Identifying the Effects of Narcissistic Leadership on Employee Job Satisfaction: A Study within the Accounting Profession

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Identifying the Effects of Narcissistic Leadership on Employee Job Satisfaction: A Study within the Accounting Profession

A Dissertation
Presented to
the Graduate School of
Clemson University

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Philosophy
Educational Leadership

by
Susan Braswell Shurden
August 2014

Accepted by:
Dr. Russell Marion, Committee Chair
Dr. Leslie Gonzales
Dr. Daryl Guffey
Dr. William Hanson
ABSTRACT

Narcissism is a personality disorder now identified in professionals in both education and business. The disorder is diagnosed when an individual possesses five of nine characteristics listed in their American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (fourth edition, text revision version). Narcissism is prevalent in most successful leaders and is both destructive and constructive. The focus of this dissertation is on the destructive characteristics and how narcissistic leadership affects job satisfaction among employees within the accounting profession.

The theories associated with this dissertation were leader-member exchange and locus of control. Leader-member exchange relates to the dyadic relationship between a leader (employer) and subordinate (employee) and can be either high or low quality. Locus of control refers to the amount of control an individual believes they have over their circumstances or environment.

The primary research question guiding this study was: Do leader-member exchange (LMX), locus of control (LOC), and narcissistic leadership affect employee job satisfaction in the accounting profession? An additional five secondary questions were analyzed.

This research used a quantitative design with a random sample of 152 accountants, nationwide. The data was analyzed using SmartPLS data software, and the method of analysis was a causal modeling technique called Partial Least Squares, Structural Equation Modeling (PLS-SEM).
Findings from the study were that locus of control had neither an indirect or direct effect on employee job satisfaction. Additionally, narcissistic leadership did not have a direct effect on employee job satisfaction. However, narcissism had a negative, indirect effect through the mediating variable leader-member exchange which had a positive, direct effect on job satisfaction.

Suggestions for controlling narcissism and recommendations for future research concluded the dissertation. Maintaining a professional attitude is of paramount importance when dealing with narcissistic individuals. Likewise, future research may involve extending the data to a gender or age study or identifying the effects of narcissism on employee turnover or client retention. A mixed method study might be considered to eliminate potential same source bias which was a limitation in this study.
DEDICATION

This dissertation is dedicated to my dear mom, Modelle Braswell, who passed away on Wednesday, August 12, 2009. Her passing was unexpected and occurred two years after I had begun the program. Although tremendously sad at the time, I did not feel a desire to give up but rather felt a renewed desire to complete this PhD program, as I can still remember her words of encouragement throughout the previous two years. She was a role model to me with her perseverance and strength throughout insurmountable difficulties in her life. I wish she could have been here on August 8, 2014, as I graduated. I believe she would have been most pleased.
ACKNOWLEDGEMENTS

“But they that wait upon the Lord shall renew their strength; they shall mount up with winds as eagles; they shall run, and not be weary; and they shall walk, and not faint.” Isaiah 40:31 (KJV)

I knew from the beginning that God, through various circumstances and people, orchestrated this entire process of getting my PhD. Therefore, I initially give full acknowledgment and credit to Him and my belief in His Son, Jesus Christ, as the catalyst which allowed me to complete the program.

Secondly, I acknowledge the tremendous contribution and sacrifice of my husband, Dr. Mike Shurden, and children, Jonathan and his wife Jess, as well as my daughters, Mandy, Amy, and Kelly. Mike was a constant encouragement and believed in me from the beginning. He was my statistician, without whom I would not have gotten through my Chapter 4 in a timely manner. My children have been my reason for persevering for it is because of my desire to leave them a legacy through education that I have continued when at times, I may have chosen an easier route.

Additionally, I acknowledge my appreciation for my chair, Dr. Russ Marion, Professor of Educational Leadership at Clemson. His expertise was evident, and his calmness in the midst of the chaos that I often felt was soothing. In retrospect, I can see how Dr. Marion guided me throughout the entire process, fitting together the pieces when I could not see the entire picture. He is a brilliant individual to whom I am most indebted.

My committee was fabulous! Dr. Leslie Gonzales was always so gracious, kind, and encouraging, providing me with an initial article which was the cornerstone of a major portion of my comprehensive exam and dissertation. Dr. Bill Hanson could see
more in depth than I and provided me with suggestions and insight that I did not have. Dr. James Guffey is a former accounting professor of mine who was instrumental in providing one of the articles which had a job satisfaction questionnaire that I needed in completing my survey tool. I could not have asked for a better committee, and I do indeed thank all of them!

I would be remiss to neglect to thank two professors who are no longer at Clemson. Dr. Frankie Keels Williams, former Program Coordinator of the Educational Leadership program, was instrumental in getting me accepted into the program. I also acknowledge Dr. Larry Grimes, Professor of Statistics at Clemson, who served on my committee prior to his retirement and was an outstanding professor who taught me statistics in such an understandable way, that even I could grasp the concepts.

Thank you to my colleagues and friends whom I have met during the program. Tim Dupont and I have taken numerous classes together. Tim provided support during both my proposal defense and dissertation defense. I hope to be able to do the same for him when the time comes. Dr. Lorraine Angelino completed the program shortly after I entered; however, she has given me numerous suggestions and was always available to provide answers to my questions. Lorraine was also there when I defended my dissertation, and I was most happy she was willing to join me on that special day. Additionally, Dr. Penny Vasser, Dr. Tony Franklin, Dr. Anthony Olalere, and Tiger are students whom I consider friends, and who have gone before me down the graduation aisle. I will never forget the classes we had together and the encouragement I received from them.
And a special thank you and acknowledgement to my editor, Dr. Beverly Little. With her help I had minimal changes to be made at the end. I still remember a gift I gave her many years ago when she began the PhD program at another university…a needlework…that said “I know I’m gonna make it cause God don’t sponsor no flops”…how appropriate!
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CHAPTER ONE

NATURE OF THE PROBLEM

Narcissism is identified by the American Psychiatric Association as a personality disorder which manifests itself when an individual possesses five of nine characteristics listed in their *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision version) (Amernic & Craig, 2010). Additionally, narcissists can be identified as “destructive” or “constructive” (Grier, 2008; Amernic & Craig, 2010; Craig & Amernic, 2011; Kets de Vries & Miller, 1985). An element of narcissism is prevalent in most successful leaders, especially those in major corporations (Kets de Vries, 2004; Amernic & Craig, 2010; Maccoby, 2003).

**Statement of the Problem**

A lack of a quality relationship between supervisor and employee can be the result of narcissistic tendencies in leaders (Grier, 2008). Narcissism is generally regarded as a destructive leadership trait (Godkin & Allcorn, 2011), and some research exists on identifying destructive leader traits and their influence on employee attitudes and job commitment (Schaubroeck, Wabumbwa, Ganster, & Keepes, 2007; Griffin & O’Leary-Kelly, 2004). However, there appears to be a lack of relevant literature identifying the intervening effects of narcissism between employee job satisfaction and relationships referred to as leader-member exchange (LMX) and locus of control (LOC). Therefore, the purpose of this study is to identify the effects of narcissistic leadership on employee job satisfaction and to identify the effects of narcissism on the relationship between LMX, LOC, and job satisfaction, specifically within the accounting profession.
Leader-member exchange (LMX) is a theory developed to explain the relationship between supervisors and subordinates (employees), and the theory identifies the quality of those relationships which can range from low to high (Harris, Wheeler, & Kacmar, 2009). Research is proliferating on the theory of LMX. Much of the research has focused on the positive aspects and outcomes of LMX (Harris, et. al, 2009). These positive outcomes are prevalent in increases in job performance (Gerstner & Day, 1997; Schriesheim, Castro & Cogliser, 1999), motivation (Tierney, Farmer, & Graen, 1999), job satisfaction (Gerstner & Day, 1997; Epitropaki & Martin, 2005), and commitment to the organization (Martin, Thomas, Charles, Epitropaki & McNamara, 2005). Employees who are supported and satisfied with their jobs (“high quality” LMX) are better employees and contribute more to the success of the organization (Godkin & Allcorn, 2011). In “high quality” LMX individuals, absenteeism is lower and productivity is higher, resulting in higher job satisfaction among employees (Koprowski, 1981). If “low quality” LMX occurs, the relationship between the leader and follower is not optimal, and job dissatisfaction occurs. In “low quality” LMX situations, employees begin to feel a lack of favor and a lack of support which fosters a lack of trust and a low self-esteem. Communication becomes difficult between the leader and follower, and the employee begins to not identify with the company, thereby affecting the amount of cooperation the follower wishes to give the leader. This lack of cooperation by the follower ultimately affects the firm (Stringer, 2006).

Locus of control (LOC) is a social learning theory with an underlying concept whereby some individuals perceive they have control over their lives while others feel
they have no control. The extremes are referred to as internal locus of control and external locus of control (Lefcourt, 1976). Rotter (1966) did not wish to characterize those with either an internal or external locus of control as having positive or negative qualities; however, Hiers and Heckle (1977) have indicated that the positive qualities attributed to successful leaders are associated with a higher internal locus of control. If, however, these leaders with a high internal locus of control are less happy, reasons indicated by April, Dharani & Peters, (2012, p. 132) are:

- Stress caused by assuming too much responsibility.
- Anxiety experienced due to lack of scapegoats.
- Feelings of guilt in case of non-achievement of any goal, and high levels of self criticism.
- Deep fear of loss of control.
- Feelings of insecurity due to lack of trust in others and their capabilities.
- Loneliness experienced due to lack of compassion in internals, which can lead to a lack of community, feeling and belonging.

Some of these characteristics, such as lack of compassion for others, are indicative of narcissistic behavior (Amernic & Craig, 2010); therefore, there appears to be a link between locus of control and narcissism which affects the happiness or satisfaction of others, especially in an employment setting.

**Purpose**

The major purpose of this study is to identify and explore the effect that narcissistic leadership has on employee job satisfaction. The hypotheses (chapter 2)
propose that narcissistic leadership exerts a direct effect on employee job satisfaction within the accounting profession, but that leader-member exchange relationships (LMX) and locus of control (LOC), exert mediating effects. A second goal of this study is to help higher education educators understand how narcissistic leadership affects employment of those within the job arena and thus help students better cope with their own narcissism and the impact and consequences of narcissist leadership on employment and job stability.

Additionally, this study should contribute to the current literature that exists on the topic of narcissistic leadership within accounting and provide relevant literature data on the mediating effects of narcissism as it relates to LMX, LOC and job satisfaction. The subject of employee job satisfaction in organizations is a much researched topic, especially in areas associated with turnover (Locke, 1969; Muchinsky, 1977). Likewise, there is a growing body of literature that examines the effects of narcissism on employee job satisfaction among organizations in general (Godkin & Allcorn, 2011; Koprowski, 1981; Lubit, 2002; Kernberg, 2008). However, I found relatively few studies conducted within the accounting profession on narcissism as it relates to employee job satisfaction (Amernic & Craig, 2010).

**Research Questions**

The following is the primary research question for this study:

Do leader-member exchange (LMX), locus of control (LOC), and narcissistic leadership affect employee job satisfaction in the accounting profession?
Supporting questions for this study are:

1. Do LMX relationships affect job satisfaction in the accounting profession?

2. Does narcissistic leadership affect employee job satisfaction in the accounting profession?

3. Does locus of control affect job satisfaction in the accounting profession?

4. How does LMX mediate in the relationship between narcissism and job satisfaction in the accounting profession?

5. Does narcissistic leadership have an effect on locus of control of subordinates in the accounting profession?

**Research Method**

This study utilized a non-experimental, quantitative design with a convenience sample consisting of a brief assessment that was composed of four surveys, each measuring the separate variables being studied. The survey considered the prevalence of narcissism within the accounting profession and was tailored to identify effects upon employees and to indicate levels of job satisfaction while incorporating the concepts of leader-member exchange theory (LMX) and locus of control (LOC) and the effects of narcissistic leadership on job satisfaction through the mediating effects of LMX and LOC. This study took into consideration behavior that is predictable within a large sample size. Findings will be generalized toward a greater population after having been analyzed statistically, making a quantitative study more appropriate (Creswell, 2003).

**Theoretical Framework for the Study**

The primary theory for this paper is the leadership theory leader-member exchange (LMX). Most leadership theories focus on leaders and the styles, traits, or skills possessed by them which motivate followers to perform and achieve. LMX is a
theory which focuses on both leader and follower and the relationship which exists between the two. LMX is a theory developed through the writing of various authors of the 1970s (Dansereau, Graen, and Haga 1975; Graen and Cashman, 1975; Graen, 1976). Some of the early studies focused on the concept of the “Vertical Dyad Linkages” (VDL). This focus is on the relationship between leader and follower and the characteristics of that relationship. These linkages were deemed vertical. The group in which an employee operated was a result of the dynamics between the employee and the leader. If an employee was willing to work with the leader and be fully cooperative, doing more than was required and was also willing to engage in negotiations (referred to as exchanges), then the employee became part of the in-group. If, however, the employee did only the amount of work described in their formal job description and did not go beyond that expectation, the employee was part of the out-group (Northouse, 2007).
Figure 1.1. The vertical dyad in Leader-Member Exchange Theory (LMX). “The leader (L) forms an individualized working relationship with each of his or her subordinates (S). The exchanges between the leader and subordinate define their dyadic relationship” (Northouse, 2007, p. 153).

Later studies went beyond just identification of LMX and focused on the quality of the exchanges which occurred between the leaders and followers. The relationship could then be deemed to have positive or negative outcomes for both leaders and followers (Graen & Uhl-Bien, 1995). Sparrowe (1994) found a link between LMX and job satisfaction that was connected to the level or degree of empowerment of individuals. Stringer (2006) considered the quality and strength of the theory with the level of job satisfaction of the employee. If there is a “high quality” supervisor-employee relationship, then there is a high level of job satisfaction. Hall, Schneider, & Nygen
(1970) contended that employees have increased feelings of “fitting in” if they have higher job satisfaction.

Additionally, high-quality exchanges between leaders and followers were shown to produce lower employee turnover and better performance. Likewise, followers had better attitudes on the job and participated more when they received the attention and support needed from leaders (Graen & Uhl-Bien, 1995; Liden, Wayne, & Stilwell, 1993).

A secondary theory behind this study is a social learning theory called Locus of Control developed in the 1950’s by Julian Rotter. He elaborated on this theory in his 1966 article “Generalized Expectancies for Internal versus External Control of Reinforcements”. Rotter believed that people in the same environment may learn and respond differently to various conditions. Additionally, he determined that some people will identify by having a direct link between the behavior they exhibit and the rewards/punishments they receive, referred to as “reinforcers”. Therefore, Rotter (1966) believed that social learning theorists would see a link between the reinforcer and the behavior that occurs.

The word “locus” means “place” with two types of locus occurring. An individual can have an “internal” locus of control whereby they believe that it is their behavior that controls the outcomes of the situation. Or, the individual can have an “external” locus of control, meaning that the individual does not have control over the outcome of the situation; however, someone or something external controls the outcome (Neill, 2004). Zimbardo (1985) understood this concept of locus of control to include the internal aspect of the theory as “outcomes of our actions are contingent on what we do”
while external locus of controls means “events outside our personal control” (Zimbardo, 1985, p. 275).

At the center of Rotter’s theory is “Expectancy Value Theory” which assumes that if given a choice between two alternatives, an individual will choose the one with the higher expected value. An example given was the concept of applying for two jobs. One job paid $40,000, while the other paid $60,000. If the individual believed he had a 50/50 chance of getting the higher paying job and a 100% chance of getting the lower paying job, then the individual has a higher expected value for the lower paying job, and it is the one he will ultimately seek the most. “Thus their expectancy judgments have a causal influence on their behavioral choices” (Neill, 2004). Consequently, an internal locus of control means a high general expectancy and an external locus of control means a low general expectancy (Neill, 2004). This concept of expectancy follows the concept of reinforcement developed by Skinner (1974) and used by Rotter (1966) in constructing the locus of control theory. Reinforcement, especially if it is positive, will strengthen a particular behavior (Rotter, 1966). The anticipated reinforcement is considered to be expectancy, and it forms and reinforces one’s locus of control (Rotter, Seeman & Liverant, 1962).

The concept of external and internal locus of control is depicted in Figure 1.2.
Figure 1. Locus of control. Two types of locus of control exist which influence employees. Source: Neill, 2006.

The general assumption is that an internal locus of control is more desirable and is often referred to as “self-agency”, “personal control”, “and self-determination” (Neill, 2006, p. 1). Mamlin, Harris, and Case (2001) observed that individuals with a higher internal locus of control tended to be males and people higher in the organizational structure. Likewise, Mamlin, et al., (2001) contend that as people grow older, they are more inclined to have a higher internal locus of control. This observation contrasts with McNulty and Borgen (1988) who indicate that an internal locus of control reaches a maximum in individuals between 14-16 years of age, becoming more external by age 18.

Neill (2006) believes those having an internal locus of control often possess an unhealthy and often unstable mental attitude which could result in neurosis, anxiousness, and depression. He advocates developing a belief in one’s personal successes while exhibiting personal control and developing competencies in areas important to the individual in order to offset the psychological maladjustment which could form. Klein and Wasserstein-Warnet (1999) believe the link between the internal locus of control and leadership is explained by the fact that these individuals have faith in achieving their
objectives through their own abilities. Neill (2006) indicates that these individuals with internal locus of control tend to be more focused on achievement and get better jobs. Research confirms that the more successful leaders have a higher internal locus of control (Hiers and Heckel, 1977; Anderson & Schneier, 1978; McCullough, Ashbridge & Pegg, 1994).

While an internal locus of control may produce satisfaction and achievement for the individual who possesses it, (Neill, 2006), the effects on peers and subordinates may be adverse (April, et al., 2012). April, et al. (2012) attributed an association between unhappiness and dissatisfaction with an external locus of control expectancy. In fact, when control was “in the hands of powerful others”, comments emerged from interviewees such as “I am consistently externally affected by ‘powerful others’…my Dad and other influential people has [sic] often led to me feeling inadequate. Even if I know that I have performed brilliantly. I often do not get any satisfaction…” (April et al., 2012, p. 130). This particular participant goes on to say that “…external locus of control, of powerful others affecting me, was so entrenched in me that I even became dissatisfied in my job” (April et. al, 2012, p. 130).

As Lunenburg and Cadavid (1992), indicated in their research, there will be a loss of feelings of accomplishment which are negatively correlated to external locus of control. Additionally, research has shown that a person’s locus of control has an impact on an individual’s well-being, level of happiness, and job satisfaction (April, et al., 2012). Likewise, successful leaders have been known to have a high internal locus of control (Hiers & Hecken, 1977), as well as a certain amount of narcissism which makes them
successful (Kets de Vries, 2004, p. 188). Amernic and Craig (2010) believe that most CEOs have narcissistic tendencies. Maccoby (2003) has identified many current and former CEOs of major corporations as narcissistic, some of which include the former Apple CEO, Steve Jobs, Bill Gates of Microsoft, Donald Trump of the Trump Organization, and Martha Stewart of Martha Stewart Living Omnimedia.

Definitions

The following definitions were used in this study:

*Job Satisfaction* is “an affective (that is, emotional) reaction to one’s job resulting from the incumbent’s comparison of actual outcomes with those that are desired (expected, deserved, and so on.)” (Cranny, Smith & Stone, 1992, p. 1) or “the pleasurable emotional state resulting from the appraisal of one’s job as achieving or facilitating the achievement of one’s job value” (Locke, 1969, p. 317).

*Leader-Member Exchange (LMX)* “conceptualizes leadership as a process that is centered on the interactions between leaders and followers” (Northouse, 2007, p. 151). The concept of “In Groups” and “Out Groups” exists.

*Locus of Control* “is a psychological, social learning theory that refers to the extent to which individuals perceive control over their lives, and environment” (Lefcourt, 1976, from April, et al., 2012, p. 124).

*Narcissism* is identified by the American Psychiatric Association’s *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision version) known as the DSM-IV-TR as “a pervasive pattern of grandiosity (in fantasy or behavior), need for admiration and lack of empathy…” (Amernic & Craig, 2010, p. 83).
Assumptions and Limitations

A sample size of approximately $n = 4,914$ in the employment category of accounting was used to confirm employee job satisfaction and the effect of narcissistic leadership on employee job satisfaction. The study was limited by several factors. The original selection of participants was approximately 598 members of the American Institute of Certified Public Accountants (AICPA) and was limited by my inability to get a randomly generated list of these participants. Consequently, I had to do a random selection from the AICPA’s data base and search for e-mail addresses in order to forward the survey. The survey was originally planned to be emailed in November, 2013; however because of various delays, most notably IRB approval, the surveys were not emailed until December, 2013. Because of the emails being sent during the holidays and end of the year closing time for accountants, the response rate was low, approximately 9%. However, response rates based on Garson as identified in Wonneberg, (2007), estimates 10% response rates for marketing surveys, but I was striving for a much higher response rate of 40%-60%. Consequently, in order to increase the response rate, it was decided that another set of emails would be sent after April 15, 2014, the Federal Income Tax deadline representing the conclusion of what accountants refer to as “tax season”. Therefore, another 637 email addresses from AICPA members were obtained, as well as 3,679 emails of various accountants nationwide were purchased from a marketing firm. The 3,679 emails were randomly generated. These emails were sent out in May, 2014.

There was also a limitation regarding minimum age of participation to 18, as well as a limitation to those with English language comprehension.
There was an assumption that all subjects would be truthful in the responses they made. However, limitations exist because of the lack of truthfulness and deception skills on the part of those who may have taken the survey and also were narcissistic.

There was an assumption that there would be one subject for each Internet Protocol (IP) address. The Qualtrics administrator tool was used and would not allow more than one submission per address.

**Significance of the Study**

This study was significant in areas of both education and accounting. Within the area of education, this study will provide educators with information on narcissism and the effects it has on students after entering the job market. Students often enter the job market with high expectations of their job. Those students who exhibit high internal control have faith in their abilities (Klein & Wasserstein-Warnet, 1999). They may want to “transform their environment” (Andrisani & Nestel, 1976). Additionally, they may feel a personal responsibility for success on the job, and if their ability to succeed and accomplish becomes hampered, they may feel inadequate (Klein & Wasserstein-Warnet, 1999). If an individual’s internal locus of control becomes external through circumstances beyond their control [i.e. narcissistic leaders], these employees may experience psychological distress (Holder & Levi, 1988) and depression (Ganellan & Blaney, 1984). Additionally, Marks (1998) indicates that an external locus of control can foster higher suicide rates. If the external locus of control they exhibit is attributed to narcissism, and tensions caused by the narcissist are too high, employees become dissatisfied. Perhaps this dissatisfaction is because of obstacles such as delay tactics
presented by the narcissist. Employees also may experience coercion or even slander of
their reputation (Grier, 2008). Samier and Atkins (2010) in their article “Preventing and
Combating Administrative Narcissism” address various ways to identify and reduce
narcissistic behavior from a higher education perspective.

Likewise, according to Godkin and Allcorn (2011), the success of an
organization is directly associated with employee satisfaction and performance.
Consequently, narcissism is deemed a “significant problem for organizations” (Lubit,
2002, p. 127). While some authors such as Amernic & Craig (2010) are contributing to
the literature regarding a relationship between accounting and personality disorders [i.e.
narcissism], to date, there are few published studies on the topic. Therefore, this study
will contribute ideas and add to the current literature on narcissism in the area of
accounting (Amernic & Craig, 2010).

**Organization of the Study**

This study will consist of six chapters. Chapter one contains the background,
problem, and the purpose for the study of the effects of narcissistic leadership on
employee job satisfaction within the accounting profession. It includes the methodology,
theoretical foundations, conceptual design, definitions, and significance of the study.

Chapter Two contains a review of the literature on LMX, narcissism, and locus of
control. This chapter defines the concept, gives the origin, and reveals other issues
pertaining to the topic. It additionally identifies prominent business leaders who have the
disorder, as well as identifies some of the noted effects on employees. The theory
discussed in chapter two is leader-member exchange and locus of control.
Chapter Three identifies the methodology which contains the setting, participants, design, research instrument, and data collection methods. The findings, results and analysis from a quantitative study of approximately 5,000 accountants nationwide will be presented in Chapter Four. Chapter Five will contain the discussion, limitations, suggestions for controlling narcissism, and recommendations for possible future research.
CHAPTER TWO
LITERATURE REVIEW

The purpose of this chapter is to present a review of the literature associated with narcissistic leadership and to identify and explore the effect it has on the relationship between leader-member exchange (LMX), locus of control, and employee job satisfaction within the accounting profession. The literature review begins with an overview of narcissism which includes definitions, characteristics, and examples specifically within the area of business. The review encompasses reasons for the increase in narcissistic behavior and identifies the theories which are associated with narcissism. These specific theories are leader-member exchange (LMX) and locus of control. The final section of the literature review identifies the effects on employees of narcissistic leaders within a business context.

While studies were previously conducted on the effects on employees of narcissistic leadership within the business environment (Godkin & Allcorn, 2011; Koprowski, 1981; Lubit, 2002; Kernberg, 2008), in general, there is little research within the specific business area of accounting, especially as it relates to employee job satisfaction (Amernic & Craig 2010; Gibney, Zagenczyk, & Masters, 2009). This study proposes to add to current literature by surveying a nationwide sample of accounting employees. The survey consisted of four previously designed surveys used to specifically address issues of narcissistic leadership characteristics as they pertain to employee satisfaction within their work environment.
Introduction

Once upon a time, there were two clever and ambitious young cats who went to work for a proud and wily lion. “Welcome to my company,” said the lion expansively. “You are now among the chosen few. We hire only the very best, because the work here is very important, and we have a reputation to maintain. Work hard, and you will share in my glory. But if you disappoint me, I will send you away with your tails dragging!” (Hotchkiss, 2002, p. 151).

The excerpt above is “The Tale of Two Kitties” as told by Sandy Hotchkiss, (2002), in her book, Why is it Always About You? The “wily lion” is the narcissist who hires the two kitties. The kitties take different approaches to dealing with the narcissistic personality of the lion. The sleek black kitty takes the approach that: “I will have some of this power for myself…..If I show the lion how talented I am, he will share his power with me” (p. 152). While the little tabby who is less bold than the sleek black kitty, takes a different approach entirely. The story goes on to say that “She worked tirelessly, sometimes into the night, to polish the lion’s image and make sure that it was always burnished to a luster for all the world to admire” (p. 152). Unfortunately, in the end, the narcissist lion lost both hardworking kitties. The sleek black kitty was fired because of her ambitions, and the pretty tabby resigned for a better work environment with better pay. The narcissistic lion also witnessed a terrible destabilization of his company with indications that it would never recover the losses incurred (Hotchkiss, 2002).

“The narcissist has one world, and he resides in the middle of it” (Grier, 2008, p. 21). Listening to the opinions and suggestions of others is something he is either not capable of or is unwilling to do. The narcissist often will make decisions and take actions
to accomplish his own agenda rather than what is best for the organization. He is “like an old codger who takes the wrong highway onramp in the dead of night and starts driving against the traffic…..he wonders where all the idiots are coming from” (Grier, 2008, p. 48). Their actions may result in poor decisions which at the least cause conflict but may also be unethical and/or harm the future performance of the company. Additionally, the effects of working with a narcissist can be an uncomfortable and damaging situation for others, professionally and personally, thereby causing a less than satisfying existence resulting in little job satisfaction (Grier, 2008).

**Definition**

**American Psychiatric Association**

Narcissism is one of ten personality disorders classified by the American Psychiatric Association. According to the APA’s *Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision version), often abbreviated as DSM-IV-TR, a personality disorder is a deviation from what is normally expected in one’s culture, and it usually begins in childhood, continuing into adolescence (Cherry, 2012). The most widely accepted definition of the personality disorder of narcissism is the one provided by the DSM-IV-TR that identifies it as “a pervasive pattern of grandiosity (in fantasy or behavior), need for admiration and lack of empathy…” (Amernic & Craig, 2010, p. 83).

**Other**

Other terms used to describe narcissism are “arrogance, conceit, vanity, grandiosity, and self-centeredness” (Twenge & Campbell, 2009, p. 18). Cherry, (2012) further elaborates that narcissism is an enduring pattern of behavior that impacts many
areas of life, social, family, and work, often in a negative way. Likewise, it affects approximately one percent of the adult population just in the United States alone and is found in men more than women (Cherry, 2012).

**Origin**

The origin of the word “narcissism” comes from Greek mythology, specifically the story of Narcissus who was a most handsome and appealing young man. He was the son of Nymph Leiriope of Thespia and the River god Cephisus. His mother was told by an oracle (prophetic priest/priestess) that Narcissus would live to an old age as long as he never saw himself. However, this long life was not to be because as a youth, Narcissus looked into a pool of water and fell in love with his own reflection. Two versions of his death ensued. One version was that he refused to leave his reflection in the pool and thus died. The other version was that he committed suicide by stabbing himself in the heart with a knife because he could not touch the image of himself. Regardless of the method, the outcome was the same. Narcissus led a short life due to his self-love (Bullfinch, 2012).

**The “Dark Triad”**

Additionally, narcissism is part of the “dark triad” which is a set of three personality disorders characterized by an increased sense of importance and entitlement. The “dark triad” consists of not only narcissism, but also Machiavellianism and psychopathy. Machiavellianism is a disorder in which the individual will do anything or hurt anyone to accomplish his/her goal. Psychopathy is characterized by a total lack of empathy and a cold personality. The individual may appear charming; however, he/she
generally exhibits antisocial behavior. Individuals possessing any of the “dark triad” will often be aggressive with a desire for increased power and dominance over others (Black, 2011).

