sense of pressure that goes beyond the discussion in the scenario. To overcome this obstacle, I included two additional scenarios in the final instrument. These scenarios do not include CEO or financial pressure. The purpose of these additional scenarios is to establish a pressure baseline. I would expect the low pressure group to be equal to or higher than this baseline. I expect the high pressure group to be higher than both the no pressure and the low pressure groups.

In addition, in the pilot test, I observed student participants had difficulty distinguishing between scenarios that were in accordance with GAAP, and those that violated GAAP. Following each scenario, the students were asked to rate the acceptability of the scenario under GAAP. I expected participants to rate the scenarios in accordance with GAAP at five or above, and the scenarios that violated GAAP at three or below. Eighty-one percent of the participants were able to identify the scenario correctly that violated GAAP. However, only 52% of the students correctly identified the scenario in accordance with GAAP as being acceptable. In an attempt to rectify this finding, I modified the scenarios, explicitly stating that the scenario was either in accordance with GAAP or in violation of GAAP.

Due to the size of the pilot test, I do not report statistical results. However, I note that when evaluating the moderating affect of emotional intelligence on the relationship between CEO pressure and earnings management intentions that violates GAAP, I found the coefficient to be directionally correct and approaching significance in a very low power situation. This result would suggest that when a CEO is pressuring an individual to take an action that would violate GAAP, individuals with higher levels of emotional intelligence would be able to deflect this pressure, and make a decision based on their own opinions, rather than the pressure of the CEO. This also provides needed support to move forward with this research, as it proves to provide intriguing results upon completion.

Chapter 4

Results

Results of the dissertation experiment are presented in this chapter. First, I describe the demographic information of the participants in the study. Second, I discuss the preliminary analyses performed on the data, including manipulation checks for the manipulated independent variables of financial pressure (pressure vs. no pressure), CEO pressure (pressure vs. no pressure), and GAAP (scenario in accordance with GAAP vs. scenario in violation of GAAP), internal reliability of the dependent measures, and correlation of the variables. Next, I provide descriptive information and correlation analysis of the variables of interest in the study. Finally, I discuss the analyses performed to test the predictions of the hypothesized relationships and any additional analysis performed.

4.1 Participant Demographic Information

This study utilized student participants. The survey was offered to 198 students enrolled in undergraduate and graduate audit courses at two southern universities, one public and one private. 175 students responded to the survey, representing an 88% response rate. Five of these students did not complete the survey, and twenty-three failed to correctly answer the quality control question. This question was added into the middle of the survey and read “For quality control purposes, please select the somewhat unlikely option.” Also, I identified nine responses as outliers by evaluating a box plot of *EMI X Scenario*, all of these responses were found in Scenarios 5, 6, and 8. This provided 138 participants in the study. As mentioned in the chapter 3, each participant responded to two scenarios, allowing for 276 responses for analysis.

Table 5 presents the descriptive statistics for the 138 participants. The average participant age was 24.62 years. The average full time work experience was 2.82 year. Male participants represented 43% of the sample, and females represented 57%. 71% of the sample spoke English as a first language, and 29% spoke English as a second language. Finally, 82% of the participants were enrolled in an undergraduate program, and 18% were enrolled in a graduate program.

Table 5. Participant Demographic Information

	Min	Max	Mean	Standard Deviation
Age	20	61	24.62	6.04
FT Work Experience (in years)	0	35	2.82	5.48
	N	%		
Male	59	43%		
Female	79	57%		
English as First Language	98	71%		
English as Second Language	40	29%		
Bachelor's Program	113	82%		
Master's Program	25	18%		

4.2 Preliminary Analyses

In this section, I will discuss the preliminary analyses performed on my data, prior to testing of hypotheses. These analyses included manipulation checks for the manipulated independent variables of financial pressure (pressure vs. no pressure), CEO pressure (pressure vs. no pressure), and GAAP (scenario in accordance with GAAP vs. scenario in violation of GAAP), internal reliability of the dependent measures, and correlation of the variables. I will discuss each of these items in this section.

4.2.1 Manipulation Checks

The survey instrument manipulated GAAP (in accordance with GAAP, or in violation of GAAP), financial pressure (pressure vs. no pressure), and CEO pressure (pressure vs. no pressure). The instrument included manipulation checks of these variables to assess the validity of the data obtained from the participants. I will discuss the result of each of these manipulation checks in the following sections.

4.2.1.1 GAAP Manipulation Check

Recall, that the participants were required to respond to questions related to two scenarios, and the only difference between the scenarios was the acceptability under GAAP. The last question the participant was asked following each scenario read, on a five point scale, "What is the likelihood that this proposal is acceptable under GAAP?" This provided 276 responses to this manipulation check question – 138 responses to scenarios in accordance with GAAP, and 138 responses to scenarios in violation of GAAP. This provided a categorical manipulation check to assess that the participants could correctly identify if a scenario was in accordance with GAAP.

I would expect that participants responding to scenarios in accordance with GAAP would respond that is likely that the scenario was in accordance with GAAP, denoted with a 4 or 5 rating. I would also expect that participants responding to scenarios in violation of GAAP would respond that it is unlikely that the scenario was in accordance with GAAP, denoted with a 1 or 2 rating. I note that in scenarios that were in accordance with GAAP, 98 (71%) participants responded as predicted, 17 (12%) participants selected a neutral response, 23 (17%) responded incorrectly, indicating it was unlikely the scenario was in accordance with GAAP. In scenarios that were in violation of GAAP, 117 (85%) participants responded as predicted, 12 (9%) participants selected a neutral response, 9 (6%) responded incorrectly, indicating it was unlikely the

scenario was in accordance with GAAP. Table 6 shows the responses to the GAAP manipulation check questions.

Table 6. GAAP Manipulation Check

		Response: Unlikely to be Acceptable Under GAAP	Response: Neutral	Response: Likely to be Acceptable Under GAAP
In Accordance With GAAP	N	23	17	98 *
	%	17%	12%	71% *
In Violation of GAAP	N	117 *	12	9
	%	85% *	9%	6%

* Correct Response

4.2.1.2 Financial Pressure Manipulation Check

In the final section of the survey instrument, I asked the following question, on a five-point scale: “Based on the scenarios you read at the beginning of this survey, to what extent do you believe there was a financial incentive to support the proposal?”

Participants in both the pressure and no pressure scenarios indicated a sense of financial motivation pressure; this could be because participants bring with them an innate sense that there will be financial rewards for supporting proposals to achieve goals, even if this reward is not explicit in the scenario. I needed to show that when there was explicit financial motivation in this experiment, the participants increased the rating.

Participants in scenarios where financial pressure was present reported an average rating of 4.55, whereas participants in scenarios where financial pressure was not present reported an average rating of 4.34. Therefore, I prepared an ANOVA planned contrast to see if the groups answered significantly different in this rating. This contrast used the response to this manipulation check question as the response variable, and the scenario number first shown to the participant as the factor variable. Results of this contrast rejected the null hypothesis that the means of these groups were equal, and

support the effectiveness of the financial pressure manipulation check ($t(130) = 3.0413$, $p < 0.01$).

4.2.1.3 CEO Pressure Manipulation Check

In the final section of the survey instrument, I asked the following question, on a five-point scale: “Based on the scenarios you read at the beginning of this survey, to what extent do you believe the CEO was applying pressure to achieve goals?” Participants in both the pressure and no pressure scenarios indicated a sense of CEO pressure; this could be because participants bring with them an innate sense that the CEO will be pressuring the CFO to achieve goals. I needed to show that when the CEO was applying pressure in this experiment, the participants increased the rating.

Participants in scenarios where CEO pressure was present reported an average rating of 4.61, whereas participants in scenarios where CEO pressure was not present reported an average rating of 4.16. Therefore, I prepared an ANOVA planned contrast to see if the groups answered significantly different on this rating. This contrast used the response to this manipulation check question as the response variable, and the scenario number first shown to the participant as the factor variable. Results of this contrast rejected the null hypothesis that the means of these groups were equal, and support the effectiveness of the CEO pressure manipulation check ($t(130) = 3.7027$, $p < 0.001$).

4.2.2 *Internal Reliability of Dependent Measures*

Before proceeding to the hypotheses testing, I computed reliability of the dependent variable measures of this study. Recall, after the participants read each scenario I asked them four questions: What is the likelihood that you would support the proposal? What is the likelihood you would oppose the proposal? What is the likelihood that you would find this proposal acceptable in business practice? What is the likelihood you would find this proposal unacceptable in business practice? After reverse coding

responses to the second and fourth questions, I averaged these items to achieve the dependant variables. Each respondent answered these questions twice, once for a scenario that was in accordance with GAAP, and once for a scenario that was in violation of GAAP. The responses to the scenario in accordance with GAAP provided the *EMI_A* measure; the responses to the scenario in violation of GAAP provided the *EMI_V* measure.

EMI_A and *EMI_V* represent composite measures, and therefore, I needed to see if the internal consistency of the measure is reliable. I computed Cronbach's Alpha for each composite measure and found *EMI_A* had a Cronbach's Alpha of .884 and *EMI_V* had Cronbach's Alpha of .873. Both measures are well above the .7 threshold, indicating these measures have high internal consistency reliability.