Identifying Narcissism

Characteristics

Amernic & Craig (2010) identify narcissism according to the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (fourth edition, text revision version). Characteristics prevalent in order to be diagnosed as a narcissistic personality include having five of the nine traits listed below. They are:

1. Has a grandiose sense of self-importance.
2. Is preoccupied with fantasies of unlimited success, power, brilliance and beauty.
3. Believes that he or she is special and unique.
4. Requests excessive admiration.
5. Has a sense of entitlement to especially favorable treatment.
6. Is interpersonally exploitative.
7. Lacks empathy with the feelings and needs of others.
8. Is envious of others or believes that others are envious of him or her.
“The Seven Deadly Sins”

Another perspective in identifying the characteristics of a narcissist is termed “The Seven Deadly Sins” by Hotchkiss, (2002). She believes narcissists exhibit:

1. Shamelessness resulting from an intense feeling of shame.
2. Magical thinking through distortion and illusion.
3. Arrogance through perfectionism and judgmentalism.
4. Envy exhibited through a sense of superiority.
5. Entitlement mentality resulting from childhood recognition and rewards.
6. Exploitation of others resulting from a lack of empathy.
7. Poor boundaries ignoring the separateness of others. (pp. 3-32)

Destructive Narcissists

Grier, (2008), characterizes narcissism as a destructive personality. He views these individuals as arrogant, unprofessional, often unethical, critical, untrustworthy, incapable of accepting criticism, and unwilling to listen to others. These characteristics severely limit the ability of the narcissist to work with others. Such individuals have difficulty working in team situations, and if the narcissist is in a leadership position, subordinates often feel devalued (Lubit, 2002).

Constructive Narcissists

However, while narcissism is generally regarded as destructive, some literature also reveals that it can be “good or constructive” (Amernic & Craig, 2010; Craig & Amernic, 2011). Kets de Vries & Miller (1985) indicate that a constructive narcissist can possess some traits of destructive narcissists such as ambition, manipulation, and a
hypersensitivity to criticism yet still possess a healthy self-esteem with a positive disposition and can be empathetic. These characteristics are their coping mechanisms when dealing with the frustrations of daily life (Kets de Vries, 2004; Lubit, 2002). An example of a constructive narcissist is Oprah Winfrey. She is an iconic media and business personality who possesses the traits of “healthy adult narcissism” (Behary, 2008, p. 28). These traits are: “1) empathic, 2) engaging, 3) a leader, 4) self-possessed (not selfish), 5) seeks recognition, 6) determined, 7) confrontational, and 8) wisely fearful” (Behary, 2008, pp. 28-29). This study will not investigate the constructive aspect of narcissism but will focus on the destructive characteristics of the disorder.

**Identifying Reasons for Increased Narcissism**

**Parental Attitudes**

According to Hotchkiss (2002), one of the contributors of increased narcissism within the past several decades is that an entire generation of children were raised to feel entitled and encouraged to focus on themselves. She notes “seven parental attitudes that create narcissistic children”. These attitudes are:

1. My child is special and deserves to have everything.
2. My child should never suffer.
3. What’s good for me is good for my child.
4. Children need freedom of expression.
5. Empathy for a child is the same as treating him or her as a friend.
6. Sex is natural, and children should not be made to feel shameful.
7. The way to build self-esteem is to tell children how “special” they are (Hotchkiss, 2002, pp. 187-197).
Hotchkiss, (2002) believes that the “Me Generation” is the result of parenting using the above seven attitudes and is also the result of a society adopting them.

**Curriculum Changes**

Hotchkiss (2002) further contends that another reason for an increase in narcissism in our society is the creation of a new curriculum in 1987 adding “responsibility, self-respect, and relationship” (p. 177) to the reading, ‘riting, and ‘rithmatic concept which was already in elementary schools. This change was a noble attempt initiated by John Vasconcellos, an assemblyman from California, to build self-esteem in students in order to combat the effects of undesirable influences such as crime and violence which are prevalent in our American culture (Hotchkiss, 2002). The change in curriculum was a “success” with over 80% of college students having higher scores in self-esteem than those from the 1960s (Twenge & Campbell, 2009). However, instead of the good that this “self-esteem movement” wanted to create, it resulted in a concept of entitlement on an entire generation of America children rather than the character and good habits of self-control, honesty, and helpfulness. Now the “Me Generation” has matured, and they are moving into a diverse range of positions in society (Hotchkiss, 2002). These positions involve relationships with others and are characterized by interactions involving the following theories of leader-member exchange and locus of control.
Theory

Leader-Member Exchange Theory

Leader-member exchange theory (LMX) was first mentioned in the works of Dansereau, Graen, and Haga in 1975 and addressed in later works by Graen and Cashman in 1975 and Graen in 1976. LMX is a theory which focuses on the relationships in a working environment between supervisors and employees. At that time, it was referred to as “vertical dyad linkage” (VDL) theory. The supervisor or leader’s relationship on the work unit was regarded as vertical dyads with two subcategories developing which are referred to as the in-group and the out-group. The in-group is based on expanded roles that are defined by “mutual trust, respect, liking, reciprocal influence or obligation, loyalty, professional respect and contributory behavior” (Dienesch and Liden, 1986, from Stringer, 2006, p. 127). Likewise the out-groups are the roles defined by a low degree of the above mentioned characteristics (Dienesch and Liden, 1986 from Stringer, 2006).

How well a follower or employee worked with the leader would dictate whether they were in the in-group or the out-group. Exchanges or negotiations occurred between the members who facilitated their progression to one group or the other. These negotiations may involve the subordinates taking on additional work responsibilities, thus placing them in the in-group. Once they become part of that in-group, the leader may favor them with more information or confidence than members of the out-group (Northouse, 2007). Another term for the in-group would be the “inner circle”, while the out-group is regarded as not having obtained the leader’s “favor” (Uhlig, 2013). Rather than this research focusing on the in-group/out-group aspect of LMX, the research and final
analysis will focus on the four-dimension aspect of LMX found in Liden and Maslyn (1998). These four dimensions of LMX were contribution (the amount of work oriented activity), loyalty, professional respect, and interpersonal attraction (affect) (Liden and Maslyn, 1998). Further discussion of these four-dimensions follows with the introduction of hypothesis 4.

There are advantages and disadvantages to this theory of LMX. The main advantage is how easily LMX fits into workplace theology. It also allows assessment of individuals and determines those individuals who may not succeed. Additionally, in-group members typically enjoy greater job satisfaction and are less likely to leave the organization (Uhlig, 2013).

The disadvantages of the theory of LMX are that it assumes that all employees begin at the same point and have the same advantages when in fact some employees may be given more suitable assignments which make advancement easier. Additionally, the LMX theory focuses more on individual dynamics rather than group dynamics, and leaders in business organizations currently place a stronger emphasis on group dynamics or teamwork (Uhlig, 2013).

Revisions occurred to the theory of LMX with later studies focusing more on how the theory related to organizational effectiveness. Subsequent research indicated that the quality of the leader-member exchange relationship could result in more positive outcomes for all involved. Quality is deemed either high or low LMX depending on the strength of the relationship between leader and follower. High quality LMX is indicative of a stronger relationship than low quality LMX (Graen & Uhl-Bien, 1995).
Locus of Control

The second theory associated with this study is locus of control, which is a psychological, social learning theory. Julian Rotter developed the theory in 1966 (Carrim, Basson, & Coetzee, 2006). He believed that people are prone to seek positive reinforcement and avoid unpleasant situations. These concepts later become part of Skinner’s (1974) reinforcement theory.

April, et al. (2012) researched locus of control and its relevance on individual happiness. Locus of Control is depicted as having two opposite sides, one internal and one external. Those with an internal locus of control believe that they have control over the outcomes of their actions, while those with an external locus of control believe that what happens to them is dependent on external factors. Four of these external locus of control factors are believed to be control by “powerful others, luck or chance, fate and a belief that the world is too complex to be predicted” (Marks, 1998, from April, et al., 2012, p. 125). Likewise, April, et al. (2012) revealed that those individuals having an extreme external locus of control orientation experience a lack of well-being that has links to depression, feelings of powerlessness, helplessness, and hopelessness. Consequently, because these individuals may attribute the results of their actions to external forces, there is a resulting unhappiness and lack of satisfaction. Yet those individuals with an internal locus of control orientation believe outcomes are a result of their own actions, and they are often the high achievers and very successful. However, they feel a very high level of responsibility that often leads to stress, and they can become very critical of themselves. Other characteristics of those having an internal locus of
control are anxiousness due to having a lack of others to blame, fear of losing control, feelings of insecurity due to not trusting others, and loneliness due to a lack of compassion for others (April, et al, 2012).

Figure 2.1 illustrates the proposed relationship between leader-member exchange (LMX) and job satisfaction with a mediating relationship resulting when locus of control is introduced as a linkage between LMX and job satisfaction. Additionally, narcissistic leadership is proposed to depress LMX and negatively affect job satisfaction. This illustration is followed by the hypotheses for this study.

**Figure 2.1.** Illustration of the linkage between Narcissistic Leadership and Job Satisfaction. LMX and LOC are proposed to have a mediating relationship between narcissistic leadership and employee job satisfaction.

**Hypotheses**

**Hypothesis 1:** Narcissistic leadership has a negative causal impact on employee job satisfaction.

In his book *Narcissism in the Workplace*, Grier (2008) gives his account of working with a narcissistic employee. The employee was in a high level management
position; however, he was subordinate to Grier. The individuals employed by the narcissistic leader were dissatisfied in their employment, and some eventually left their positions. The Board of Directors did not see the day to day interactions between the narcissistic leader and his employees; consequently, the board refused to terminate the narcissistic individual’s position. Working with this individual became so difficult, that Grier eventually left his own superior, management level position because of his dissatisfaction in working with the narcissist (Grier, 2008).

**Hypothesis 2**: Locus of control has a positive effect on employee job satisfaction.

Bernardi & Nydegger (1999) confirm the linkages of an individual’s locus of control with factors such as stress and other related pressures which can affect employee job satisfaction. Additionally, these factors were previously cited by Rotter (1966). Those individuals with a higher internal locus of control believe they influence their situation and show lower stress and higher job satisfaction (Chan, 1977; Schafer & McKenna, 1991).

**Hypothesis 3**: Locus of control exerts a positive mediating relationship between leader-member exchange and employee job satisfaction.

The relationship between locus of control and employee job satisfaction was confirmed by previous studies (Melamed & Kushnir, 1991; Landsbergis, Schnall, & Friedman, 1992; and Banka, 1993) whereby those employees with higher job satisfaction have a high sense of internal locus of control, and those employees with lower job satisfaction have a lower sense of internal locus of control. Therefore, I propose a relationship between leader-member exchange theory and employee job satisfaction with locus of control mediating between LMX and job satisfaction.
Harris, Wheeler, & Kacmar (2009) confirmed that there is a relationship between the concept of employee empowerment (which I consider locus of control) and LMX quality. Spreitzer (1995) referred to empowerment as “psychological” and elaborated on the fact that task motivation is influenced by four cognitions which Harris, et al. (2009) refer to as “meaning, competence, impact, and self-determination” (p. 371). These four cognitions increase task motivation (empowerment) of employees if they have positive attitudes toward their jobs (Spreitzer, 1995; Spreitzer, Kizilos, & Nason, 1997). Early studies such as the one by Likert in 1961 indicated that employees were generally empowered by effective leaders. However, the study conducted by Harris, et al (2009) was specifically designed to “examine the moderating effect of empowerment on the relationships between LMX quality and the job outcomes of job satisfaction, turnover intentions, job performance, and OCBs (organizational citizenship behaviors)” (p. 379).

According to the research of Harris, et al (2009), those individuals with a high level of empowerment are not as focused on the LMX relationship because the job is more satisfying and has more positive outcomes. However, those individuals with a low level of empowerment [locus of control] will find more satisfaction in a high quality LMX relationship with superiors.

**Hypothesis 4:**

a) Leader-member exchange relationships positively influence job satisfaction.

b) Narcissistic leadership depresses LMX. LMX exerts a mediating effect that modified the relationship between narcissism and employee job satisfaction.

Some early research showed a link between LMX and job satisfaction within the in-groups because the employees felt more empowered (Sparrowe, 1994). This job
satisfaction is based on a high-quality relationship that reduced employee turnover and increased performance, increased promotions, and achieved better attitudes from workers when leaders provided more support (Graen & Uhl-Bien, 1995; Liden, Wayne & Stilwell, 1993). This high-quality [in-group] LMX is because there is a trust-based relationship between employees and leaders (Graen & Uhl-Bien, 1995). Therefore, the leader will assign more desirable assignments and give more support and attention to the follower. They will also encourage a closer working relationship with co-workers (Dansereau et al., 1975; Graen, 1976; Graen and Uhl-Bien, 1995).

A linkage is also indicated between LMX and narcissism as evidenced by a comparison of the four dimensions from Liden and Maslyn (1998) in their 11-item scale. As previously mentioned, these four dimensions of LMX were contribution (the amount of work oriented activity), loyalty, professional respect, and interpersonal attraction (affect). This scale is used in a variety of ways, including by educational organizations; however, the most frequent usage is to indicate responses of followers in regard to their leaders (Marion & Gonzales, 2013). The linkage to LMX is found when the four dimensions are compared to nine characteristics of a narcissistic personality from the American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders (fourth edition, text revision version, 2013). These characteristics were previously stated in the beginning paragraphs of the chapter. The linkage occurs with the following “tie ins” as shown in Table 2.1.
Table 2.1
Relationship of APA characteristics of narcissism to Liden/Maslyn dimensions of LMX

<table>
<thead>
<tr>
<th>APA Characteristic of Narcissism</th>
<th>LMX Dimension from Liden/Maslyn</th>
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<tbody>
<tr>
<td>#1 Has a grandiose sense of self-importance</td>
<td>Contribution</td>
</tr>
<tr>
<td>#2 Is preoccupied with fantasies of unlimited success</td>
<td>Contribution</td>
</tr>
<tr>
<td>#6 Is Interpersonally exploitative</td>
<td>Contribution</td>
</tr>
<tr>
<td>#4 Requests excessive admiration</td>
<td>Loyalty</td>
</tr>
<tr>
<td>#3 Believes he/she is unique and special</td>
<td>Loyalty</td>
</tr>
<tr>
<td>#5 Has a sense of entitlement to favorable treatment</td>
<td>Loyalty</td>
</tr>
<tr>
<td>#9 Shows arrogant haughty behavior</td>
<td>Professional respect</td>
</tr>
<tr>
<td>#8 Is envious of others</td>
<td>Interpersonal attraction (Affect)</td>
</tr>
<tr>
<td>#7 Lacks empathy</td>
<td>Interpersonal attraction (Affect)</td>
</tr>
</tbody>
</table>

In regard to Liden and Maslyn’s “contribution” dimension of LMX whereby each member contributes to the work activity, the narcissistic leader would be very self-focused on their importance and achievement, and for this reason would exploit others to get ahead. The narcissistic leader would have little, if any, “loyalty” and would require that they receive admiration and praise, believing that he or she is more unique and special than others. Additionally, the narcissistic leader would require a sense of entitlement which carries over into the “professional respect” dimension whereby they exhibit haughty and arrogant behavior toward others, showing no professional respect toward peers or subordinates unless it benefited their own chances of succeeding. “Interpersonal attraction” (also referred to as affect) would be very limited because the
narcissistic leader is envious and lacks empathy for others and would thereby only foster relationships that have a positive impact on their goals.

**Hypothesis 5**: Locus of control has a mediating effect between narcissistic leadership and employee job satisfaction.

Locus of control is characterized as either internal or external depending on how much control the individual perceives they have on their personal situation (April, et al., 2012). Those with an internal locus of control believe that working hard and using their personal abilities will result in positive outcomes (Carrim et al., 2006). April, et al., (2012), indicates that those having an internal locus of control are generally the leaders, and Carrim, et al., (2006), indicate they are generally happier in their jobs. However, those having an external locus of control are generally less happy because of this lack of control over their environment and factors such as “scapegoating” and lack of empathy by their superiors (April, et al., 2012). The effect and “tie-in” to narcissistic leadership is indicated in the information following Hypothesis 6.

**Hypothesis 6**: Narcissistic leadership has a negative effect on locus of control.

As Marks, (1998) indicated, individuals with an external locus of control believe they are often controlled by “powerful others” (p. 125) which results in a sense of powerlessness followed by feelings of depression, unhappiness and dissatisfaction (April, et. al., 2012). Those individuals with an internal locus of control are often the successful, high achievers who often become stressed, resulting in a lack of trust and compassion (empathy) for others (April, et. al, 2012). Lack of empathy is characteristic number 7 in the identification of narcissism according to the *American Psychiatric Association’s Diagnostic and Statistical Manual of Mental Disorders* (fourth edition, text revision
version) (from Amernic & Craig, 2010), thereby indicating that narcissistic leadership could have a significant effect on locus of control, especially if the “powerful others” mentioned by Marks (1998) are deemed to be narcissistic.

**Relationship of Narcissism to Business**

**Narcissistic Leadership in Business**

According to Kets de Vries (2004), a certain amount of narcissism is beneficial for any individual who wants to be successful and rise to the top of an organization. Therefore, Amernic and Craig (2010) contend that “there are plausible grounds to presume that most CEOs exhibit narcissistic tendencies” (p. 82).

**A narcissistic leader who failed.** A study by Michael Maccoby (1976) revealed the emergence of a new corporate leader as one who builds an “empire” with people and wants to be termed a winner. This new leader, instead of challenging the problem that needs to be solved, challenges the individual employees involved in an attempt to maintain control. Loyalty to the organization or to any individual is not this type of leader’s concern. What is important to this narcissistic leader is that they be viewed as a “winner” (Maccoby, 1976). If they do well, they will be “heroes”; however, if they fail, then resources are drained and errors occur which are unchecked. By the time they realize they have made a mistake in the venture, too much damage has occurred to correct the mistake.

This situation has repeated itself throughout the history of business. Individuals with grandiose ideas take on the leadership of traditional and mostly conservative companies, trying to transform them in a radical way. An example is the extremely
talented John DeLorean, who left General Motors to implement his grandiose idea of the ultimate sports car. He refused to acknowledge that his methods and plant capacity were too ambitious for the time (Kets de Vries & Miller, 1984).

**A narcissistic leader who succeeded.** On the reverse side are the stories of these types of individuals who succeed at their grandiose ideas. An example over the last few decades was Steve Jobs whose concept of having a personal computer available to the ordinary people became a reality with the Apple I in 1976 and later the Apple II, both products of his partner, Steven Wozniak. However, the computer for which Jobs is most remembered was the Macintosh which debuted in 1984 (Isaacson, 2011).

During these early years, Jobs was very erratic and temperamental, having little empathy for his employees unless they excelled. There were actually two teams at Apple during this time; one team was working on the Macintosh while another team was working on a lesser-known computer, the Lisa, named after Jobs’ daughter. With the success of the Macintosh, the Lisa fell by the wayside. The two teams merged, and Jobs elevated his Macintosh leaders to the top positions and eliminated many of the Lisa staff. His words to the Lisa team were “You guys failed….you’re a B team, B players. Too many people here are B or C players, so today we are releasing some of you to have the opportunity to work at our sister companies here in the valley” (Isaacson, 2011, p. 181).

According to Bill Atkinson, an Apple employee who worked with both teams, Steve believed you had to be ruthless to build “A-team” people, meaning you only worked with “A-team” players not B people. This mentality would ultimately get Jobs ousted from his
own company in 1985, later to return in 1997 to lead the company to unprecedented success (Isaacson, 2011).

**Narcissistic Leadership in Accounting**

“By definition, accounting is a system of recording and summarizing business and financial transactions” (Bellas, 2014). The financial statements which are prepared for a public company must follow a set of rules called Generally Accepted Accounting Principles (GAAP). These rules have developed over years and are prepared by the Financial Accounting Standards Board (FASB) under the “watchful scrutiny” of the regulatory body, the Securities and Exchange Commission (SEC). Financial statements of companies that publicly trade stock must also be audited by accountants who must follow rules of the Public Company Accounting Oversight Board (PCAOB) which was established by the Sarbanes-Oxley Act of 2002 after numerous accounting scandals [Enron, WorldCom, and Tyco] occurred in 2000-2002. Prior to the establishment of the PCAOB, the American Institute of Certified Public Accountants (AICPA) established standards for audits, and they still do for non public companies (Amernic & Craig, 2010).

Extreme narcissism is exhibited by CEOs because of the facilitating role that corporate financial accounting plays. Schwartz (1991) believes that finance (including accounting) provides “greater narcissistic possibilities” (p. 262) than other areas of business. Because profit reports are published on a regular basis, these CEOs are able to satisfy the “intense need to have [their] superiority continually re-affirmed” (Chatterjee & Hambrick, 2007, p. 354). Likewise because the profits are published on a recurring basis
such as quarterly or annually, the CEO’s are able to obtain “frequent applause” (Amernic & Craig, 2010, p. 85), unless the profits are less than favorable.

Amernic & Craig (2010) realized that CEO’s additionally influence accounting practices and policies chosen for their corporations, often engaging in “creative accounting” as evidenced by former Enron CEO, Ken Lay, and former Enron President, Jeff Skilling, with their knowledge and cover-up of one of the largest accounting frauds and the “most scandalous corporate downfall in U.S. history” (Swartz & Watkins, 2003, cover). Ken Lay and Jeff Skilling were also cited by Craig & Amernic (2011) as having narcissistic tendencies by exhibiting “traces of a grandiose sense of self-importance (Criterion 1); arrogant and haughty behavior and attitude (Criterion 9); and a preoccupation with fantasies of unlimited success, power, and brilliance (Criterion 2)” (Craig & Amernic, 2011, p. 570).

**Employee Reactions to Narcissistic Leaders**

**Lack of Job Satisfaction**

Godkin & Allcorn (2011) indicate that the degree of employee job satisfaction and performance directly affect the success of an organization. Employee job dissatisfaction can result because of tension between employees, and dissatisfaction especially occurs if one of those employees is narcissistic. However, employees who feel supported are happier and have better attitudes toward their work. Lack of productivity and issues of absenteeism and turnover are concerning to managers. Generally, absenteeism and turnover are measures of employee or subordinate job dissatisfaction, while productivity and quality are outcomes of job satisfaction, thereby implying a
correlation between the two (Koprowski, 1981). Dissatisfaction and inability to continue to perform because of narcissistic leadership tendencies may cause employees to leave their jobs. Narcissistic individuals use numerous tactics to achieve results, some of which are delay, coercion, and even slander (Grier, 2008). Consequently, the most capable people may leave the organization because a narcissistic leader feels threatened and attempts to undercut his/her employees (Lubit, 2002).

**Imbalance in Work and Social Life**

Additionally, a balanced role of work and social life is a key factor in job design to bring about the desired outcome of employee satisfaction (Koprowski, 1981). However, a form of narcissism characterized as “arrogant narcissistic leadership” includes descriptors by the DSM-IV indicating that the leader may spend an unlimited amount of time and energy to succeed (Godkin & Allcorn, 2011, p. 562). Kernberg (2008) addresses how narcissists have a need to invest their time and have a need for the admiration that follows. The implied consequence is that if the narcissistic leader is working overtime, then there is the same expectation for their subordinate employees, thereby infringing upon personal and social time.

**Loss of Identity**

Likewise, Godkin & Allcorn (2011) reveal that the DSM-IV indicates that others are often exploited, blamed and scapegoated by the narcissistic. This arrogant behavior on the part of the narcissist, especially if they are in a leadership role, results in a loss of community within the organization and a loss of identity for the individual involved. The results are often depression, anxiety, and an ultimate disengagement on the part of the
“victim” who feels used and empty of any satisfying life experiences (Godkin & Allcorn, 2011).

**Significance to Current Literature**

In the article by Samier and Atkins (2010) entitled “Preventing and Combating Administrative Narcissism” the authors explore destructive narcissism within the educational arena. They also explain that while there are no studies conducted on masters or doctoral students to date, other groups of students were examined. Menon & Sharland (2011) indicate that the present college generation exhibits high levels of narcissism, which includes a sense of entitlement. This sense of entitlement extends to the area of academics, whereby there is an inclination to be manipulative, exploitative, and often academically dishonest. Of additional note is that students majoring in business are reported as more likely to be academically dishonest than other majors (Baird, 1980).

Likewise, narcissism is deemed a “significant problem for organizations” (Lubit, 2002, p. 127). And while some authors such as Amernic & Craig (2010) are contributing to the literature regarding a relationship between accounting and personality disorders, in this case, referring to narcissism, currently, there are few published studies on the topic (Amernic & Craig, 2010). Additionally, there is little research on the negative effects on employees in regard to how they are treated by organizations (Gibney, et al. 2009). Therefore a study of the effects of narcissistic leadership on employee job satisfaction, specifically those working within the accounting profession should fill a “gap” in the current research available in this area.
Summary

Narcissism is a psychiatric disorder which currently affects one percent of the population and appears to be on the increase among American citizens. It is identified by possessing five of nine personality criteria as identified by the American Psychiatric Association’s DSM-IV-TR and can be used in either a constructive or destructive way (Amernic & Craig, 2010). According to Hotchkiss, (2002), the disorder is a result of the creation of the “Me Generation” through parenting and curriculum changes. Within business organizations, narcissistic leadership can be particularly destructive and has significant effects on employees and their happiness and satisfaction with their work. Current literature reveals several effects of narcissism within the business environment in general, some of which are lack of job satisfaction, imbalance in work and social life, and loss of identity (Godkin & Allcorn, 2011; Koprowski, 1981; Lubit, 2002; Kernberg, 2008); however, few studies have been conducted within the accounting profession (Amernic & Craig, 2010). A purpose of this study is to help add to the current literature in this area.
CHAPTER THREE
RESEARCH DESIGN AND METHODOLOGY

The purpose of this chapter is to present the research design of the study. Chapter three includes the purpose of the study, presentation of the questions, methodology, and research design. This information is followed by data collection and analysis. The chapter concludes with a discussion of validity, accuracy, researcher bias, and ethical considerations.

Purpose of the Study

The major purpose of this study is to identify and explore the effect that narcissistic leadership has on employee job satisfaction. The hypotheses propose that narcissistic leadership exerts a direct effect on job satisfaction within the accounting profession, but that leader-member exchange relationships (LMX) and locus of control (LOC) exert mediating effects.

A second goal of this study is to help higher education educators understand how narcissistic leadership affects employment of those within the job arena and thus help students better cope with their own narcissism and the impact and consequences of narcissist leadership on employment and job stability.

Additionally, this study should contribute to the current literature that exists on the topic of narcissistic leadership within accounting, and provide relevant literature data on the intervening effects of narcissism as it relates to LMX, LOC and job satisfaction. There is a growing body of literature that examines the effects of narcissism on employee job satisfaction among organizations in general (Godkin & Allcorn, 2011; Kprowski,
1981; Lubit, 2002; Kernberg, 2008). However, I found relatively few studies conducted within the accounting profession on narcissism as it relates to employee job satisfaction (Amernic & Craig, 2010).

**Research Hypotheses**

The following are the research hypotheses for this study:

**Hypothesis 1**: Narcissistic leadership has a negative causal impact on employee job satisfaction.

**Hypothesis 2**: Locus of control has a positive effect on employee job satisfaction.

**Hypothesis 3**: Locus of control exerts a positive mediating effect between leader member-exchange and employee job satisfaction.

**Hypothesis 4**: a) Leader-member exchange relationships positively influence job satisfaction.

b) Narcissistic leadership depresses LMX. LMX exerts a mediating effect that modified the relationship between narcissism and employee job satisfaction.

**Hypothesis 5**: Locus of control has a mediating effect between narcissistic leadership and employee job satisfaction.

**Hypothesis 6**: Narcissistic leadership has a negative effect on locus of control.

**Method**

The methodology used for this study was quantitative using a survey design because it provides a “numeric description of trends, attitudes, or opinions of a population by studying a sample of that population” (Creswell, 2003, p. 153). After gathering the sample of the population, which is accountants from across the United States, a generalization is made from the responses of the sample to make inferences about the population. Inferences involve identifying the characteristics, followed by
attitudes or behaviors of the population toward some phenomena (Babbie, 1990), in this case narcissistic leadership and its effects on the participant’s employee job satisfaction. This study ultimately will allow the researchers to draw conclusions concerning the population of accountants in regard to how narcissistic leadership may be a mediating factor between the leader-member exchange relationship and employee job satisfaction. Likewise, locus of control of the leaders will be considered by analyzing the dynamic that occurs when narcissistic leadership impacts employee job satisfaction through locus of control.

The survey design uses partial least squares (PLS) methods because of the advantages it presents, such as “the economy of the design and the rapid turnaround in data collection” (Creswell, 2003, p. 154). Additionally, it is appropriate for smaller sample sizes, is robust against violations of normality, and is designed for developing theory (Hair, et al, 2014). The design will involve cross-sectional data collection where the data is collected at one time rather than longitudinally (over time) (Creswell, 2003, p. 155).

Data will be collected using the Qualtrics research suite assessment tool (Qualtrics research suite, 2013). Qualtrics is a software marketing tool created in 2012 by Scott M. Smith, PhD., Ryan Smith and Stuart Orgill and is based in Provo Utah (Qualtrics skills and expertise, 2013). It has now become a global tool used for data collection and analysis. Qualtrics is used in over 1,300 colleges and universities, including Clemson, as well as 95 of the top 100 business schools. It has 5,000 clients.
throughout the world (Qualtrics, 2013). In 2012, over 1 billion surveys were sent using the Qualtrics online data collection and analysis tool (Qualtrics world tour, 2013).

**Research Design**

**Setting and Participants**

Research was on a national scale with a survey conducted of 4,914 accountants. Of this number, 1,235 accountants are members the American Institute of Certified Public Accountants (AICPA), and 3,679 accountants were purchased from a marketing firm. Those accountants may or may not be associated with the AICPA.

Accountants and auditors “examine, analyze, and interpret accounting records to prepare financial statements, give advice, or audit and evaluate statements prepared by others” (U.S. Department of Labor, 2013). Likewise, they may install accounting systems, prepare, and/or examine tax returns (U.S. Department of Labor, 2013).

According to the most recent published findings of the U.S. Department of Labor, Bureau of Labor Statistics (2013), in May 2013, accountants and auditors held 1,168,330 employment positions in the United States. This number was down from the previous year of 1,275,400 (U.S. Bureau of Labor Statistics, 2012). However, annual average wages and salary were up from $30.55 per hour or $63,550 per year in 2012 to $34.86 per hour or $72,500 annually (U.S. Department of Labor, 2012, 2013).

In order to become an accountant in the United States, a bachelor’s degree is required; however, in order to become a Certified Public Accountant, an individual must have additional education, pass the uniformed CPA exam, and become licensed through an application process and work experience.
Earning an accounting degree, being employed as an accountant (Non-CPA), and becoming a CPA are 3 different activities altogether.

A CPA can be an accountant, but an accountant cannot claim they are a CPA without establishing licensure via passing the CPA Exam and applying for licensure. The CPA exam is necessary because CPAs have access to the sensitive financial information of countless businesses and individuals. In the wrong hands, finances could be used in a harmful manner. Certification is a means to ensure the public that CPAs possess the high-level technical skills, advanced knowledge and ethical standards to instill a sense of trust (Thomason Retuers, 2013).

The CPA exam is administered through the American Institute of Certified Public Accountants (AICPA). The AICPA is an international association that has approximately 386,000 members located in 128 countries. The AICPA has been in existence for approximately 125 years and has members who represent the accounting profession in various areas of practice, including business and industry, public practice, government, education and consulting. The AICPA sets ethical standards for the entire accounting profession, as well as auditing standards for the audit of nonpublic companies, nonprofits and federal state and local governments. It is the organization responsible for developing the Uniform CPA Examination, and it offers specialty credentials for those CPAs who are interested in personal financial planning and other areas of accounting (About the AICPA, 2013). Because of the nature of the data base used, the survey participants from the AICPA used in this study were also personal financial planners.
Data Collection

A random sample of approximately 1,235 accountants was drawn from the American Institute of Certified Public Accountants CPA/PFS Credential Holder Directory. This website is where accountants who are certified public accountants and personal financial specialists, as well as members in the American Institute of Certified Public Accountants (AICPA), are allowed to list their contact information. This sample is from a population of approximately 386,000 AICPA members (About the AICPA, 2013). Permission was obtained from the AICPA to use this website (See Appendix A).

Likewise, another 3,679 accountants were purchased from and randomly selected by Vettamarketing Company for this study (See Appendix C). Vettamarketing is an email provider located in Irvine, California and offers an “opt in” email service which is later transferred to users for a nominal fee. According to their website, they feature an “integrated staff of marketing professionals, email list experts, web designers and programmers….with the intention of creating a full-service email marketing firm that offered excellent service, creativity and production at an inexpensive rate” (Vettamarketing, 2014).

The sampling design is multistage or clustering rather than single stage. This clustering method was chosen because, by definition, a single-stage sampling procedures “is one in which the researcher has access to names in the population and can sample people directly” (Creswell, 2003, p. 156); however, the clustering procedure is one in which samples of groups or organizations (clusters) are identified first before the participants names are selected (Babbie, 2001). This study is multistage or clustering
because the population of CPAs obtained from the AICPA website is “clustered” by state and then by major cities within each state.

The random selection process from the AICPA email list began with participants being selected from major cities across the United States by the researcher. A list of names of accountants from each city was generated with the researcher randomly selecting those who supplied email addresses. The random selection procedure was systematic linear selection process (every nth person) based on an alphabetical ordering in which the total population size is divided by 1,235 (the desired sample size) to obtain interval X, whereby the first participant is randomly chosen from the first interval X, then every Xth person is selected until the end of the database is reached. The 3,679 emails from Vettamarketing were simply purchased via their website; however, it is understood by the researcher that the “opt in” feature was one in which the email participant supplied their name via the website to receive future emails on select topics. The email participant would provide their email address and supply information as to whether they were accountants, engineers, professors, etc. This information would automatically put them in a select email list. My request was for a random nationwide selection of accountants.

Stratification or classifying the individuals according to specific characteristics (other than their being either members of the AICPA or accountants) was not possible, other than by this alphabetical selection and the fact that they have an email address listed. The minimum age requirement for the participants was 18 as predetermined by the researcher. This age characteristic was monitored via the original email stating that by clicking on the “take survey” button, the participant ascertains they are 18 years old.
Data Analysis

The data was analyzed using a causal modeling technique called path analysis using partial least squares, structural equation modeling (PLS-SEM) methods. The principles of path analysis were developed in the 1910-1920 period by biologist Sewall Wright (Heise, 1975). It is an extension of multiple regression analysis and is “a method of decomposing correlations into difference pieces for interpretation of effects” (Path Analysis, 2013, p. 1). This technique permits cause and effect propositions to be tested without manipulation of the variables. However, the “causal” aspect is not viewed as a consequence but rather as a model assumption (Path Analysis, 2013).

Causal Analysis

A brief review of linear regression explains the “causal” aspect further. Linear regression analysis typically involves prediction, which in simplified form is the “process of estimating scores on one variable (Y), the criterion variable, on the basis of knowledge of scores on another variable (X), the predictor variable” (Hinkle, Wiersma, & Jurs, 2003, p. 121). Linear regression is correlational in that it implies that a change in the X variable explains changes in the Y variable. Using the X variable to predict the Y variable is referred to as the regression of Y on X. However, using this relationship between the variables to predict values does not necessarily mean that X causes Y (Hinkle, et al, 2003).

However, causality is relevant whenever the occurrence of one event is reason to believe that it will produce another event. Causal analysis procedures generally focus on “configurations of events—over time or at a single time—rather than on changes” (Heise,
Event patterns are generated and can provide insights into the relationships from which they were generated. Causal analysis is applied on a regular basis in day-to-day experiences. Examples would be that soup is heated when the pan is placed over the fire or hunger is satisfied when food is consumed (Heise, 1975).

Causal analysis begins with an event, which is the occurrence of a particular state that is being studied. Relevance occurs when all events are ordered and structured such that the event (call it C) produces an expectation for the second event (call it E) to occur. However, there is no reason to believe that the reverse will be true, meaning that the second event (E) may not produce the first event (C). For example, a match introduced to a room filled with flammable gas will most likely produce an explosion. It is illogical to assume that the explosion would occur without the introduction of the match to the gas or that the gas precipitated the introduction of a match (unless arson was the motive) (Heise, 1975).

The prerequisites of causality are:

1. Relationship condition: Variable A and variable B must be related.
2. Temporal Antecedence condition: Proper time order must be established.
3. Lack of Alternative Explanation Condition: Relationship between variable A and variable B must not be attributable to a confounding, extraneous variable (Michael, 2013, p.3).

An example given by Michael (2013) that relates these prerequisites pertains to coffee drinking, smoking, and heart attacks. He proposes a correlation or relationship between drinking coffee and the likelihood of a heart attack. Therefore, Variable A, (coffee drinking) is hypothesized to cause Variable B, (heart attacks). However, cigarette
smoking is an extraneous variable which relates to both variables. Those individuals who
drink more coffee are more likely to smoke and vice versa; therefore, coffee drinking and
heart attacks may be perceived to be a result of the extraneous variable, smoking. The
researcher would most likely try to control the extraneous variable, smoking, in order to
determine if it actually accounts for the original relationship between coffee drinking and
heart attacks.

**Path Analysis**

A causal diagram of the ordering of causal events and outcomes can be
constructed and analyzed. This diagram and the subsequent principles that follow are
called the path analysis diagram. When path diagrams are constructed, arrows show
causal relations. Cause to effect is depicted with a single-headed straight arrow, while a
double headed curved arrow depicts variables with correlations without assumption of a
causal relationship. Path coefficients are assigned and written with two subscripts. In the
path diagram below, the movement from 1 to 2 is actually written $p_{21}$ with $p$ representing
the path coefficient. The effect (2) is written first with the cause (1) following. Likewise
if the flow is unidirectional with no loops, the model is called recursive (Path Analysis,
2013). See Figure 3 below for a depiction of a simplified path analysis.
Figure 3.1. Example of a Path Analysis Diagram. Source: (Path Analysis, 2013, p. 1)

The above graph depicts all possible paths, which are 1 to 2, 3, & 4; 2 to 3, 4, and 3 to 4. Here there are no backward paths such as from 4 to 1. In path analysis, the independent (X) variables are referred to as exogenous variables, while the dependent (Y) variables are called endogenous variables. In the above path diagram, the exogenous variable is 1 because it has no arrow pointing into it. The three endogenous variables are 2, 3, and 4. These variables can be causes of another endogenous variable, but they do not cause the exogenous variable 1. Error terms are shown with e2, e3, and e4. (Path Analysis, 2013).

Assumptions for this type of path analysis are as follows with some or all of them being true. In more advanced models, the assumptions may be less restrictive.

1. All relations are linear and additive. The causal assumptions (what causes what) are shown in the path diagram.

2. The residuals (error terms) are uncorrelated with the variables in the model and with each other.

3. The causal flow is one-way.
4. The variables are measured on interval scales or better. (Path Analysis, 2013, p. 2).

Path analysis is a special type of structural equation modeling (SEM), which involves several statistical techniques indicating a relationship between either one or more independent or one or more dependent variables. The simplest explanation of SEM is that the researcher can show a relationship between one latent variable (LMX) and other measured variables (e.g. affect, loyalty, contribution, professional respect). A latent variable is not directly measured but is rather created from a weighted combination of several measured variables.

Two goals in SEM are:

1. To provide understanding of patterns of correlation within the sets of variables

2. To explain as much of the variance between the variables as possible (Kline, 1998). Questions can then be answered through SEM that involves using multiple regression analysis. (Ullman & Bentler, 2012).

In multiple regression, the raw score (actual score) regression equation appears as:

\[ Y = b_1X_1 + b_2X_2 + b_3X_3 + a \]

In this study, job satisfaction is the dependent variable (Y). Independent variables are narcissistic leadership (X₁), leader-member exchange (X₂), and locus of control (X₃).

The slope coefficient \( b \) for each independent variable is identified with the same subscript as the independent variable to which it is attached, and it is the regression constant. A standardized slope \( \beta \) for this equation can be calculated from \( z \) scores. Betas permit the research to make claims such as, a one unit increase in variable X causes (or predicts or affects, depending on one’s design) a \( \beta \) amount of increase in Y. Beta is expressed as a percentage.
The following input model (Figure 3.2) will be used. Narcissistic leadership is the latent variable 1, leader-member exchange is mediating variable 2, locus of control is mediating variable 3, and employee job satisfaction is latent variable 4.

![Path diagram of narcissistic leadership and job satisfaction](image)

Figure 3.2. Path diagram of the causal linkage between narcissistic leadership and job satisfaction and the role that leader-member exchange and locus of control have on the relationship.

For this study, four equations are the result of the relationships depicted in Figure 3.2. These equations are:

1. \( y_1 = e_1 \)
2. \( y_2 = p_{21}x_1 + e_2 \)
3. \( y_3 = p_{31}x_1 + p_{32}x_2 + e_3 \)
4. \( y_4 = p_{41}x_1 + p_{42}x_2 + p_{43}x_3 + e_4 \)

In the first equation, the variable \( y_1 \) represents the fact that narcissism is not explained by any other variable in the model. The “e” or error term in all equations represents “stray causes, or causes outside the model” which are unexplained (Path Analysis, 2013, p. 2). The “p” in the equations represents the path coefficients. Since the
subscript notations are read with the effect written first, in the second equation, the second variable \((y_2)\), which is leader-member exchange is affected by the first variable \((x_1)\) narcissism, which is considered the causal variable, and the path coefficient is \(p_{21}\). Then in the third equation, the third variable \((y_3)\), which is locus of control is affected by the first variable \((p_{31}x_1)\) narcissism, and the second variable \((p_{32}x_2)\) leader-member exchange. The fourth equation variable \((y_4)\), job satisfaction is affected by the first variable \((p_{41}x_1)\) narcissism, the second variable \((p_{42}x_2)\) leader-member exchange, and the third variable \((p_{43}x_3)\) locus of control.

One of the differences between path analysis and regression is the fact that in regression, there is only one dependent variable; however, in path analysis, the same variables can be independent and later dependent in another equation model (Suhr, 2013). Likewise, in path analysis the dependent variable can change and become independent because of the nature of structural equation modeling and the necessity of obtaining six path coefficients. Notice that each equation has a different dependent variable.

Additionally, the concepts of direct and indirect effects should be explained. In Figure 4, narcissistic leadership has no arrows pointing into it; therefore, narcissism cannot be explained by any other variables in the model and stands alone as indicated in the first equation \((y_1 = e_1)\). A direct relationship is indicated by the arrow pointing directly from narcissistic leadership to job satisfaction. However, narcissistic leadership is expected to have an indirect effect on job satisfaction through its effect on leader-member exchange (LMX) and an indirect effect through locus of control (LOC) as indicated by the arrows pointing from narcissistic leadership to LMX to job satisfaction and likewise
from narcissistic leadership to locus of control to job satisfaction. An additional indirect path can be traced from narcissistic leadership to LMX to LOC and then to job satisfaction; the net impact of this path on job satisfaction is expected to be negative.

Path coefficients (p), which are either standardized or unstandardized regression coefficients, are calculated by running four regression analyses simultaneously using structural equation modeling (SEM) techniques. SmartPLS is the software program used for the data analysis. This program uses a graphical user interface system that allows estimation of the partial least squares (PLS) path model with latent variables. This program is a free download after initial registration and can be found at http://www.smartpls.ed (Hair et al., 2014).

Once the values for the path coefficients (p) are determined, an output model will be drawn in which the path coefficients are inserted on each cause to effect line. Higher path coefficient values will indicate stronger causal effect variables. If the sign on the path coefficient is positive, then a positive effect is indicated; if the sign is negative, a negative effect is indicated (Path analysis, 2013).

Once the path coefficients are calculated, the overall impact of one variable on another (e.g. narcissistic leadership on employee job satisfaction) can be calculated by adding the direct effects of narcissistic leadership on job satisfaction to the indirect effects. Likewise, a comparison can be made between the total direct effects and the total indirect effects of narcissistic leadership and employee job satisfaction (Path analysis, 2013).
Path analysis has become a very popular form of correlational analysis (Path analysis, 2013). However, there are some limitations. One limitation is that path analysis can only tell us which paths are significant. It cannot tell which of the paths is preferred. However, path analysis can tell which is “better supported” by the data (Path analysis, 2013). Another limitation is that PLS techniques cannot reverse (two-way) causal effects. Likewise, path analysis does not consider variables not included in the study thus making it crucial that the researcher properly specify the model with a thorough literature review (Path analysis: Multivariate 2013, p. 2).

Definitions

Definitions relevant to this data analysis section from Hair, Anderson, Tatham, & Black, (1995) are as follows:

*Causal relationship:* Dependence relationship between two or more variables in which the researcher clearly specifies that one or more variables “cause” or create an outcome represented by at least one other variable. Most meet the requirements for causation (p. 681).

*Endogenous construct:* Construct or variable that is the dependent or outcome variable in at least one causal relationship. In terms of a path diagram, there are one or more arrows leading into the endogenous construct or variable (p. 619).

*Exogenous construct:* Construct or variable that acts only as a predictor or “cause” for other constructs or variables in the model. In path diagrams, the exogenous variables have only causal arrows leading out of them and are not predicted by any other variables in the model (p. 619).
Path analysis: Employing simple bivariate correlations to estimate the relationships in a system of structural equations. The method is based on specifying the relationships in a series of regression-like equations (portrayed graphically in a path diagram) that can then be estimated by determining the amount of correlation attributable to each effect in each equation simultaneously. When employed with multiple relationships among latent constructs and a measurement model, it is then termed structural equation modeling (p. 620-621).

Path diagram: Graphical portrayal of the complete set of relationships among the model’s constructs. Causal relationships are depicted by straight arrows, with the arrow emanating from the predictor variable and the arrowhead “pointing” to the dependent variable. Curved arrows represent correlations between constructs or indicators, but no causation is implied (p. 621).

Structural equation modeling: Multivariate technique combining aspects of multiple regression (examining dependence relationships) and factor analysis (representing unmeasured concepts—factors—with multiple variables) to estimate a series of interrelated dependence relationships simultaneously (p. 621)

Structural Equation Modeling (SEM)

The modeling methodology used in this study is structural equation modeling (SEM), a second generation multivariate technique that “involves the application of statistical methods that simultaneously analyze multiple variables” (Hair, Hult, Ringle, & Sarstedt, 2014, p. 2). First generation techniques such as cluster analysis, exploratory factor analysis, multidimensional scaling, analysis of variance, logistic regression, and
multiple regression analysis have been used for over 20 years by researchers in the social sciences (Hair, et al, 2014). However, second generation techniques that are referred to as structural equation modeling are increasingly being used because they allow researchers to include previously unobserved variables that have been measured on an indirect basis by indicator variables which are “directly measured observations [raw data]” (Hair, et al, 2014, p. 29). Additionally, SEM, unlike traditional regression techniques, adjusts for the measurement error found in observed variables (Chin, 1998).

**CB-SEM or PLS-SEM.** Two approaches exist in structural equation modeling. Covariance based SEM (CB-SEM) is “primarily used to confirm or reject theories” (Hair et al., 2014, p. 4). The other method is partial least square structural equation modeling (PLS-SEM) which is also called PLS path modeling. It is used to develop theories when theories are not well developed. Determining which to use depends on the characteristics and objectives of each model. PLS-SEM uses an estimation procedure based on ordinary least squares (OLS) regression-based procedures. CB-SEM uses maximum likelihood (ML) estimation procedure. Also, PLS-SEM strives to maximize the $R^2$ value of endogenous variables through path model relationships which estimate coefficients. Therefore, PLS-SEM is a variance-based approach to SEM when developing theory and explaining variance (Hair et al., 2014).

SEM allows the researcher to examine several dependent relationships simultaneously and is especially useful when a dependent variable becomes the independent variable in subsequent relationships (equations) (Hair, et al., 1995). However, there are several issues or data characteristics to consider when deciding if
PLS-SEM or CB-SEM should be used. These issues are; 1) the data, 2) model properties, 3) the PLS-SEM algorithm, and 4) model evaluation issues.

**Data characteristics.** Some data characteristics to be considered are the sample size, distribution, missing values and scale of measurement. PLS-SEM works well when the sample size is small. Precision can be increased with larger sample sizes; however, using small samples will also provide a relatively high level of statistical power. PLS-SEM has greater statistical power than CB-SEM, and it will “render a specific relationship significant when it is in fact significant in the population” (Hair et al., 2014, p. 15). There are no data distribution assumptions with PLS-SEM as it is a nonparametric method. Missing values generally are an issue with analyses; however, the effect is minimal with PLS-SEM. Likewise, the method can be used with metric data, ordinal data, and binary coded variables. Some limitations exist with using categorical data (Hair et al., 2014).

**Model properties.** Model properties include number of items, relationships between constructs and indicators, model complexity, and model setup. PLS-SEM works well with both single and multi-item measures. Likewise, reflective and formative models can easily be used with PLS-SEM. Reflective measurement models are those models where the direction of the arrows point from the construct (abstract, complex, or not directly observed variables) to the indicator variable (directly observed variable). Formative models are those where the arrows point from the indicator variables to the construct, indicating causation by the indicator variables.
However, no causal loops (circular loops) are allowed in the structural models. Also, PLS-SEM can be used with complex models (Hair et al., 2014).

**PLS-SEM algorithm.** Algorithm properties such as objectivity, efficiency, construct scores and parameter estimates are considered in using PLS-SEM. It maximizes $R^2$ and minimizes unexplained variance. After a few iterations, an optimum solution and efficient algorithm is reached. Data inadequacies do not affect the use of the PLS-SEM, and it is used for predictive purposes with high levels of statistical power. Structural models (inner models containing the constructs or latent variables represented by circles or ovals) may be underestimated resulting in bias. Measurement models (outer models containing the indicators or raw data represented by rectangles) may be overestimated; however, there is consistency in general (Hair et al., 2014).

**Model evaluation.** Model evaluation issues include evaluation of the overall model, measurement models, and structural model. In PLS-SEM, there is no global goodness-of-fit criterion as there is in CB-SEM. Additionally, as mentioned above, both reflective and formative measures can be used. PLS-SEM models must be recursive, and there must be no collinearity. This criteria means there are no causal relationships between latent/construct variables which are abstract, complex, or not directly observed variables. Non-recursive models (with loops represented) are seldom used in business research and limit the use of PLS-SEM (Hair et al., 2014).
**Limitations.** Limitations of PLS-SEM are as follows:

1. The technique cannot be applied when structural models contain causal loops or circular relationships between the latent variables (i.e., when the model is non-recursive).

2. [It] does not have an adequate global goodness-of-fit measure; its use for theory testing and confirmation is limited.

3. Parameter estimates are not optimal regarding bias and consistency—a property frequently referred to as PLS-SEM bias (Hair et al., 2014, pp. 17-18).

**Minimal result differences.** Typically, the differences in the results for CB-SEM and PLS-SEM are minimal. Reinartz, Haenlein, & Henseler (2009) indicate that the resulting estimates between the two methods show little difference. Normally, PLS-SEM is a better choice when emphasizing exploration rather than confirmation or when “little a priori knowledge on structural model relationships on the measurement of the constructs” exist (Hair, et al., 2014, p. 18). CB-SEM and PLS-SEM should both be considered when looking for a structural model assessment approach; however, PLS-SEM is a better methodological choice for “theory testing” (Hair et al., 2014, p. 18).

In summary, partial least squares analysis (PLS-SEM) is preferred in cases where theory is not well developed and the goal is prediction or explanation (Hair, et al., 2014). It does not perform goodness-of-fit analyses, as does covariance based structural equation modeling (CB-SEM), the other major approach to SEM. Instead, it depends on measures of validity to establish the credibility of its results. The forms of validity evaluated are described below.
Validity

Validity relates to the credibility of the research. Does it indeed measure what it should measure? In order for the results to be interpreted and applied appropriately, the test must be valid and reliable. Validity is not a single measure but a body of research that includes three types: Content validity, criterion-related validity, and construct validity.

Content Validity

Content validity pertains to the fact that test questions should cover all possible items (Cherry, 2013). Overcoming content validity issues may be difficult because the individual test questions are developed from a large range of possible topics, and not including a question relevant to the study is likely.

Criterion-related Validity

Criterion-related validity consists of two types: concurrent validity and predictive validity. Concurrent validity regards whether the test answers reflect the individual’s current state. Predictive validity occurs when the criterion measure occurs after the test has been given as is the case with career or aptitude tests (Cherry, 2013). Concurrent validity issues may occur in this study because measuring an individual’s current state is not always possible. While this study is intended to focus on employee job satisfaction in relation to working for a narcissistic individual, the individual surveyed may have never worked for such an individual and cannot relate to that relationship. Likewise, the individual may currently be working for a narcissistic individual and is hesitant to answer the questions truthfully (if at all) because of fear of repercussion. Predictive validity
problems should be minimal in this study as this study is not intended to predict anything but rather to identify elements of employee job satisfaction based on previous or current work experiences.

**Construct Validity**

Construct validity relates to “an attribute, proficiency, ability, or skill that happens in the human brain and is defined by established theories” (Brown, 2000, p. 9). An example given by Brown (2000) is that English language proficiency is a construct because it exists and can be observed to exist. Construct validity itself is “the experimental demonstration that a test is measuring the construct it claims to be measuring” (Brown, 2000, p. 9). Construct validity is best confirmed by accumulating evidence that is convincing. It could be demonstrated by various first generational, statistical analysis methods such as ANOVA, content analysis, correlation coefficients, and/or factor analysis (Brown, 2000). In this study path analysis using the second generational technique, partial least square structural equation modeling (PLS-SEM) will be used to confirm that construct validity exists. Under PLS-SEM construct measures are evaluated for both reliability and validity. Several indicators are used to measure a given concept. Accuracy of the research is improved, and the measurement of the concept is more valid by using multiple indicators (Hair, et al., 2014).

**Internal and External Validity**

Because research is often conducted to determine a causal relationship, there exists a concern of having low internal validity, indicating little evidence of causality, if any at all. Likewise a high level of internal validity indicates strong causality. By
causality, we are making the conclusion that “changes in the independent variable caused the observed changes in the dependent variable” (Michael, 2013, p. 6). Internal threats to validity cause a lack of confidence in the causality relationship between the independent and dependent variables.

Threats to internal validity include:

1. History: “Did some unanticipated event occur while the experiment was in progress, and did these events affect the dependent variable” (Michael, 2014, p. 5)?

2. Maturation: “Were changes in the dependent variable due to normal developmental processes operating within the subject as a function of time” (Michael, 2013, p. 6)?

3. Statistical regression: “An effect that is the result of a tendency for subjects selected on the bases of extreme scores to regress towards the mean on subsequent tests” (Michael, 2013, p. 7).

4. Selection: “Refers to selecting participants for the various groups in the study. Are the groups equivalent at the beginning of the study” (Michael, 2013, p. 8)?

5. Experimental mortality: “Did some participants drop out? Did this affect the results (Michael, 2013, p. 8)?

6. Testing: “Did the pre-test affect the scores on the post-test” (Michael, 2013, p. 9)?

7. Instrumentation/human error: “Values of the dependent variable change because of faulty equipment, the human scorer gets tired, etc.” (Internal and external validity, 2013, p. 3).

8. Diffusion of treatment: “Participants in one treatment group become familiar with the treatment of another group” (Internal and external validity, 2013, p. 4).

Steps taken to protect internal validity are fourfold. First, the researcher should consider all possible situations which could go wrong. Second, control techniques could
be implemented which include random group assignments or holding a variable constant. Third, a standardized experimental design should be used such as ANOVA or repeated measures t-test. In this study second generation multivariate techniques are used in the form of PLS-SEM. Lastly, a review of the proposal should be conducted by knowledgeable people (Internal and external validity, 2013).

Additional threats to internal validity include: (1) inadequate procedures are used, (2) the questions are changed during the survey, or (3) participants talk with one another (Creswell, 2003, p. 171). With this quantitative analysis, the only internal threat that the researcher may anticipate is that of a participant talking to another individual about the survey. The random selection of participants will likely avoid two participants communicating; however, the answers may be compromised if a participant asks an opinion of another in the office and thereby threatens the internal validity.

External validity refers to the generalizability of the study, such as how it applies to individuals (called population validity), settings (environmental validity), and times (temporal validity) (Michael, 2013; Internal and external validity, 2013). External threats to validity can occur when the researcher draws “incorrect inferences from the sample data to other persons, other settings, and past or future situations” (Creswell, 2003, p. 171). External validity threats may occur if the researcher in this study makes inferences beyond the group of accountants she is surveying and generalizes to others in the business or educational community. Awareness on the part of the researcher minimized this threat.
An inverse relationship exists between internal and external validity. In an attempt to increase internal validity, the experiment can become more artificial, causing external validity to suffer. The exception to this situation is to have specific control techniques such as a balancing technique rather than holding variables constant. More generalizability would then be possible. Likewise, a relationship exists between external validity and power of the test. Testing homogeneous groups increase power; however, little homogeneity exists among people. Therefore testing only homogeneous groups causes less “real world” generalizability and lower external validity (Internal and external validity, 2013).

**Statistical Conclusion Validity**

Additionally statistical conclusion validity could occur if inaccurate inferences are made from the data because of an inadequate statistical power or violation of an assumption. Other validity problems could be an insufficient number of items, poor writing of the survey, and no initial pilot test (Brown, 2000). The survey used in this study had an adequate number of items (27 question), which were taken from previously used surveys. The items were well written; and have already been tested for validity and reliability.

**Measures**

**Instruments**

The survey used in this study was composed of four separate surveys, each measuring one of the four variables used in the study. The leader-member exchange survey (Appendix G) is an 11-item questionnaire created by Robert Liden and John Maslyn (1998) which examines the relationship between superior and subordinates. It
uses a seven point Likert scale with items varying from “Strongly Disagree” (1) to “Strongly Agree” (7) and identifies four dimensions of leader-member exchange. These dimensions are contribution, loyalty, affect, and professional respect. The locus of control survey (Appendix F) is a six question survey that was taken from Rotter’s (1966) 23-item scale that was a forced-choice selection. This condensed version is a five-point scale that varies from “Strongly Disagree” (1) to “Strongly Agree” (5) with three questions measuring internal control and three questions measuring external control (Lumpkin, 1985). The narcissism scale (Appendix D) was developed by Hochwarter and Thomas, (2012) to measure the perception of supervisor narcissism by employees. It is a 6 question scale using a five-point Likert response ranging from “Strongly Disagree” (1) to “Strongly Agree” (5). The job satisfaction scale (Appendix E) consists of four items found in an article by Snead and Harrell (1991) but was originally designed by R. Hoppock in 1935 and written about in his book *Job Satisfaction* published by Harper and Row. The four basic questions concerning job satisfaction based on current employment contain a seven-point Likert scale ranging from “Never” (1) to “All of the Time” (7). Because the scales were slightly different in two of the four surveys incorporated into my survey, some slight modifications were made such as the Rotter and the Hochwarter scales were converted to a seven-point Likert scale to match the LMX scale. However, the Hoppock scale on Job Satisfaction was formatted in a different manner to allow for the seven-point Likert scale that was used in the original survey. Additionally, five demographic questions were used in this study. See Appendix H for the survey used in this study.
Reliability

Chronbach’s alpha was used to measure reliability or internal consistency of the surveys. As a general rule, a measure above .65 is a fair indicator of reliability for this score (Chronbach, 1951). Liden and Maslyn (1998) divided their 11-question scale into four components: affect (questions 1-3), loyalty (4-6), contribution (7-8), and professional respect (9-11). They found that internal consistency was low for the contribution scale but were within an acceptable range for affect, loyalty, and professional respect. They conducted three samples with two involving students and one involving employees. The employee sample had coefficient alphas for affect, loyalty, contribution, and professional respect respectively as .90, .74, .57, and .89.