4.2.3 Correlation Analysis

The final step of my preliminary analyses was to perform a correlation analysis of the independent, dependent, and control variables collected from the survey instrument, as shown in Table 7. The purpose of this analysis is to provide a glimpse of how the variables of interest correspond to the predictions made in each hypothesis.

The various parts of Hypotheses 1 and 2 relate to how pressure will impact earnings management intentions. From the correlation table, I see that the pressure variables, *CP* and *FP*, are not significantly correlated with the dependent variables *EMI_A* and *EMI_V*. I will further explore these relationships in the hypotheses testing section. Hypotheses 3, 4, and 5 suggest *EI*, *NC*, and *MD*, respectively, will moderate the relationships. *EI* was found to be negatively correlated with *EMI_V*, whereas *MD* was found to be positively correlated with *EMI_V*, consistent with the predictions found in

Table 7. Means, Standard Deviations, Correlations, Reliabilities

Variables	Mean	Std. Deviation	Std.														
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	
1 EMI_A	3.239	0.910	<i>.884</i>														
2 EMI_V	1.906	0.783	.212*	<i>.873</i>													
3 CP	-0.101	0.998	-.001	-.003	<i>.844</i>												
4 FP	-0.029	1.003	.092	.052	-.032	<i>.835</i>											
5 EI	3.958	0.430	.066	-.171*	-.055	.035	<i>.826</i>										
6 NC	5.101	3.321	.113	.148	-.147	-.069	.176*	<i>.817</i>									
7 MD	1.743	0.531	.023	.244**	-.025	-.017	-.429**	.088	<i>.808</i>								
8 AGE	24.616	6.035	-.162	-.153	.097	-.008	.083	-.008	-.185	<i>.799</i>							
9 GENDER	0.428	0.497	-.034	.071	-.103	-.019	.002	.080	.005	.054	<i>.790</i>						
10 ESL	0.710	0.455	-.003	-.149	.063	-.019	-.042	-.019	-.182*	-.085	.003	<i>.781</i>					
11 EDUCATION	2.283	1.060	.032	-.016	.020	-.027	-.007	-.043	.019	.275**	.060	-.207*	<i>.772</i>				
12 CPA INTENT	1.307	0.670	-.090	-.152	.007	.010	-.069	-.106	-.066	-.058	-.002	.078	-.181*	<i>.763</i>			
13 WORK EXP	2.819	5.480	-.145	-.210*	.109	.023	.110	-.043	-.243**	.903**	-.081	.023	.128	.120	<i>.754</i>		
14 MASTERS PROG	0.181	0.387	.058	.232**	-.009	.032	-.132	.008	0.054	-.01	-.026	.052	.426**	-.189*	-.203*	<i>.745</i>	
15 SCHOOL	0.493	0.502	.204*	.226**	-.016	.058	-.057	.158	.069	-.512**	.056	.278**	-.014	-.008	-.452**	.477**	<i>.736</i>

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

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

N = 138

Reliabilities on horizontal in italics

Variables Descriptions:

EMI_A: Composite measure of earnings management intention in scenario in accordance with GAAP

EMI_V: Composite measure of earnings management intention in scenario in violation of GAAP

CP: CEO Pressure (1 = pressure present; -1 = no pressure present)

FP: Financial Pressure (1 = pressure present; -1 = no pressure present)

EI: Emotional Intelligence (Average of 24 item scale)

NC: Narcissism (Sum of 16 choice items)

MD: Moral Disengagement (Average of 8 items)

AGE: Age reported

GENDER: Gender of participant

ESL: English as second language

EDUCATION: Highest degree attained by participant

CPA INTENT: Intention to take CPA exam (1 = Yes, 2 = No, 3 = Maybe)

WORK EXP: Number of years of full time work experience reported by the participant

MASTERS PROG: Enrolled in Master's Program (1 = Master's Program; 0 = Undergraduate Program)

SCHOOL: School (0=Public University; 1=Private University)

hypotheses 3 and 5. This indicates that an individual high in emotional intelligence will be less likely to engage in earnings management behaviors in situations that violate GAAP, whereas individuals high in moral disengagement would be more likely to engage in earnings management behaviors in situations that violate GAAP. Narcissism did not correlate with either dependant variable of interest. I will further explore these relationships in the hypotheses testing section.

Three of the control variables were also correlated with *EMI_V*: Work experience, Master's Program, and School. Work experience was negatively correlated with *EMI_V*, indicating that the more work experience you have, the less likely you are to engage in earnings management practices that violate GAAP. Master's program was positively correlated with *EMI_V*; this indicates that the students enrolled in a master's program would be more likely to engage in earnings management practices than students enrolled in a bachelor's program. School was positively correlated with *EMI_V*, indicating students enrolled in the private school, where this experiment was administered, were more likely to engage in earnings management behaviors in situations that violated GAAP than students enrolled in the public school. Note, due to the significant correlation between these three controls and the *EMI_V* dependant variable, I repeated my analysis utilizing these controls as covariates (ANCOVA). The results remained consistent with the primary analysis.

4.3 Hypotheses Testing

In this section, I provide detailed discussions of the tests utilized to evaluate the various hypotheses of this study. The hypotheses testing performed is consistent with the research framework presented in Figure 1, and the methodology discussion offered in Section 3.3. First, I report the results of the repeated measure ANOVA and I discuss the

planned comparisons utilized to pinpoint specific group differences of the data. Finally, I discuss the moderation testing utilizing hierarchical regression.

4.3.1 Repeated Measure ANOVA and Planned Comparisons

This section reports the results of the repeated measure ANOVA⁶ analysis, as well as the results of planned comparisons to address all parts of hypotheses 1 and 2. I specify *EMI* as the response variable, *Participant* as the subject variable, *CP* and *FP* as between factor variables, and *GAAP* as the within factor variable. The ANOVA analysis will provide preliminary information regarding the significance of the main effects (*CP*, *FP*, and *GAAP*), two-way interactions (*CP X FP*, *CP X GAAP* or *FP X GAAP*), and the three-way interaction (*CP X FP X GAAP*) on *EMI*. The series of planned comparisons will pinpoint the cell mean differences, as outlined in the various parts of hypotheses 1 and 2. See Table 8 for the Analysis of Variance Table. Each planned comparison will be discussed at length below.

Recall that hypothesis 1a states that pressure on the CFO, from either the CEO or in the form of financial incentives, will result in an increase in earnings management intention. To test this hypothesis, I performed the first of a series of ANOVA planned comparisons (Planned Comparison A) to compare the cell means of scenarios with one or more types of pressure (Scenarios 1, 2, 3, 5, 6, and 7) to the base line cell, which included no pressure (Scenarios 4 and 8). I specify *EMI* as the response variable, *Participant* as the subject variable, *Scenario* as between factor variable, and *GAAP* as the within factor variable. The previous analysis, presented in Table 7, utilized *CP* and

⁶ Review of the correlation table indicated that School, Master's Program, and Work Experience significantly correlated with the dependant variables in this study. Therefore, I repeated this analysis using ANCOVA to control for this correlation. I also adjust the Mean Square Error term used in the planned comparisons to account for the covariates. Results of the primary analysis, as well as all planned comparisons, are consistent with those presented.

FP as between factor variables. The profile for this comparison, along with cell means, can found in Table 9. Graphical representation of the cell means is depicted in Figure 6.

Table 8. Analysis of Variance

Variable	DF	Sum of Squares	Mean Square	F-Ratio	Prob Level	Power (Alpha=0.05)
A: CP	1	0.013	0.013	0.020	0.899	0.052
B: FP	1	0.462	0.462	0.580	0.449	0.117
AB	1	10.966	10.966	13.680	0.0003*	0.957
C(AB): Participant	134	107.401	0.802			
D: GAAP	1	121.917	121.917	210.740	0.0000*	1.000
AD	1	0.002	0.002	0.000	0.953	0.050
BD	1	0.175	0.175	0.300	0.583	0.085
ABD	1	0.439	0.439	0.760	0.385	0.139
CD(AB)	134	77.520	0.579			
S	0					
Total (Adjusted)	275	320.176				
Total	276					

n = 276

* < .001

Table 9. Pressure Profile, Cell Mean Values, and Planned Comparison Profile

Scenario #	Financial Pressure	CEO Pressure	N	Cell Mean	Planned Comparison Profile			
					A	B	C	D
1	1	1	29	3.137931	1	0	0	0
2	-1	1	33	3.325758	1	0	1	1
3	1	-1	38	3.467105	1	1	0	-1
4	-1	-1	38	3.013158	-3	-1	-1	0
5	1	1	29	1.663793	1	0	0	0
6	-1	1	33	2.113636	1	0	1	1
7	1	-1	38	2.164474	1	1	0	-1
8	-1	-1	38	1.651316	-3	-1	-1	0
Planned Comparison t-value					2.592	3.330	3.330	-0.638
Sig. (2-tailed)					.011	.001	.001	.525