Rotter’s condensed locus of control survey had a Chronbach alpha score of .68. According to Lumpkin, (1985), this score “compares favorably with the range of .65 to .79 reported by Rotter (1966) and the .66 for Bugaighis and Schumm’s (1983) six item scale”. Alpha scores for the narcissism six-item scale were .93 for Sample 1; .88 for Sample 2; and .85 for Sample 3. These alpha scores are well above the acceptable range for internal consistency (Hochwarter & Thompson, 2012).

Reliability was also high on the Hoppock (1935) job satisfaction instrument, “with coefficient alpha values ranging from 0.76 to 0.89” (Snead & Harrell, 1991, p. 89). Likewise the coefficient alpha was .88 for the Snead & Harrell study in 1991 which used the same instrument.
Validity

Data for the proof of validity for the 11-question LMX instrument can be found on page 60 of Liden & Maslyn’s 1998 article. According to Liden & Maslyn (1998) regarding their 11 question LMX instrument:

With respect to validity, all four scales were shown to be unrelated to acquiescence bias. Affect, loyalty, and professional respect were also were also found to be unrelated to social desirability, and although contribution was significantly related to social desirability, the effect was small in magnitude ($r=-.026$). Enhancing convergent validity beyond that shown by the exploratory and confirmatory factor analyses, the LMX-MDM scales were shown to be correlated LMX-7. Similarly, discriminant validity beyond that shown by the factor analysis results were demonstrated by the small correlations with less theoretically related constructs such as satisfaction with coworkers. Further support with LMX as a multidimensional construct was provided by regression results showing that each dimension contributed differentially in the explanation of variance in each of the outcome variables. In summary, support for LMX as a multidimensional construct was provided by a consistent set of results:…(Liden & Maslyn, 1998, p. 64).

Additional validity of the LMX instrument with support for the 4-factor model used exploratory factor analysis and confirmation with independent samples used confirmatory factor analysis (Bagozzi, Yi, & Phillips, 1991; Rahim & Magner, 1995).
The condensed Rotter locus of control scale was tested for validity by Lumpkin (1985). His data was compiled in Table 2, page 657, of his article “Validity of a Brief Locus of Control Scale for Survey Research”. Scores on this scale were correlated with “measures of several constructs which correlated with locus of control in prior research” (Lumpkin, 1985, p. 656). This table indicates six measures: life satisfaction, perceived risk, not coping, good health, activity, and sex. The coefficient of correlation, “r”, scores for each measure were life satisfaction .25; perceived risk -.13; not coping -.32; good health .22; activity, .19; and sex .02. Exact comparisons to other research were difficult because of some measures (such as life satisfaction) not having a universally accepted measure. However, the direction of each measure is adequate because “if a new scale is to have validity, it must at least reproduce the established direction of the relationship” (Lumpkin, 1985, p. 658). He ascertained that the scale could be used with confidence and has predictive validity.

The narcissism scale by Hochwarter & Thompson (2012) used factor analysis to determine validity. Three samples were taken with item variance being explained 81.3 percent in Sample 1, 77.7 percent in Sample 2, and 80.2 percent in sample three. “Across samples, all items correlated at a level greater than .70” (Hochwarter & Thompson, 2012, p. 346).

The job satisfaction instrument by Hoppock (1935) was previously validated by McNichol, Stahl, & Manley (1978), “who demonstrated that the measure performed well when examined in terms of distribution, construct, convergent and concurrent validity
across four sample populations totaling over 29,000 subjects” (Snead & Harrell, 1991, p. 89).

Therefore, the surveys to be used in this study are deemed to have met the requirements of validity, as well as reliability.

**Accuracy and Error**

Accuracy is described by Salant & Dillman (1994) as “results that are close to the true population value”. It is a measure that is comparable to validity and is a factor or component of reliability (Validity, reliability, precision, accuracy, 2013). Four types of errors affect accuracy: coverage error, sampling error, measurement error, and nonresponse error (Salant & Dillman, 1994).

**Coverage Errors**

Coverage error occurs when the sampling frame (surveyed population) does not adequately represent the target population. If the sampling frame list is incomplete, duplicate entries exist, or some individuals surveyed are not actually members of the target population, then coverage error has occurred. An example of this type of error occurred in a 1936 *Literary Digest* mail survey in which the outcome of the presidential election was predicted using a sample frame selected from telephone directories and automobile registration. Ballots were sent to ten million people, of which two million people responded. The *Digest* then predicted that Alf Landon would win the presidential election over Franklin Roosevelt by 15 percentage points. Of course, this prediction proved to be wrong when Roosevelt won with 61 percent of the popular vote and 523 electoral votes compared to Landon’s 8 electoral votes (Salant & Dillman, 1994).
reason for the inaccurate prediction was because the sampling frame consisted of only those people with telephones and registered automobiles and did not adequately represent the entire population who were much poorer and not able to afford telephones and automobiles. These poorer individuals were more likely to vote for Roosevelt than for Landon and were not included in the survey, thus coverage error occurred (Salant & Dillman, 1994).

Coverage error should be minimal if the sample is representative of the population chosen. In this study, the target population was accountants. Approximately 1,235 of the sampling frame were accountants bearing the certified professional accountancy designation (CPA), are members of the AICPA, and also have listed themselves as personal financial specialists in the AICPA Credential Holder Directory that has a public website link. Duplication issues may occur in this study as some of the AICPA member emails were manually selected rather than computer generated; therefore, a potential error could have been made in the selection process. Likewise, it should be noted that there are individuals who are accountants without the CPA designation who were represented in this study because approximately 3,679 names were purchased from a marketing group in order to obtain a larger sample. This sampling frame was randomly generated with no duplication of email addresses.

Sampling Error

Sampling error is an expected occurrence in research and happens because researchers survey only a sample of the population. Sampling error is “directly related to the size and uniformity of the population” (Salant & Dillman, 1994, p. 17) and can never
completely be avoided unless the entire population is surveyed. A portion of the sample frame in this survey was approximately 1,235 members from the population of AICPA members of 386,000 members in 18 countries (AICPA Frequently asked question, 2013), which represents a 0.32% of the total population of AICPA members. Sampling error can be minimized by increasing the sample size (Salant & Dillman, 1994). Therefore, the sample size was increased to approximately 4,914 by adding an additional sample frame of 3,679 purchased from a marketing firm. With the most current employment figure of 1,168,330 for accountants nationwide, the marketing sample of 3,679 represents about .32% of the total population of accountants. Combining the two sample frames (1,235 + 3,679) gives an overall sample size of 4,914 and represents .42% of the total population of accountants in the United States.

**Measurement Error**

Measurement error occurs during the data collection state of the survey. Salant and Dillman (1994) define measurement error as occurring “when a respondent’s answer to a given question is inaccurate, imprecise, or cannot be compared in any useful way to other respondents’ answers” (p. 17). A simple way to explain measurement error is to assume that an item on the questionnaire has a “correct” answer. The size of measurement error is the difference between the answer given by the respondent and the “correct” answer. These errors come from four sources: survey method, the questionnaire, the interviewer, or the respondent.

If the surveys are mailed (or in this case emailed), then the respondent controls the pace and sequencing of their responses. He or she can read ahead before answering
and get an indication of the direction the survey is going. Likewise, no interviewer is present to influence or guide the respondent’s answers. In a telephone or face to face survey, the interviewer controls the pace and sequencing of the questions, and the respondents rely on what they hear from the interviewer to form their responses. Respondents could be influenced to answer in a manner in which the interviewer deems appropriate and could answer questions incorrectly, either deliberately or accidentally because of misunderstanding. This failure to answer the question often happens in relation to personal questions such as a request for salary information (Salant & Dillman, 1994).

Suggestions to minimize this problem of measurement error are to select an appropriate survey method, and if interviews are involved, the interviewer should be properly trained on asking questions, not leading the respondent in answering in a way that would bias the answer. Additionally, the wording of the questions should be clear and concise, not ambiguous.

In this study, the survey was emailed via the Qualtrics survey tool, thereby minimizing interviewer control; however, the respondents could ask opinions from peers, family or coworkers. The survey was composed of 27 questions from four previous well-established surveys which have been tested for reliability and validity. Therefore, these questions are standardized, and measures were taken to avoid ambiguity.

Non-response Error

Non-response error occurred despite all attempts to minimize the previous three types of errors. This type of error is a problem if two conditions occur at the same time.
These conditions are: 1) a relatively large number of respondents in the sample frame either refuse to participate in the study or cannot be contacted. 2) Non-respondents have some significant characteristic different from respondents which are not represented. The first condition is self-explanatory. An example of the second might occur in a survey used to determine which local businesses should receive technical assistance regarding a new development center. Larger businesses with appropriate staffing personnel respond to the survey, yet smaller businesses that would actually need technical assistance from a local development center could not find the time to respond to the survey because of lack of sufficient staffing. This situation also will result in non-response error (Salant & Dillman, 1994).

A low response rate is a warning that non-response error has occurred. Mail surveys should generally have around a 60 percent response rate with telephone surveys having around a 70 percent response rate (Salant & Dillman, 1994). However, the impersonal nature of the Internet creates a challenge regarding response rates. While 40%-60% would be an acceptable response rate, email response rates often are lower, even around 17%-25%. The overall response rate for this study was 3.3% which was a low response rate and occurred because of the increase in the sample size.

Suggestions for increasing email survey responses rates are:

1. Send a follow up email within one to two weeks after the initial email.

2. Offer an incentive. The most effective incentive is entry into a lottery with lower prize amounts but higher chances of winning.

Therefore, to minimize response rate error in this study, the survey for the current study was 27 questions in length with Likert scale responses, followed by 5 demographic questions. A follow up email reminder was sent within a week after the initial survey was emailed, with a second reminder sent two weeks after the initial survey was emailed. Likewise, a lottery incentive was offered on the initial set of 598 emails sent and consisted of a chance to win one of ten $50 prepaid Visa cards. However, a limitation of this study was the fact that the initial 598 emails were originally planned to be sent out in November, but because of several delays, one being IRB approval, they were not sent until mid-December. The response rate on the December emailing was around 9%. The decision was made to send a second set of emails in May after “tax season.” At that time, another set of emails were sent. The total number of emails sent for this survey was 4,914 with an overall response rate of 3.3%. The response rate actually decreased because of the increase in the sample size; however, it was necessary to increase the sample size in order to get an adequate sample to use in this research. The total useable surveys were 152.

**Bias**

**Response Bias**

Response bias is how non-responses affect the survey estimates (Fowler, 2002). As previously mentioned, this type of quantitative online/email survey has the potential for low response rates. Wonneberg (2007) in his quantitative dissertation estimated a 10% response rate for marketing surveys. A 40-60% response rate was initially desired for this study; however, it was not achieved, as previously mentioned. To increase response rate, wave analysis can be conducted whereby selected items are checked on a
week by week basis to determine if the average responses change (Leslie, 1972). Wave analysis was not conducted in this study.

Response bias also can occur if one assumes that those returning surveys late in the study have differences in overall responses to the selected questions. This situation could occur because of the potential for the lack of truthfulness and deception on the part of those who are narcissistic and are surveyed.

A concern in this study was that response bias may occur because of the fact that the surveys were sent to both accountants working for others, as well as self-employed individuals. This question was initially addressed in the first question of the survey, and it was determined that 64 individuals were self-employed with 88 working for others. The major concern is that of memory recall on answering questions pertaining to previous employers. If there were a significant difference between responses of the two groups, then the research would proceed with only those who are currently working for others. The findings section of this study addresses this issue of response bias with the conclusion that response bias was insignificant regarding the effect on job satisfaction of the two groups. Therefore, the data was analyzed with the full 152 respondents (two groups combined).

**Researcher Bias**

When the researcher’s own beliefs and values are reflected in the study either through methodology or interpretation of findings, then researcher bias occurs. In this study, researcher bias will be minimized due to the quantitative nature and random selection of the sample frame. As previously mentioned, a sample of approximately
1,235 was randomly chosen by the researcher from the American Institute of Certified Public Accountants’ (AICPA) Credential Holder data base with permission granted to use their website link (See Appendix A). Potential researcher bias from this selection process would have been minimized had the researcher been able to obtain a randomly generated list from the AICPA directly. This request was made but denied (see Appendix B). A cost estimate from a marketing company was requested and another 3,679 email addresses of accountants in general from across the United States was obtained (see Appendix C). Additionally, researcher bias may occur during the interpretation of the findings stage, although awareness of this problem minimized this type of bias.

Ethical Issues

Because of the quantitative nature of this study, ethical issues were minimized. However, four ethical issues were relevant and were considered. These ethical issues are: 1) consent, 2) harm, 3) privacy, and 4) deception (Ethics in research, 2013).

Consent

Consent includes capacity, voluntariness, and information. This study was limited to individuals 18 years and older not only because of the legal aspect but because it is most unlikely that anyone under 18 would be an accountant and have a CPA designation. The CPA requirements vary from state to state with some states such as South Carolina having a minimum age requirement of 18, while others such as California have no minimum age requirement. However, all states require a Baccalaureate degree in order to sit for the CPA exam, and most individuals would not have completed requirements for the degree by age 18 (CPA exam requirements, 2013).
This study was voluntary and permission was granted by the AICPA to contact the approximately 1,235 participants (see Appendix A). A cover letter was provided with necessary information stressing the voluntary nature of the study. The initial letter included information about a lottery incentive which was offered to the original 598 participants with a chance to win one of ten $50 Visa gift cards (See Appendix I). An amendment was made to the initial letter and approved by IRB in May 2014 that deleted the incentive on the second set of emails (3,679) that went out in May 2014.

Harm

Harm is associated with risk to participants. According to the Clemson University Office of Research website (2013), “Minimal risk means that the probability and magnitude of harm or discomfort anticipated in the research are not greater in and of themselves than those ordinarily encountered in daily life or during the performance of routine physical or psychological examinations or tests” [45 CFR 46.102(i)]. Therefore, harm is defined as “discomfort anticipated in the research”. In survey analysis, the most usual form of harm occurs when a survey asks personal opinions about the respondent’s colleagues or superiors, and those opinions are somehow seen by those colleagues or superiors. The harm aspect was addressed in an exemption certificate form filed with IRB. This certificate form indicates minimal risk to participants in this study. In fact, the most significant risk to the participants was the fact that the study asked questions regarding past perceptions of employees and effects on the participant from interaction with narcissistic employers/leaders. The participants were made aware of the nature of
the research via the voluntary letter of consent which was included with the survey (Appendix I).

**Privacy**

Privacy of the participants was maintained because all participants were randomly selected and unknown to the researcher, which minimized ethical issues regarding biased selection in this study. Responses were kept in a separate file location on the researcher’s computer and accessed by coded entry password. Files will be deleted once the research is complete.

**Deception**

Deception is defined as a “misrepresentation of facts related to the purpose, nature, or consequences of a research study. “The omission of facts is the same as misrepresentation” (Ethics in research, 2013, p. 2). Full communication of the purpose, nature, and consequences of the study were made in the cover letter to the participants with no omission of relevant facts (Appendix I).

**Summary**

Research procedures were presented in this chapter. This research study used a quantitative survey design. Additionally, this chapter provided an overview of the planned quantitative research, a listing of the research hypotheses, and a description of the participants. The data analysis tool was causal modeling using path analysis with partial least squares structural equation modeling (PLS-SEM). A description was provided of this tool, which is actually an extension of multiple regression analysis. This chapter also incorporated information on validity, measures, accuracy, bias, and ethical
consideration, as well as how these issues would be addressed in this study. The findings of the study will be presented in Chapter Four followed by discussion, limitations, and recommendations for future study in Chapter Five.
The purpose of this chapter is to present the findings from an analysis of a quantitative study of 152 accountants nationwide. The major purpose of this study is to identify and explore the effect that narcissistic leadership has on employee job satisfaction. The hypotheses (chapter 2) propose that narcissistic leadership exerts a direct effect on job satisfaction within the accounting profession, but that leader-member exchange relationships (LMX) and locus of control (LOC) exert mediating effects on this relationship.

The primary research question guiding this study is:

Do leader-member exchange (LMX), locus of control (LOC), and narcissistic leadership affect employee job satisfaction in the accounting profession?

Supporting questions for this study are:

1. Do LMX relationships affect job satisfaction in the accounting profession?
2. Does narcissistic leadership affect employee job satisfaction in the accounting profession?
3. Does locus of control affect job satisfaction in the accounting profession?
4. How does LMX mediate in the relationship between narcissistic leadership and job satisfaction in the accounting profession?
5. Does narcissistic leadership have an effect on locus of control of subordinates in the accounting profession?
**Data Collection**

This study utilized a non-experimental, quantitative field design with a convenience sample consisting of a 27 question assessment (Appendix H), which was composed of four surveys, each measuring the separate variables being studied. The survey examined the effects of narcissism within the accounting profession on job satisfaction and incorporated leader-member exchange theory (LMX) and locus of control (LOC) as mediators of the relationship.

Research was on a national scale with a survey conducted of a random sample of 4,914 accountants from an employed population of approximately 1,168,330 accountants. This sample represents approximately 0.42% of the population. Of the total sample of 4,914 accountants, 1,235 are members of the American Institute of Certified Public Accountants (AICPA) and would bear the distinction of being Certified Public Accountants. The remaining 3,679 accountants were email addresses obtained from a marketing service and may or may not be Certified Public Accountants. Of the 4,914 surveys emailed using the Qualtrics survey tool, 272 emails bounced, probably because of a “firewall”, giving a solid sample of 4,642. Of this sample, 255 surveys were started, and 164 were completed with an additional 12 being discarded because they were incomplete. The sample size used in this study was 152. The overall response rate based on 152 completed surveys was 3.3% of the total sample.

This sample meets the 10 times rule for PLS-SEM, which, according to Hair, et al. (2014), is “10 times the largest number of formative indicators used to measure a single construct” (p. 20). The most formative indicators (indicator variables whose
arrows point toward a latent variable) are four on LMX, which would indicate a sample size of 40 and would be sufficient for analysis. Another sample size recommendation is addressed by Hair, et al, (2014) in their table of sample size and statistical power on page 21, which recommends a minimum sample size of 65 in order to detect an $R^2$ of 0.25 at a significance level of 5%.

Likewise, of the 152 completed surveys, 88 indicated they worked for others, and 64 indicated they were self-employed. Additional demographic data is presented in Table 4.1.
Table 4.1
Demographic Data

<table>
<thead>
<tr>
<th>Description</th>
<th>Gender</th>
<th>Age</th>
<th>Degree</th>
<th>CPA</th>
<th>Race</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>62%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>37%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18-30</td>
<td></td>
<td>2%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31-40</td>
<td></td>
<td>9%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>41-50</td>
<td></td>
<td>18%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>51-60</td>
<td></td>
<td>46%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Over 60</td>
<td></td>
<td>24%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td>63%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masters</td>
<td>29%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PhD</td>
<td>7%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td>1%</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CPA</td>
<td></td>
<td></td>
<td></td>
<td>91%</td>
<td></td>
</tr>
<tr>
<td>Non CPA</td>
<td></td>
<td></td>
<td></td>
<td>9%</td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td></td>
<td></td>
<td>92%</td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td></td>
<td></td>
<td></td>
<td>1.3%</td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td></td>
<td></td>
<td>2.0%</td>
<td></td>
</tr>
<tr>
<td>Asian</td>
<td></td>
<td></td>
<td></td>
<td>.7%</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td>3.0%</td>
<td></td>
</tr>
<tr>
<td>No response</td>
<td></td>
<td></td>
<td></td>
<td>1.0%</td>
<td></td>
</tr>
</tbody>
</table>

Data Analysis

The data was analyzed using the causal modeling technique called partial least squares structural equation modeling (PLS-SEM). The primary objective of the method is to maximize explained variance ($R^2$) and minimize unexplained variance in the latent variables (constructs). It is a method that is also used to evaluate the quality of the data based on characteristics of the measurement model. It is better than more traditional covariance-based structural equation modeling at analyzing small sample sizes and complex models and is more appropriate to use if the objective of the research is prediction or theory development (Hair, Ringle & Sarstedt, 2011).
PLS-SEM Algorithm

The PLS-SEM algorithm is a two stage approach. These stages are shown below.

Table 4.2
Stages and Steps in Calculating the Basic PLS-SEM Algorithm

<table>
<thead>
<tr>
<th>Stage I: Iterative estimation of latent variable (construct) scores</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Step 1:</strong> Outer approximation of latent variable (construct) scores (the scores of the Lower Order Constructs (LOCs) in the measurement (outer) model are computed based on the indicator variable scores and the outer coefficients from Step 4)</td>
</tr>
<tr>
<td><strong>Step 2:</strong> Estimation of proxies for structural (inner) model relationships between latent variables (constructs).</td>
</tr>
<tr>
<td><strong>Step 3:</strong> Inner approximation of latent variable (construct) scores (using scores for all latent variables (constructs) and proxies for structural model relationships from Step 2).</td>
</tr>
<tr>
<td><strong>Step 4:</strong> Estimation of proxies for coefficients in the measurement models (the relationships between indicators and latent variables (constructs) with scores from Step 3).</td>
</tr>
</tbody>
</table>

Stage II: Final estimates of coefficients (outer weights and loadings, structural model relationships) are determined using the ordinary least squares method for each partial regression in the PLS-SEM model.

Source: Hair, Ringle, & Sarstedt, 2011, p. 142.

The software package SmartPLS was used to process the data and provide the graphical user interface to create the model and to implement the algorithm for estimating the model. The structural (inner) model is represented by circles, and the indicators in the measurement (outer) model are represented by rectangles. After a few iterations, an optimum solution and efficient algorithm is reached.
Definitions

Definitions from Hair, et al. (2014) helpful in the following discussion of the PLS model are:

*Constructs (also called latent variables):* measure concepts that are abstract, complex, and cannot be directly observed by means of (multiple) items. Constructs are represented in path models as circles or ovals (p. 29).

*Endogenous latent variables:* serve only as dependent variables, or as both independent and dependent variables in a structural model (p. 29).

*Exogenous latent variable:* are latent variables that serve only as independent variables in a structural model (p. 29).

*Formative-formative HCM:* has formative measurement models of all constructs in the HCM and path relationships between the LOCs and the HOCs (i.e., the LOCs form the HOC) (p. 240).

*Formative measurement model:* is a type of measurement model setup in which the direction of the arrows is from the indicator variables to the construct, indicating the assumption that the indicator variables cause the measurement of the construct (p. 29).

*HCM:* see *Hierarchical component model* (p. 240).

*Hierarchical component model (HCM):* is a higher-order structure (usually second order) that contains several layers of constructs and involves a higher level of abstraction. HCMs involve a more abstract *higher-order component (HOC)*, related to two or more *lower-order components (LOCs)* in a reflective or formative way (p. 240).
Higher-order component (HOC): is a general construct that represents all underlying LOCs in an HCM (p. 240).

HOC: see Higher-order component (p. 240).

Indicators [variables]: are directly measured observations (raw data), generally referred to as either items or manifest variables, represented in path models as rectangles (p. 29).

Inner model: see Structural model (p. 29).

Latent variable: see Constructs (p. 29).

Lower-order component (LOC): is a sub-dimension of the HOC in an HCM (p. 240).

LOC: see Lower-order component (p. 240).

Manifest variables: see Indicators (p. 29).

Measurement: is the process of assigning numbers to a variable based on a set of rules (p. 29).

Measurement model: is an element of a path model that contains the indicators and their relationships with the constructs and is also called the outer model in PLS-SEM (p. 29).

Outer model: see Measurement model (p. 30).

Partial least squares structural equation modeling (PLS-SEM): is a variance based method to estimate structural equation models. The goal is to maximize the explained variance of the endogenous latent variables (p. 30).
Path models: are diagrams that visually display the hypotheses and variable relationships that are examined when structural equation modeling is applied (p. 30).

PLS-SEM: see Partial least squares structural equation modeling (p. 30).

$R^2$ values: Is the amount of explained variance of endogenous latent variables in the structural model. The higher the $R^2$ values, the better the construct is explained by the latent variables in the structural model that point at it via structural model path relationships. High $R^2$ values also indicate that the values of the construct can be well predicted via the PLS path model (p. 93).

Reflective measurement model: is a type of measurement model setup in which the direction of the arrows is from the construct to the indicator variables, indicating the assumption that the construct causes the measurement (more precisely, the covariation) of the indicator variables (p. 30).

Repeated indicators approach for HCM: is a type of measurement model setup in HCM that uses the indicators of the LOCs as indicators of the HOC to create an HCM in PLS-SEM (p. 240).

Structural equation modeling: is used to measure relationships between latent variables (p. 30).

Structural model: is an element of a PLS path model that contains the constructs as well as the relationships between them. It is also called the inner model in PLS SEM (p. 30).
Explaining the Hierarchical Component Model

Figure 4.1. Hierarchical Component Model showing structural (inner) model and measurement (outer model) and the relationship between the two models. The outer model is represented by indicators shown in yellow rectangles and lower order components, Affect, Loyalty, Cont., Prof, ILOC, and ELOC, represented by the blue outer circles. The inner model is represented by constructs Nar and Job Sat (shown as blue circles) and constructs LMX and LOC (shown as red circles). The red circles will turn to blue circles in Stage I when the indicators are combined into the lower order components and then into the HOCs. They are now indicator variables.

First-order models are used when only a single layer of latent variables (constructs) is considered. However, when more complex models are examined, a higher-order model called a hierarchical component model (HCM) is used. These HCMs are becoming more popular in research because they are a way to obtain a more “parsimonious” or frugal path model (Hair, et al, 2014).

The type of model used in this research is called a hierarchical component model because it contains two layers of constructs and involves a higher-order component
(HOC), represented by the four inner constructs, also called latent variables (circles) labeled, narcissism, LMX, LOC, and job satisfaction. It additionally involves a lower-order component (LOC) which consists of the outer constructs (circles) represented as affect, loyalty, contribution, professional responsibility (top) and ILOC (internal locus of control) and ELOC (external locus of control) at the bottom. Also represented in the lower order construct are the survey questions represented by the yellow rectangles around the outer perimeter of the model. These rectangles are also referred to as indicators.

The purpose of this model in Figure 4.1 is to show the hierarchy of the model (lower order components and higher order components) and to explain the relationship of the HOC and LOC. Additionally, the design of the initial path model (Figure 4.1) can be discussed using the terminology of structural (inner) model and measurement (outer model). The structural (inner) model consists of the original four latent variables (constructs) as presented in Figure 2.1 in chapter 2. These four latent variables are 1) narcissism, 2) leader-member exchange (LMX), 3) locus of control (LOC), and 4) job satisfaction. The measurement (outer) model is represented by indicators (yellow rectangles) and lower order components (blue circles other than latent variables in the inner model) that act as constructs when running the model.

Explaining the Structural (inner) Model

As previously mentioned, the structural model is identified by the four inner circles (two blue and two red) that represent the latent variables (constructs) of narcissism, leader-member exchange (LMX), locus of control (LOC), and job satisfaction.
satisfaction. These latent variables can be identified as exogenous or endogenous. 

Endogenous latent variables are those which are dependent variables or which serve as both independent (they have paths, or arrows, exiting to other constructs) and dependent variables (they have paths entering from other constructs). The ability of variables to serve as both independent and dependent is one of the unique characteristics of SEM. LMX and LOC are both dependent and independent in the model; therefore, they are endogenous. Job satisfaction is the only truly dependent variable, making it endogenous. The only exogenous or exclusively independent variable in the model is narcissism because it has no arrows going into it. The relationships proposed by the arrows are best explained by a review of the hypotheses.

**Hypothesis 1:** Narcissistic leadership has a negative causal impact on employee job satisfaction.

**Hypothesis 2:** Locus of control has a positive effect on employee job satisfaction

**Hypothesis 3:** Locus of control exerts a positive mediating effect between leader-member exchange and employee job satisfaction.