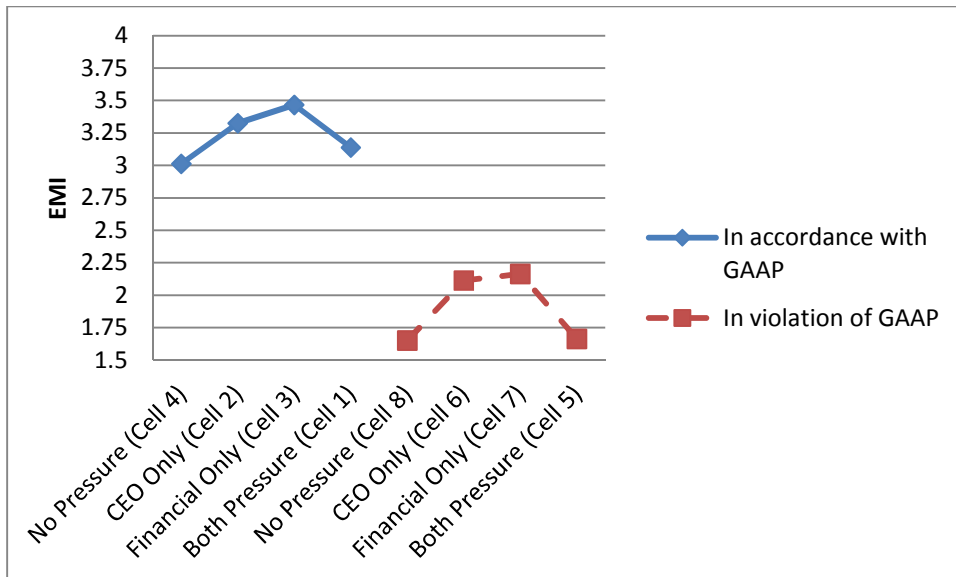


Figure 6. Cell Mean Values

Results from this comparison provide evidence to reject the null hypothesis that the cell means are equal, and therefore supporting hypothesis 1a that the mean earnings management intention in cells where pressure is applied is greater than in cells where no pressure is applied, $T(130) = 2.592$, $p < .05$.

Hypothesis 1b stated that financial pressure, independently, will result in an increase in earnings management. In general, CFOs experiencing financial pressure will increase earnings management intentions. While I failed to find significant main effects of *FP* on *EMI*, as shown in Table 8, I investigate this hypothesis with the second ANOVA planned comparisons (Planned Comparison B) to compare the cell means of scenarios with only financial pressure (Scenarios 3 and 7) to the base line cell, which included no pressure (Scenarios 4 and 8). The profile for this comparison, along with cell means, can be found in Table 9. Results from this comparison provide evidence to reject the null hypothesis that the cell means are equal, and therefore supporting hypothesis 1b that the

mean earnings management intention in cells where financial pressure is applied is greater than in cells where no pressure is applied, $T(130) = 3.330$, $p < .001$.

Hypothesis 1c indicated that CEO pressure, independently, will result in an increase in earnings management. In general, CFOs experiencing pressure from the CEO will increase earnings management intentions. While I failed to find significant main effects of *CP* on *EMI*, as shown in Table 8, I investigate this hypothesis with the third ANOVA planned comparisons (Planned Comparison C) to compare the cell means of scenarios with only CEO pressure (Scenarios 2 and 6) to the base line cell, which included no pressure (Scenarios 4 and 8). The profile for this comparison, along with cell means, can found in Table 9. Results from this comparison provide evidence to reject the null hypothesis that the cell means are equal, and therefore supporting hypothesis 1c that the mean earnings management intention in cells where CEO pressure is applied is greater than in cells where no pressure is applied, $T(130) = 3.330$, $p < .001$.

Hypothesis 1d states that the effect of CEO pressure motivation will likely result in greater earnings management intentions of the CFO than financial pressure motivations. To test this hypothesis, I performed the final ANOVA planned comparisons (Planned Comparison D) to compare the cell means of scenarios with only CEO pressure (Scenarios 2 and 6) to the cell means of scenarios with only financial pressure (Scenarios 3 and 7). The profile for this comparison, along with cell means, can found in Table 9. Results from this comparison do not provide evidence to reject the null hypothesis that the cell means are equal. The results indicate that there is no difference in the earnings management behaviors with respect to financial pressure and CEO pressure. Therefore, I fail to find support for hypothesis 1d.

Recall that hypothesis 2 predicted interactions between financial pressure and GAAP (H2a) and CEO pressure and GAAP (H2b). Visual inspection of Figure 6

illustrates the pattern under scenarios in accordance with GAAP and scenarios in violation with GAAP appear similar, indicating a lack of interaction. The ANOVA results presented in Table 8, confirm this visual inspection, as I find that neither of these interactions are statistically significant. Therefore, I fail to find evidence to support hypotheses 2a and 2b.

4.3.2 Hierarchical Regression

This section reports the results of the hierarchical regression analyses performed to address the predicted moderating effects of emotional intelligence, narcissism, and moral disengagement, as outlined in hypotheses 3, 4, and 5, respectively. I specify each regression using a four block model. In the first block, I identify the dependant variable (*EMI_A* or *EMI_V*) and enter the controls (*SCHOOL*, *WORK_EXP*, and *MASTERS_PROG*) as the independent variables. Second, I add the main effect variables, including pressure variables and the median split moderating variable of interest (*FP*, *CP*; *EIS*, *NCS*, or *MDS*). Third, I add the two-way interactions (*FP X CP*; *CP X EIS* & *FP X EIS*, *CP X NCS* & *FP X NCS*, or *CP X MDS* & *FP X MDS*). Finally, in the fourth block I enter the three-way interaction (*FP X CP X MDS*). I repeat this process for each dependant variable / moderator combination. I also repeat the process using a continuous moderating variable instead of the median split.

Recall that hypothesis 3a stated that emotional intelligence of the CFO will negatively moderate the relationship between financial pressure and earnings management intentions. Hypothesis 3b indicated that the emotional intelligence of the CFO will negatively moderate the relationship between CEO pressure and earnings management intentions. Finally, hypothesis 3c indicated that the moderating effect will be stronger on CEO pressure than on financial pressure. Results of the regression analysis utilizing the median split moderating variable of emotional intelligence can be

found below in Table 10. Table 11 provides the regression analysis utilizing a continuous moderating variable for emotional intelligence.

Review of the interaction Beta coefficients presented in Model 4, from Table 11 show an interaction between financial pressure and the Z-score of emotional intelligence, when *EMI_A* is the dependant variable. While this provides partial support for the moderation predicted in H3a, the direction is inconsistent with the prediction. Results indicate that individuals with higher levels of emotional intelligence will be more likely to engage in earnings management behaviors that are in accordance with GAAP, when there is a financial incentive to do so. These results fail to support hypothesis 3b and 3c. Although the regression analyses fail to support the moderation hypotheses, they do offer some interesting findings. I note that the main effect of emotional intelligence is negatively related to the *EMI_V* dependant variable. This indicates that in general, individuals with higher levels of emotional intelligence will be less likely to manage earnings that are in violation of GAAP. When *EMI_A* is used as the dependant variable, this relationship is not statistically significant.

Recall that hypothesis 4a stated that narcissism of the CFO will positively moderate the relationship between financial pressure and earnings management intentions, and hypothesis 4b indicated that the narcissism of the CFO will positively moderate the relationship between CEO pressure and earnings management intentions. Results of the regression analysis utilizing the median split moderating variable of narcissism can be found below in Table 12. Table 13 provides the regression analysis utilizing a continuous moderating variable for narcissism.

Review of the interaction Beta coefficients presented in Model 4 does not support the hypotheses that narcissism will act as a moderator. These results fail to support hypothesis 4a and 4b. Also, there are no significant main effects present in this analysis.

Table 10. Results of Standardized Regression Analysis for the Moderated Effects of Emotional Intelligence - Median Split

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	.198 [^]	.190 [^]	.206 [^]	0.207 [^]	.086	.091	.115	.116
Work Experience	-.065	-.073	-.063	-.061	-.138	-.120	-.097	-.096
Master's Program	-.050	-.050	-.046	-.047	.163 [^]	.150	.136	.135
CP		.013	.007	.007		.000	-.011	-.011
FP		.084	.066	.064		.049	.017	.015
EIS		.005	-.011	.010		-.136	-.133	-.134
FP X CP			-.169*	-.170*			-.299**	-.300**
FP X EIS			.078	.075			.008	.006
CP X EIS			.040	.039			.062	.061
FP X CP X EIS				-.020				-.011
R ²	.047	.054	.092	.092	.086	.106	.197	.198
ΔR ²		.007	.038	.000		.020	.091	.000
F	2.198 [^]	.330	1.777	.055	4.205**	0.980	4.852**	.019
df	134	131	130	127	134	131	130	127

n = 138

[^] < .1, * < .05, ** < .01

Table 11. Results of Standardized Regression Analysis for the Moderated Effects of Emotional Intelligence - Continuous