**Hypothesis 4:**

a) Leader-member exchange relationships positively influence job satisfaction.

b) Narcissistic leadership depresses LMX. LMX exerts a mediating effect that modified the relationship between narcissism and employee

**Hypothesis 5:** Locus of control has a mediating effect between narcissistic leadership and employee job satisfaction.

**Hypothesis 6:** Narcissistic leadership has a negative effect on locus of control.
Explaining the Measurement (outer) Model

The indicators (yellow rectangles) represent the questions in the survey (Appendix H). The questions were taken from four separate surveys (See Table 4.3 for listing of the surveys and reliability and validity results). Each grouping of questions defines a latent variable (construct) from the inner model. Some of the indicators (yellow rectangles) that represent questions can be grouped into the lower order components of affect, loyalty, contribution, professional respect, internal locus of control and external locus of control. These lower order components are shown as blue circles in the outer model.
### Table 4.3

**Listing of Original Surveys with Reliability and Validity results**

<table>
<thead>
<tr>
<th>Survey</th>
<th>Items</th>
<th>Year</th>
<th>Appendix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hochwarter &amp; Thomas Narcissism Scale</td>
<td>6-item</td>
<td>2012</td>
<td>D</td>
</tr>
<tr>
<td><strong>Reliability</strong>: alpha score was .93, .88, and .85 for 3 samples (based on a .65 Cronbach’s alpha)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Validity</strong>: established through Factor Analysis: Sample 1=81.3; Sample 2=77.7; Sample 3= 80.2 compared to a measure of .70 being acceptable</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hoppock Job Satisfaction Scale</td>
<td>4-item</td>
<td>1935</td>
<td>E</td>
</tr>
<tr>
<td><strong>Reliability coefficient</strong>: alpha was 0.76-0.89 (based on .65 Cronbach’s alpha)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Validity</strong>: by McNichol, Stahl, &amp; Manley (1978),</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rotter’s (Condensed) Locus of Control Scale</td>
<td>6-item</td>
<td>1966</td>
<td>F</td>
</tr>
<tr>
<td><strong>Reliability</strong>: was .68 Cronbach’s alpha (based on a .65 Cronbach’s alpha)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Validity</strong>: data found: in Table 2, page 657, of Lumpkin (1985) article “Validity of a Brief Locus of Control Scale for Survey Research”</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liden &amp; Maslyn Leader-member Exchange</td>
<td>11-item</td>
<td>1998</td>
<td>G</td>
</tr>
<tr>
<td><strong>Reliability</strong>: for components: Affect (90). Loyalty (74), Contribution (57), Professional Respect (89) (based on Cronbach’s .65)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Validity</strong>: Detailed proof was established on pages 60-64 of Liden &amp; Maslyn (1998) article.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Formative indicators.** Table 4.4 below begins with the questions (as indicated by the yellow rectangles) associated with LMX from the Liden and Maslyn (1998) 11-item scale (Appendix G). The four dimensions (lower order components represented by blue circles) of LMX were affect (interpersonal attraction), loyalty, contribution (the amount of work oriented activity), and professional respect. The 11 questions LMX scale clustered into four dimensions, as shown in Table 4.3. Using the research survey (Appendix H), questions 1-3 were identified with affect, questions 4-6 with loyalty,
question 7-8 with contribution, and questions 8-11 with professional respect. Because the direction of the arrows is from the indicator variable to the lower order components (blue circles), a formative measurement model is represented indicating that the indicators cause, or form, the lower order construct. Arrows from the lower order components (blue circles) then lead into the LMX higher-order latent variable (red circle), thus they also are formative measures. The color of the circle representing LMX at this stage is red, representing higher order constructs prior to Stage I processing.

Table 4.4
Indicators for Formative Measurement Model

<table>
<thead>
<tr>
<th>Affect</th>
<th>Loyalty</th>
<th>Contribution (Cont)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect 1</td>
<td>Loyalty 1</td>
<td>My leader would defend me in the organization if I made an honest mistake.</td>
</tr>
<tr>
<td>I like my leader very much as a person.</td>
<td>I feel that my leader would defend my work actions to a superior, even without complete knowledge of the issue in question.</td>
<td></td>
</tr>
<tr>
<td>My leader is the kind of person one would like to have as a friend.</td>
<td>My leader would come to my defense if I were “attacked” by others.</td>
<td></td>
</tr>
<tr>
<td>My leader is a lot of fun to work with.</td>
<td>My leader would defend me in the organization if I made an honest mistake.</td>
<td></td>
</tr>
</tbody>
</table>
Cont 1  I do work for my leader that goes beyond what is specified in my job description or what is normally expected of me.

Cont 2  I am willing to apply extra efforts, beyond those normally required, to further the interest of my work group.

Professional Respect (Prof)

Prof 1  I am impressed with my leader’s knowledge of the job.

Prof 2  I respect my leader’s knowledge of and competence on the job.

Prof 3  I admire my leader’s professional skills.

Internal Locus of Control (ILOC)

Locus I 1  When making plans, I am almost certain that I can make them work.

Locus I 2  Getting people to do the right things depends on ability; luck has nothing to do with it.

Locus I 3  What happens to me is my own doing.

External Locus of Control (ELOC)

Locus E 1  Many of the unhappy things in people’s lives are partly due to bad luck.

Locus E 2  Getting a good job depends mainly on being in the right place at the right time.

Locus E 3  Many times I feel that I have little influence on the things that happen to me.
Table 4.3 also shows a similar situation that occurs with the LOC latent variable (construct). The original questions came from Rotter’s (1966) Locus of Control Scale, but a modified and shortened version by Lumpkin in 1985 (Appendix F) was used in this research survey (Appendix H). Locus of control is decomposed into internal and external lower order components (Lefcourt, 1976; Neill, 2006); therefore, questions 18-20 from the research survey are identified with internal locus of control and questions from the research survey 21-23 are identified with external locus of control. Therefore, the indicators/questions (yellow rectangles) associated with locus of control must first flow into the lower order components (internal LOC and external LOC) which are represented by the blue circles at the bottom of the outer model. Again, notice the direction of the arrows pointing into the lower order components ILOC and ELOC; note also that arrows from these lower order components then point into (form) the higher order latent variable (construct), LOC. The LOC latent variable circle is now red; however, it will be represented with a blue circle in the Stage I model when the indicators are combined into the lower order components and then into the higher order component, locus of control. In Stage II the lower level components ILOC and ELOC become the indicators (also called manifest variables).
<table>
<thead>
<tr>
<th>Table 4.5</th>
<th>Indicators for Reflective Measurement Model</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Narcissism (Narcis)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Narcis 1</strong></td>
<td>My boss is a very self-centered person.</td>
</tr>
<tr>
<td><strong>Narcis 2</strong></td>
<td>My boss has an inflated view of him/herself.</td>
</tr>
<tr>
<td><strong>Narcis 3</strong></td>
<td>My boss brags about him/herself to get positive strokes from others.</td>
</tr>
<tr>
<td><strong>Narcis 4</strong></td>
<td>My boss will do one favor as long as he/she gets two or more in return.</td>
</tr>
<tr>
<td><strong>Narcis 5</strong></td>
<td>My boss often exaggerates his/her accomplishments.</td>
</tr>
<tr>
<td><strong>Narcis 6</strong></td>
<td>My boss always has to be the center of attention.</td>
</tr>
<tr>
<td><strong>Job Satisfaction (Satis)</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Satis 1</strong></td>
<td>Which one of the following shows how much of the time you feel satisfied with your job. Never, Seldom, Occasionally, About half the time, A good deal of the time, All of the time.</td>
</tr>
<tr>
<td><strong>Satis 2</strong></td>
<td>Choose ONE of the following statements which best tells how well you like your job. I hate it.; I dislike it.; I don’t like it.; I am indifferent to it.; I like it.; I am enthusiastic about it.; I love it.</td>
</tr>
<tr>
<td><strong>Satis 3</strong></td>
<td>Which one of the following best tells how you feel about changing your job? I would quit this job at once if I could; I would take almost any other job in which I could earn as much as I am earning now.; I would like to change both my job and my occupation.; I am not eager to change my job, but I would do so if I could get a better one.; I cannot think of any job for which I would exchange my job.; I would not exchange my job for any other.</td>
</tr>
</tbody>
</table>
Which one of the following shows how you compare with other people?
No one dislikes his job more than I dislike mine.; I dislike my job much more than most people dislike theirs.; I dislike my job more than most people dislike theirs.; I like my job about as well as most people like theirs.; I like my job better than most people like theirs.; I like my job much better than most people like theirs.; No one likes his job better than I like mine.

**Reflective indicators.** The indicators (yellow rectangle) associated with narcissism and job satisfaction do not have a lower order components and therefore, are represented by blue circles. However, note that the direction of the arrows is from the latent variable (construct) into the indicators. This situation represents a reflective measurement model indicating that the latent variable (construct) caused the indicators; for example, being narcissistic causes a boss to be self-centered (question 1), to have inflated views of self (question 2), etc. (see Table 4.5).

Table 4.5 shows how the questions in the research (Appendix H) survey correspond to the latent variables narcissism and job satisfaction. Questions 12-17 are reflective indicators on the latent variable, narcissism, and they were originally from the Perceived Supervisor Narcissism Scale of Dr. Wayne Hochwarter (Appendix D). Question 25-28 are reflective indicators on the job satisfaction scale and were from Hoppock’s Job Satisfaction Measure taken from Snead & Harrell (1991) (Appendix E).
Explaining the Stage I Model

Figure 4.2. Stage I model without measurements (results).

The hierarchical component model (HCM) shown in Figure 4.2 represents Stage I of a two stage process that uses a repeated indicator approach to assign all the indicators from the lower order components (outer blue circles) to the higher order components (inner blue circles). Notice in the measurement model (outer model) represented by the lower order components (blue circles identified as affect, loyalty, contribution professional responsibility, ILOC, and ELOC) that those particular indicators now “feed into” the respective latent variables LMC and LOC in the structural model (inner model). The direction of the arrows associated with the indicators is pointed into the latent variables (constructs) LMC and LOC making the first stage, formative-formative. A formative model allows for the “assumption that the indicator variables cause the measurement of the construct” (Hair, et. al, 2014, p. 29).
Two observations of the repeated indicator approach should be mentioned. First, one reason to use this approach is because the number of indicators going into each lower order component (LOC) should be similar, but if they are not, this approach improves measurement. Notice that three indicators go into each LOC except for contribution, which has two indicators. By using this repeated indicator approach, a stronger relationship emerges between the HOC (LMX) and LOCs (affect, loyalty, contribution, professional responsibility) (Hair, et. al, 2014). The same is true with the LOCs, internal locus of control (ILOC) and external locus of control (ELOC) and their relationship to the HOC, latent variable (construct) locus of control.

The second observation applies to the measurement model evaluation criteria. As previously mentioned, the relationships between the LOCs and the HOCs can be either formative or reflective. Formative means that the indicator variable causes the measurement of the latent variable (construct), while reflective means that the latent variable (construct) causes the measurement of the indicator variable. The decision to label the relationship as either depends on the conceptual reasoning and goal of the analysis. In short, it is a judgment call on the part of the researcher. Therefore, when using this repeated indicator approach, “the same measurement model evaluation criteria apply to the HOC as for any other construct in the PLS path model…. all relevant reliability and validity criteria must be met” (Hair, et al, 2014, p. 231) and will be explained in subsequent discussion.
Figure 4.3 is the Stage I model with measurements or results. A thorough interpretation of these measurements is not beneficial at this point in the analysis because this stage is used to obtain the latent variable scores for the LOCs (blue circles in the outer model) that will be used as the indicators (also called manifest variables) for LMX and Locus of Control (LOC) in the Stage II model. However, a few basic points will be considered.

First, the measurements that result from the indicators (yellow rectangles) are called weights and loadings. The term weight (or w coefficients) is used for formative constructs where the arrow goes from the indicator (rectangle), to the construct (circle). The term loadings (or l coefficients) are the measurements for reflective constructs meaning the arrow points from the indicator (rectangle) to the construct (circle). These terms are used only in the measurement (outer) model. The terms for measurements
represented in the structural (inner) model are referred to as path coefficients (Hair, et al, 2014).

Second, notice that the numbers inside the LMX and LOC circles in the structural (inner) model are close to 1. These are the coefficients of determination, $R^2$, for these constructs. The reason for the near unity $R^2$ is because formative indicators/variables are assumed to completely define the constructs they purport to measure; the HOCs, then are calculated based on the assumption that the researcher has completely defined the construct with the selected measures. Additionally, the latent variable (construct) narcissism will always have a value of 0 because it is the only truly exogenous variable with no other latent variable arrows flowing into it; consequently, there is no explained variance ($R^2 = 0$). Finally, the latent variable (construct) job satisfaction has a value of 0.36. This construct is the endogenous or dependent variable which the model is attempting to explain. This means that 36% of the variance in this variable is being explained by the other latent variables (constructs). However, this value may change in the final Stage II model; additionally, validity and reliability tests may affect this coefficient.
Figure 4.4: Stage II Model with measurements (results) prior to analysis for validity and reliability.

Explaining the Stage II model

Figure 4.4 represents the Stage II model with measurements, but prior to the testing of the formative and reflective indicators for validity and reliability. Therefore, the measurements shown may not represent the true final results because some of the indicators may not be valid or reliable and have to be deleted in the final model. However, a few key points can be made regarding this Stage II model.

The measurement (outer) model or lower order components (LOCs) are now all in yellow rectangles. The structural (inner) model or higher order components (HOCs) are the blue circles labeled narcissism, LMX, LOC (locus of control) and job satisfaction. The yellow rectangles in the reflective models (arrows projecting from latent variables narcissism and job satisfaction to indicators) still represent the individual questions in the survey. However, in the formative model (arrows project into the latent variables, LMX
and LOC, from indicators), the circles now represent the HOCs whose values have been calculated based on the values of the LOCs (the yellow rectangles for affect, loyalty, contribution, professional responsibility, ILOC and ELOC), which in turn were calculated from the survey questions. These LOCs were previously represented by blue circles and have now become the indicators, represented by yellow rectangles.

The path coefficients are shown on the lines in the structural (inner) model and represent the relationships between the latent variables (constructs). The measurement representing $R^2$ is shown inside each blue circle representing the latent variable (construct). As mentioned in the previous model, $R^2$ is the explained variance for the endogenous (dependent) latent variables in the model; therefore, values are shown for LMX, LOC, and job satisfaction. Note that, unlike the Stage I model, the $R^2$ for LMX and LOC are now determined by the effects of narcissism. Narcissism is exogenous and will have no $R^2$ value. At this point, no interpretation of path models will be attempted until validity and reliability of the indicators are ascertained.

**Evaluation/Assessment of the Measurement (outer) Model**

A two-step process is involved in the evaluation/assessment of the PLS-SEM measurement (outer) and structural (inner) model results. Step one is to ascertain the reliability and validity of the measures. The purpose is to be confident that the measures are representative of the latent variables (constructs) in the measurement model. If they are not representative, then they should not be used to examine the structural relationships in the inner model. Step two is to evaluate/assess the estimates in the structural (inner) model.
Figure 4.5: Evaluation/Assessment of Measurement Models. The measurements in this initial model will be tested for reliability and validity in the reflective model, and then quality will be assessed in the formative model.

Both reflective and formative variables must be evaluated before they are included in the final model. First, the reflective indicator variables will be analyzed, followed by the formative indicator variables.

Assessment of Reflective Indicators

The reflective measurement models (narcissisms and job satisfaction) were assessed with regard to their reliability and validity. Table 4.6 shows the criteria and rule of thumb for evaluating the reflective measurement models.
Table 4.6
Rules of Thumb for Evaluating Reflective Measurement Models

<table>
<thead>
<tr>
<th>Internal consistency reliability: Composite reliability should be higher than 0.708 (in exploratory research, 0.60 to 0.70 is considered acceptable).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indicator reliability: The indicator’s outer loadings should be higher than 0.708. Indicators with outer loadings between 0.40 and 0.70 should be considered for removal only if the deletion leads to an increase in composite reliability and AVE above the suggested threshold value.</td>
</tr>
<tr>
<td>Convergent validity: The AVE should be higher than 0.50.</td>
</tr>
<tr>
<td>Discriminate validity: *An indicator’s outer loadings on a construct should be higher than all its cross loadings with other constructs. *The square root of the AVE of each construct should be higher than its highest correlation with any other construct (Fornell-Larcker criterion).</td>
</tr>
</tbody>
</table>

Source: Hair, et al., 2014, p. 107

Internal consistency (composite reliability) for reflective measurement model. The first criterion to be evaluated is internal consistency (composite reliability). Internal consistency measures whether several items used to measure the same construct do indeed produce similar results. The PLS algorithm was used to generate the results. Cronbach’s alpha is the traditional criterion used for this analysis. However, Cronbach’s alpha assumes that all indicators are equally reliable meaning that all “indicators have equal outer loadings on the construct” (Hair, et. al, 2014, p. 101). Additionally, Cronbach’s alpha tends to underestimate the internal consistency reliability results because of its sensitivity to the number of items used in the scale. The composite reliability was deemed more appropriate to use in testing for reliability and is more suitable for the PLS-SEM program because during model estimation, PLS-SEM
prioritizes the indicators by their reliability values (Hair, et al, 2011). Composite reliability scores range between 0 and 1. A score between 0.60 and 0.70 is acceptable in exploratory research. Above .70 is satisfactory, but any score less than 0.60 indicates a lack of internal consistency reliability. The scores for job satisfaction were 0.4290 and for narcissism was 0.9380. The composite narcissism score was very strong and is above the 0.70 level of being satisfactory. But the job satisfaction composite score is very weak and appears to lack internal consistency reliability because it falls below the 0.60 measure (Hair, et al, 2014). However, before a final decision is made regarding the composite results, the individual indicators were assessed for indicator reliability.

Table 4.7
Reliability and Validity scores for the Reflective Latent Variable (Constructs)
Before Indicator Reliability Results and Deletion of Indicators

<table>
<thead>
<tr>
<th>Latent Variable (Construct)</th>
<th>Average Variance Extracted (AVE)</th>
<th>Composite Reliability Measure of Validity</th>
<th>Composite Reliability Measure of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction (Job Sat)</td>
<td>0.263</td>
<td></td>
<td>0.4290</td>
</tr>
<tr>
<td>Narcissism (Nar)</td>
<td>0.730</td>
<td></td>
<td>0.9380</td>
</tr>
</tbody>
</table>

**Indicator reliability for reflective measurement model.** As previously mentioned, the relationship between the indicators (yellow rectangles) and the latent variables (constructs) (blue circles) for reflective measurement models are called loadings. These numbers are represented by the arrows going from the constructs to the indicators in Figure 4.5. The loadings for each of the reflective indicators are presented in Table 4.8. If the loadings for an indicator are above 0.70, that indicator should not be deleted from the model. If the loading is between 0.40 and 0.70, then the indicators should be considered for removal only if doing so would increase the composite...
reliability score for the construct. Also consideration should be given to deleting an indicator if its removal affects validity. Loadings below 0.40 should always be eliminated (Hair, et. al, 2014).

Table 4.8
Reflective Indicator Reliability Results

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Job Satisfaction (Satis) Loading</th>
<th>Narcissism (Narcis) Loading</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narcis 1</td>
<td>0</td>
<td>0.3074</td>
</tr>
<tr>
<td>Narcis 2</td>
<td>0</td>
<td>0.9189</td>
</tr>
<tr>
<td>Narcis 3</td>
<td>0</td>
<td>0.9576</td>
</tr>
<tr>
<td>Narcis 4</td>
<td>0</td>
<td>0.9144</td>
</tr>
<tr>
<td>Narcis 5</td>
<td>0</td>
<td>0.9436</td>
</tr>
<tr>
<td>Narcis 6</td>
<td>0</td>
<td>0.8936</td>
</tr>
<tr>
<td>Satis 1</td>
<td>0.1524</td>
<td>0</td>
</tr>
<tr>
<td>Satis 2</td>
<td>0.3802</td>
<td>0</td>
</tr>
<tr>
<td>Satis 3</td>
<td>0.9410</td>
<td>0</td>
</tr>
<tr>
<td>Satis 4</td>
<td>0.0144</td>
<td>0</td>
</tr>
</tbody>
</table>

Five of the six loading scores for the latent variable (construct) narcissism (Narcis) were all very strong with loadings above 0.70. This was not surprising since the overall composite reliability was so strong. The individual loading for the Satis 3 indicator variable for job satisfaction revealed a score of 0.9410. This score would imply that this indicator should stay in the model. Also, it should be noted that indicator Satis 2 had a score of 0.3801, falling very close to the lower threshold of 0.40. It should not be removed from the model unless it significantly increases the composite reliability score (Hair, et. al, 2014). Therefore, the PLS model was run again to determine if the composite reliability score would decrease if Satis 2 was deleted from the model. The composite actually decreased from 0.429 to 0.399 with Satis 2 indicator out of the model.
Therefore, the Satis 2 indicator was left in the model. The indicators Satis 1 and Satis 4 were both deleted from the model based on their lack of composite reliability as shown with scores of 0.1524 and 0.0144, respectively.

The PLS algorithm was conducted with the indicators Satis 1 and Satis 4 deleted from the model. The results are found in Table 4.8. The composite reliability score increased to 0.6620 from 0.4290 for the latent variable Job Sat. The composite reliability is close enough to 0.70 to conclude that indicator variables Satis 2 and Satis 3 have composite reliability. Composite reliability score for Nar increased to 0.969 from 0.9380, thus further justifying the deletion of Narcis 1 with a loading of 0.3074. Therefore, three indicators were removed: Satis 1, Satis 3, and Narcis 1.

Table 4.9
Reliability and Validity scores for the Reflective Latent Variable (Constructs)
After Indicator Reliability Results and Deletion of Indicators

<table>
<thead>
<tr>
<th>Latent Variable (Construct)</th>
<th>Average Variance Extracted (AVE)</th>
<th>Composite Reliability Measure of Validity</th>
<th>Composite Reliability Measure of Reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Satisfaction (Job Sat)</td>
<td>0.5360</td>
<td>0.6620</td>
<td></td>
</tr>
<tr>
<td>Narcissism (Nar)</td>
<td>0.8640</td>
<td>0.9690</td>
<td></td>
</tr>
</tbody>
</table>

Convergent validity (average variance extracted, AVE). Convergent validity is “the extent to which a measure correlates positively with alternative measures of the same construct” (Hair, et al., 2014, p. 102). To ascertain convergent validity, the loadings of the indicators must be considered with the average variance extracted (AVE). Average variance extracted is a measure that establishes the convergent validity on the latent variable (construct) level (Hair, et al., 2014).
Convergent validity was checked using AVE for the reflective indicators giving a composite score as shown in Table 4.9. The average variance extracted (AVE) values for both job satisfaction and narcissism were above the required minimum level of 0.50. An AVE value of 0.50 or above indicates that over half of the indicators’ variance is explained by the latent variable (construct) (Hair, et. al, 2014). Thus, the measures of the two reflective constructs have convergent validity with job satisfaction having 0.5360 and narcissism having 0.8640.

Discriminant validity. Discriminant validity is “the extent to which a construct is truly distinct from other constructs by empirical standards…..implies that a construct is unique and captures phenomena not represented by other constructs in the model” (Hair, et al., 2014, p. 104). Two measures, the Fornell-Larcker criterion and the cross loadings, were used for checking for discriminant validity.

Fornell-Larcker criterion is the most conservative approach of the two. The logic behind the method is that a latent variable (construct) generally shares more variance with its indicators than with the other latent variables (constructs). According to the Fornell-Larcker criterion, the square root of the AVE of each latent variable (construct) should be higher than the latent variable’s (construct’s) highest correlation with any other latent variable (construct) in the model (Hair, et. al, 2014). The latent variable correlations run by the PLS-SEM algorithm are found in the following table.
Table 4.10  
*Latent Variable Correlations*  

<table>
<thead>
<tr>
<th></th>
<th>Job Satisfaction (Job Sat)</th>
<th>LMX</th>
<th>LOC</th>
<th>Narcissim (Nar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satis</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LMX</td>
<td>0.5297</td>
<td>1</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>LOC</td>
<td>0.2379</td>
<td>0.4873</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Narcis</td>
<td>-0.3426</td>
<td>-0.5103</td>
<td>-0.2037</td>
<td>1</td>
</tr>
</tbody>
</table>

The square root of the AVE (Table 4.9) ($\sqrt{.536}$) for job satisfaction (Job Sat) was .73; whereas, the square root of the AVE for narcissism (Nar) ($\sqrt{.8640}$) was .93. As can be seen in Table 4.10, the square root of the AVE for both job satisfaction and narcissism are greater than the highest correlation between any other construct in the model. This analysis disregards the fact that each construct correlates 100% with itself. Therefore, the Fornell-Larcker criterion provides support for the measure of discriminate validity.

Also, cross loadings were used to test for discriminate validity. This criterion is more liberal and is measured by the relationship of an indicator’s loading with its latent variable (construct) to that indicator’s loading with the other latent variables (constructs) in the model. In other words, the measurements created in the following table are those that would occur if the indicators “fed into” the other latent variables (construct). These cross loadings were generated by the PLS algorithm and are presented in Table 4.11. Discriminate validity is established when an indicator’s loading on its own latent variable (construct) is higher than all of its cross loading with other constructs (Hair, et al, 2014).
Table 4.11
Cross Loadings

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Job Satisfaction (Job Sat)</th>
<th>LMX</th>
<th>LOC</th>
<th>Narcissism (Nar)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Narcis 2</td>
<td>-0.3089</td>
<td>-0.4166</td>
<td>-0.1545</td>
<td>0.9247</td>
</tr>
<tr>
<td>Narcis 3</td>
<td>-0.3257</td>
<td>-0.4649</td>
<td>-0.1977</td>
<td>0.9605</td>
</tr>
<tr>
<td>Narcis 4</td>
<td>-0.3418</td>
<td>-0.5462</td>
<td>-0.2412</td>
<td>0.9179</td>
</tr>
<tr>
<td>Narcis 5</td>
<td>-0.3302</td>
<td>-0.4881</td>
<td>-0.1933</td>
<td>0.9469</td>
</tr>
<tr>
<td>Narcis 6</td>
<td>-0.2771</td>
<td>-0.4357</td>
<td>-0.1445</td>
<td>0.8957</td>
</tr>
<tr>
<td>Satis 2</td>
<td>0.3861</td>
<td>0.1774</td>
<td>0.0579</td>
<td>0.0116</td>
</tr>
<tr>
<td>Satis 3</td>
<td>0.9617</td>
<td>0.5174</td>
<td>0.2387</td>
<td>-0.3723</td>
</tr>
</tbody>
</table>

As can be seen in Table 4.11, each of the remaining five narcissism indicators have a higher correlation with narcissism than with any of the other latent variable (construct) variables. The same can be said about indicator variables Satis 2 and Satis 3 with regard to job satisfaction. Note that these loadings are different from the ones in Table 4.8 and in Figure 4.5 because the model was rerun after the indicators Narcis 1, Satis 1, and Satis 4 were deleted for lack of indicator reliability. Therefore, discriminate validity is supported for the reflective models with latent variables (constructs) narcissism and job satisfaction by checking the cross loadings.

Table 4.12 shows a summary of the final reflective measurement model evaluation or assessment. Note that Narcis 1, Satis 1, and Satis 4 have been deleted. The reflective measurements model now meets the validity and reliability requirements.
Table 4.12
Summary of Final Reflective Measurement Model Evaluation/Assessment

<table>
<thead>
<tr>
<th>Latent Variable</th>
<th>Indicators</th>
<th>Loadings From Figure 4.6</th>
<th>Indicator Reliability (Loadings Squared)</th>
<th>Composite Reliability Table 4.9</th>
<th>AVE Table 4.9</th>
<th>Discriminate Validity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Job Sat</td>
<td>Satis 2</td>
<td>0.386</td>
<td>0.149</td>
<td>0.6620</td>
<td>0.536</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Satis 3</td>
<td>0.962</td>
<td>0.925</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nar</td>
<td>Narcis 2</td>
<td>0.925</td>
<td>0.856</td>
<td>0.9690</td>
<td>0.864</td>
<td>Yes</td>
</tr>
<tr>
<td></td>
<td>Narcis 3</td>
<td>0.961</td>
<td>0.924</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narcis 4</td>
<td>0.918</td>
<td>0.843</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narcis 5</td>
<td>0.947</td>
<td>0.897</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Narcis 6</td>
<td>0.896</td>
<td>0.803</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

These assessment/evaluation procedures for reliability and validity will not be presented for formative indicators because formative indicators are assumed to be error free (Edwards and Bagozzi, 2000). Therefore, internal reliability and convergent reliability are not meaningful for formative indicators. Likewise, in a formative model, the indicators represent potentially “independent causes” of the latent variables (constructs) and do not necessarily have a high correlation (Hair, et al., 2011). However, PLS-SEM does offer some guidelines for assessing the quality of the formative measurement model.
Assessment of Formative Indicators

*Figure 4.6: Structural Model after Reflective Assessment. Narcis 1, Satis 1, and Satis 4 are removed. This model is used to assess the Formative Indicators*

Indicators must be assessed to determine whether or not they contribute “to the formative index by carrying the intended meaning” (Hair, et al., 2014, p. 120). Two situations are relevant in deciding whether to include the indicator in the latent variables (constructs), LMX and LOC. First, if there is a high correlation between indicators of the particular latent variable (construct), then the information from the indicator could be redundant. This situation requires a check for collinearity between the indicators. Second, if the indicator does not significantly contribute to the latent variable (construct), then it should be deleted. This assessment is conducted by determining statistical significance and relevance of the indicators in the formative model (Hair, et al, 2014).
**Multicollinearity.** Multicollinearity of the formative indicators was checked using a free download software package called LXSTAT. The formative indicators for the LMX latent variable (construct) are Affect, Cont (contribution), Loyalty, and Prof (professional respect). The two formative indicators for the latent variable (construct) LOC are ELOC (External locus of control) and ILOC (Internal locus of control). The Variance Inflation Factor (VIF) was used to determine the degree of multicollinearity. VIF scores greater than 5 indicate multicollinearity (Hair, et al., 2011). Table 4.13 shows the VIF for the formative indicators.

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Affect</th>
<th>Cont</th>
<th>Loyalty</th>
<th>Prof</th>
<th>ILOC</th>
<th>ELOC</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIF</td>
<td>2.035</td>
<td>1.502</td>
<td>2.436</td>
<td>1.128</td>
<td>1.018</td>
<td>1.018</td>
</tr>
</tbody>
</table>

The VIF for each of the formative indicators is less than 5; therefore, there was no significant correlation between the formative indicators associated with each latent variable (construct).

**Bootstrapping.** As previously mentioned, the measures for formative indicators are referred to as weights, not loadings, as was the case with the reflective indicator measures. Based on the model in Figure 4.6, each formative indicator’s weight was assessed for their significance. Because PLS-SEM does not presume normal distribution of the data, the method used to generate t-scores was a nonparametric procedure called bootstrapping (Davison and Hinkley, 1997; Efron and Tibshirani, 1986). In this procedure, repeated random samples are taken from the original sample, with replacement, which is used to create a bootstrap sample to generate the standard errors.
that are used in hypothesis testing. This bootstrap sample allows significance testing of the estimated coefficients (in this case weights) in the PLS-SEM model (Henseler, Ringle, and Sinkovics, 2009) when a t-test is performed on the path model relationships using the standard error for each path model coefficient (weight). The results of the bootstrapping procedure are shown in Table 4.14 with weights, t-values and p-values shown for each formative indicator.

Table 4.14
Weights, t-values and p-values for Formative Indicators

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Weight</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect</td>
<td>0.6247</td>
<td>4.6813</td>
<td>0.000</td>
</tr>
<tr>
<td>Loyalty</td>
<td>0.2790</td>
<td>2.2309</td>
<td>0.027</td>
</tr>
<tr>
<td>Cont</td>
<td>0.1626</td>
<td>1.5395</td>
<td>0.126</td>
</tr>
<tr>
<td>Prof</td>
<td>0.1538</td>
<td>1.1239</td>
<td>0.263</td>
</tr>
<tr>
<td>ILOC</td>
<td>0.9585</td>
<td>13.1182</td>
<td>0.000</td>
</tr>
<tr>
<td>ELOC</td>
<td>0.1843</td>
<td>1.4558</td>
<td>0.146</td>
</tr>
</tbody>
</table>

Based on a .05 significance level (alpha) with a two-tailed t-test and 151 degrees of freedom, three formative indicators were significant based on Table 4.14. These formative indicators were ILOC (Internal Locus of Control), Loyalty, and Affect. Because these three formative indicators were significant with p-values less than or equal to the .05 alpha, they will be retained in the model. However, three formative indicators did not have significant p-values and will be considered for deletion from the model. These three formative indicators are ELOC (External Locus of Control), Cont (Contribution) and Prof (Professional respect). However, before deleting these indicators from the model, their corresponding loadings should be considered. This situation means the weights in a formative model are rerun as if they are loadings in a reflective model. If their loading is 0.50 or greater, the indicator should be retained in the model despite the
fact that their corresponding weight was insignificant (Hair, et al., 2014). Table 4.15 presents the loadings, t-values, and p-values for the formative indicators.

Table 4.15

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Loading</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Affect → LMX</td>
<td>0.9403</td>
<td>18.8584</td>
<td>0.000</td>
</tr>
<tr>
<td>Loyalty → LMX</td>
<td>0.8636</td>
<td>16.9152</td>
<td>0.000</td>
</tr>
<tr>
<td>Cont → LMX</td>
<td>0.6379</td>
<td>6.0943</td>
<td>0.000</td>
</tr>
<tr>
<td>Prof → LMX</td>
<td>0.4422</td>
<td>2.4570</td>
<td>0.015</td>
</tr>
<tr>
<td>ILOC → LOC</td>
<td>0.9832</td>
<td>16.8699</td>
<td>0.000</td>
</tr>
<tr>
<td>ELOC → LOC</td>
<td>0.3124</td>
<td>2.2235</td>
<td>0.028</td>
</tr>
</tbody>
</table>

Based on the loadings in Table 4-15, Cont should be kept in the model since it has a loading greater than 0.50. The formative indicator variable ELOC and Prof had a loading slightly less than 0.50; however, both indicators were significant with a t-value of 2.235 and 2.4570 respectively and a p-value of 0.028 and 0.015, respectively. According to Hair, et al, (2014), prior research and theory provide support for including both ELOC and Prof in the model. Likewise, theoretical rational and expert opinion should play a more important role in the evaluation of formative indexes than reflective (Hair, et. al., 2014). Therefore, neither ELOC nor Prof was deleted from the model. Analysis of the formative indicators is now complete.

**Heterogeneity and Moderating Effects**

Heterogeneity exits when two or more groups of respondents exhibit significant differences in their model relationship. The focus of the differences is usually on the latent variables (constructs) in the PLS path model (Hair, et al., 2014). Before the assessment of the structural model, a multi-group analysis was conducted on the data. In this analysis, the two groups for consideration are those who “work for others” and those
who are “self-employed”. In answering questions about one’s employer, the group “self-employed” was asked to answer the survey based on their most recent employer. “Self-employed” accountants are assumed to be a group of respondents who are part of a categorical moderator variable (employment status) that may influence the relationships in the PLS path model. Therefore, the path model coefficients were analyzed between the two groups using a moderator effects model which consists of PLS-SEM multi-group analysis that is used to explore any differences in the path coefficients in the structural models for the two groups (Hair, et al., 2014). The decision will be made after this analysis as to whether the “self-employed” respondents will remain in the overall model.

A t-test for two independent samples was used to compare the path coefficients between the two employment groups, “work for others” and “self-employed”. This test must be calculated by hand and requires the parameters of 1) number of observations in each group, 2) path coefficients in each group, and 3) standard errors of each group. The sample size for “work for others” was 88 and the sample size for “self-employed” was 64. Both sample sizes meet the 10 times rule mentioned earlier in the chapter. Another sample size recommendation mentioned earlier was based on statistical power. This rule recommended a sample size of 65 based on 4 arrows pointing at a construct at a minimum $R^2$ of .25 and a significance level of 5% (Hair, et al., 2014). The sample size for “self-employed” was 64, which was 1 short of the more rigorous power analysis criteria. This shortage did not present a problem since the sample size did meet the 10 times rule, as well as the fact that the moderator effect model is being used only to determine if “self-employed” respondents should be deleted from the model or retained.
If these samples are retained, the final structural model would be analyzed using the entire 152 respondents.

**Moderator Effects “Work for Others” Model Analysis**

The 88 respondents who work for others were used as the data in Figure 4.7. The same procedures assessment of indicators were used for the following analysis as was previously used in analyzing the full data hierarchical model presented earlier. The purpose of the moderator effects model is to simply get the path coefficients for each group in order to test for significant differences. After assessing both the reflective and formative measurements using the same criterion applied to the initial full model, the final structural model and results using “work for others” is presented in Figure 4.7. Notice that the indicators deleted in this model were Narcis 1 and Satis 2, which differs from the full data model. This deletion was because of validity/reliability issues and the fact that the indicators did not significantly contribute to the model.

![Figure 4.7: Moderator Effects “Work for Others” Model](image-url)
The path coefficients and the standard error of the coefficients for the “work for other” model are presented in Table 4.16.

Table 4.16

“Work for Others” Standard Error and Path Coefficients

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Standard Error</th>
<th>Path Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>0.1179</td>
<td>0.7306</td>
</tr>
<tr>
<td>LOC</td>
<td>0.1105</td>
<td>-0.5076</td>
</tr>
<tr>
<td>LOC</td>
<td>0.0743</td>
<td>-0.1068</td>
</tr>
<tr>
<td>Nar</td>
<td>0.0790</td>
<td>0.0913</td>
</tr>
<tr>
<td>Nar</td>
<td>0.0677</td>
<td>-0.5877</td>
</tr>
<tr>
<td>Nar</td>
<td>0.0804</td>
<td>0.0281</td>
</tr>
</tbody>
</table>

**Moderator Effects “Self Employed” Model Analysis**

The same PLS modeling procedure that was performed on the “work for others” group was applied to the “self-employed” group. The final structural model of the “self-employed” is presented in Figure 4.8. Notice that the deleted indicators for this model were Satis 1 and Satis2, which is similar to the full data model except for the inclusion of Narcis 1.
Figure 4.8: Moderator Effects “Self-Employed” Model

The path coefficients and the standard error of the coefficients for self-employed is presented in Table 4.17.

Table 4.17
“Self-Employed” Standard Error and Path Coefficients

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Standard Error</th>
<th>Path Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX → Job Sat</td>
<td>0.1407</td>
<td>0.8469</td>
</tr>
<tr>
<td>LMX → LOC</td>
<td>0.1983</td>
<td>0.6062</td>
</tr>
<tr>
<td>LOC → Job Sat</td>
<td>0.0921</td>
<td>-0.1424</td>
</tr>
<tr>
<td>Nar → Job Sat</td>
<td>0.1359</td>
<td>0.2026</td>
</tr>
<tr>
<td>Nar → LMX</td>
<td>0.1012</td>
<td>-0.5711</td>
</tr>
<tr>
<td>Nar → LOC</td>
<td>0.1990</td>
<td>0.2821</td>
</tr>
</tbody>
</table>

The parametric approach was used to test the difference between the path coefficients between both models and used the path coefficients, standard errors, and sample size. The appropriate t-test to be used was determined by using Levene’s test (Mooi & Sarstedt, 2011) to determine whether or not the standard errors were equal. Formulas for the two different t-tests can be found on page 248 of Hair, et al., 2014. If
Levene’s p-value is between 0.05 and 0.95, there is not a significant difference between the standard errors of the path coefficients, which was the case with the path between LMX -> Job Sat and LOC -> Job Sat; therefore, the t-test formula if standard errors are equal was used. There is a significance difference when Levene’s p-value is greater than 0.95 or less than 0.05, which was the case with the path coefficient LMX -> LOC, Nar -> Job Sat, Nar -> LMX, and Nar -> LOC; therefore, the t-test formula if the standard errors are not equal was used. The results of the appropriate t-test, p-values, and Levene’s p are presented in Table 4:18.

<table>
<thead>
<tr>
<th>Path</th>
<th>t-value</th>
<th>p-value</th>
<th>Levene’s p (Standard Error analysis)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>Job Sat</td>
<td>0.640</td>
<td>0.523</td>
</tr>
<tr>
<td>LMX</td>
<td>LOC</td>
<td>4.940</td>
<td>0.000</td>
</tr>
<tr>
<td>LOC</td>
<td>Job Sat</td>
<td>0.306</td>
<td>0.760</td>
</tr>
<tr>
<td>Nar</td>
<td>Job Sat</td>
<td>0.713</td>
<td>0.477</td>
</tr>
<tr>
<td>Nar</td>
<td>LMX</td>
<td>0.551</td>
<td>0.583</td>
</tr>
<tr>
<td>Nar</td>
<td>LOC</td>
<td>1.190</td>
<td>0.237</td>
</tr>
</tbody>
</table>

The final t-test results (Table 4.18) reveal that the only significant difference between the path coefficients of the two models (self-employed and works for others) was between the LMX -> LOC path because the p-value of 0 is < .05 alpha. Those path coefficients were “work for others” .508 and “self-employed” .606 taken from Figures 4.7 and 4.8 respectively. Likewise, none of the other path coefficients were significantly different. The reason for this significant difference between LMX to LOC could be because of bias in the response of the respondents regarding their answers to that particular set of questions. The other reason could simply be random variation.
Even though the paths from LMX to LOC for the two groups were significantly different, neither of the two moderator effect models (Figure 4.7 and 4.8), including the full data structural model in Figure 4.6 and 4.9 show a mediating effect of LOC on job satisfaction as evidenced in lack of significance with all three models having p-values > .05 shown in Table 4:19. Therefore, because of a lack of a mediating effect of LOC to job satisfaction, there is a lack of significance that the LMX-LOC path plays in the overall analysis of the relationship between narcissism and job satisfaction.

Consequently, the full data set of 152 respondents will be used for the structural model for final assessment and analysis rather than just using the “Work for Others” data.

Table 4:19

<table>
<thead>
<tr>
<th>LOC -&gt; Job Satisfaction</th>
<th>t-value</th>
<th>p-value</th>
<th>Path Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work for Others</td>
<td>1.440</td>
<td>0.15</td>
<td>-0.107 (Figure 4.7)</td>
</tr>
<tr>
<td>Self Employed</td>
<td>1.550</td>
<td>0.13</td>
<td>-0.142 (Figure 4.8)</td>
</tr>
<tr>
<td>Full Model</td>
<td>0.312</td>
<td>0.76</td>
<td>-0.021 (Figure 4.9)</td>
</tr>
</tbody>
</table>

Analysis of Structural Model

Figure 4.9 shows the structural (inner) model after the measurement assessments have been completed. The analysis of both the reflective and formative indicators provided for changes from the initial model. Reflective indicators Narcis 1, Satis 1 and Satis 2 were deleted from the model due to lack of validity and reliability. None of the formative indicators were deleted based on the measurement assessment.
The following analysis will focus on the assessment of the revised structural (inner) model. The process for assessing the structural (inner) model is presented below.

Step 1: Assess the structural model for collinearity.
Step 2: Assess the significance of the $R^2$ values.
Step 3: Assess the significance of the path coefficients.
Step 4: Assess the effect size $f^2$.
Step 5: Assess the predictive relevance of the model using $Q^2$ and $q^2$ effect sizes.

**Step 1: Assess the Structural Model for Collinearity**

The same measure is used to assess the collinearity in the path coefficients for the structural (inner) model as was used to evaluate the formative indicators in the measurement (outer) model. This measure is the Variance Inflation Factor (VIF) and was tested using a free download of LXSTAT. The factor should be less than 5 in order to not have collinearity (Hair, et al., 2011). The collinearity between the three exogenous

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*Figure 4.9. Structural (Inner) Model after Analysis of Reflective and Formative Measures.*
(independent variables), Nar, LMX, and LOC were tested and because each of the VIF values were less than 5, (See Table 4.20), the conclusion was reached that there was no collinearity between the path coefficients. If collinearity had existed, then a latent variable (construct) might be eliminated or merged into another latent variable (construct) to create a higher-order construct and correct the collinearity problem (Hair, et al, 2014).

Table 4.20

\textit{Variance Inflation Factor (VIF)}

<table>
<thead>
<tr>
<th>Statistic</th>
<th>Job Sat</th>
<th>LMX</th>
<th>LOC</th>
<th>Nar</th>
</tr>
</thead>
<tbody>
<tr>
<td>VIF</td>
<td>1.404</td>
<td>2.044</td>
<td>1.317</td>
<td>1.370</td>
</tr>
</tbody>
</table>

**Step 2: Assess the Significance of the R$^2$ Value**

The coefficient of determination (R$^2$ value) is the most commonly used measure to assess and evaluate the structural (inner) model and to evaluate the predictive accuracy of the model. R$^2$ represents the exogenous (independent) latent variables’ combined effect on the endogenous (dependent) latent variable (construct). It also represents the amount of explained variance in the endogenous (dependent) latent variables (constructs) explained by the independent latent variable (constructs) (Hair, et al, 2014). Recall that the truly exogenous (independent) variable is Nar, while the only truly endogenous (dependent) variable is job satisfaction. LMX and LOC were both independent and dependent within the model, classifying them as endogenous variables.

The R$^2$ value for the three endogenous variables is presented in Table 4.21. The R$^2$ value for LMX is 0.26, which indicates that 26% of the total variation can be explained by Nar. The R$^2$ value for LOC is 0.24. Approximately 24% of the total
variation in LOC can be explained by Nar and the mediating effect Nar has on LOC through the latent variable LMX. The $R^2$ for the dependent latent variable Job Sat was approximately 29%, which is considered to be moderate. Approximately 29% of the total variation in Job Sat can be explained by all three of the independent latent variables (constructs), Nar, LOC, and LMX in the full model. The impact each independent latent variable has on the $R^2$ value for Job Sat will be discussed in Step 4.

Table 4.21
*R*<sup>2</sup> *Values for Endogenous Latent Variables*

<table>
<thead>
<tr>
<th>Endogenous Latent Variable</th>
<th>$R^2$ Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>0.260</td>
</tr>
<tr>
<td>LOC</td>
<td>0.240</td>
</tr>
<tr>
<td>Job Sat</td>
<td>0.288</td>
</tr>
</tbody>
</table>

**Step 3: Assess the Significance of the Path Coefficients.**

The path coefficients were assessed using the Bootstrapping procedure in PLS-SEM in which repeated random samples are taken from the original sample, with replacement and are used to create a bootstrap sample to generate the standard errors for hypothesis testing (Davison & Hinkley, 1997; Efron & Tibshirani, 1986). This method was also used in testing the formative indicator weights. The results of running the procedure in PLS-SEM are presented in Table 4.22.

Table 4.22:
*Path Coefficient, t-values and p-values for Latent Variables (Construct)*

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX → Job Sat</td>
<td>0.4906</td>
<td>3.6385</td>
<td>0.000</td>
</tr>
<tr>
<td>LMX → LOC</td>
<td>0.5183</td>
<td>5.4424</td>
<td>0.000</td>
</tr>
<tr>
<td>LOC → Job Sat</td>
<td>-0.0210</td>
<td>0.3120</td>
<td>0.755</td>
</tr>
<tr>
<td>Nar → Job Sat</td>
<td>-0.0966</td>
<td>1.3911</td>
<td>0.167</td>
</tr>
<tr>
<td>Nar → LMX</td>
<td>-0.5103</td>
<td>8.0571</td>
<td>0.000</td>
</tr>
<tr>
<td>Nar → LOC</td>
<td>0.0607</td>
<td>0.7209</td>
<td>0.472</td>
</tr>
</tbody>
</table>

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The p-value indicates that the path relationship between Nar and LMX is significant at the .05 significance level. Also, the path relationship between LMX and Job Sat, as well as the path relationship between LMX and LOC, are significant. The other three path relationships (Nar to LOC; LOC to Job Sat; and Nar to Job Sat) are not significant at the .05 level. Although the effect Nar has on Job Sat directly is not significant, Nar has a mediating effect on job satisfaction through LMX. This mediating effect is because the effect of Nar on LMX is significant, and LMX significantly impacts Job Sat. The latent variable LOC did not provide a mediating effect between narcissism and Job Satisfaction because there was no significant relationship from LOC to Job Satisfaction.

A continuation of Step 3 is to calculate the total effects of the exogenous constructs on the endogenous variables. “The total effects are the sum of the direct effects and all indirect effects linking two constructs” (Hair, et al, 2014, p. 203). Table 4.23 shows the total effects of the exogenous variable Nar on the target construct Job Sat. The results show that all of the total effects are significant at the 0.05 level except LOC to Job Sat with a p-value of 0.822 which is not less than .05 alpha.

<table>
<thead>
<tr>
<th>Path</th>
<th>Total Effects</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX → Job Sat</td>
<td>0.4797</td>
<td>4.3331</td>
<td>0.000</td>
</tr>
<tr>
<td>LMX → LOC</td>
<td>0.5183</td>
<td>5.3935</td>
<td>0.000</td>
</tr>
<tr>
<td>LOC → Job Sat</td>
<td>-0.0210</td>
<td>0.2259</td>
<td>0.822</td>
</tr>
<tr>
<td>Nar → Job Sat</td>
<td>-0.3426</td>
<td>4.3861</td>
<td>0.000</td>
</tr>
<tr>
<td>Nar → LMX</td>
<td>-0.5103</td>
<td>8.0571</td>
<td>0.000</td>
</tr>
<tr>
<td>Nar → LOC</td>
<td>-0.2037</td>
<td>2.0591</td>
<td>0.041</td>
</tr>
</tbody>
</table>
Step 4: Assess the Effect size $f^2$.

In addition to evaluating the $R^2$ values for the endogenous variables, it is necessary to calculate the $f^2$ effect size. This measure evaluates the change in $R^2$ when a specified exogenous construct is eliminated from the model and is used to determine if the omitted latent variable (construct) has a substantial impact on the other endogenous latent variable (constructs) (Hair, et al., 2014).

The $f^2$ effect size was calculated for the Nar->Job Sat path, LMX->Job Sat path and LOC->Job Sat path. The criteria for analysis of the $f^2$ effect size is that 0.02, 0.15, 0.35 respectively, represent small, medium, and large effects (Cohen, 1988) of the exogenous latent variables. The $f^2$ effect value was .023 for the impact Nar has on the $R^2$ value for Job Sat. This means that Nar has only a small impact on the $R^2$ value for Job Sat. The $f^2$ effect size for LMX had a medium impact on the $R^2$ value of Job Sat with a value of 0.173. However, the $f^2$ effect size for the impact LOC has on the $R^2$ value was only 0.006. This means there is virtually no impact on the $R^2$ value for this model if LOC were deleted. The results of the $f^2$ effect size shows that Nar explains a significant amount of the variation in Job Sat only through the mediating effect of LMX.

<table>
<thead>
<tr>
<th>Path</th>
<th>$f^2$ Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX</td>
<td>Job Sat</td>
</tr>
<tr>
<td>LOC</td>
<td>Job Sat</td>
</tr>
<tr>
<td>Nar</td>
<td>Job Sat</td>
</tr>
</tbody>
</table>

The latent variable LOC has two predecessors or variables “feeding” into it, Nar and LMX. The $f^2$ value was calculated for each path relationship Nar to LOC and LMX.
to LOC. The \( f^2 \) value for the impact Nar had on the \( R^2 \) value for LOC was -0.018. This measure is below 0.02, so Nar should be deleted because of the small impact on LOC. The \( R^2 \) value actually increased for LOC when Nar was deleted from the model. The \( f^2 \) value for LMX was 0.261, which indicates that LMX had a large impact on the \( R^2 \) value for LOC.

**Step 5: Assess the Predictive Relevance of the Model using \( Q^2 \) and \( q^2 \) Effect sizes**

\( R^2 \) was used as a criterion for predictive accuracy; however, researchers need to also use Stone-Geisser’s \( Q^2 \) value (Geisser, 1974; Stone, 1974) as an indicator of predictive relevance. If the PLS-SEM program shows predictive relevance, then it can accurately predict the data points in the reflective measurement model indicators of the endogenous latent variable (construct) of Job Sat. This criterion does not apply for the formative endogenous latent variable (constructs) of LMX and LOC. In ascertaining predictive relevance, \( Q^2 \) values larger than zero for the reflective endogenous latent variable (construct) Job Sat indicate that the construct has predictive relevance (Hair, et al., 2014).

A procedure called blindfolding is used to assess the predictive relevance of the path model. It is a “sample reuse technique that omits every \( d \)th data point in the endogenous construct’s indicators and estimate the parameters with the remaining data points” (Hair, et al, 2014, p. 178 from Chin, 1998). It is a reiterative process that repeats until the model has been reestimated and each data point omitted. The criteria for predictive relevance is based on if the value generated is greater than 0 (Hair, et al., 2014). Because the only truly endogenous latent variable is Job Sat, it was the only latent
variable used in the blindfolding procedure. The predictive relevance of $Q^2$ of Job Sat has a value 0.1405, which is greater than 0, and implies that the model has predictive relevance.

Predictive relevance can also be calculated using $q^2$. The $q^2$ effect was calculated in a similar way as the $f^2$ effect. However, instead of evaluating the impact the predecessors have on the $R^2$ value of Job Sat, the $q^2$ effect measures the impact the predecessors have on the $Q^2$ predictive relevance value for Job Sat. As with $f^2$, the $q^2$ effect size was calculated for the Nar->Job Sat path, LMX->Job Sat path and LOC->Job Sat path. The $Q^2$ value for Job Sat in the full model was 0.1405. The $q^2$ effect for the impact Nar had on the predictive relevance of Job Sat was -0.016, which is a decrease. This result would indicate that the $Q^2$ value actually increased by 1.6% when Nar was deleted from the model. The $q^2$ value for LMX was 0.104, which would indicate that LMX contributed to 10.4% of the predictive relevance for Job Sat. The $q^2$ value for LOC was very low at 0.009. This would indicate that LOC has basically no impact on the predictive relevance for Job Sat.

**Final Structural Model Analysis**

The final structural model meets all the assessment criteria and is now useful for interpretation. The final structural model is presented in Figure 4.10.
**Figure 4.10.** Final Structural Model

**Testing of Hypotheses**

Figure 4.10 shows the path coefficients for the final model derived in this study.

Table 4.25 will be used to analyze the path coefficients and hypotheses tests with conclusions presented below.

### Table 4.25

*Path Coefficient, t-values and p-values for Latent Variables (Construct)*

<table>
<thead>
<tr>
<th>Path</th>
<th>Coefficient</th>
<th>t-value</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LMX → Job Sat</td>
<td>0.4906</td>
<td>3.6385</td>
<td>0.000</td>
</tr>
<tr>
<td>LMX → LOC</td>
<td>0.5183</td>
<td>5.4424</td>
<td>0.000</td>
</tr>
<tr>
<td>LOC → Job Sat</td>
<td>-0.0210</td>
<td>0.3120</td>
<td>0.755</td>
</tr>
<tr>
<td>Nar → Job Sat</td>
<td>-0.0966</td>
<td>1.3911</td>
<td>0.167</td>
</tr>
<tr>
<td>Nar → LMX</td>
<td>-0.5103</td>
<td>8.0571</td>
<td>0.000</td>
</tr>
<tr>
<td>Nar → LOC</td>
<td>0.0607</td>
<td>0.7209</td>
<td>0.472</td>
</tr>
</tbody>
</table>

**Hypothesis 1:** Narcissistic leadership has a negative causal impact on employee job satisfaction.
Even though the coefficient for Nar->Job Sat was negative (-0.097), the path coefficient was not significant with a p-value of 0.167 which was > .05 alpha. Narcissistic leadership does not have a direct negative effect on employee job satisfaction. Therefore, there is no statistical evidence to support Hypothesis 1 regarding a direct impact of narcissism on job satisfaction; however, narcissistic leadership has an indirect negative effect via the mediating effect of LMX. The path coefficient Nar -> LMX is -0.5103 with a p-value of 0.0, which is < .05 significance level. Likewise LMX -> Job Sat is significant with a p-value of 0.0 and a path coefficient of 0.4906.

**Hypothesis 2:** Locus of control has a positive effect on employee job satisfaction.

The path coefficient for LOC -> Job Sat was actually negative instead of positive. Nevertheless, it was very small (-0.021), and was not significant with a p-value of 0.755 which was > .05 alpha; therefore, hypothesis 2 was not supported by the statistical evidence. According to this research, the degree of control employees possess does not positively influence employee job satisfaction.

**Hypothesis 3:** Locus of control exerts a positive mediating relationship between leader-member exchange and employee job satisfaction.

The path coefficient for LMX->LOC was 0.518 and was significant because the p-value was 0 and < .05 alpha; however, there is no statistical evidence to support this hypothesis since LOC had no mediating effect on Job Sat based on the path coefficient between LOC -> Job Sat, which was -0.021 and p-value 0.755 > .05 alpha meaning it was non-significant. Based on this research, an employee’s degree of control over his situation does not have a positive mediating effect between leader-member exchange and job satisfaction.
**Hypothesis 4:**  
a) Leader-member exchange relationships positively influence job satisfaction.

b) Narcissistic leadership depresses LMX. LMX exerts a mediating effect that modified the relationship between narcissism and employee job satisfaction.

LMX had a significant positive influence on Job Satisfaction with a coefficient of 0.491 and a p-value of 0 which is < .05 alpha. Also, the Nar->LMX path coefficient was negatively significant with a value of -0.51 and a p-value of 0 < .05 alpha. Therefore, this hypothesis was supported by the research evidence. Leader-member exchange relationships positively influence job satisfaction, and narcissistic leadership negatively affects leader-member exchange. Therefore, leader-member exchange had a significant mediating effect that is depressed by narcissism. The mediating effect of LMX modifies the relationship between narcissism and employee job satisfaction.

**Hypothesis 5:** Locus of control has a mediating effect between narcissistic leadership and employee job satisfaction.

The path coefficients for Nar->LOC and LOC->Job Sat were both small and non-significant at 0.06 and -0.02, respectively, and had p-values of 0.472 and 0.755 respectively, both being > .05 and non-significant. Therefore, hypothesis 5 was not supported by the statistical evidence. Therefore, the degree of control that employees have over their situation does not have a mediating effect between narcissism and job satisfaction.

**Hypothesis 6:** Narcissistic leadership has a negative effect on locus of control.

The path coefficient for Nar->LOC was 0.061, which is not significant at a 0.472 p-value which is > .05 alpha. Hypothesis 6 does not have significant evidence for
support and indicates that narcissistic leadership does not have a negative effect on the degree of control employees have over their employment situation (locus of control).

**Analysis of Structural Model without Non-significant Paths**

Table 4.26
*Path Coefficients and R² Comparison between Final Models with/without Non-significant Paths*

<table>
<thead>
<tr>
<th>Model</th>
<th>Path Coefficients</th>
<th>R² Values</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nar-&gt;LMX</td>
<td>LMX-&gt;Job Sat</td>
</tr>
<tr>
<td>With Non-significant Paths</td>
<td>-0.510</td>
<td>0.491</td>
</tr>
<tr>
<td>Without Non-significant Paths</td>
<td>-0.511</td>
<td>0.528</td>
</tr>
</tbody>
</table>

A final model was run with the non-significant paths removed from the model.

The paths Nar -> LOC, Nar -> Job Sat, and LOC -> Job Sat were removed. The R²
values for the LOC and Job Sat latent variable (constructs) decreased by a small measure (See Table 4.26). This decrease is attributed to the fact that even the non-significant paths attributed to some of the explained variance in the latent variable (constructs). However, the LMX $R^2$ increased slightly (by .001) simply because of the change in the model. Likewise, an increase in the path coefficient between LMX and Job Satisfaction occurred, going from 0.491 in the final structural model to 0.528 in the final model without the non-significant paths. However, there was a decrease in the path coefficient from LMX to LOC from 0.518 to 0.487. These changes were because of the interaction of the variables resulting from removal of the non-significance paths.