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	0.198 [^]	.186 [^]	.204 [^]	0.199 [^]	.086	.089	.115	.106
Work Experience	-.065	-.081	-.056	-.060	-.138	-.128	-.092	-.099
Master's Program	-.050	-.040	-.031	-.028	0.163 [^]	.144	.130	.135
CP		.017	.016	.016		.008	-.005	-.005
FP		.082	.065	.067		.050	.021	.024
Zscore EI		.078	.046	.045		-.134	-.146 [^]	-.148 [^]
FP X CP			-.165 [^]	-0.164 [^]			-.307 ^{**}	-.306 ^{**}
FP X Zscore EI			.153 [^]	0.159 [^]			.038	.048
CP X Zscore EI			.018	.013			.068	.061
FP X CP X Zscore EI				.025				.039
R ²	.047	.060	.111	.112	.086	.106	.204	.206
ΔR ²		.013	.051	.001		.020	.098	.001
F	2.198 [^]	.604	2.471 [^]	.079	4.205 ^{**}	.963	5.277 ^{**}	.215
df	134	131	130	127	134	131	130	127

n = 138

[^] < .1, * < .05, ** < .01

Table 12. Results of Standardized Regression Analysis for the Moderated Effects of Narcissism - Median Split

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	.198 [^]	.185 [^]	.190 [^]	.185 [^]	.086	.060	.072	.079
Work Experience	-.065	-.076	-.074	-.082	-.138	-.157 [^]	-.148	-.139
Master's Program	-.050	-.045	-.048	-.054	0.163 [^]	.183 [^]	.174 [^]	.180 [^]
CP		.016	.012	.015		.033	.024	.021
FP		.086	.064	.071		.051	.016	.009
NCS		.032	.024	.026		.117	.105	.102
FP X CP			-.168 [^]	-.169 [^]			-.280 ^{**}	-.280 ^{**}
FP X NCS			.060	.065			.082	.077
CP X NCS			-.033	-.032			.024	-.026
FP X CP X NCS				.046				-.053
R ²	.047	.055	.090	.092	.086	.101	.192	.194
ΔR ²		.008	.035	.002		.015	.090	.003
F	2.198 [^]	.373	1.642	.268	4.205 ^{**}	.738	4.772 ^{**}	.402
df	134	131	130	127	134	131	130	127

n = 138

[^] < .1, * < .05, ** < .01

Table 13. Results of Standardized Regression Analysis for the Moderated Effects of Narcissism - Continuous

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	0.198 [^]	.169	.178	.178	.086	.049	.067	.065
Work Experience	-.065	-.078	-.070	-.069	-.138	-.152	-.139	-.131
Master's Program	-.050	-.043	-.048	-.046	0.163 [^]	.175 [^]	.167 [^]	0.181 [^]
CP		.026	.022	.020		.038	.028	.017
FP		.092	.075	.073		.058	.026	.007
Zscore NC		.094	.093	.094		.142 [^]	.130	.133
FP X CP			-.164 [^]	-.165 [^]			-.281 ^{**}	-.287 ^{**}
FP X Zscore NC			.045	.043			.062	.045
CP X Zscore NC			.007	.004			-.026	-.049
FP X CP X Zscore NC				-.015				-.114
R ²	.047	.062	.093	.093	.086	.107	.193	.205
ΔR ²		.015	.031	.000		.021	.086	.012
F	2.198 [^]	0.717	1.458	.029	4.205 ^{**}	1.035	4.545 ^{**}	1.847
df	134	131	130	127	134	131	130	127

n = 138

[^] < .1, * < .05, ** < .01

Recall that hypothesis 5a stated that moral disengagement of the CFO will positively moderate the relationship between financial pressure and earnings management intentions, and hypothesis 5b indicated that the moral disengagement of the CFO will positively moderate the relationship between CEO pressure and earnings management intentions. Results of the regression analysis utilizing the median split moderating variable of moral disengagement can be found below in Table 14. Table 15 provides the regression analysis utilizing a continuous moderating variable for moral disengagement.

Review of the interaction Beta coefficients presented in Model 4 does not support the hypotheses that moral disengagement will act as a moderator. These results fail to support hypothesis 5a and 5b. Although the regression analyses fail to support the moderation hypotheses, they do offer some interesting findings. I note that the main effect of moral disengagement is positively related to the *EMI_V* dependant variable. This indicates that in general, individuals with a higher propensity to morally disengage will be more likely to manage earnings that are in violation of GAAP than individuals with a lower propensity to morally disengage. When *EMI_A* is used as the dependant variable, this relationship is not statistically significant.

Table 14. Results of Standardized Regression Analysis for the Moderated Effects of Moral Disengagement - Median Split

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	0.198 [^]	.197 [^]	.204 [^]	0.184 [^]	.086	.090	.110	.114
Work Experience	-.065	-.051	-.044	-.064	-.138	-.114	-.092	-.088
Master's Program	-.050	-.065	-.064	-.057	0.163 [^]	.143	.127	.125
CP		.010	.004	-.010		.014	.002	.004
FP		.104	.091	.092		.073	.044	.044
MDS		.106	.113	.106		.146 [^]	.158 [^]	0.159 [^]
FP X CP			-.176 [*]	-.170 [*]			-.304 ^{**}	-0.305 ^{**}
FP X MDS			-.106	-.115			-.026	-.024
CP X MDS			.028	.027			-.005	-.005
FP X CP X MDS				-.088				.018
R ²	.047	.064	.109	.116	.086	.108	.199	.199
ΔR ²		.017	.044	.007		.022	.091	.000
F	2.198 [^]	.805	2.129 [^]	.996	4.205 ^{**}	1.058	4.841 ^{**}	.048
df	134	131	130	127	134	131	130	127

$n = 138$

[^] < .1, * < .05, ** < .01

Table 15. Results of Standardized Regression Analysis for the Moderated Effects of Moral Disengagement - Continuous

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	0.198 [^]	.191 [^]	.208 [^]	.175	.086	.093	.113	.109
Work Experience	-.065	-.070	-.053	-.075	-.138	-.086	-.062	-.065
Master's Program	-.050	-.051	-.055	-.049	.163 [^]	.155 [^]	.135	.136
CP		.012	.008	-.012		.017	.004	.001
FP		.086	.065	.064		.081	.051	.051
Zscore MD		.010	.016	.021		.222 ^{**}	.236 ^{**}	.236 ^{**}
FP X CP			-.175 [*]	-.177 [*]			-.310 ^{**}	-.310 ^{**}
FP X Zscore MD			-.107	-.130			.027	.025
CP X Zscore MD			.035	.028			-.020	-.021
FP X CP X Zscore MD				-.139				-.017
R ²	.047	.054	.097	.114	.086	.134	.227	.228
ΔR^2		.007	.043	.017		.048	.094	.000
F	2.198 [^]	.333	2.031	2.456	4.205 ^{**}	2.394 [^]	5.172 ^{**}	.045
df	134	131	130	127	134	131	130	127

$n = 138$

[^] < .1, * < .05, ** < .01

4.4 Supplemental Analyses

In this section I discuss analysis performed in addition to the hypotheses testing discussed above. First, I discuss the additional analysis performed to control for the participant's assumed power of the CEO, audit committee, and Board of Directors. Second, from figure 6 above, I noticed a curvilinear, or inverted U, pattern when additional pressure is presented to the participants. I will perform an orthogonal polynomial contrast for curvilinearity to see if this pattern is statistically significant.

4.4.1 – Control for Assumed Power of CEO, Audit Committee, and Board of Director

While this study did not manipulate the power of the CEO, audit committee or board of directors, their presence and pressure may be important contributors to the decisions made by CFOs. As such, I wanted to provide a measure to control for the innate power the participants assumed of these individuals in my analysis. To achieve this control, I asked the participants the following question after each scenario: "When you were answering the questions following this scenario, please indicate if you considered any of the following: Power of the CEO, power of the audit committee, power of the board of directors." If the participant checked the box, that they considered the individual or group, they received this follow-up question "When answering the questions following this scenario, what degree of power did you assume the following individuals or groups had on your organization, and on your decision?" They were asked to rate the assumed level of power on a sliding scale from 0 (No Power) to 100 (Great Power). I collected a maximum of 6 power assumptions from each participant: CEO Power in scenarios that are in accordance with GAAP, Audit Committee Power in scenarios that are in accordance with GAAP, Board of Director Power in scenarios that are in accordance with GAAP, CEO Power in scenarios that are in violation of GAAP, Audit Committee Power in scenarios that are in violation of GAAP, and Board of Director Power

in scenarios that are in violation of GAAP. These power assumptions will be used as the additional controls in this analysis.

Before proceeding to the regression, I first evaluated the means, standard deviation, number of responses, and correlation of these variables, as presented in Table 16. I notice that 106 and 94 participants considered CEO power in scenarios that were in accordance with GAAP and in violation of GAAP, respectively. These participants indicated a mean assumed level of power of 73.06 and 72.05. I notice that number drops to 59 and 81 participants with regard to consideration given to the audit committee power in scenarios that were in accordance with GAAP and in violation of GAAP, respectively. These participants indicated a mean assumed level of power of 60.02 and 66.06. The number of participants that indicated consideration of the board of directors was 62 in scenarios in accordance with GAAP and 55 in scenarios that were in violation of GAAP. These participants indicated a mean assumed level of power of 73.23 and 68.89.