Another observation with the removal of the non-significant paths is that the exclusively endogenous (dependent…no arrows going from them) variables are now both Job Sat and LOC. LMX remains endogenous, with both dependent and independent characteristics, and Nar is still the exclusively exogenous (independent) variable. This observation means that narcissism does have an effect on both job satisfaction and locus of control (LOC) through the mediating latent variable leader-member exchange (LMX). Consequently, a narcissistic leader will affect employee job satisfaction, as well as locus of control (the amount of control the employee has in his/her job circumstance). More research and analysis would have to be conducted on this model to ascertain whether that locus of control the employee has in his/her job through the intervening variable LMX is attributed to internal or external circumstances. However, previous research, (Chan, 1977, Schafer & McKenna, 1991, April, et al, 2012) attributes higher job satisfaction and stronger feelings of well-being to a higher internal locus of control.
The final conclusion after analyzing the model without the non-significant paths was that the path from LMX to LOC was still significant; however, at a decreased measure, but since LOC has no significant effect on job satisfaction, the path was allowed to remain in the model. Removing the non-significant paths also did not produce a higher $R^2$ for job satisfaction resulting in even less explained variance from 0.288 to 0.279, which was a very small change. Therefore, the final model with all paths is the model which is relevant for this research and analysis.

**Summary**

This chapter presented an overall analysis of the findings from a sample of 152 accountants nationwide. The sample included both self-employed accountants, as well as those working for others. The chapter included results from reliability and validity checks on reflective indicator measurements, as well as formative indicator assessments for collinearity and significance. Moderator effects were assessed for differences between the path coefficients for the two groups, working for others and self-employed. It was determined there were no significant differences between the two groups other than the LMX->LOC path. However, because the LOC-> Job Sat path was insignificant, the final structural model included the entire data set of 152 respondents. The structural (inner) model was further analyzed for collinearity, significance of the $R^2$ value and path coefficients, effect size, and predictive relevance. The hypotheses were then addressed with only Hypotheses 4 being significantly supported by the evidence. It is therefore concluded from the Final Structural Model in Figure 4.10 that leader-member exchange (LMX) relationships positively influence job satisfaction. Narcissistic leadership
depresses LMX. LMX has a mediating effect that modified the relationship between narcissism and employee job satisfaction. A final analysis was conducted on the model with the non-significant paths removed to ascertain any measurement changes in either path coefficients or $R^2$. Because these changes were non-significant, it was again concluded that the final model used in this research should include all paths. A further analysis of the research questions with discussion of results will be addressed in Chapter 5.
CHAPTER 5

DISCUSSION, RECOMMENDATIONS AND SUMMARY

The following chapter includes a discussion of the major findings from supporting questions. This discussion is followed by limitations of the study, some general suggestions on controlling narcissism for both the accounting profession and higher education, and future research suggestions. The chapter concludes with a general summary of the research.

This study was a quantitative study which explores accountants’ perception of the effect of narcissistic leadership on job satisfaction. The data source for the study was a survey of 152 accountants nationwide. The data was collected via an online software program called Qualtrics and was stored in that database on the researcher’s computer, accessed only by coded password. The data was analyzed using the Smart PLS software package which was used to conduct path analysis using Partial Least Squares Structural Equation Modeling (PLS-SEM) which is a second generation statistical analysis tool used in theory development and which focuses on the explained variance in the dependent variables.

Discussion of Research Questions

The primary research question that guided this study was:

Do leader-member exchange (LMX), locus of control (LOC), and narcissistic leadership affect employee job satisfaction in the accounting profession?

The answer to this question based on the findings of the survey is two-fold. The findings support the fact that LMX and narcissistic leadership affect employee job
satisfaction in the accounting profession. However, locus of control (LOC) has no effect on job satisfaction (Job Sat) in the accounting profession based on this research. Narcissism has a negative indirect effect on job satisfaction through leader-member exchange (LMX). The path from narcissism (Nar) to leader-member exchange (LMX) was found to be significant with a negative coefficient of -0.51 and p-value of 0.00. This negative coefficient reveals that leaders with inflated and self-centered views of themselves, who brag, do favors for others only if they receive two or more in return, exaggerate their accomplishments, and desire to be the center of attention have negative leader-member exchange relationships.

Likewise, the path from LMX to job satisfaction (Job Sat) had a significant, positive coefficient of 0.491 and p-value of 0.00 implying that leaders’ interactions with employees strongly influence job satisfaction. The LMX indicators, affect (interpersonal attraction), loyalty, contribution, and professional respect, all strongly influenced this positive relationship.

Taking these two paths together, a narcissistic leader negatively affects LMX which consequently leads to decreased job satisfaction. By multiplying these path coefficients, we find that the total indirect effect of narcissism on job satisfaction is -0.250.

Supporting questions for this study were:

1. Do LMX relationships affect job satisfaction in the accounting profession?

As previously mentioned, LMX positively affects job satisfaction in the accounting profession with a high path coefficient of 0.491. The formative indicators
based on the survey questions reveal that affect or interpersonal attraction has the highest effect with a 0.625 weight. This weight reveals that strong LMX relationships involve followers who like their leaders and viewed them as kind people who are fun to work with. Loyalty was the next highest component of LMX with a weight of 0.279; loyal followers feel that their leader would defend them if they were attacked by others or made an honest mistake, or that the leader would even defend them to a superior without complete knowledge of the issue involved. The formative indicators, contribution and professional respect, had lower weights at 0.163 and 0.154 respectively. Contribution involves the amount of extra effort the employee is asked or willing to do for his leader. Thus fewer employees in low LMX relationships would do work beyond what is specified in the job description or apply extra effort beyond what is required in the job. Professional respect had the lowest (although still significant) weight among the formative indicators with a 0.154 measure; professional respect measures the degree to which followers are impressed with their leaders’ knowledge, competence and professional skills.

The second sub-question in this study was:

2. Does narcissistic leadership affect employee job satisfaction in the accounting profession?

There is no direct effect of narcissism on employee job satisfaction; the direct path coefficient was a -0.097 and the p-value was 0.167. Narcissism does exert an indirect negative effect on employee job satisfaction through the mediating effect of LMX as previously discussed.
The third sub-question is:

3. Does locus of control affect job satisfaction in the accounting profession?

We cannot support the hypothesis that locus of control exerts either a direct or indirect effect on employee job satisfaction in the accounting profession because there was no significant path from locus of control to job satisfaction. The path coefficient for the direct path from locus of control to job satisfaction was -0.021 with a p-value of 0.755.

4. How does LMX mediate in the relationship between narcissism and job satisfaction in the accounting profession?

As noted earlier, narcissistic leadership has a negative indirect effect on job satisfaction in the accounting profession because it depresses LMX relationships, and lower LMX is associated with lower job satisfaction.

5. Does narcissistic leadership have an effect on locus of control of subordinates in the accounting profession?

There was no direct, significant effect of narcissistic leadership (Nar) on locus of control (LOC) as shown by a path coefficient of 0.061 (p = 0.472). However, narcissistic leadership does have an indirect effect on locus of control through the intervening relationship with LMX, as evidenced by the negative, significant path coefficient from NAR to LMX of -0.51 (p = 0.00) and a positive, significant relationship of 0.518 (p = 0.00) from LMX to LOC.
Limitations of the Study

A limitation of the study is that the dependent and independent variables both come from the same source using the same method. The problem results in part to a likely halo effect. The halo effect, a term coined by Edward Thorndike in the 1920s, is the bias that can occur when answering survey questions because the respondent is influenced by predetermined feelings about the individual in question. An individual’s physical attractiveness also plays a role in responses to surveys; consequently, the phrase is also called the “what is beautiful is good” principle (Standing, 2004).

Another limitation of the study was low response rate. A total of 4,914 surveys were emailed; however, only 152 useable responses were returned. These surveys were collected in two waves; one was in mid-December prior to the Christmas holidays with an incentive of a chance to win one of ten $50 gift cards. This late emailing was precipitated by some delays in receiving IRB approval; consequently, the surveys went out later than the originally planned emailing of late October or early November. It is believed that this delay partially contributed to the low response rate. The other emailing of 3,679 went out in early May after tax season (a busy time for accountants). Although the majority of the surveys were collected during this time, the overall response rate dropped from around 9% for the December mailing to the 3.3% final response rate. However, a contributing factor to the lower response rate was the fact that the total sample size had increased tremendously from the original 598 sample to 4,914. However, a benefit of PLS-SEM is that it is ideal for analyzing small sample sizes; likewise, the sample size of 152 fell within the acceptable range of the method, which is 40-65 samples.
per the 10 times the largest number of formative indicator arrows entering a construct which was previously mentioned in Chapter 4 (Hair, et al. 2014).

An additional limitation of the study was possible response bias because the low response rate (3.3%) necessitated the use of responses from both self-employed (64 responses) and persons working for others (88 responses). The concern was that respondents who are currently in the work force would respond differently than respondents who remember past experiences or who have never worked for someone else. To check for differences between these groups, a moderator effects analysis was conducted, which compared the path models of the two groups of respondents. There was a difference regarding the linkage between LMX to LOC. It seems apparent that self-employed and employed respondents have different perceptions of LOC. The ideal situation would have been to only use the working for others responses; however, since LOC did not significantly affect job satisfaction (-0.021 coefficient and p-value of 0.755 from LOC to Job Sat), it was decided that the entire 152 surveys could be used in the data analysis despite the possible response bias in regard to self-employed versus working for others in the LMX to LOC path.

**Suggestions for Controlling Narcissistic Behavior**

**From a Parental Perspective**

Overall, the two cultural ideas at the heart of this epidemic of narcissism are self-admiration and self-expression. Many believe that parents, schools, and American culture have taught children these ideas, and they are important in order for an individual to establish one’s existence. However, in order to slow the surge in narcissism, these two
ideas must be tempered by those individuals who instill them in our children (Twenge & Campbell, 2002).

According to Hotchkiss (2002), parents are the initial “culprits” for instilling narcissism in their children; therefore, awareness must be made to help future parents break the cycle of narcissism. Because an elevated ego is initially the problem in narcissistic individuals, the overall concept is to stop feeding it (Twenge & Campbell, 2009).

“Quieting the ego”. Twenge and Campbell, (2009) give several suggestions for “quieting the ego”. One suggestion is to teach children (and adults) humility to offset the grandiosity that narcissists develop. They note that some people view humility as a weakness that is equivalent to shamefulness or self-hatred. Humility is different because the concept focuses on valuing others rather than self (Twenge & Campbell, 2009).

Teach compassion for oneself. Another helpful concept which Twenge and Campbell (2009) advocate is teaching compassion for oneself. While this sounds like a narcissistic characteristic, it is not intended to give excuses for bad behavior or as a means to elevate self-esteem. Compassion for oneself means to face reality with a realistic understanding of one’s abilities and shortcomings. Those individuals who are compassionate toward themselves are actually less angry, less self-conscious, happier, and more open to constructive criticism (Twenge & Campbell, 2009).

From an Educational Perspective

Aristotle believed that education was the best means of making the journey into old age because wisdom and knowledge are tools to remove fear and anxiety. He also
believed that education helps one advance to the top and in doing so allows them to experience true happiness. Consequently, the narcissist will fight to achieve that top position thinking that they will find true happiness, and in the process try to eliminate those individuals who stand in their way (Thomas, 1988).

**Elementary school program changes.** Changes or additions to elementary school programs also are advocated to reverse the trend of narcissism. The overall concept is to stress similarities in individuals rather than differences, teaching students to get along with one another. Teaching empathy and compassion for others, as well as teaching friendship skills are important lessons which children should learn (Twenge & Campbell, 2002).

A school program called “Roots of Empathy” focuses on this idea of teaching empathy. In this program, an instructor, parent and baby come to the classroom. The children are allowed to interact with the baby and through this interaction begin to understand the baby’s feelings and needs. Those schools using this program had less aggression and discipline problems. Additionally, some programs use the skills taught in Jared Curhan’s book *Young Negotiators* (1998) to teach resolving conflicts in a peaceful manner. And yet another program called SocialSmarts teaches social skills, further emphasizing to children that it is not all about them and that others are important. Children are rewarded by learning courtesy and respect (Twenge & Campbell, 2002).

**Higher education screening during student recruitment.** Higher education does have access to certain screening tools for identifying narcissist individuals prior to university admission (Samier and Atkins, 2010). Useful instruments to identify these
tendencies within the college application process are written statements, written entrance exams, and interviews. An essay could be a useful tool in the initial admission screening process. The essay could include a section where the individual is asked to describe personality traits that would make them successful in completing a degree program. Some of the signals in the essay that would reflect a potential narcissistic personality might be grandiose statements about achievement and performance (Samier & Atkins, 2010). Additionally, overestimating their future achievements or course grades may be an indicator according to Farwell and Wohlwend-Loyd (1998). Another “trigger” would be if the individual often believed that their abilities brought only positive outcomes whereas other circumstances such as bad luck were responsible for negative outcomes (Samier & Atkins, 2010).

Another type of screening method might be in a narrative analysis, storytelling or problem solving scenario situation. Subjective exam type questions would reflect attitudes, moods, or values of the applicant. One problem solving scenario is from Kullberg (1988), “Right or Wrong How Easy to Decide” published in New Accountant. The scenario is one of a man who had lost his wife recently and began to drink on the job. His supervisor and the employee actually had been friends for about 25 years, having worked together prior to the promotion of the supervisor over his friend. What should the supervisor do about the situation? According to Kullberg (1988), ethical reasoning is not always black and white, and this case can be used to show problem solving, as well as a lack of empathy or remorse which is a characteristic of narcissism.
The written portion of the application process would be followed by an interview with the student where certain aspects of their communication style may allude to the fact that they have narcissistic tendencies. According to Samier and Atkins (2010), characteristics of a narcissist’s communication style are:

…not listening; talking over others; trying to dominate; making ‘inappropriate or offensive comments’; demanding rather than requesting; being dismissive of others; treating others with distain; showing no respect for confidentiality; and ‘reacting defensively when challenged: huffy, angry, abusive’ (p. 582).

In regard to the initial interview, an open ended question could be asked such as “Tell me about your achievements.” The response to this question might indicate a grandiose sense of self. Other questions which might be addressed are “What are some experiences you have encountered in group participation work?” Poor group participation is a characteristic of narcissism, so this question should give more insight into how well the individual works with others in a group. And a third question might be in regard to the lack of empathy which is a characteristic narcissistic individuals may exhibit. For a business student, perhaps the question would be, “Describe how you would terminate an individual who has worked at the company for 20 years”.

In addition to the interview and open ended subjective questions, a survey or test follow up might be used similar to the Multifactor Leadership Questionnaire (MLQ), devised by Bass and Avolio (1990) with levels of high, medium, and low to rate the individual in certain skill areas. Likewise the Narcissistic Personality Inventory developed in 1988 by Robert Raskin could be taken. It can be found at http://personality-
testing.info/tests/NPI.php. However, this test is rather obvious and leading in the way the questions are worded. An alternative is a questionnaire using a 5 point Likert scale, with the questions in a disguised format. Some questions that could be reconstructed from Vigilante’s profile of narcissistic students (1983) are:

**On a scale of 1-5 with 5 being the highest, how do you rate the following questions with regard to yourself?**

I view the professional role as that of a “savior” curing others .........................1 2 3 4 5
I see deadlines and limitations as punitive.................................................................1 2 3 4 5
I believe it is necessary to obtain a degree in order to be credentialed...............1 2 3 4 5
I resist learning that may change one’s philosophy ................................................1 2 3 4 5

This information will aid in the screening process of narcissistic students with higher responses on these types of statements indicating a narcissistic personality.

Another test that could be used in screening during the application process is the Phares and Erskine Selfish Test (1984). This test is described as:

…an orientation, belief, or set affecting how one construes a whole range of situations that deal with the satisfaction of needs. A person who scores high on the NS (narcissism scale) views a large number of situations in a ‘selfish or egocentric fashion’ (Phares & Erskine, 1984, p. 598).

The Phares and Erskine Selfism Test has a seven-item Likert scale ranging from 1 (strongly agree) to 7 (strongly disagree) and has been found to be very consistent in its findings. A sample question is “Call it selfishness if you will, but in this world today, we all have to look out for ourselves first” (Brown, Sautter, Littvay, Sautter & Bearnes 2010, p. 205).
And yet another instrument used to identify narcissistic behavior is the Narcissism Empathy (NAREMP) Instrument which uses the behavioral factors of narcissism, aloofness, confidence, and empathy with a four scale identification. An example question is “likes to impress or outsmart others, contemptuous of others” (Munro, Bore, & Powis 2005, p. 53). This instrument is especially useful in identifying those narcissistic individuals already in educational administration or even professors, as well as screening for narcissistic students (Samier & Atkins, 2010).

**Screening in the classroom.** Once students who may have narcissistic personality traits have been admitted into the program, techniques are needed by the instructor to “work” with these types of behaviors. Some of the behavior issues which Samier and Atkins (2010) listed are:

- Deriding others’ ideas to protect fragile egos; expecting non-reciprocated favors from others; not following rules because they are special and rules do not apply to them; being lazy; manipulating others; perceiving normal pedagogical criticism as an attack; not using rational arguments (p. 584).

Assignments that might be useful in identifying any of these aspects of a narcissistic personality are to assign cases, preferably in group situations. The benefit gained in this sense is that cases cover more in-depth topics and are a closer measure of reality. Perhaps a case in any field could pertain to an ethical situation. Even recounting the story that Lawrence Kohlberg used in his 1979 research whereby he devised the 6 stages of moral development (Mintz & Morris, 2011) would be useful in understanding empathy and ethics. Kohlberg’s case involved the man who had a wife dying of cancer
and needed a very expensive drug to survive. The drug could be manufactured for $200; however the pharmacist was selling it for $2,000. The man decided to steal the drug because he could not afford to pay for it (Mintz & Morris, 2011). The instructor could ask the student to discuss what they would do or condone being done in this situation and why?

Another discussion question that would reveal ethics or morals could be the following found in Brown, et al (2010):

After attending a football game, you return home to discover that you have lost an envelope from your jacket pocket. The envelope contains $100 in cash and has your name and address written on the outside. A stranger has found the envelope. If you found $100 in an envelope like the one described above what are the chances that you would return the stranger’s cash (p. 208)? Explain your reasoning.

These cases listed above would not only reveal an ethical element, but they would allow the student to get involved, problem-solve, and reflect on their decision. The information they provide in their answer could be indicative of narcissistic behavior.

Another method of instruction that may reveal the narcissistic component is group work, especially if it involved problem-based learning. As previously mentioned, narcissists do not work very well in groups. Samier and Atkins (2010) indicated that they “would become abusive, dismissive, or undermining of others” (p. 585). Additionally, experimental models are cited by Gardner (1990) whereby judgment and problem solving is tested, as well as sharing responsibilities within the group. Some of these models may
be Kolb’s (1984) Lewinian four-stage cycle and Joplin’s (1995) experimental learning sequence. These models allow the narcissist to reflect on his/her actual performance in a critical fashion by receiving feedback from peers and instructors. Narcissists can react defensively when challenged and thereby makes even constructive criticism difficult for them to handle (Samier & Atkins, 2010).

Likewise, an idea for identifying narcissistic behavior in students is to have them construct portfolios as part of a project or evaluation, perhaps as an alternative to traditional exams. According to Samier & Atkins (2010):

Portfolios also provide better information to faculty in assessing the relationship between a student’s interests, personality, skills, and social/cultural context and their knowledge, as well as informing faculty discussions about program goals and decisions (p. 585).

In a self-review of the portfolio, if a student is indeed a narcissistic, they will not be overly critical of themselves or have concern for others (Samier & Atkins, 2010).

**Challenges from interventions.** Challenges faced from educators/colleagues in asking them to implement suggested classroom activities such as case studies, collaborative/group projects, problem solving techniques and preparing portfolios should be minimal. Some of these techniques are currently used in the classroom for other reasons. Accreditation in the business program required that business schools devise learning goals and objectives for their programs, some of which are ethics, problem solving/decision making, oral and written communication, business knowledge, and teamwork. Therefore, these techniques can be easily implemented (and are often required)
within the classroom without question. After implementation of the various questions and surveys, the results were compiled to form reports for AACSB accreditation assurance of learning goals. These reports easily could be used or modified if necessary to identify narcissistic individuals. The only issue that I have heard to date in administering additional questions/exams is the time commitment on faculty’s behalf in grading the papers.

**Ethical/legal issues.** However, there may be resistance from faculty to the idea of implementing these screening processes because of the ethical and/or legal issues they present. If the idea for implementation is to screen for students who are narcissistic prior to entering the program, the question becomes, is this legal/ethical? Because of affirmative action laws implemented by the Civil Rights Act of 1964, screening of students for entrance into higher education programs is legal. This program was to redress wrongs done in previous years from discrimination based on race, sex, ethnic origin, religion, disability, and age (Brunner, 2012). While this law does not specifically include screening for psychiatric disorders, screening has been and most likely will continue. However, Samier and Atkins (2010) acknowledge that educators and administrators are not trained to recognize personality disorders. Additionally, what is legal is not necessarily ethical. While “The law tells us what we can do. Ethics tells us what we should do” (Abend, 1988).

From a legal perspective, there is the possibility that the individual who is screened for narcissism might sue for discrimination. Epstein & Master (2011) wrote about the potential for direct discrimination cases in employment which means that the
individual filing suit must identify a situation that is a “comparator”. An example was given of a woman fired because she had lied once regarding a situation where she had been placed under pressure from her employer. The worker compared her treatment to two males who had been dishonest. This comparison would allow a tribunal to determine if she were treated less fairly than the others. As in the case of Fumco Constr. Corp. v. Waters, 438 US 567, 577 (1978) regarding discrimination in hiring of three bricklayers who applied on the spot when the owner only hired people he knew, the court must determine if the employer is showing favoritism in the treatment of their employees. This situation in employment would imply that there may be a potential to extend this type of court case to include situations of intentional discrimination in the screening process for narcissistic students.

**“Handling” narcissistic students.** However, if students are identified as narcissistic after admission, what is to be done on a one-on-one basis? Limited strategies exist which can be used with narcissists as they do not typically change their behavior unless there is severe psychological pain, generally associated with a blow to their egos (Berglas, 2002). However some strategies which could moderately be used are: 1) withdrawal…having as little communication with the student as possible; 2) attacking….will typically get the narcissist to leave the individual alone; however not advisable in a teacher/student relationship; 3) confronting…will be perceived as an attack and is not advised; 4) smoothing….trying to avoid conflict which requires much tactfulness on the part of the instructor; 5) compromising…not advised as one can become marginalized when teaching. However, the best advice comes from Masterson
(1993) who says “separate the personal from the public, use only formal forms of address such as surnames and titles, do no special or personal favors, and make requests formally and politely” (Samier & Atkins, 2010, p. 591). Additionally, Samier & Atkins (2010) suggest keeping a distance and avoiding one-on-one meetings if possible. This suggestion may be difficult for the instructor if approached by an individual who appears to be narcissistic; however, the amount of skill, savvy, and tactfulness that the instructor has will ultimately determine the outcome of the situation.

**From an Employment Perspective**

Once a narcissistic person is employed, there are several actions which can be taken by others to attempt to control the behavior of the narcissistic individual/leader. These actions are: 1) appeasement tactics, (2) defensive tactics, (3) retaliatory tactics, (4) consideration tactics (Thomas, 1988, pp. 96-97).

**Appeasement.** Appeasement tactics involve allowing the narcissist to “have his way” (Thomas, 1988, p. 96). Most co-dependent [friends] of narcissists take this approach in order to get along with the narcissist. In this way, the narcissist is allowed to win, and the other individual is “nice” to him in an attempt to earn his kindness and “enjoy the ride”. However, this tactic is not the ideal, and in the words of Sir Winston Churchill, “An appeaser is one who feeds a crocodile, hoping it will eat him last” (Thomas, 1988, p. 96).

**Defensive tactics.** Defensive tactics involve dealing with the problems as they arise in attempts to not allow the narcissist to succeed in his/her bad behavior. The problem that arises in this method is that the narcissist may respond in a more aggressive
manner, often with lies and distortions of reality, projecting the problem onto others. The challenger may eventually give up from sheer exhaustion in dealing with the narcissistic individual (Thomas, 1988).

**Retaliatory tactics.** Retaliatory tactics mean to “fight fire with fire, going on the offensive and destroying his [the narcissist’s] false image” (Thomas, 1988, p. 97). In this case, the result could be that the narcissist becomes depressed and falls into despair, or they may become aggressive, often violent (Thomas, 1988).

**Maintain consideration.** Perhaps the best tactic for dealing with a narcissistic individual, especially in business, is to maintain the “moral high ground” (Thomas, 1988, p. 97) and remain considerate of the narcissist despite their attacks and maliciousness. In this manner an individual can hopefully maintain their own emotional state of mind in a relatively healthy manner, keeping his/her conscious clear (Thomas, 1988).

**Resign.** A final alternative for dealing with a narcissistic coworker or leader is to resign. This solution may be the only alternative if all other tactics fail. Samuel Grier (2008) in his book *Narcissism in the Workplace* describes approximately two years of working with a narcissistic individual who was subordinate to him. After repeated attempts at reporting this individual to his supervisor, Grier finally had no choice but to leave his job. In his book, Grier gives ten rules for dealing with narcissistic individuals:

1. Do not attempt to reason with a narcissist.

2. Never confront a narcissist about his misconduct when the two of you are alone.

3. Set boundaries.

4. Let no negative action go unchallenged.
5. Normal management techniques do not work.

6. Keep a record.

7. Expect criticism.

8. If the narcissist does not like you, do not worry—it is not about you.

9. It is OK to feel relief, even joy, when you and the narcissist finally part company.

10. Pick up the pieces and don’t look back. (Grier, 2008, pp. 81-102).

It appears that the last two rules are the ones that Grier finally deemed feasible in his situation. He admits to writing the book six months after leaving his job, which he indicated was one of the best jobs in his career (Grier, 2008). He finally had gotten over disappointment that he felt toward his boss for not dealing with the narcissistic individual, and he had also let go of resentment he felt toward the narcissist. The book indicated that the narcissistic employee, who was in a leadership position within the company, had previously been given this job as a last alternative at keeping him within the company. Others had the same complaints about the narcissist’s work ethic that Grier had; however, the board of directors wanted to keep the narcissist at the company because of his outgoing personality. However, the board did not work with him on a day to day basis and was not privy to the reality of the situation and constant complaints from others. Those working close to him would be “bullied” to keep quiet for fear of losing their job, while a few “brave souls” actually resigned, like Grier, rather than continuing on in that environment. No account is given by Grier as to what ultimately happened with the narcissist (Grier, 2008).
**Evaluation of managers.** Considering the results of this research, that narcissism does indirectly influence employee job satisfaction through leader-member exchange, a final suggestions or recommendation from this study is that an evaluation process should be implemented in the accounting profession whereby leaders are evaluated by their staff employees on an annual basis. The evaluation process is already in effect in academics because of both annual peer evaluations through the tenure stage, with student evaluations continuing each semester prior to and after tenure is granted. Student evaluations of professors are given credence if they have a majority weight of being either good or bad. This evaluation process also provides valuable feedback to professors, especially in the form of written comments. Therefore, if the accounting profession could implement an evaluation procedure at the staff level to provide feedback and evidence of positive/negative leadership, then perhaps leaders could make adjustments to their leadership qualities and thereby minimize narcissistic tendencies. If adjustments are not made after a certain time frame, then superiors may want to reconsider that individual’s employment future at the company.

Ideologically, the feedback concept is reasonable and sound; however, some problems may exist in providing “safety” to those employees participating in the feedback process of any narcissistic employee. As previously mentioned, Grier, (2008) revealed that the narcissistic manager who was transferred to his department was belittling of those subordinates who complained of his leadership style. Some left the company after talks to Grier concerning the manager. In fact, Grier himself eventually left the organization because of his inability to handle the narcissistic manager. Grier
was actually the manager’s superior. The “bottom line” problem in this situation was that
the narcissistic manager had been transferred to Grier’s supervision as a last resort
because the manager could not fit in elsewhere. Therefore, providing an environment
where subordinates feel “safe” to share their concerns is a must in order to avoid
retaliation from the narcissist.

Recommendations for Future Research

A possible extension of the current research data would be to analyze it by
gender or age. The question would be whether narcissism predominantly affects either
male or female accountants in the area of job satisfaction? Likewise, would accountants
under the age of 40 have higher or lower job satisfaction when working for narcissistic
leaders than those over 40? The age analysis would be very relevant in light of the
changing management styles over the past 30+ years. More of a team approach to
management has emerged since the early 1980s whereas, prior to that time, a centralized
management style existed where the “boss” made the majority of the decisions, often
times with little participation on the part of the employees (Warren, Reeve & Duchac,
2012).

Further investigation of this research on narcissism in the accounting profession,
would be to consider the effect it has on employee turnover. A possible question is: Does
narcissistic leadership contribute to the above average turnover rate within the accounting
profession? The subject of employee job satisfaction is a much researched topic
pertaining to organizations, especially in areas associated with turnover (Locke, 1969;
Muchinsky, 1977). Public accounting is a profession that hires large numbers of new
college graduates each year for staff positions. These young hires have a higher external locus of control and are more likely to quit because they are more stressed and less satisfied in their job (Bernardi & Nydegger, 1999). Additionally, Bernardi & Nydegger (1999) indicated that if auditors in accounting experience stress in their job, the source should be identified in order to eliminate non-productivity, and ultimately turnover. Therefore, a study of narcissism as it relates to employee turnover would be beneficial in order to emphasize increased productivity and would prove helpful to human resource personnel in explaining why turnover rates are high within the accounting profession, especially among lower level employees.