It is interesting that although the audit committee received the lowest power assumption ratings, it was the only power assumption significantly correlated with a dependant variables of interest in this study. Specifically, the rating of Audit Committee Power in situations that violate GAAP was significantly correlated with *EMI_V*. I repeat the regression analyses on the *EMI_V* variable, for each of the three hypothesized moderating variables, Emotional Intelligence, Narcissism, and Moral Disengagement, adding the additional controls of *CEO Power – V*, *Audit Power – V*, and *BOD Power - V*. I also repeated the regression analyses on the *EMI_A* variable, for each of the three hypothesized moderating variables, Emotional Intelligence, Narcissism, and Moral Disengagement, adding the additional controls of *CEO Power – A*, *Audit Power – A*, and *BOD Power – A*. Results of these analyses are presented below in Tables 17, 18, and 19.

Table 16. Means, Standard Deviations, and Correlations

Variables	Std.			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
	Mean	Deviation	N																				
1 EMI_A	3.2391	.91014	138																				
2 EMI_V	1.9058	.78315	138	.212*																			
3 CP	-.101	.9985	138	-.001	-.003																		
4 FP	-.029	1.0032	138	.092	.052	-.032																	
5 EI	3.954	.4319	138	.066	-.171*	-.055	.035																
6 NC	5.101	3.3206	138	.113	.148	-.147	-.069	.176*															
7 MD	1.745	.5268	138	.023	.244**	-.025	-.166	-.429**	.088														
8 AGE	24.616	6.0351	99	-.162	-.153	.097	-.008	.083	-.008	-.185													
9 GENDER	.428	.4965	138	-.034	.071	-.103	-.019	.002	.080	.005	.054												
10 ESL	.710	.4553	138	-.003	-.149	.063	-.019	-.042	-.019	-.182*	-.085	.003											
11 EDUCATION	2.283	1.0602	138	.032	-.016	.020	-.027	-.007	-.043	.019	.275**	.060	-.207*										
12 CPA INTENT	1.307	.6704	137	-.090	-.152	.007	.010	-.069	-.106	-.066	-.058	-.002	.078	-.181*									
13 WORK EXP	2.819	5.4799	138	-.145	-.210*	.109	.023	.110	-.043	-.243**	.903**	-.081	.023	.128	.120								
14 MASTERS PROG	.181	.3866	138	.058	.232**	-.009	.032	-.132	.008	.054	-.140	-.026	.052	.426**	-.189*	-.203*							
15 SCHOOL	.493	.5018	138	.204*	.226**	-.016	.058	-.057	.158	.069	-.512**	.056	.278**	-.140	-.084	-.452**	.477**						
16 CEO POWER - A	73.06	18.282	106	.061	-.074	-.045	-.085	.151	-.005	.009	.155	.138	-.313**	.103	-.096	.181	-.026	-.144					
17 AUDIT POWER - A	60.02	24.620	59	.157	-.057	-.091	.210	.080	-.020	.065	.194	.082	-.237	.150	-.142	.150	-.142	-.070	.411**				
18 BOD POWER - A	73.23	22.445	62	-.174	-.236	.160	-.120	.215	-.008	-.178	.114	.093	-.099	-.028	.081	.195	-.223	-.099	.437**	.559**			
19 CEO POWER - V	72.05	20.186	94	.065	-.089	-.158	.006	.220*	-.039	-.147	.120	-.023	-.098	.017	-.087	.183	.045	-.027	.700**	.251	.398**		
20 AUDIT POWER - V	66.06	23.857	81	-.129	-.323**	-.009	.070	.153	.025	.021	.060	-.080	-.046	.166	.079	.244*	-.081	-.178	.205	.623**	.484**	.095	
21 BOD POWER - V	68.89	24.270	55	-.128	-.016	.050	.082	.199	-.012	-.113	-.020	-.071	-.090	.255	-.067	.199	-.009	-.068	.355*	.506**	.880**	.366*	.489**

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

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

Variables Descriptions:

CEO POWER - A = Power of CEO assumed by participant in scenarios in accordance with GAAP

AUDIT POWER - A = Power of audit committee assumed by participant in scenarios in accordance with GAAP

BOD POWER - A = Power of board of directors assumed by participant in scenarios in accordance with GAAP

CEO POWER - V = Power of CEO assumed by participant in scenarios in violation of GAAP

AUDIT POWER - V = Power of audit committee assumed by participant in scenarios in violation of GAAP

BOD POWER - V = Power of board of directors assumed by participant in scenarios in violation of GAAP

Descriptions of all other variables can be found on Table 7

Table 17. Results of Standardized Regression Analysis with Additional Controls - Emotional Intelligence

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	.361	.251	.278	.183	-.154	-.035	.046	.144
Work Experience	-.185	-.314	-.383 [^]	-.459 [^]	-.275	-.186	-.154	-.068
Master's Program	.103	.123	.150	.191	.253	.159	.066	.038
CEO Power	-.168	-.075	-.007	.050	-.336*	-.332 [^]	-.248	-.183
Audit Committee Power	.123	.170	.152	.180	-.369*	-.353*	-.442*	-.436*
Board of Directors Power	.022	-.167	-.303	-.339	.162	.208	.200	.137
CP		.434*	.479*	.508*		-.171	-.168	-.145
FP		.090	.075	.083		.027	-.084	-.083
EIS		-.008	-.011	-.011		-.311 [^]	-.279	-.301 [^]
FP X CP			-.017	-.019			-.318*	-.329*
FP X EIS			.306	.284			.038	.063
CP X EIS			-.166	-.192			.176	.187
FP X CP X EIS				-.167				.193
R ²	.266	.428	.523	.545	.380	.463	.580	.605
ΔR ²		.162	.095	.022		.082	.117	.025
F	1.567	2.175	1.330	0.919	3.171*	1.428	2.324 [^]	1.506
df	26	23	20	19	31	28	25	24

[^] < .1, * < .05, ** < .01

Table 18. Results of Standardized Regression Analysis with Additional Controls - Narcissism

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	.361	.233	.257	.259	-.154	-.191	-.109	-.115
Work Experience	-.185	-.382	-.346	-.319	-.275	-.290	-.202	-.207
Master's Program	.103	.107	.148	.155	.253	.296^	.256	.263
CEO Power	-.168	-.096	-.099	-.036	-.336**	-.411**	-.399*	-.404*
Audit Committee Power	.123	.146	.220	.264	-.369**	-.379**	-.492**	-.490**
Board of Directors Power	.022	-.190	-.140	-.194	.162	.192	.183	.180
CP		.475*	.451*	.476*		-.102	-.133	-.130
FP		.094	.135	.147		.103	.042	.038
NCS		.151	.105	.082		.071	.051	.054
FP X CP			-.020	-.064			-.311^	-.303^
FP X NCS			-.142	-.154			.169	.171
CP X NCS			-.096	-.096			.161	.155
FP X CP X NCS				.191				-.028
R ²	.266	.444	.463	.492	.380	.406	.547	.547
ΔR ²		.179	.018	.029		.026	.141	.000
F	1.567	2.468^	.226	1.099	3.171*	.401	2.587^	.031
df	26	23	22	19	31	28	27	24

^ < .1, * < .05, ** < .01

Table 19. Results of Standardized Regression Analysis with Additional Controls - Moral Disengagement

Dependent Variable	EMI_A				EMI_V			
	Model 1	Model 2	Model 3	Model 4	Model 1	Model 2	Model 3	Model 4
School	.361	.181	.155	.175	-.154	-.095	.000	.004
Work Experience	-.185	.450^	-.585*	-.588*	-.275	-.178	-.158	-.154
Master's Program	.103	.232	.142	.144	.253	.123	.073	.085
CEO Power	-.168	-.085	-.019	-.018	-.336*	-.387*	-.264	-.254
Audit Committee Power	.123	.299	.264	.271	-.369*	-.381*	-.448*	-.435*
Board of Directors Power	.022	-.330	-.404	-.418	.162	.241	.189	.175
CP		.525**	.518*	.542*		-.164	-.148	-.157
FP		.025	.027	.017		.127	-.009	-.010
MDS		-.303	-.318	-.334		.347*	.263	.254
FP X CP			-.034	-.051			-.354*	-.364*
FP X MDS			-.299	-.288			.030	.025
CP X MDS			.025	.015			-.163	-.169
FP X CP X MDS				.092				-.057
R ²	.266	.474	.544	.551	.380	.485	.577	.580
ΔR ²		.208	.070	.007		.105	.093	.003
F	1.567	3.035*	1.021	.308	3.171*	1.894	1.824	.145
df	26			19	31	28	27	24

^ < .1, * < .05, ** < .01

From the analyses performed on the EMI_A dependant variable, I notice the only variable that remained consistently significant was CEO Pressure. The significance of the FP X CP interaction, as seen in the original analyses, is no longer significant. This would indicate that when participants consider the power players in the organization, it is the pressure applied by the CEO that will result in an increase in earnings management intentions.

The analysis performed on the EMI_V dependant variable continues to show the significance of the FP X CP interaction. These analyses also show that *EIS* is significant in both models 2 and 4, however *MDS* significant only in model 2. This would indicate that when considering the power of the CEO, Board of Directors, and Audit committee, those with higher levels of emotional intelligence were less likely to manage earnings in situations that violated GAAP. However, the power controls lessened the effect of moral disengagement, indicating that when these individuals or groups are perceived to have greater power, an individual would be less likely to morally disengage, and therefore less likely to manage earnings in scenarios that violate GAAP.

I would like to note that this analysis is performed with a greatly reduced sample size, and therefore these results may not be trustworthy. Further analysis is warranted to investigate how these power situations may alter decisions.

4.4.2 – Orthogonal Polynomial Contrast

Examination of the plot of cell means shown in Figure 6 revealed an inverted U pattern, whereas when one type of pressure was applied the earnings management intention increased over the baseline. However, when both types of pressure are applied, the earnings management intention drops down, almost to the baseline level.

This relationship is evident not only in the plot of means, but also in the FPXCP interaction. This interaction plot is shown below in Figure 7⁷.

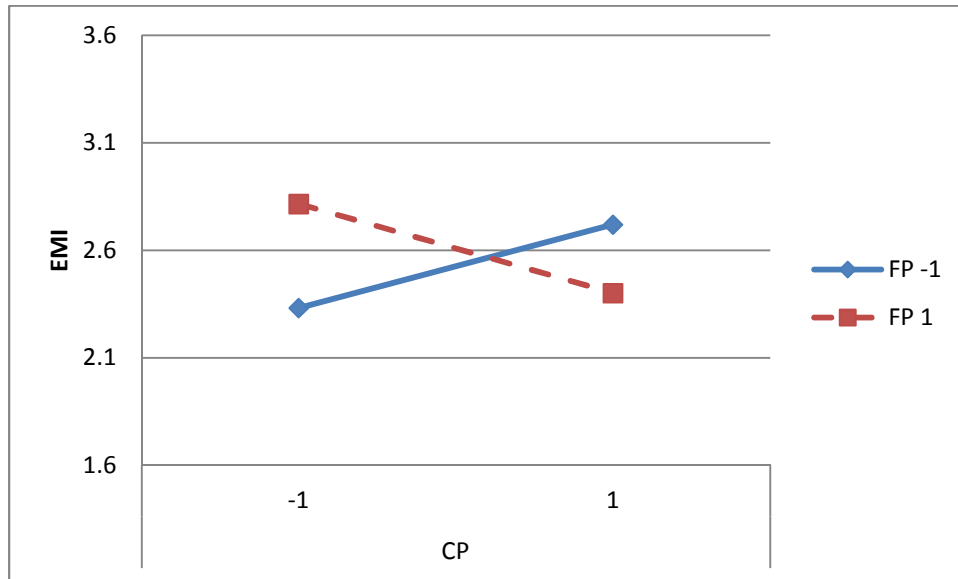


Figure 7. FP X CP Interaction

To test if this curvilinear pattern is statistically significant, I perform orthogonal polynomial contrasts. These contrasts evaluate the quadratic fit of the data. Since we see a main effect of GAAP, I prepared a contrast for the scenarios that were in accordance with GAAP, and a second contrast for the scenarios that were in violation of GAAP. The results, as shown below in Table 20, indicate that the data follow a quadratic trend. This indicates that when one type of pressure is applied to the participant, the earnings management intention increases. However, when both types of pressure are applied, the level of earnings management intention drops back down, almost to original levels. The significance of this model indicates this pattern is unlikely due to chance.

⁷ The interaction plot shown in Figure 7 averages the mean EMI rating across the scenarios in accordance with GAAP and scenarios in violation of GAAP, however the orthogonal polynomial contrast was performed on each set of scenarios separately.

Table 20. Results of the Orthogonal Polynomial Contrast

Dependent Variable			In Accordance with GAAP Trend				In Violation of GAAP Trend			
Independent Variables			Sum of Squares	DF	Mean Square	F-Ratio	Sum of Squares	DF	Mean Square	F-Ratio
Between Groups	(Combined)		4.460	3	1.487	1.827	8.128	3	2.709	4.783
	Linear Term	Unweighted	.440	1	.440	.541	.013	1	.013	.023
		Weighted	.773	1	.773	.950	.178	1	.178	.314
		Deviation	3.687	2	1.844	2.266	7.949	2	3.975	7.018**
	Quadratic Term	Unweighted	3.508	1	3.508	4.311*	7.898	1	7.898	13.944**
		Weighted	3.530	1	3.530	4.339*	7.915	1	7.915	13.974**
		Deviation	.157	1	.157	.193	.034	1	.034	.061
Within Group			109.024	134	.814		75.898	134	.566	
Total			113.484	137			84.025	137		

n = 138

^ < .1, * < .05, ** < .01

Chapter 5

Conclusion

5.1 Discussion

The purpose of this dissertation was two-fold. Firstly, I wanted to add insight into the conflicting findings of recent studies addressing CFO motivation to manage earnings. With respect to bridging the gap in past research, I hypothesize that pressure will increase earnings management intention. Specifically, financial pressure alone will increase earnings management intention, CEO pressure alone will increase earnings management intention, and that CEO pressure will have a greater impact on earnings management intention than financial pressure. With regard to the conflicting findings of prior studies related to the CFO (i.e. Feng et al, 2011; Jiang et al, 2010), prior literature suggests the difference in findings were potentially a result of the type of earnings management examined in the various studies, specifically, whether or not the earnings management is allowable under GAAP. To test this, I investigated the interaction of the types of pressure (CEO vs. Financial) and the allowability under GAAP.

Secondly, this study proposed that individual attributes would influence the relationship. I posited emotional intelligence, narcissism, and moral disengagement would have moderating effects on the relationship between pressure and earnings management intention. I then offered hypotheses regarding the effect of these individual attributes on the different types of pressure (CEO vs. Financial).

I test these theoretical predictions using an experimental design via an online survey instrument and a sample of 138 masters and undergraduate students majoring in accounting. Participants were randomly shown one of eight scenarios, which manipulated CEO pressure, financial pressure, and the acceptability under GAAP. The experiment required participants to rate the likelihood that they would support or oppose

a specific proposal under the given pressure profile. Following responses related to this scenario, participants were then shown another scenario. The only difference between the first and second scenarios was the acceptability under GAAP. I measured two dependant variables: the earnings management intention in scenarios in accordance with GAAP (*EMI_A*) and the earnings management intention in scenarios in violation of GAAP (*EMI_V*). In addition, I requested participants to provide a response to the level of power they assumed the CEO, Audit Committee, and Board of Directors had within the organization for use as a control in subsequent analysis. Participants also provided responses to previously validated scales of emotional intelligence, narcissism, and moral disengagement, as well as demographic information.

With respect to the relationship between pressure and earnings management intentions, I find support for the hypotheses that pressure, of either type, increases earnings management intention. Interestingly, this support was not evident in the repeated measure ANOVA, but rather came from a series of planned comparisons. These planned comparisons provide support that as pressure increases, earnings management intentions will also increase; however, there is no significant difference between the types of pressure (CEO pressure vs. Financial Pressure).

This study supported the prior research of Jiang et al (2010), that equity incentives (or financial pressure) can induce a CFO to manage earnings. This study also supports the work of Feng et al. (2011), that CEO pressure can induce earnings management behaviors. However, Feng's (2011) suggested that CEO power is a more important indicator of CFO earnings management behaviors than financial pressure. This finding was not evident from the current study. This study suggests that both types of pressure are important indicators of earnings management behaviors, the type of

pressure is interchangeable, and that there is an interaction between the two types of pressure.

As such, the results of this study revealed a significant curvilinear interaction between financial pressure and CEO pressure is represented by an inverted U pattern. This finding indicate that as pressure increases earnings management intentions increase, but when too much pressure is apparent earnings management intentions start to decrease. Prior research has found a similar curvilinear relationship when examining the effects of pressure on performance outcomes (Dezoort & Lord, 1997; McDaniels, 1990). I find two things interesting regarding these findings. First, the outcome variable is not performance, but rather earnings management intentions under both the scenarios in accordance with GAAP, and scenarios that violate GAAP. If we assume earnings management intentions represent negative performance, we would expect the pattern to be opposite, a U pattern. It is possible that when one type of pressure is applied, the participant decides to acquiesce with the earnings management proposal, to pacify the pressure source. However, when both types of pressure are applied to the participant, they become more conscientious of the choice they are making, and resist the temptation to manage earnings.

Second, I find it interesting to see that CEO and financial pressure appear to be interchangeable and additive. When considering the environment in which decisions are made, it is rare that someone would encounter only one type of pressure. CFOs will likely encounter both types of pressure manipulated in this study, along with a multitude of other pressures. Given the additive relationship, it is likely that the results of this study were due to the presences of a multitude of pressures simultaneously, rather than the specific types of pressure manipulated in this study.

The results revealed no support for the hypotheses of an interaction between type of pressure and the allowability under GAAP. It was hypothesized that there would be interaction effects between the types of pressure (Financial or CFO) and whether the scenario is allowable under GAAP. The fact that there was no interaction effect suggests that the relationship between pressure and intentions does not vary based on whether a specific proposal is allowable under GAAP. Although, it should be noted that there was a main effect of GAAP on earnings management intentions, indicating that CFOs are more likely to manage earnings in situations that are in accordance with GAAP than in situations that violate GAAP.

Finally, there was no support for the moderating effects of individual attributes (emotional intelligence, narcissism, and moral disengagement) on the relationships between pressure and earnings management intentions. While moderation of the individual attributes was not supported, the findings revealed main effects of emotional intelligence and moral disengagement on the earnings management intentions in scenarios that violated GAAP. Specifically, emotional intelligence was negatively associated with the *EMI_V* variable, suggesting that as emotional intelligence increases, the intention to manage earnings in situations that violate GAAP decreases. This relationship finds support in Cote and Miners (2006) work on emotional intelligence and organizational performance. Specifically, those individuals with higher emotional intelligence will engage in organizational citizenship behaviors that are beneficial to the organization. It is therefore reasonable that individuals with higher emotional intelligence would identify earnings management proposals that were in violation of GAAP to negatively affect the organization and therefore their intentions for those proposals would be lower.

Alternatively, moral disengagement had a positive association with *EMI_V*. This indicates that as an individual's propensity to morally disengage increases their intention to manage earnings also increases. This finding is again supported by prior research on moral disengagement. Researchers suggest that moral disengagement will result in increased initiation, facilitation, and perception of corruption within an organization, and that if an individual is high on moral disengagement, it will be easier for the individual to make an unethical or fraudulent decision, which could result in a potential benefit for the organization (Bandura, Caprara, Zsolnai 2000; Brief, Buttram, Dukerich, 2001; Moore, 2008).

5.2 Contributions

The findings from this research potentially offer several insightful contributions for both researchers and practitioners. While not a new topic, examination of earnings management from a behavioral perspective is relatively new research. Also, by drawing on established theoretical perspectives from accounting, management, and psychology disciplines this study adds to the body of knowledge on earnings management.

Theoretically, this research helps to clarify the conflict between whether CEO or financial pressure has more of an effect on the intentions to manage earnings. Specifically, it is not a matter of the type of pressure, only that pressure (of any kind) is present. Therefore, CFO's are susceptible to any type of pressure. Although, when there is an abundance of pressure, especially multiple types, a CFO will become more conscientious and acutely aware of the consequences of the choice they are making. These findings suggest researchers should be more diligent in gaining a broad understanding of the organizational environment and how the many factors that influence CFO (or any employee's) intentions and decisions work together.

Additionally, aspects of pressure have been examined in terms of positive performance outcomes; this research offers an alternative perspective in its examination of the effect of pressure on a negative performance (earnings management and GAAP violations). By focusing on these negative performance outcomes researchers are able to glean insight into a fuller picture of the effects of pressure.

This research is also one of the few studies to examine the effect of individual attributes in the context of earnings management. While there is a substantial amount of research focusing on predicting earnings management using the discretionary accrual method, the ultimate decision is driven by the individuals within the organization. It is therefore important to understand the individual factors that influence intentions and decisions. This research therefore offers an initial step for research in creating a more nuanced model of why earnings management occurs.

Another theoretical contribution relates to the focus on CFOs and not CEOs or top management teams as a whole. CFOs hold a unique fiduciary position, whereas they hold the technical skills to understand the implications of the financial statements, they are responsible for the accurate presentations of the statements, and they are required to sign-off on the statements, indicating they are fairly presented (Indjejikian & Matejka, 2009). With few exceptions, earnings management motivation has been investigated at the CEO level or the executive level as a whole (Feng, Ge, Lu & Shevlin, 2011). By examining the CFO, this research provides a more nuanced understanding of earnings management intentions by focusing on the individual in the organization generally responsible for making and implementing those decisions.

This research also offers several potential important contributions for practitioners and organizations. More pointedly, the findings would be useful in the recruitment, training, and oversight of individuals in the position to make financial

decisions that can have significant effects on the organization. When hiring CFO's, an organization could administer surveys to identify the individual's level of emotional intelligence and propensity for moral disengagement. Hiring individuals with high levels of emotional intelligence could be beneficial for the organization as they are have a higher propensity to engage in organizational citizenship behaviors (OCB) as well as the ability to manage the multitude of pressures that arise in C-level positions. Given that OCB's are an important factor in firm performance an organization could also provide emotional intelligence training to its employees in an effort to help increase individual and organizational performance. Finally, by indentifying a propensity for moral disengagement, the organization could increase oversight of those individuals that have a higher propensity to moral disengage. These guidelines may offer organizations some insight into how individual attributes and the organizational environment influence CFO decisions and intentions, which ultimately will effect overall organizational performance.

5.3 Limitations

As with all research, the contributions must be weighed against the limitations. I will discuss some of the main limitations facing this dissertation in this section. Specifically, I will discuss the generalizability of this study, the use of self-reported data, and limitations surrounding the use of this experiment.

One of the primary concerns facing this study is that the results may not be generalizable to the target population. Specifically, this study is attempting to predict the actions of a CFO, but using a student sample. Although consideration was given to the use of students, it may be difficult to assume that an undergraduate student's responses would mimic those of a seasoned professional. Repeating the study with an experienced population pool would help to ease this limitation.

Another limitation of this study is the use of self-reported data. An individual may show some bias, and find it difficult to objectively answer questions about oneself. As such, with the exception of earnings management intention, all of the constructs were operationalized using well-developed and previously validated scales. Future research may try to establish a more objective measure of earnings management intentions.

Finally, the use of this experimental instrument posed some additional limitations. First, although the scenarios were created to mirror situations a CFO may face in the real world, the participants may not have evaluated this situation as realistic, or may not have comprehended the specific pressure assigned in the condition. Also, the scenarios asked participants to respond to a single proposal, when in the real world, a CFO may simultaneously evaluate multiple options. Finally, demand effect or social desirability could alter the responses provided by the participant.

5.4 Future Research

While considerable research has addressed the relationship between the financial pressures and earnings management, this is one of the first studies to explore these relationships in the context of the intentions of the CFO and influences of alternative forms of organizational pressure. Based on the results provided from this study, several ideas for future research have surfaced and additional suggestions have emerged for improving future investigations on the role of pressure and individual attributes for CFOs and other in other contexts.

This investigation examined the effects of different types of pressure on individual intentions at one point in time. Future studies could investigate the longitudinal effects of different types of pressure on not only intentions, but also actual outcomes and the influence of those outcomes on organization performance. This would provide a more

objective model of intentions and decisions making. Longitudinal research of this type provides indication of the true nature of the individual, the organizational environment, and the potential for causality between variables of interest.

Another area for future research would be to examine the relationships of interest in a professional setting. While a student sample was beneficial for identifying if the hypothesized relationships existed, it is somewhat difficult for a student to put themselves in the role of a CFO. Therefore, examining these relationships (using the same measures and scenarios) with actual CFOs or top level managers would provide more insightful, as these individual are actually making these difficult decisions.

In addition to surveying a professional sample, future research could also attempt to utilize an objective outcome measure of earnings management. It would be very useful to examine not only the intentions of actual CFOs, but also the actual actions and decisions. Additionally, the use of an objective measure of earnings management , would helps to triangulate the data and provide a more robust and full model on how and why earnings management decisions are manage and the effects those decisions have on firm performance.

Finally, as indicated by the results of this study, individual attributes influence intentions and decisions. Therefore, future research could expand upon the foundations laid by this research and examine other individual level attributes that may influence earnings management intentions and decisions. Again, providing a more fine grained understanding of why earnings management occurs.

5.5 Summary

Despite the critical importance that individuals have on the decision to engage in earnings management, there is a paucity of research in the individual level factors that

influence those decisions. Therefore, the intentions of the study were to contribute to the body of knowledge on earnings management intentions and the relationship between different types of pressure, individual attributes, and intentions in the context of the CFO. Research on earnings management is not new, but the focus of factors other than financial incentives is just starting to emerge in the research. The results of this investigation provide evidence that pressure in general plays a significant role in the intentions to engage in earnings management, no matter the source of the pressure. However, it would be useful to validate these results with empirical evidence from other professionals, in different industries, and environmental contexts.

In sum, this research plants the seeds for further research on alternative forms of pressure and individual attributes in earnings management. For example, an important extension to this investigation may be the rigorous examination of the magnitude of different types of pressure can have on individual intentions and actions.

The results of the study provide insight for organizations and auditors with aspirations trying to understand why earnings management occurs and what factors might be relevant to avoid instances of earnings management that are in violation of GAAP.

Appendix A

Scales used to Measure Independent Variables

Appendix A.1: Emotional Intelligence Scale (Groves, McEnrue, & Shen 2008):

A) Perception and Appraisal of Emotions

- 1) I can accurately identify a range of emotions that I feel from day to day.
- 2) At work, I can instantly tell when someone is frustrated with me.
- 3) I can usually imagine what another person is feeling.
- 4) I have no difficulty figuring out how much passion to demonstrate about an issue at work.
- 5) I can usually tell how someone is feeling even though his/her facial expression may conflict with his/her body language.
- 6) I have no difficulty identifying how a person really feels about an issue despite what he or she may say.

B) Facilitating Thinking with Emotions

- 7) I often prioritize my work tasks according to how strongly I feel about the importance of each task.
- 8) I often use my excitement about a work project to focus the efforts of others involved with the project.
- 9) I often use how I feel about a problem to define the attention I give to it.
- 10) I listen to the feelings of other people in establishing priorities.
- 11) I deliberately attempt to create a feeling conducive to effective problem solving when meeting with clients or coworkers.
- 12) In deciding to go forward with a decision, I always consider how other people may feel about it.

C) Understanding Emotions

- 13) When a coworker of mine performs poorly on a project, I can usually recognize whether he or she feels angry, embarrassed, guilty or some other feeling (e.g. "wounded pride").
- 14) I can watch other people interact and recognize the feelings they hold toward each other.
- 15) I am acutely aware of subtle cues at work that express how people are feeling (e.g. where they sit, when they are silent, etc.)
- 16) I can usually tell when a co-worker's emotional response to a situation is due to his or her unique personality instead of his or her culturally background.
- 17) I can usually detect subtle changes in the emotions of my coworkers.
- 18) I can instantly recognize when a co-worker's frustrations with a project are escalating.

D) Regulation and Management of Emotions

- 19) I look forward to a feeling of accomplishment whenever I start a new project.
- 20) I am usually able to transmit enthusiasm about a work project to others.
- 21) I notice when someone is caring and compassionate towards others at work.
- 22) I am capable of calming someone down who is angry and frustrated at work.
- 23) When a coworker is feeling disappointed about his or her work performance, I make an effort to offer encouraging words of support.
- 24) Whenever painful events have occurred to people I know at work (i.e. death in family, serious illness), I have expressed genuine concern and tried to help them feel better.

Appendix A.2: Narcissism Scale – NPI-16 – (Ames, Rose, and Anderson, 2006)

Narcissistic Response	Non- Narcissistic Response
I know that I am good because everybody keeps telling me so.	When people compliment me, I sometimes get embarrassed.
I like to be the center of attention.	I prefer to blend in with the crowd.
I think I am a special person.	I am no better nor worse than most people.
I like having authority over people.	I don't mind following orders.
I find it easy to manipulate people.	I don't like it when I find myself manipulating people.
I insist upon getting the respect that is due me.	I usually get the respect that I deserve.
I am apt to show off if I get the chance.	I try not to be a show off.
I always know what I am doing.	Sometimes I am not sure what I am doing.
Everybody likes to hear my stories.	Sometimes I tell good stories.
I expect a great deal from other people.	I like to do things for other people.
I really like to be the center of attention	It makes me uncomfortable to be the center of attention.
People always seem to recognize my authority.	Being in authority doesn't mean that much to me.
I am going to be a great person.	I hope I am going to be successful.
I can make anybody believe anything I want them to.	People sometimes believe what I tell them.
I am more capable than other people.	There is a lot that I can learn from other people.
I am an extraordinary person.	I am much like everybody else.

Appendix A.3: Propensity to Morally Disengage Scale

(Moore, Detert, Trevino, Baker, & Mayer, 2012)

This scale provides one question for each mechanism discussed by Bandura (1986) that facilitates moral disengagement. Below you will find the eight mechanisms, followed by the scale item used to measure it. Each item is measured on a five point scale ranging from strongly disagree to strongly agree. Averaging the scores of all eight items provides an individual's propensity to morally disengage.

- 1) Moral Justification: It is okay to spread rumors to defend those you care about.
- 2) Euphemistic Labeling: Taking something without the owner's permission is okay as long as you're just borrowing it.
- 3) Advantageous Comparison: Considering the ways people grossly misrepresent themselves, it's hardly a sin to inflate your own credentials a bit.
- 4) Displacement of Responsibility: People shouldn't be held accountable for doing questionable things when they were just doing what an authority figure told them to do.
- 5) Diffusion of Responsibility: People can't be blamed for doing things that are technically wrong when all their friends are doing it too.
- 6) Distortion of Consequences: Taking personal credit for ideas that were not your own is no big deal.
- 7) Dehumanization: Some people have to be treated roughly because they lack feelings that can be hurt.
- 8) Attribution of Blame: People who get mistreated have usually done something to bring it on themselves.

Appendix B

Scenarios Used to Measure Dependent Variables

Scenario 1 – High CEO Pressure / High Financial Pressure / In Accordance with GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts. The chief executive officer is worried that failure to achieve forecasted profits will severely hurt the company's stock price and bond ratings. He has charged all employees to do whatever it takes to assure the forecast is met, and instituted mandatory weekend work sessions to come up with ideas for improving the bottom line. He has indicated that failure to meet these benchmarks could result in failure to secure needed financing and layoffs.

This year in an effort to achieve forecasted profits, the company is considering postponing all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but current year income will increase because no expenses will be incurred during December. While you are aware this does not violate GAAP, you are concerned that this may affect the comparability of the financial statements from one year to the next.

When the company achieves its forecasted profits, you will receive a 15% bonus.

Scenario 2 – High CEO Pressure / No Financial Pressure / In Accordance with GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts. The chief executive officer is worried that failure to achieve forecasted profits will severely hurt the company's stock price and bond ratings. He has charged all employees to do whatever it takes to assure the forecast is met, and instituted mandatory weekend work sessions to come up with ideas for improving the bottom line. He has indicated that failure to meet these benchmarks could result in failure to secure needed financing and layoffs.

This year in an effort to achieve forecasted profits, the company is considering postponing all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but current year income will increase because no expenses will be incurred during December. While you are aware this does not violate GAAP, you are concerned that this may affect the comparability of the financial statements from one year to the next.

Scenario 3 – No CEO Pressure / High Financial Pressure / In Accordance with GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts.

This year in an effort to achieve forecasted profits, the company is considering postponing all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but current year income will increase because no expenses will be incurred during December. While you are aware this does not violate GAAP, you are concerned that this may affect the comparability of the financial statements from one year to the next.

When the company achieves its forecasted profits, you will receive a 15% bonus.

Scenario 4 – No CEO Pressure / No Financial Pressure / In Accordance with GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts.

This year in an effort to achieve forecasted profits, the company is considering postponing all maintenance scheduled during the last two weeks of December until March of the following year. The cost of the maintenance will be about the same, but current year income will increase because no expenses will be incurred during December. While you are aware this does not violate GAAP, you are concerned that this may affect the comparability of the financial statements from one year to the next.

Scenario 5 - High CEO Pressure / High Financial Pressure / Violates GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts. The chief executive officer is worried that failure to achieve forecasted profits will severely hurt the company's stock price and bond ratings. He has charged all employees to do whatever it takes to assure the forecast is met, and instituted mandatory weekend work sessions to come up with ideas for improving the bottom line. He has indicated that failure to meet these benchmarks could result in failure to secure needed financing and layoffs.

This year in an effort to achieve forecasted profits, the company is considering capitalizing the cost of the repairs, and depreciating them over the next ten years. The cost of the maintenance will be about the same, but current year income will be increased because only one-tenth of the expenses will be incurred during December. You have concerns regarding this proposal because GAAP indicates that expenses of this nature should be expensed as incurred.

When the company achieves its forecasted profits, you will receive a 15% bonus.

Scenario 6 - High CEO Pressure / No Financial Pressure / Violates GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts. The chief executive officer is worried that failure to achieve forecasted profits will severely hurt the company's stock price and bond ratings. He has charged all employees to do whatever it takes to assure the forecast is met, and instituted mandatory weekend work sessions to come up with ideas for improving the bottom line. He has indicated that failure to meet these benchmarks could result in failure to secure needed financing and layoffs.

This year in an effort to achieve forecasted profits, the company is considering capitalizing the cost of the repairs, and depreciating them over the next ten years. The cost of the maintenance will be about the same, but current year income will be increased because only one-tenth of the expenses will be incurred during December. You have concerns regarding this proposal because GAAP indicates that expenses of this nature should be expensed as incurred.

Scenario 7 - No CEO Pressure / High Financial Pressure / Violates GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts.

This year in an effort to achieve forecasted profits, the company is considering capitalizing the cost of the repairs, and depreciating them over the next ten years. The cost of the maintenance will be about the same, but current year income will be increased because only one-tenth of the expenses will be incurred during December. You have concerns regarding this proposal because GAAP indicates that expenses of this nature should be expensed as incurred.

When the company achieves its forecasted profits, you will receive a 15% bonus.

Scenario 8 - No CEO Pressure / No Financial Pressure / Violates GAAP

You are the chief financial officer of a publicly held manufacturing company. Your company closes during the last two weeks of December each year for a winter holiday. During these two weeks, the company performs extensive maintenance on the manufacturing equipment. The maintenance is expensive, but has always been recorded as a normal operating expense in the past because of its recurring nature.

Due to a downturn in the economy, your company's profits are significantly lower than previously released earnings forecasts.

This year in an effort to achieve forecasted profits, the company is considering capitalizing the cost of the repairs, and depreciating them over the next ten years. The cost of the maintenance will be about the same, but current year income will be increased because only one-tenth of the expenses will be incurred during December. You have concerns regarding this proposal because GAAP indicates that expenses of this nature should be expensed as incurred.

Following each scenario, participants were asked to respond to each of the following questions, providing a rating on a five point scale:

- 1) What is the likelihood you would support the proposal?
- 2) What is the likelihood you would oppose the proposal?
- 3) What is the likelihood that you would find this proposal acceptable in business practice?
- 4) What is the likelihood that you would find this proposal unacceptable in business practice?
- 5) How likely is it that a situation like this occurs in the real world?
- 6) What is the likelihood this proposal is acceptable under GAAP?

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