An extension of the concept of retention would be to conduct future research applied to narcissism as it relates to client retention. This suggestion came from a participant in this study who believes that narcissism is “rampant” in the accounting profession and affects client retention. Clients are constantly changing accounting firms in an attempt to find an accountant who is understanding of client needs and who will not make them feel inferior.

Another suggestion is to apply the research to the manufacturing industry or other organizations. The survey could be given at manufacturing firms such as Fuji or Capsugel, both of which have local businesses in our area. Gibney, et al. (2009) confirms there is little research regarding negative effects on employees by organizations in general. However, a limitation of this type of study would be the fact that there may be response bias because of concern of repercussions from managers/bosses who might learn of the results and identify their employees. A remedy for this response bias would
be to tie the study into organizational improvement by supplying feedback at the managerial level as an incentive for the study. This incentive method was done by Benjamin Dattner (1999) in his dissertation “Who’s the Fairest of Them All” where he gave a self-rated and staff-rated survey to 91 business managers and his/her staff. The incentive offered by Dattner was a personal and confidential feedback comparison of the subject’s self-ratings with the ratings of his/her staff on an aggregated and anonymous basis. The questionnaire included items that pertained to how “fair” the manager was in distributing rewards, assignments, and unpleasant tasks, or whether or not the manager had favorites within the organization and/or treated employees with respect.

Extending the research into academia, Menon & Sharland (2011) indicated that there is a sense of entitlement that permeates the present college generation. Manipulation, exploitation and academic dishonesty are part of the college culture. Additionally, Samier and Atkins (2010) have explored destructive narcissism within the educational arena; however they indicated that there are few if any studies conducted on masters or doctoral level students. Identifying narcissism among this hierarchy of higher education students would be a beneficial future research study that would significantly contribute to academic literature.

Furthering this research of narcissism in academia is to conduct research between majors to determine if students in one major exhibit higher narcissistic tendencies. Baird (1980) indicated that business majors are reported to be more academically dishonest than other majors; therefore, a comparison between majors may identify higher narcissistic tendencies among business students. This type of study would be particularly
beneficial since business students ultimately lead many large corporations and have a significant impact on the economy and world arena.

A recommendation for future research regarding same source bias (independent and dependent variables are sampled from the same source) is two-fold. First, if possible, either the independent or dependent variables should be taken from two separate sources; ideally, for example, the satisfaction data should have been provided by an independent source. In this study, this option was not feasible, of course; therefore, Podsakoff, McKenzie, Lee & Podsakoff, (2003) offered suggestions that researchers can use when evaluating method variance, which is same source bias. The first remedy is procedural, which includes thoroughly evaluating the questionnaire for appropriate wording. The second remedy involves statistical methods which are discussed in detail in Podsakoff, et al.’s, 2003 article, “Method Biases in Behavioral Research: A Critical Review of the Literature and Recommended Remedies”. However, this suggestion provides only a framework researchers can apply in different research settings, but does not resolve all of the issues concerning same source bias. Alternatively, future researchers might collect satisfaction data using procedures that are different from and unconnected to, the survey of the other independent variables; for example, job satisfaction might have been deduced from qualitative analyses. Again, given the scope of the current study, this option was not practical. In balance, we must admit same source bias as a weakness of the study.

Therefore, a study of the effects of narcissistic leadership on employee job satisfaction can be extended to many areas of both business and academia. The result of any of these research options would not only contribute to current literature, but could
also be used in organizational feedback or teaching/preparing future leaders. Awareness of any problem is the beginning of correction and improvement.

Summary

Chapter 5 presented an overall summary of the major findings regarding the questions pertaining to this study. Major findings were that employee job satisfaction is indirectly affected by narcissism through the mediating effect of leader-member exchange. Limitations of the study were presented. These limitations included the halo effect resulting from same source sampling, as well as response bias from including self-employed accountants, which was necessary due to the low response rate obtained in the study. Additionally, suggestions were given on controlling narcissism, both from a parental standpoint, in academia, and in business. One of these suggestions was for the evaluation of managers within the accounting profession and for supplying appropriate feedback to them regarding their performance. Suggestions were followed by recommendations for future research. Many recommendations were provided as this is a very interesting and relevant topic to current literature.

In conclusion, the effects of destructive narcissism can be unnerving and debilitating for employees, as well as can have serious consequences for the company. Hotchkiss (2002) in “A Tale of Two Kitties” reveals some of these effects in the following excerpt from her book.

The destabilization of the company and the ensuing threat to the [narcissistic] lion’s image caused the pretty little tabby to have to go to work overtime to ensure damage control….still, her efforts had begun to wear on her, and she was
tired. When word of her quiet devotion spread throughout the community, she was offered a position in another company and, to everyone’s surprise, she took it. The [narcissistic] lion was devastated. ‘Stay with me,’ he pleaded, ‘and I will give you three bags of gold.’ ‘You are so gracious,’ said the pretty little tabby, ‘but it is time for me to move on,’ And, so she did, to a peaceful job with normal hours (p. 153).
Appendix A

Email to AICPA to Use Their Data Base Internet Link of CPAs

Subject: Dissertation survey request [Reference Number: 120903-000146]
From: "AICPA Member Service Center" <service@aicpa.org>
Date: Wed, September 5, 2012 11:31 am
To: sshurde@clemson.edu
Priority: Normal
Options: View Full Header | View Printable Version | Download this as a file | View Message details | Bounce

Thank you for allowing us to be of service to you.

Subject
------------------------------------------------------------------------------------------------------------------
Dissertation survey request

Discussion Thread
------------------------------------------------------------------------------------------------------------------
Response (Brock Faucette) - 09/05/2012 11:31 AM
RE: Find A CPA Links

Dear Ms. Shurden,

Thank you for contacting the AICPA regarding the Find a CPA links located on our website. We apologize for the delayed response. In the future, you can expect a response within 48 hours.

This particular link is located under the For the Public tab. As such, all CPAs listed within these links have authorized publication of their contact information for use by the general public. Feel free to contact these CPAs directly to obtain permission to conduct research for your dissertation.

If you have additional questions or concerns, don't hesitate responding to this email or calling Member Service 9am-6pm ET, Monday-Friday at 888.777.7077.
We appreciate your time and wish you luck defending what sounds like a fascinating dissertation.

Kindly,

Brock Faucette
AICPA Member Service

America Counts on CPAs

Follow the AICPA on Facebook and LinkedIn.

Member Service: 888.777.7077 or service@aicpa.org
Thank you for your continued support.

This message, including any attachments, may contain confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, please delete it. Any disclosure, copying, or distribution of this message is strictly prohibited.

Customer (Susan Shurden) - 09/03/2012 10:25 AM
Dear Sir:

My name is Susan B. Shurden, and I have previously been a member of the AICPA. I have taught accounting at the university level for approximately 20 years and am now obtaining my PhD from Clemson University. I will again be joining the AICPA in January after taking some time off to complete my coursework. Currently, I am working on my dissertation and am interested in the topic of:

Identifying the Effects of Narcissistic Leadership on Employee Satisfaction: A Study within the Accounting Profession

My intent is to do a quantitative study and survey accounting employees in the South Carolina area to gather information for my study. I noticed on
your website a link where I could obtain information to contact some of
the accounting employees that I may need to complete my dissertation. The
link is:

http://www.aicpa.org/InterestAreas/PersonalFinancialPlanning/Community/Pages/Find%20a%20CPA%20PFS%20Near%20You.aspx

Would it be possible to obtain permission to use your link, or could you
identify an individual who I may contact to obtain the necessary permission?

Thank you for your assistance.

Sincerely,
Susan Shurden
(864)-554-0617
| Subject: | Dissertation survey request [Reference Number: 120903-000146] |
| From: | "AICPA Member Service Center" <service@aicpa.org> |
| Date: | Wed, September 19, 2012 4:26 pm |
| To: | sshurde@clemson.edu |
| Priority: | Normal |
| Options: | View Full Header | View Printable Version | Download this as a file | View Message details | Bounce |

Thank you for allowing us to be of service to you.

Subject---------------------------------------------------------------
Dissertation survey request

Discussion Thread---------------------------------------------------------------
Response (Brock Faucette) - 09/19/2012 04:26 PM
RE: Dissertation Survey
AICPA Customer Number: 00029944
Reference Number: 998442

Dear Ms. Shurden

Thank you for patiently waiting as Member Service consulted another department about assisting you with your dissertation research.

According to this department, the AICPA's Privacy Policy prevents the Institute from providing you the list you've requested. You would therefore proceed with contacting the CPAs individually.

We appreciate your understanding and look forward to serving you in the future.

Highest regards,

Brock Faucette
AICPA Member Service
Response (Brock Faucette) - 09/13/2012 09:29 AM
RE: Dissertation Survey
AICPA Customer Number: 00029944
Reference Number: 998442

Dear Ms. Shurden

Thank you for providing the AICPA with the information needed to verify your account.

Your request for a list of 600 CPAs' contact information has been forwarded to the appropriate department for review. Please allow 7-10 business days for a response.

If you have additional questions concerning this request in the interim, don't hesitate responding to this email or calling Member Service 9am-6pm ET, Monday-Friday at 888.777.7077. Be sure to mention reference number 998442.

We appreciate your patience and look forward to serving you in the future.

Respectfully,

Brock Faucette
AICPA Member Service

America Counts on CPAs
Follow the AICPA on Facebook and LinkedIn.

Member Service: 888.777.7077 or service@aicpa.org

Thank you for your continued support.

This message, including any attachments, may contain confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, please delete it. Any disclosure, copying, or distribution of this message is strictly prohibited.

Customer (Susan Shurden) - 09/12/2012 09:25 PM
> My date of birth is October 5, 1957. I was previously a member...let my membership lapse for a time...will be joining again in January when my license is reinstated....am working with the Louisiana State Board on this and have 16 CPE hours before reinstatement. If necessary, I can wait until January to request the random listing for my dissertation. I just need confirmation that I can request and receive it to proceed with my dissertation and proposal defense.

Thank you for your help with this!

Susan Shurden
PhD Student, Clemson University
864-554-0617 cell
864-229-2880 home

> Thank you for allowing us to be of service to you.
>
> Subject
> -----------------------------------------------
> Dissertation survey request
> 
> Discussion Thread
> -----------------------------------------------
> Response (Brock Faucette) - 09/12/2012 05:29 PM
> RE: Find A CPA Links
> 
> Dear Ms. Shurden,
Thank you for contacting the AICPA to request a random selection of contact information for CPAs listed within our Find a CPA links.

So that Member Service can expedite your request to the appropriate department, please verify your account by confirming your date of birth.

Once your account is verified, your request will be promptly forwarded for review.

We appreciate your assistance and look forward to serving you in the future.

Kindly,

Brock Faucette
AICPA Member Service

America Counts on CPAs


Member Service: 888.777.7077 or service@aicpa.org

Thank you for your continued support.

This message, including any attachments, may contain confidential information intended for a specific individual and purpose, and is protected by law. If you are not the intended recipient, please delete it.

Any disclosure, copying, or distribution of this message is strictly prohibited.

Customer (Susan Shurden) - 09/12/2012 06:10 AM

Dear Mr. Faucette,

Thank you for your positive response to my request (see below) to use the AICPA Public tab link for completing my dissertation on "Identifying the Effects of Narcissistic Leadership on Employee Satisfaction: A Study within the Accounting Profession"

My dissertation chair, Dr. Russ Marion, from Clemson University has requested that I ask if it is possible to get a random listing of
> approximately 600 of the CPAs listed nationally on that link rather than
> having to use the link to contact each individually. Again, if you know of
> anyone within the AICPA who I could contact regarding this request, I
> would appreciate your help.
> The link I am referencing is:
> http://www.aicpa.org/InterestAreas/PersonalFinancialPlanning/Community/Pages/Find%20a%20CPA%20PFS%20Near%20You.aspx
> Sincerely,
> Susan Shurden
> PhD Student, Clemson University
> 104 Sheffield Rd.
> Greenwood, SC
> 864-554-0617
Appendix C

Request from Vettamarketing for Quote on Accountant Email List

---

**Ryan Cappelle**
ryan@vettamarketing.com

Mar 25

To: me

Susan,

Please confirm you received. I’ve included an additional 1100 records to show my commitment to you as my client. Thanks for the business.

Best Regards,

Ryan Cappelle | President
2192 Martin Avenue, Suite 235 | Irvine, CA | 92612

Office: 866-994-1114 begin_of_the_skype_highlighting 866-994-1114 FREE end_of_the_skype_highlighting - Ext 730
Fax: 866-994-1114
www.vettamarketing.com/newsletter.php <- Sign up to receive discounted lists

---

**Susan Shurden**
sshurden4@gmail.com

Mar 25

To: Ryan

Yes Ryan...I have received them. Thank you so much...most grateful for the extras...hoping I get a good response rate!!
Me too!

Best Regards,

Ryan Cappelle | President
2192 Martin Avenue, Suite 235 | Irvine, CA | 92612

Office: 866-994-1114 | Fax: 866-994-1114
www.vettamarketing.com/newsletter.php <- Sign up to receive discounted lists

From: Susan Shurden [mailto:ssshurden4@gmail.com]
Sent: Tuesday, March 25, 2014 12:05 PM
To: Ryan Cappelle
Subject: Re: Your List is Attached
Thank you for this information. I will share it with my dissertation chair and be in touch if this is the direction he suggests. I do believe your quote is very reasonable.

Sincerely,
Susan Shurden
PhD Student, Clemson University

Our minimum we could do is 2500 accountants for $225. We wouldn't recommend sending any less with standard response rates in place.

Best Regards,

Ryan Cappelle | Sales Representative
2192 Martin Avenue, Suite 235 | Irvine, CA | 92612
Office: 866-994-1114 - Ext 3
Fax: 866-994-1114
www.vettamarketing.com/newsletter.php <- Sign up to receive discounted lists

-------- Original Message --------
> Subject: Re: Accountant Email List
> From: Susan Shurden <sbshurden@yahoo.com>
> Date: Wed, September 12, 2012 3:09 am
> To: "info@vettamarketing.com" <info@vettamarketing.com>
> Thank you for this information. I am conducting a survey of accountants for my
dissertation. My chair is now interested in doing a random sample of 600 accountants nationally. Is it possible to get 600 addresses of CPAs from across the US, and if so, what would be the cost of that information?

Thank you,
Susan Shurden

From: "info@vettamarketing.com" <info@vettamarketing.com>
To: sbshurden@yahoo.com
Sent: Monday, September 10, 2012 6:14 PM
Subject: Accountant Email List

Hi Susan,

Thanks for the opportunity. We currently hold a 90% retention rate with our clients. As a compiling source, all of our email lists come with quality guarantee's and free updates. If you have any further questions regarding the list, don't hesitate to call us at 866-994-1114 Ext 3.

TOTAL RECORDS: 13,211
Criteria: CPA's
Geo: USA
List Purchase
5,000 @$350

Best Regards,

Ryan Cappelle | Sales Representative
2192 Martin Avenue, Suite 235 | Irvine, CA | 92612
Office: 866-994-1114 - Ext 3
Fax: 866-994-1114
www.vettamarketing.com/newsletter.php <- Sign up to receive discounted lists

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Appendix D

Request to Dr. Wayne Hochwarter to use the Perceived Supervisor Narcissism Scale

(Shown at bottom of email)

Subject: RE: Narcissistic Leadership Dissertation
From: sshurde@clemson.edu
Date: Thu, June 27, 2013 7:13 pm
To: "Hochwarter, Wayne" <whochwarter@cob.fsu.edu>
Priority: Normal
Options: View Full Header | View Printable Version | Download this as a file | View Message details | Bounce

>Sounds good...thanks again. I will let you know how it goes!

Susan

Honestly, 5 or 7 are fine. I'm sure I've done it both ways.
>
> For something with such a likely low baseline, perhaps 7 would work
> better.
> Wayne
>
> -----Original Message-----
> From: sshurde@clemson.edu [mailto:sshurde@clemson.edu]
> Sent: Thursday, June 27, 2013 8:01 AM
> To: Hochwarter, Wayne
> Subject: RE: Narcissistic Leadership Dissertation
>
>>Thank you...very good questions to measure narcissism. Did you use a 5
> point Likert scale...I can't recall?
> Susan
>
> My boss is a very self-centered person.
>> My boss has an inflated view of him/herself.
My boss brags about him/herself to get positive strokes from other.
My boss will do one favor as long as he/she gets two or more in return.
My boss often exaggerates his/her accomplishments.
My boss always has to be the center of attention no matter what.

Here are the survey items, Susan.

Best,

Wayne

-----Original Message-----
From: sshurde@clemson.edu [mailto:sshurde@clemson.edu]
Sent: Wednesday, June 26, 2013 12:54 PM
To: Hochwarter, Wayne
Subject: Re: Narcissistic Leadership Dissertation

Thank you very much! I do appreciate your help with this!

Susan

Hi Susan,

I will send you the scale in its entirety tomorrow when I get back to the office.

Feel free to use it at your leisure. Let me know if it's worth anything when you are done.

Wayne

Sent from my iPhone

On Jun 25, 2013, at 1:30 PM, "sshurde@clemson.edu"
<sshurde@clemson.edu>
wrote:

Dr. Hochwarter,

Thanks so much for responding to my earlier email. The article I was referring to was actually a summary of a study you did in which you surveyed over 1200 business employees. The summary was on FSU's
I am interested in the survey instrument used to collect your data. My study will focus not only on the relationship between narcissism and job satisfaction, but will also look at the relationship between narcissism and leader/member exchange and locus of control.

Thanks,

Susan,

Exactly what scales are you interested in and from which paper/source?

Best wishes,

Professor Wayne Hochwarter
Jim Moran Professor of Management
Department of Management
The College of Business
Florida State University
821 Academic Way
P.O., Box 3061110
Tallahassee, FL 32306-1110
Ph: (850) 644-7849
Fax: (850) 644-7843
E-mail: whochwar@cob.fsu.edu

From: sshurde@clemson.edu [mailto:sshurde@clemson.edu]
Sent: Monday, June 24, 2013 9:29 PM
To: Hochwarter, Wayne
Subject: Narcissistic Leadership Dissertation

Dear Dr. Hochwarter,

I am a doctoral student currently working on my dissertation at Clemson University. My dissertation is entitled "Identifying the Effects of Narcissistic Leadership on Employee Job Satisfaction: A Study Within the Accounting Profession. As you can see by my title, I am very interested in the effects of narcissistic leadership in the accounting profession. I noticed that you had a similar study
published four years ago which included a survey of businesses. I am in the processes of developing my survey instrument and would like to know if there is a any way I could get access to the survey used in your paper. I would appreciate any help in this area and would gladly share the results of my findings with you. If you have any questions, my contact number is listed below.

Thank you for your kind consideration and hope to hear from you soon.

Susan Shurden
104 Sheffield Rd.
Greenwood, SC 29646
864 229-2880 Home
864 554-0617 Cell
sshurde@clemson.edu

Perceived Supervisor Narcissism questions:

1. My boss is a very self-centered person.
2. My boss has an inflated view of him/herself.
3. My boss brags about him/herself to get positive strokes from other.
4. My boss will do one favor as long as he/she gets two or more in return.
5. My boss often exaggerates his/her accomplishments.
6. My boss always has to be the center of attention no matter what.

- Five point scale from strongly disagree (1) to strongly agree (5)
Appendix E

Hoppock’s Job Satisfaction Measure

From: Snead & Harrell (1991)

The next four items compose Hoppock’s Job Satisfaction Measure. Which ONE of the following shows how much of the time you feel satisfied with your job?

(1) Never  
(2) Seldom  
(3) Occasionally  
(4) About half the time  
(5) A good deal of the time  
(6) Most of the time  
(7) All the time

Choose ONE of the following statements which best tells how well you like your job.

(1) I hate it.  
(2) I dislike it.
(3) I don’t like it.
(4) I am indifferent to it.
(5) I like it.
(6) I am enthusiastic about it.
(7) I love it.

Which ONE of the following best tells how you feel about changing your job?
(1) I would quit this job at once if I could.
(2) I would take almost any other job in which I could earn as much as I am earning now.
(3) I would like to change both my job and my occupation.
(4) I would like to exchange my present job for another one.
(5) I am not eager to change my job, but I would do so if I could get a better job.
(6) I cannot think of any job for which I would exchange my job.
(7) I would not exchange my job for any other.

Which ONE of the following shows how you think you compare with other people?
(1) No one dislikes his job more than I dislike mine.
(2) I dislike my job much more than most people dislike theirs.
(3) I dislike my job more than most people dislike theirs.
(4) I like my job about as well as most people like theirs.
(5) I like my job better than most people like theirs.
(6) I like my job much better than most people like theirs.
(7) No one likes his job better than I like mine.

(The next four items measure perceived work stress and life stress.)
Overall, I experience a great deal of stress on the job.

1 2 3 4 5 6 7 8 9
Strongly Disagree Strongly Agree

The stress I experience on the job is usually good stress, because it leads to continued professional growth.

1 2 3 4 5 6 7 8 9
Strongly Disagree Strongly Agree

Overall, I experience a great deal of stress in my personal life (when I am not at work).

1 2 3 4 5 6 7 8 9
Strongly Disagree Strongly Agree

The stress I experience in my personal life (when I am not at work) is usually good stress, because it leads to personal growth.

1 2 3 4 5 6 7 8 9
Strongly Disagree Strongly Agree

Indicate below the approximate number of hours each average week during the next four years you would be willing to devote to work activities (direct work hours, necessary study hours, etc.) in order to be employed on a long-term (possibly a career) basis with your current firm.

Minimum 36 38 40 42 44 46 48 50 52 54 56 58 60 62 64 66
Likely Maximum

Are you a Certified Public Accountant?
(1) Yes
(2) No
Appendix F

Rotter’s Locus of Control Items Used in the Brief Scale*

Internal Items (“Internal Control”)

When I make plans, I am almost certain that I can make them work.

Getting people to do the right things depends upon ability; luck has nothing to do with it.

What happens to me is my own doing.

External Items (“Chance”)

Many of the unhappy things in people’s lives are partly due to bad luck.

Getting a good job depends mainly on being in the right place at the right time.

Many times I feel that I have little influence over the things that happen to me.

*Five-point scale from strongly disagree (1) to strongly agree (5).


Rotter’s 23 item forced-choice scale can be found in the following:

Appendix G

Leader-Member Exchange Scale

Liden and Maslyn (1998)

Leader- Member Relationships: In this section we examine the relationship between superior and subordinate organizations. Circle the number that best represents your attitude about each statement. This scale uses a 1-7 Likert scale varying from Strongly Disagree (1) to Strongly Agree (7).

1. I like my leader very much as a person.

2. My leader the kind of person one would like to have as a friend.

3. My leader is a lot of fun to work with.

4. I feel that my leader would defend my work actions to a superior, even without complete knowledge of the issue in question.

5. My leader would come to my defense if I were "attacked" by others.

6. My leader would defend me to others in the organization if I made an honest mistake.

7. I do work for my leader that go beyond what is specified in my job description or what is normally expected of me.

8. I am willing to apply extra efforts, beyond those normally required, to further the interests of my work group.

9. I am impressed with my leader’s knowledge of the job.

10. I respect my leader’s knowledge of and competence on the job.

11. I admire my leader’s professional skills.
Appendix H

Dissertation Survey Used in this Study

Key: SD = Strongly Disagree; M = Moderately Disagree; D = Disagree; N = Neutral; A = Agree;
      Moderately Agree = MA;  SA = Strongly Agree

<table>
<thead>
<tr>
<th></th>
<th>SD</th>
<th>MD</th>
<th>D</th>
<th>N</th>
<th>A</th>
<th>MA</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. I like my leader very much as a person</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>2. My leader is the kind of person one would like to have as a friend</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>3. My leader is a lot of fun to work with.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>4. I feel that my leader would defend my work actions to a superior, even without complete knowledge of the issue in question.</td>
<td>□</td>
<td>□</td>
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<td>□</td>
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<tr>
<td>5. My leader would come to my defense if I were &quot;attacked&quot; by others.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>6. My leader would defend me in the organization if I made an honest mistake.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>7. I do work for my leader that goes beyond what is specified in my job description or what is normally expected of me.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>8. I am willing to apply extra efforts, beyond those normally required, to further the interest of my work group.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>9. I am impressed with my leader’s knowledge of the job.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>10. I respect my leader’s knowledge of and competence on the job.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>11. I admire my leader’s professional skills.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>12. My boss is a very self-centered person.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>13. My boss has an inflated view of him/herself.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>14. My boss brags about him/herself to get positive strokes from others.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>15. My boss will do one favor as long as he/she gets two or more in return.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<td>16. My boss often exaggerates his/her accomplishments.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>17. My boss always has to be the center of attention no matter what.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>18. When making plans, I am almost certain that I can make them work.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>19. Getting people to do the right things depends on ability; luck has nothing to do with it.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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<tr>
<td>20. What happens to me is my own doing.</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
<td>□</td>
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</tr>
</tbody>
</table>

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21. Many of the unhappy things in people’s lives are partly due to bad luck.

22. Getting a good job depends mainly on being in the right place at the right time.

23. Many times I feel that I have little influence on the things that happen to me.

Please answer the following questions regarding your current or most recent job.

24. Which one of the following shows how much of the time you feel satisfied with your job?
   (1) Never
   (2) Seldom
   (3) Occasionally
   (4) About half the time
   (5) A good deal of the time
   (6) Most of the time
   (7) All of the time

25. Choose ONE of the following statements which best tells how well you like your job?
   (1) I hate it.
   (2) I dislike it.
   (3) I don’t like it?
   (4) I am indifferent to it.
   (5) I like it.
   (6) I am enthusiastic about it.
   (7) I love it.

26. Which one of the following best tells how you feel about changing your job?
   (1) I would quit this job at once if I could.
   (2) I would take almost any other job in which I could earn as much as I am earning now.
   (3) I would like to change both my job and my occupation.
   (4) I would like to exchange my present job for another one.
   (5) I am not eager to change my job, but I would do so if I could get a better one.
   (6) I cannot think of any job for which I would exchange my job.
   (7) I would not exchange my job for any other.

27. Which one of the following shows how you compare with other people?
   (1) No one dislikes his job more than I dislike mine.
   (2) I dislike my job much more than most people dislike theirs.
   (3) I dislike my job more than most people dislike theirs.
   (4) I like my job about as well as most people like theirs.
   (5) I like my job better than most people like theirs.
   (6) I like my job much better than most people like theirs.
   (7) No one likes his job better than I like mine.

The following section is only used to collect some demographic information

   Gender: Male ___ Female ___
   Age: 18-30 ___ 31-40 ___ 41-50 ___ 51-60 ___ Over 60 ___
   Degree Held: Undergraduate ___ Masters ___ Phd or Doctorate ___
   CPA: Yes___ No____
   Race: White ___ Black ___ Hispanic ___ Asian ___ Other ___

Thank you for participating!
Appendix I

Information about Being in a Research Study—Clemson University

Identifying the Effects of Narcissistic Leadership on Employee Job Satisfaction: A Study Within the Accounting Profession

Description of the Study and Your Part in It
Dr. Russ Marion and Susan B. Shurden are inviting you to take part in a research study. Dr. Marion is a Professor at Clemson University. Susan Shurden is a student at Clemson University, running this study with the help of Dr. Marion. The purpose of this research is to explain the effects of narcissistic leadership on employee job satisfaction within the accounting profession.

Your part in the study will be to assist by completing a survey on job satisfaction within your profession.

It will take you about 15 minutes, at most, of your time to complete the survey to be in this study.

Risks and Discomforts
We do not know of any risks or discomforts to you in this research study;

Possible Benefits
Your participation in this study will help Susan Shurden complete her dissertation research in Educational Leadership and additionally add to the body of literature on the topic of employee job satisfaction as it relates to working under narcissistic leadership. This information may additionally benefit human resource supervisors in hiring practices as they deal with issues of high turnover rate in the accounting profession.

Incentives
As an incentive for your assistance in this study, your name will be included in a drawing with the possibility of winning one of ten available Visa gift cards worth $50 each. This drawing will occur approximately 2 weeks after the completion of the survey collection processes. Please note that there will be 3 email attempts to collect all data, so the drawing may be about 6 weeks after the initial solicitation process begins. You will be notified at that time if your name has been chosen, and your gift card will subsequently be forwarded to you via regular mail.
Protection of Privacy and Confidentiality
We will do everything we can to protect your privacy and confidentiality. We will not tell anybody outside of the research team that you were in this study or what information we collected about you in particular. Your return questionnaires will be kept in a separate file location on the researcher’s computer, with access only allowed by coded entry password. Files will be deleted once the research is complete.

Choosing to Be in the Study
You do not have to be in this study. You may choose not to take part and you may choose to stop taking part at any time. You will not be punished in any way if you decide not to be in the study or to stop taking part in the study. However, removing yourself from the study will make you ineligible for the free gift card drawing.

Contact Information
If you have any questions or concerns about this study or if any problems arise, please contact Dr. Russ Marion at Clemson University at 864-654-5461 or Susan Shurden at 864-554-0617.

If you have any questions or concerns about your rights in this research study, please contact the Clemson University Office of Research Compliance (ORC) at 864-656-6460 or irb@clemson.edu. If you are outside of the Upstate South Carolina area, please use the ORC’s toll-free number, 866-297-3071.

Clicking on the "agree" button indicates that:
• You have read the above information
• You voluntarily agree to participate
• You are at least 18 years of age
You may print a copy of this informational letter for your files.
References


Ethics in research, (2013). Retrieved from:


*Stress Medicine*, 9, 11-20.


Validity, reliability, precision, accuracy. (2013). Quizlet. Retrieved from:


