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Leadership Competency, Service Time, and Gender Orientation: A Comparative Study of CPA Leaders

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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MT, Virginia Commonwealth University, 2008

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Dissertation Submitted in Partial Fulfillment

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Abstract

Working in environments that could be described as task-oriented, certified public accountants (CPAs) are generally considered to be leaders. In 2015, within the United States, fewer than 30% of CPAs were women. Based on the theoretical framework of Eagly and Karau's role congruity theory and Bandura's social learning theory, this survey study sought to understand the relationship between self-rated leadership competency, service time, and gender orientation of female CPAs in leadership positions for 5 years or more, compared to men working in similar positions. A sample of 92 CPAs (46 women, 46 men) completed 2 online surveys, the LPI-Self Leadership Inventory and the Bem Sex Role Inventory, in addition to a demographics profile form. Data were analyzed with independent samples *t* tests, Pearson correlation coefficients, ANOVA, and stepwise multiple regression. Four hypotheses were tested to answer the research questions regarding the differences between male and female CPAs with respect to leadership competency, gender orientation (masculine, feminine, androgynous, or undifferentiated), and a potential increase in masculinity over time to maintain a high level of leadership competency. Results showed no difference in leadership competency between male and female CPAs, but a significant finding showed masculinity orientation was a strong predictor of leadership competency. Positive social change may result if the findings are used by curriculum developers and organizations to promote male-oriented behaviors (e.g., decisiveness, assertiveness, and risk taking) together with traditionally feminine behaviors (e.g., helpfulness, interpersonal sensitivity, and gentleness) for young women who aspire to leadership positions.

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Dedication

I would like to dedicate this study to my family. The love and support of my loving spouse Sabrina has made this experience easier to navigate. My Buddhist practice has been a source of inspiration to me along with the encouragement of our family and close friends.

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I wish to acknowledge the invaluable help of my dissertation committee consisting of Dr. Donna Brown, Dr. Dean Frost, and Dr. David Gould. I am grateful to them for helping me to reach this level in my academic career. They are very busy people, yet they found time to direct my dissertation. I am most grateful for their sacrifices. I also acknowledge the invaluable help that Dr. Elisabeth Johnson-Kallos provided during the editing process of this dissertation. I am grateful for her knowledge and expertise, as well as the fast and efficient manner in which she handled the editing changes that needed to be made. Finally, I thank the participants who took time from their busy schedules to provide the necessary data to complete my research. This project was the most challenging task I have ever encountered. I learned a great deal about myself for which I am very grateful. Thank you all for the journey.

Table of Contents

List of Tables

List of Figures

Chapter 1: Introduction to the Study

Within society, a man's role, contrary to a woman's role, is associated with leadership. The ability of men to provide security for their women places men in a power relationship over women, and this lends credence to the idea that the role of leadership belongs foremost to men (Berkery, Morley & Tiernan, 2013; Bongiorno, Brain, & David, 2014; Dinh & Lord, 2012). Changes in today's society, however, allow women with the same education as men to move into leadership positions within certain professions within the United States. This is evidenced by women who are certified public accountants (CPAs). Nevertheless, female CPAs, just like many other female leaders, face prejudice when addressing the issue of whether they are as competent in leadership roles as their male counterparts.

With this study, I sought to expand the body of extant literature and provide findings that may be useful to the profession, assist in the development of leadership training programs, and by doing so usher in positive social change. By understanding the relationship between leadership competency practices, service time, and gender orientation of female CPAs operating in task-oriented environments, educators can apply the insights of Bandura's (1977) social learning theory to make adjustments to current educational curricula**.** In this chapter, I provide a brief but focused background for the research problem, state the purpose of this study, formulate research questions, and present the hypotheses to be tested in order to answer the questions posed. I describe the theoretical framework; provide definitions of terms; and discuss assumptions, scope and delimitations, limitations, and the nature and significance of this research.

Background of the Study

Preparing individuals who aspire toward leadership positions is an intense cultivating task, especially for organizations operating in today's global markets. Qualified potential candidates with diverse backgrounds should have equal opportunities of being considered for leadership positions within their fields. Gender is one of the diversity factors that I considered in this study. The representation of women in leadership positions remains low. Traditionally, society viewed leadership as a masculine function, or a man's role in life and in society (Ayman & Korabik, 2010; Pillemer, Graham, & Burke, 2014). Women moving into leadership positions is incongruous with society's view of who should exert leadership (Kark, Waismel-Manor, & Sharmir, 2012). Incongruous views held by the female leader on the one hand and her subordinates on the other can affect her ability to establish trust and the proper perception of her competence (Anderson & Klofstad, 2012; Hogan, Curphy, & Hogan, 1994; Klofstad, Anderson, & Peters, 2012; Patterson, Mavin, & Turner, 2012; Wilson, Sin, & Conlon, 2010; Wu, Tsui, & Kinicki, 2010); nevertheless, these perceptions are key concepts in developing exchange relationships between individuals (Wilson et al., 2010). Women represent 52% of college graduates (United States Census Bureau, 2015a), of which only 39% will hold management positions (United States Census Bureau, 2015b). Of the management positions held by women, 27% of top executives are women (United States Census Bureau, 2015c). In the United States Census Bureau 2009-2013 5-Year American Community Survey, the total number of chief executive officers was listed as 956,772

(United States Census Bureau, 2015d), of which 208,826 (or 22%) were women (United States Census Bureau, 2015e).

A contributing factor to the low numbers of women in leadership positions could very well be their own behavior. Women, normally, do not exhibit masculine traits such as independence, rational judgment, and assertiveness (Ciolac, 2013; Lin & Billingham, 2014; Tzinerr & Barsheshet-Picke, 2014), which could explain why women have low representation in leadership positions. This same contributing factor could also explain the low representation of women in certain professional fields. This is evident with female CPAs. Over the past 15 years, individuals who sought to become licensed CPAs have seen a surge of activities ranging from new regulations and standards to increased educational requirements. Thirty years ago, the only requirement of someone to sit for the CPA examination was a bachelor's degree in accounting or completion of required accounting courses. Today, many CPAs have master's degrees in accounting or taxation and at least 2 years of on-the-job experience prior to obtaining a license. CPAs are in demand in all sectors: public accounting firms, corporations, government agencies, and nonprofit organizations. What is fueling this change in the profession is a new vision for the 21st century, developed by the American Institute of Certified Public Accountants (AICPA) and state societies across the United States. The new purpose—CPAs making sense of a changing and complex world—drives the need for critical thinking skills. Individuals with a graduate-level education are able to achieve this new purpose. According to the vision statement of the AICPA (2015), "CPAs are the trusted professionals who enable people and organizations to shape their future" (p. 1). This

statement established CPAs as leaders in the accounting profession (AICPA, 2015; Ho, Li, Tam, & Zhang, 2015). This perception of a leader is best illustrated by the level of respect the Japanese society accords its CPAs because of the qualifications they must meet. Japanese clients frequently refer to their CPA as *sensei*, which means *professor* (Komori, 2008).

In reviewing the numbers of women within the United States who are CPAs and hold partnership positions within their accounting firms, I found that the percentages were not much different from the U.S. statistics related to the number of chief executive officers (CEOs) who were women. Women completing an accounting program that meets the new purpose and vision statement of the AICPA would have the same education and technical ability to interpret complex accounting concepts as men and should, therefore, be able to complete the requirements of becoming a CPA; however, the number of female CPAs in the United States is below 30%, of which 20% of the 30% are partners within accounting firms (Baysden, 2014; Catalyst, 2013). This raises the following question: What is contributing to the low representation of women holding a CPA certification? Female CPAs, like other female leaders, have to cope with two forms of prejudice: society's views of the leadership role as a male prerogative, and leadership behaviors exhibited by the women themselves (Eagly & Karau, 2002).

The current literature indicates that women with androgynous personalities have a better chance of overcoming society's views concerning who should be holding leadership positions (Kark et al., 2012). Women who have androgynous personalities have both traditional feminine qualities as well as masculine task-oriented qualities

(Carver, Vafaei, Guerra, Freire, & Phillips, 2013; Halim et al., 2011; Srivastava & Nair, 2011). The adjustment of the woman's basic attitude, beliefs, or feelings is a reorientation process that appears to occur within the woman as she develops her leadership style in relationship to the environment in which she must function (Clarke, 2011; Dickman, Johnston, & Loescher, 2013; Murphy, 2014). A shift from using feminine traits toward employing masculine traits that are gender specific appears to occur in this orientation process. Masculine traits such as self-reliance, independence, and assertiveness tend to emerge as the environment becomes more task oriented (Berkery et al., 2013; Ciolac, 2013; Koenig, Eagly, Mitchell, & Ristilari, 2011). Behaviors associated with a task-oriented environment include strategizing, organizing, assigning individual and group tasks, and demonstrating decisiveness, assertiveness, independence, and risk-taking behavior in order to build a more efficient and productive work environment (Pfaff et al., 2013; Wessel, Hagiwara, Ryan, & Kermond, 2015). This was evident with female lawyers who exhibited masculine traits and were perceived by others as being highly competent and capable leaders within their profession (Phelan, Moss-Racusin, & Rudman, 2008). Similar trends in female leaders to exhibit masculine traits increasingly over time are observed in other task-oriented professions as well. Masculinity and femininity represent judgments regarding gender that help the members of a society to determine the differences between men and women (Carver et al., 2013; Crites, Dickson, & Lorenz, 2015; Mavin & Grandy, 2012). Women in leadership positions who exhibit traits that are considered masculine to compensate for a task-orientated environment are demonstrating a high level of competency to their followers (Baucom, Besch, &

Callahan, 1985; Silingiene & Stukaite, 2014). These women are undergoing an orientation process that alters their perception of gender and what traits are masculine or feminine. Gender orientation is the behavioral flexibility of a female leader to use specific traits (considered either masculine or feminine) to cope with various circumstances in a task-oriented environment (Bandura, 1977; Bird, Mendenhall, Stevens & Oddou, 2010; Brandt & Laiho, 2013; Carver et al., 2013; Crites et al., 2015).

Female CPAs displaying masculine traits such as independence, rational judgment, and assertiveness along with at least some feminine traits such as dependency, emotionality, or passivity tend to receive favorable evaluations by meeting their clients' expectations (Berkery et al., 2013; Ciolac, 2013; Douglas, 2012; Eagly & Karau, 2002). They have a better chance of not violating the tenets of the role congruity theory, proposed by Eagly and Karau (2002), despite the fact that they possess specific traits thought to be masculine, such as a high self-concept, excellent problem-solving skills, and high career self-efficacy, which can help them meet the expectations of their clients. As a result, clients view female CPAs with the same respect as their male counterparts (Bird et al., 2010; Chen, Greene, & Crick, 1998; Dickman et al., 2013). Women who possess both masculine and feminine traits present an androgynous personality (Bem, 1978-1981; Gartzia & van Engen, 2012). These women have a wider range of behavioral traits to draw from, which allows them to choose the appropriate behavior based on the requirements of the situation in which they must function (Archard, 2013; Srivastava & Nair, 2011).

CPAs work at various levels of accounting within different work environments. Some work environments can be more task oriented than others. The time spent within these task-oriented environments can have an effect on an individual's personality. Individuals appear to be more confident and independent, as well as more organized, committed, and work oriented when facing their task assignments. Interpersonal and cognitive skills, along with coping abilities in new situations, also develop within the personality of such reorienting individuals (Carver et al., 2013; Popoola, Ahmad, & Samsudin, 2014; Silingiene & Stukaite, 2014). Such personality changes can also be expected to occur with female CPAs who are seeking to maintain a high level of competency over a period of time within their normally task-oriented environments. These changes in personality could contribute to a shift in gender orientation within these female CPAs, which was the topic of this study.

The current literature is silent on the question whether female leaders functioning in this task-oriented profession will experience a shift in gender orientation, which represents a knowledge gap that the present study sought to close. In this study, I examined the relationship between leadership competency in practice (self-rated), service time, and the gender orientation of CPAs operating in task-oriented environments. CPAs were the target population used for this study because all such individuals must meet specific requirements to obtain certification, work in environments that are normally task oriented in nature, and be perceived by other people as leaders. I used an online assessment instrument to generate a self-rated leadership-competency-practice score, which served as a numerical representation of the level of leadership competency for

each study participant. I established relational links and expanded on Bandura's (1977) social learning theory by providing further insight into the potential effects of a task-oriented profession on the gender orientation of women CPAs who were operating within this profession. Knowing that a shift in gender orientation will occur as a result of behavioral trait development, the developers of current educational curricula can make appropriate changes to facilitate this development and enable future generations entering the accounting profession to function successfully. Encouraging the development of masculine characteristics such as independence, aggressiveness, athleticism, competitiveness, and self-reliance in women after the age of 12 years would allow college-aged women to develop an attitude of self-confidence, which would be beneficial in career endeavors (Ahlqvist, Halim, Greulich, Lurye, & Ruble, 2013; Archard, 2013; Ciolac, 2013; Halim et al., 2011; Martin & Dinella, 2012; Wessel et al., 2015). Chapter 2 includes a more detailed examination of the aforementioned gap in the professional literature.

Problem Statement

The leadership role has traditionally been viewed as a man's role instead of a woman's role (Ayman & Korabik, 2010). Only 22% of U.S. CEOs are women (United States Census Bureau, 2015e). Female leaders have to cope with society's views concerning the leadership role (Eagly & Karau, 2002). The problem addressed in this study was a lack of understanding regarding the dynamics involved in the leadership competency practices, service time, and gender orientation of men and women working in task-oriented environments. By creating a better understanding of how these dynamics

work within an individual, the study may be helpful in preparing individuals to obtain and maintain leadership positions. Numerous studies indicated that women with an androgynous orientation have a better chance of standing up to society's views on who should be performing in leadership roles (Bem, 1978-1981; Kark et al., 2012; Srivastava & Nair, 2011). It now appears that a female leader who is faced with a shift in her environment toward a more task-oriented work situation will also undergo a shift in her gender orientation to compensate for the change in her environment. The current literature does not address this shift in gender orientation, which appears to take place over time within a female leader. It is this gap in the professional literature that the current study addressed.

Purpose of the Study

The purpose of this quantitative survey study was to examine the differences, if any, within a group of male and female CPAs in leadership positions with respect to their leadership competency practice (self-rated), service time, and gender orientation in a task-oriented environment. The question inspiring this study was what would be the differences, if any, between male and female CPAs with respect to leadership competency practice (self-rated), service time, and gender orientation. I used a quantitative survey design and employed an online assessment instrument for collecting responses from a sample of participants. I analyzed these data with the use of an independent samples *t* test, the Pearson correlation coefficient, and one-way analysis of variance (ANOVA). The four research questions posed for this study focused on the relationships, if any, among three variables: leadership competency practice (self-rated),

time spent in the profession, and gender orientation in a sample of CPAs. Determining the profession's preferences for behaviors exhibited by its members may shed some light on reasons why the percentage of female leaders within this profession has remained low.

Nature of the Study

The focus of this quantitative survey study was to examine possible relational links between leadership competency practice (self-rated), service time, and gender orientation of female CPAs operating in a task-oriented environment. The research methods involved a quantitative survey design and two online assessment instruments for collecting responses from a sample of CPAs working in task-oriented environments. I analyzed these data with the use of an independent samples *t* test, Pearson correlation coefficient, and ANOVA. The quantitative research design is used to test hypotheses with the evidence gathered through measurement of variables that produce numeric outcomes (Field, 2014). The research questions posed for this study focused on variable relationships that supported a quantitative approach.

A quantitative design can be either descriptive, nonexperimental, quasi-experimental, or experimental. Descriptive designs are used to describe the current state of affairs among the participants. Survey designs are used to determine the extent of a relationship between variables using statistical data. For descriptive and survey designs, measurements are usually taken once; in quasi-experimental and experimental designs, which are used to establish cause-and-effect relationships between variables related to a specific treatment, measurements are taken pre- and posttreatment.

How best to answer the research questions determines which design should be used. Quasi-experimental and experimental designs, focusing on testing the effect of a treatment or measuring treatment outcome by manipulating the independent variable, would not have been appropriate for this study. The descriptive design, seeking to provide systematic information about a phenomenon, would also not have provided the results needed to answer the research questions. By contrast, a survey design using correlation coefficients to determine whether a relationship existed between variables was the method of choice because it could answer the research questions.

Describing and predicting the relationship between independent and dependent variables without manipulation of the independent variable lends support to the researcher's claim that specific behaviors would be occurring in a selected sample (Gast & Ledford, 2014). Analysis of specific uncontrolled variables such as leadership competency practice (self-rated), service time, and gender orientation was conducted to determine whether an attitude was being displayed in a sample of CPAs. To determine whether a correlation among variables existed in the sample of this study, the survey design was the appropriate choice.

With the selection of a quantitative survey design using online assessment instruments to collect the data, I was able to make decisions about the sample size, measuring instruments, collection period, and statistical analyses required for this study. The population I focused on was composed of licensed CPAs. The calculated sample comprised 176 individuals, licensed for more than 5 years, and living in an area of the United States. Using a sample size calculator with an error rate of 6%, confidence level

of 90%, and response distribution rate of 50% on the population size of 2,635, I determined a desired sample size of 176 (Raosoft, 2015). I used disproportionate stratified sampling to select the sample from the population because female CPAs were fewer in number compared to male CPAs, and oversampling of female CPAs would improve the accuracy of the results (Frankfort-Nachmias & Nachmias, 2008). Women represented 38% of the selected population. The sample was to be equally proportioned by gender, that is 88 men and 88 women.

The focus with respect to this sample was to collect data concerning three variables: self-rated leadership practice, service time, and gender orientation. I used two online assessment instruments to collect the response data. The first instrument was the LPI-Self version of the Leadership Practices Inventory (Statistics Solutions, 2013), which produced the self-rated leadership practice score for each participant. The second instrument was the Bem Sex Role Inventory (BSRI; Bem, 1978-1981; Mind Garden, 2013), which produced the gender-orientation score for each participant.

The assessment instruments were administered online through a Web-based platform to each participant who accessed the instruments with an individual access code purchased by me. Data collection was cross-sectional. I performed statistical analyses, which included independent samples *t* tests, Pearson correlation coefficients, and ANOVA on the collected data to provide the evidence that would require either to accept the null hypothesis associated with each research questions or reject it and accept the alternative hypothesis instead. Chapter 3 includes a further description of the chosen research design, the research methods employed, and a rationale for the selections made.

Research Questions and Hypotheses

The following four research questions guided the study:

Research Question 1: Do the self-rated leadership-competency-practice scores differ between male and female CPAs? In this question, gender was the independent variable, and leadership competency practice (self-rated) was the dependent variable. The hypothesis tested to answer Research Question 1 was as follows:

- H_0 1: There is no difference between the self-rated leadership-competency-practice scores of men and women.
- H_a 1: A difference exists between the self-rated leadership-competency-practice scores of men and women.

Research Question 2: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA? Time spent in the profession was the independent variable (X), and degree of masculinity was the dependent variable (Y). The hypothesis tested to answer Research Question 2 was as follows:

- H_0 2: There is no correlation between the time spent working as a professional CPA and the masculinity score achieved by the CPA.
- H_a 2: A correlation exists between the time spent working as a professional CPA and the masculinity score achieved by the CPA.

Research Question 3: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA? Time spent working as a professional CPA was the independent variable (X), and degree of femininity was the dependent variable (Y). The hypothesis tested to answer Research Question 3 was as follows:

- H_0 3: There is no correlation between the time spent working as a professional CPA and the femininity score achieved by the CPA.
- H_a 3: A correlation exists between the time spent working as a professional CPA and the femininity score achieved by the CPA.

Research Question 4: Does the self-rated leadership-competency-practice score relate to the type of gender orientation demonstrated by the CPA? ANOVA was performed to determine whether the self-rated leadership-competency-practice scores associated with masculinity orientation were significantly higher than the scores associated with the other three types of gender orientation (i.e., femininity, androgyny, and nondifferentiation). The purpose for conducting this test was to evaluate whether the group means of the self-rated leadership-competency-practice scores (the dependent variable) differed significantly among the four gender-orientation types (or factors). The ANOVA statistical test was used to assess the relationship, if any, of one or more factors with the dependent variable. The hypothesis tested to answer Research Question 4 was as follows:

- H_0 4: There is no difference between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.
- H_a 4: A statistically significant difference exists between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.

The expectation was that masculinity gender orientation would be correlated with the highest self-rated leadership-competency practice scores.

I performed independent samples *t* tests, Pearson correlation coefficients, and ANOVA on collected data to provide evidence to either accept or reject the null hypotheses proposed to answer the four research questions. The Statistical Package for the Social Sciences (SPSS) software was used to perform specific statistical analyses related to each hypothesis. Chapter 3 includes additional information concerning the quantitative survey design using online assessment instruments for collecting responses from the sample of participants. Chapter 3 also presents the data analysis of the independent samples *t* test, Pearson correlation coefficient, and ANOVA. To reject the null hypotheses associated with each of the four research questions, the statistical analyses performed had to be significant with a *p* value of less than 5% (Green & Salkind, 2011).

Theoretical Foundation for the Study

The theoretical foundation for this study was based on a combination of two theories: Eagly and Karau's (2002) role congruity theory and Bandura's (1977) social learning theory. The role congruity theory takes into consideration the congruity between gender roles and the leadership role as well as key factors and processes that influence the perception of congruity or dissimilarity, which can lead to prejudicial behaviors. Eagly and Karau (2002) stated that prejudice toward female leaders tends to appear in two forms. The first prejudice involves the variability in the definition of the term *leadership role*. The more masculine the definition of the leadership role, the less

congruity will exist between a woman's gender role and her role as a leader. The second prejudice focuses on the actual leadership behavior exhibited by women and men and the fact that some behaviors are less acceptable in women than they are in men (Eagly & Karau, 2002). Female leaders who display masculine behaviors such as aggressiveness, ambition, dominance, forcefulness, independence, self-sufficiency, self-confidence, and proneness to acting as a leader are perceived as narcissistic. The results of several studies indicated that followers who saw these behaviors in a woman, instead of traditionally feminine behaviors such as being affectionate, helpful, kind, sympathetic, interpersonally sensitive, nurturing, and gentle tended to provide unfavorable evaluations of these female leaders (Atewologun & Doldor, 2013; Bird et al., 2010; Brandt & Laiho, 2013; Ciolac, 2013; Eagly & Karau, 2002; Paris & Decker, 2012; Pillemer et al., 2014; Schuh, Bark, Quaquebeke, Rüdiger, & Dick, 2014). These two forms of prejudice tend to constrain female leaders and prevent them from successfully meeting their gender-role or leadership-role obligations. To eliminate these prejudices, female leaders who displayed masculine behaviors along with at least some feminine behaviors seemed to be able to garner more favorable evaluations by meeting the role expectations of their followers (Douglas, 2012; Eagly & Karau, 2002).

The desirable psychological traits associated with an androgynous orientation bring into focus the concept that androgynous individuals can possess both masculine and feminine traits (Bem, 1974). Androgynous women have both a traditionally feminine-oriented personality as well as masculine, task-oriented traits and are perceived by others as both likeable and competent (Carver et al., 2013). Androgynous women have a better

chance of not running counter to the role congruity theory because they possess specific traits such as a high self-concept, excellent problem-solving skills, and career self-efficacy that can help them meet their followers' expectations (Chen et al., 1998; Dickman et al., 2013). Men were reported to pay greater respect to women with an androgynous personality than to women with a purely feminine personality (Bongiorno et al., 2014; Kark et al., 2012).

The second theory considered for this study was Bandura's (1977) social learning theory. This theory addresses how initial patterns learned can be refined through self-corrective adjustments based on feedback from prior performance. The strong influence of performance and accomplishment can help in shaping and estimating self-efficacy within an individual. Through an exchange cycle, mutual reinforcement between performance and self-efficacy will occur. Self-efficacy affects performance through interest, motivation, and perseverance, while performance provides feedback regarding earlier estimates and expectations, which may result in modifications through new evaluations. Self-efficacy, however, applies to a variety of domains, and, as long as the efficacy measure is tailored to the specific task being assessed, it is a broader concept than performance (Chen et al., 1998; Gist & Mitchell, 1992; Wong, 2012).

Individuals with high self-efficacy have more intrinsic interest in tasks, are more willing to expend their efforts, and show more persistence in the face of obstacles and setbacks than those with low self-efficacy (Bandura, 1977; Bird et al., 2010; Chen et al., 1998; Gist & Mitchell, 1992). It takes an individual's cognitive estimate of his or her capabilities to mobilize the necessary motivation, cognitive resources, and courses of

action to control an event encountered (Chen et al., 1998; Gist & Mitchell, 1992). The self-corrective adjustments an individual can make to improve performance are representations of the self-monitoring ability, which is also associated with Bandura's theory of social learning (Ayman & Korabik, 2010; Bandura, 1977). Some of the existing literature has associated self-efficacy and self-monitoring with both leadership emergence and leader competency (Foti & Hauenstein, 2007). Women with strong self-efficacy and self-monitoring tended to possess the ability to emerge as competent leaders as long as they did not violate the tenets of the role congruity theory (Ayman & Korabik, 2010; Bandura, 1977; Charbonnier-Voirin, El Akremi, & Vandenberghe, 2010; Chen et al., 1998).

However, violations of the tenets of the role congruity theory did occur even in androgynous woman. Role congruity is not a fixed point in the leader-follower relationship, and gender orientation is not a static quality in human beings. Changing levels of task orientation in an environment can affect the gender orientation of women operating in this environment. As previous research has shown, the time a woman spends functioning in a task-oriented environment could lead to a shift in her gender orientation, which could help her to maintain the level of competence required by her environment (Baucom et al., 1985; Dickman et al., 2013; Silingiene & Stukaite, 2014). These observations begged some questions, which, in turn, inspired this study: Would women who have spent time in a task-oriented profession and experienced a shift in gender orientation achieve self-rated leadership-competency-practice scores that are similar to the scores of men in similar positions? If so, what gender orientation type might these

women exhibit? The current literature has not addressed these two underlying questions. The purpose of this study was to examine the differences, if any, between male and female CPAs who were holding leadership positions in a task-oriented environment, with respect to self-rated leadership-competency-practice scores, service time, and gender orientation.

The target population for this study was CPAs. In order to hold the CPA certification, an individual must satisfy rigorous requirements, work in environments that are normally highly task oriented, and be perceived as leaders. I used two online assessment instruments to collect response data from a sample of CPAs concerning self-rated leadership practice and gender orientation. The first instrument was the LPI-Self version of the Leadership Practice Inventory (Statistics Solutions, 2013), which produced the self-rated leadership practice score for each participant. The second instrument was the BSRI (Bem, 1978-1981; Mind Garden, 2013), which produced the gender-orientation score for each participant.

I posed four research questions to guide the study and formulated four associated null hypotheses to be tested in order to answer the research questions. Research Question 1 focused on the relationship, if any, between leadership competency practice (self-rated) and a person's gender. If no differences could be found between the genders and their relationship to the self-rated leadership-competency-practice scores, the tenets of the role congruity theory were not violated. Research Questions 2 and 3 focused on the relationship, if any, between time spent in the profession and masculinity or femininity scores achieved, respectively, by the participant CPAs. Should gender orientation of the

CPAs shift due to time spent in the profession, the social learning theory could explain that the behavior patterns of the CPAs had shifted in response to the feedback received from their work environment. Research Question 4 focused on the type of gender orientation possessed by the CPAs and their self-rated leadership-competency-practice scores. From the analysis of these data, I expected to determine whether female CPAs were overcoming the two prejudices noted in the role congruity theory (Eagly & Karau, 2002; Sturm, Taylor, Atwater, & Braddy, 2014) by undergoing processes explained by Bandura's (1977) social learning theory. One may be able to advance the notion that, by shifting their gender orientation over time, female CPAs are able to maintain the same level of leadership competency as their male counterparts. Details of the theoretical foundation that undergirds the four research questions and associated hypotheses are provided in Chapter 2.

Definition of Terms

Definitions for terms as used in this study are as follows:

Androgynous: Both masculine and feminine traits reside within an individual's personality (Bem, 1978-1981; Carver et al., 2013; Huang, Zhu, Zhang, & Shiomi, 2012; Way & Marques, 2013).

Behavior: Conduct of an individual that can be observed by others (Bandura, 1977).

Follower: An individual who follows instructions and completes the requested task set by the leader (Hunter, 2012; Wilson et al., 2010).

Gender orientation: The process of adjusting a personality to incorporate the collective traits associated with a man or a woman needed for specific environments (Bandura, 1977; Bird et al., 2010; Brandt & Laiho, 2013; Carver et al., 2013; Ciolac, 2013; Crites et al., 2015; Gedro, 2010).

Gender: The state of being a man or a woman as expressed by social or cultural distinctions and differences, rather than biological ones, by focusing on the collective attributes or traits associated with a particular sex (Brandt & Laiho, 2013; Carver et al., 2013; Ciolac, 2013; Crites et al., 2015; Gedro, 2010).

Leader: An individual who has the responsibility of achieving a common vision and goal. A leader must have the ability to influence followers' thinking, attitudes, and behaviors so task completion can occur (Bird et al., 2010).

Leadership development: Improvement in leadership knowledge, skills, and abilities occurring over time in an individual through various experiences (Clarke, 2011; Festekjian, Tram, Murrary, Sy, & Huynh, 2014).

Orientation: Correlating behavior to the environment in which an individual is living with respect to culture, values, vision, mission, goals, structure, and procedures (Bandura, 1977; Bird et al., 2010).

People-oriented environment: An environment that requires the leader to exhibit specific behaviors such as kindness, nurturing, compassion, and gentleness, which are associated with femininity and characterize the female stereotype (Lin & Billingham, 2014)

Personality: An individual's manner perceived and described by other people (Hogan, Harkness, & Lubinski, 2000).

Self-efficacy: Individuals' belief that they possess the ability to perform a given task at a given performance level (Wu et al., 2010).

Self-monitoring: Self-presentation regulated by an individual to achieve a desired public appearance (Ayman & Korabik, 2010).

Task-oriented environment: An environment that requires the leader to exhibit specific behaviors such as stabilizing; organizing; assigning individual and group tasks; and demonstrating decisiveness, assertiveness, independence, and risk-taking behavior. These traits are associated with masculinity or the male stereotype (Lin & Billingham, 2014; Pfaff et al., 2013).

Assumptions

Two underlying assumptions were associated with this study:

- The first assumption was that all participants would participate freely, fully, and honestly in this research. I assured the participants of complete anonymity, making sure that their identities were concealed and the collected information remained confidential. Participants could withdraw from the study at any time.
- The second assumption was that, due to the quantitative nature of this survey study, the results obtained would be objective, singular, and distinct from the researcher conducting the study.

Limitations

Several limitations pertained to this study. The first limitation involved inadequate response by CPAs during the data collection phase. The sample was supposed to be recruited in a specific area within the United States. To address this limitation, I expanded the sampling frame and selected additional participants from other areas. The second limitation involved the use of an online assessment instrument to produce the self-rated leadership practice scores. I used only the LPI-Self version of the Leadership Practices Inventory (Statistics Solution, 2013) for this study. The third limitation was that the study focused on a group of professional women functioning within a specific industry or profession within a particular geographical region of the United States. I used disproportionate stratified sampling to ensure that an evenly proportioned sample by gender was obtained. The last limitation pertained to potential researcher bias because I, too, am a professional CPA residing in the area where most of the participants were recruited. This limitation was addressed by choosing a quantitative survey design with online assessment instruments to collect the participants' responses. Data analysis involved the independent samples *t* test, Pearson correlation coefficient, and ANOVA. Because a researcher could, nevertheless, make inaccurate inferences based on the results of a statistical analysis and draw the wrong conclusions, I called upon a qualified statistician to verify the results.

Scope and Delimitations

The specific aspects of the research problem addressed in this study were women functioning in a task-orientated profession over a period of time. The question addressed

whether, during this time span, the women would experience a shift in their gender orientation to maintain competency levels equal to those of men functioning in the same profession. Current studies on women and leadership indicated that women with an androgynous orientation fared better in leadership positions than women without such an orientation (Kark et al., 2012; Phelan et al., 2008). The literature further indicated that women who spent time in task-oriented environments with increasing performance requirements experienced a shift in their gender orientation (Baucom et al., 1985; Dickman et al., 2013; Silingiene & Stukaite, 2014). Missing from the body of research, however, were studies that identified the dominant type of gender orientation exhibited by individuals functioning in task-oriented professions. This gap in the professional literature was addressed in this study.

This study focused on individuals who were licensed CPAs working in the accounting industry. CPAs must meet specific requirements to hold certification and work in environments that are generally highly task oriented in nature. The core competencies a CPA must exhibit to function in the profession are trustworthiness and professional expertise. Other people consider CPAs to be leaders in the accounting industry. Individuals who are licensed CPAs are a leading source of consultants an organization will turn to when faced with events that may affect their business operations.

This study was delimited by focusing on CPAs located in a specific part of the United States. The culture, scope of leadership responsibilities, and climate attributes will vary from state to state. That is why this study was delimited to CPAs working in a specific geographical area. Generalizations and applications of the results of this study to

other areas of the United States and even within the same state should be made with caution.

Significance of the Study

I sought to fill a gap in the current literature, provide professional applications for the improvement of leadership development programs, and indicate what positive social changes may come about because of the results. Within the current literature, researchers have established links between self-efficacy and self-monitoring (Foti & Hauentstein, 2007); modifications of experiences and the leadership role model (Amit, Popper, Gal, Mamane-Levy, & Lisak, 2009; Gartzia, Ryan, Balluerka, & Aritzeta, 2012); androgynous personality and leadership competency (Bongiorno et al., 2014; Hussain, Chandra, & Zakkariya, 2012; Kark et al., 2012); and age, work performance, and testosterone levels in women (Baucom et al., 1985; Silingiene & Stukaite, 2014). The current literature does not, however, address relational links between leadership competencies as assessed by a self-rated practice score, time spent in a task-oriented profession, and the gender orientation of women who function as leaders within this task-oriented profession.

This study contributed to the body of literature by establishing relational links between the self-rated leadership-competency-practice score, service time, and gender orientation of female CPAs operating in a task-oriented environment. This study focused on providing evidence to support the theory that, over time, the gender orientation of competent female leaders functioning in a task-oriented profession will shift toward masculinity. The LPI-Self version of the Leadership Practices Inventory from Statistics Solutions (2013) was used to measure leadership competencies of a sample of male and

female CPAs to produce a self-rated leadership-competency-practice score. The BSRI (Bem, 1978-1981; Mind Garden, 2013) was used to produce masculinity and femininity scores for each participant. I performed independent samples *t* tests, Pearson correlation coefficients, and ANOVA to determine whether the time spent in a task-oriented profession had a significant relationship with the gender orientation of the female CPAs.

Based on the results of the study, professional applications could vary. By determining that time spent working in a task-oriented profession influenced the type of gender orientation reported by the profession's population, I might be able to explain why the number of women within the profession has remained small. Previous research indicated that both male and female leaders with an androgynous personality received higher ratings for using a transformational leadership style, which has been found to be a successful leadership style in motivating followers to achieve the goals of their organization (Felfe & Schyns, 2010; Kark et al., 2012). Individuals with an androgynous personality have access to both masculine and feminine traits, which they can access as needed in coping with situations within a changing environment. Examples of this concept appeared when women with an androgynous personality had to exhibit more masculine traits due to increased time spent in the task-oriented profession (Baucom et al., 1985; Silingiene & Stukaite, 2014). The establishment of these relational links may expand Bandura's (1977) social learning theory by providing further insights regarding the influence a task-oriented profession can have on the gender orientation of female leaders in this particular profession. Understanding the combination of behavioral traits required by CPAs may provide insight as to why the percentage of women within this

profession has been so small. This understanding could assist educators in developing educational curricula designed to promote the development of critical behavioral traits in future generations of female leaders.

A practical implication of the findings of this study is that they will increase the overall knowledge concerning women and leadership and aid in the development and training of women for leadership positions in a number of specific, highly task-oriented professions. Women whose gender orientation is congruent with their task-oriented environment will have a better chance of establishing themselves as leaders in the eyes of their followers (Douglas, 2012). Knowing that certain masculine characteristics (e.g., independence, aggressiveness, athleticism, competitiveness, and self-reliance) can and should be developed in women after the age of 12 years may give women of college age the impetus and the self-confidence to pursue career opportunities even if this necessitates a shift in their gender orientation (Ahlqvist et al., 2013; Ciolac, 2013; Halim et al., 2011; Martin & Dinella, 2012; Wessel et al., 2015). Halim et al. (2011) revealed that girls between the ages of 8 and 13 years who were allowed to develop masculine traits along with feminine ones had higher levels of self-esteem and a healthy sense of self. In the early stages of life, young girls are socialized via messages, models, and reinforcement to pursue roles consistent with their gender (Hoobler, Lemmon, & Wayne, 2014). Stunting a more well-rounded development in women at such an early age would explain to some extent why few women have been able to move into leadership positions. By allowing the unfettered development of traits to continue in women after the age of 12 years, three domains of competencies—technical skills, purely cognitive abilities, and

abilities in the emotional-intelligence range—would develop just as they do in men (Charnis & Goleman, 2001). Society has tried to discourage such development of masculine traits in young girls after the age of 12 years (Amit et al., 2009). With this knowledge in hand and the example of female leaders who have made the transformative transition in their gender orientation, society's resistance to masculine-trait development in young girls after the age of 12 years should begin to wane (Amit et al., 2009). Future generations of young women can participate in experiences that will enhance self-perception, strengthen self-efficacy and the ability to influence people, and increase knowledge about personal leadership abilities (Amit et al., 2009).

Summary and Transition

In this chapter, I provided the background and described the research problem. I explained the purpose of the study and posed four research questions. I presented four hypotheses for testing with statistical means to answer the research questions. I described the theoretical framework, based on Bandura's (1977) social learning theory and Eagly and Karau's (2002) role congruity theory. I provided the definition of terms and discussed assumptions, limitations, and delimitations. I concluded with a discussion of the social significance of this study.

In Chapter 2, I present a review of the literature and a more detailed description of the theoretical framework, along with a brief explanation of key variables and the research methods used in studies related to this topic. The method of choice for this study was a quantitative survey design using online assessment instruments to collect responses from a sample of participants.

Chapter 2: Literature Review

In today's society, the leadership role shows more congruency with a man's function than a woman's function (Ayman & Korabik, 2010; Pillemer et al., 2014; Sikdar & Mitra, 2012). Society views qualities such as independence, rational judgment, assertiveness, physical strength, and protectiveness as masculine qualities, whereas dependency, emotional reactions, passivity, weakness, and the need to be protected are considered feminine attributes. The ability of one gender to provide protection to the other places men in a position of power over women, which lends support to the notion that the leadership role belongs to men (Berkery et al., 2013; Bongiorno et al, 2014; Ciolac, 2013; Dinh & Lord, 2012). This perception, however, is no longer applicable. Changes within society have allowed women to develop their own means of providing protection for themselves such as furthering their education in order to gain access to adequate resources. More than half of the college graduates entering the workforce are women (United States Census Bureau, 2015a). These women have the same education as men and should have the same opportunities to move into leadership positions; however, the representation of women in the ranks of executive leaders is quite small. In the 5-Year American Community Survey by the United States Census Bureau (2015e), from 2009 to 2013, the total number of chief executive officers was 956,772, of which 208,826 (or 22%) were women (United States Census Bureau, 2010e). In the United States, only 16% of board members of Fortune 500 companies were women. In Europe, the representation of women was 12%. The representation of women top executives in specific professions such banking, health care, and the law was less than 20% (Ellemers, Rink, Belle, & Ryan,

2012). If women in the workforce have the same education as men, why has the representation of women in leadership roles remained so low?

The literature has indicated two attributes an individual should possess when entering a leadership position. First, the individual has to grasp quickly what is happening in the environment to achieve the desired goal by making adjustments in a timely manner (Thoroughgood, Hunter, & Sawyer, 2011). Second, the individual must have the ability to establish trust and create the perception of being competent (Anderson & Klofstad, 2012; Ely, Ibarra, & Kolb, 2011; Hogan et al., 1994; Klofstad et al., 2012; Patterson et al., 2012; Wilson et al., 2010; Wu et al., 2010). Individuals, both male and female, can learn these two skills through training and practice. Possessing strong self-efficacy and self-monitoring are beneficial aspects in this learning process. Self-efficacy focuses on the person's belief that he or she has the capability of performing the tasks necessary to attain set goals; self-monitoring is the ability to observe and adjust one's behavior to fit appropriately within different situations (Bandura, 1977; Chen et al., 1998; Wu et al., 2010). When individuals with strong self-efficacy and self-monitoring abilities moved into leadership positions, they were able to employ leadership practices in areas such as modeling, inspiring, challenging, enabling, and encouraging their followers effectively (Archard, 2013; Foti & Hauenstein, 2007). Being able to perform a necessary task at the right moment in time and being perceived by others as doing the right thing will help in establishing the second element, namely, being perceived by others as trustworthy and competent.

As the role congruity theory points out, however, role congruity or the absence thereof can affect how followers perceive female leaders (Anderson & Klofstad, 2012; Archard, 2013; Felfe & Schyns, 2010; Klofstad et al., 2012). Female leaders functioning in male-dominated environments must have androgynous personalities in order for followers to perceive them as both competent and endowed with traditionally feminine qualities. Women with androgynous personalities think in terms of and develop abilities associated with characteristics of both genders. They have a wider range of behavioral traits upon which they can draw, and they will more likely choose to act based on the requirements of the situation (Srivastava & Nair, 2011).

Leader-follower relationships and gender orientation are not immutable in a person's life. The level of task-orientation of the work environment may exert an influence on the gender orientation of women operating in that environment. For example, female leaders with androgynous personalities functioning in a task-oriented environment over a period of time can experience a shift in their gender orientation to maintain a level of competency within that environment (Baucom et al., 1985; Dickman et al., 2013; Silingiene & Stukaite, 2014). A timely question to consider is whether this same shift in gender orientation could occur in women with a primarily feminine orientation who are functioning over a period of time in a task-oriented profession for the same reason as noted in the literature regarding androgynous women, namely, to maintain a high level of competency within their environment. If this is the case, what would be the gender orientation of such women? The current literature has not addressed these questions. The purpose of this study was, therefore, to examine differences, if any,

between samples of male and female CPAs who were working in leadership positions in a task-oriented environment regarding their self-rated leadership competency practice, service time, and gender orientation. For this study, CPAs were the target population because all individuals must meet the same rigorous requirements to hold the certification, work in environments that are generally task-oriented in nature, and be perceived by others as leaders. Participants in the study were asked to complete two assessments: a leadership competency practice score (self-rated), which served as a numerical representation of the level of competency they possessed, and an evaluation of their gender orientation.

Literature Search Strategy

For this study, I used online databases, including Expanded Academic ASAP, PaycARTICLES, and ProQuest, along with Google Scholar to search for literature related to the research topic. To hone in on publications that were germane to my research topic, I used the following key terms and combinations thereof: *agentic women, androgynous, emotional intelligence, woman leader profile, gender orientation, leadership development, masculine personality, self-efficacy,* and *self-monitoring*. I consulted the original writings of Bandura (1977), Eagly and Karau (2002), and Skinner (1953), among others, to identify theories that could provide a suitable theoretical framework for this study. I chose Bandura's (1977) social learning theory and Eagly and Karau's (2002) role congruity theory. The purpose of this study was to build on Bandura's (1977) social learning theory with respect to leadership practices of women whose gender orientation would be adapted based on feedback from the environment so that they could sustain the

perception of competency in the eyes of their followers. Research focusing on this area within the business and management field was limited, which prompted me to expand the literature search into the fields of psychology and sociology. I focused on studies conducted from 1990 to the present with topics such as emotional intelligence, gender orientation, leadership development, women's leadership style, self-efficacy, and self-monitoring to assist in formulating purpose, research questions, and hypotheses for this study.

Theoretical Foundation

As stated in Chapter 1, the theoretical framework for this study was a combination of two theories. Eagly and Karau's (2002) role congruity theory provided a basis for other theories such as the social identity theory, the similarity-attraction paradigm, and the social network theory, which are used to explain how individuals can be attracted to and successfully engage in particular relationships. The social identity theory indicates that an individual wanting to maintain a high level of self-esteem will associate with a group that will confer this identity. The similarity-attraction paradigm states that individuals are attracted to others who are like themselves. The social network theory provides insight into the relationship between leaders and their followers through the leader-member exchange (LMX) model (Douglas, 2012; Paustian-Underdahl, Walker, & Woehr, 2014). All three of these derivative theories emphasized an expectation of similarity among parties in the relationship.

In the role congruity theory, Eagly and Karau (2002) extended the social role theory's treatment of gender roles with respect to content and differences in behavior.

Furthermore, Eagly and Karau took into consideration the congruity between gender roles and the leadership role, as well as key factors and processes that influence congruity, perceptions, and prejudicial behavior. Eagly and Karau stated that prejudice toward female leaders tends to appear in two forms: The first prejudice involves the variability in the definition of the term *leadership role*. The more masculine the definition of leadership role, the less congruent it will be with the gender role of a female leader. To overcome this first prejudice, the leadership role would need to be defined in less masculine terms. The second prejudice focuses on the actual leadership behavior of women and men because some behaviors are considered less desirable in women than in men (Eagly & Karau, 2002). Female leaders who displayed masculine behaviors such as aggressiveness, ambition, dominance, forcefulness, independence, self-sufficiency, self-confidence, and proneness to act as a leader were perceived as narcissistic. Followers seeing these behaviors instead of the traditionally feminine behaviors such as being affectionate, helpful, kind, sympathetic, interpersonally sensitive, nurturing, and gentle tended to provide unfavorable evaluations of such female leaders (Atewologun & Doldor, 2013; Bird et al., 2010; Brandt & Laiho, 2013; Ciolac, 2013; Eagly & Karau, 2002; Paris & Decker, 2012; Pillemer et al., 2014; Schuh et al., 2014). These two prejudices constrained female leaders from two directions. By conforming to the gender role, women did not meet the demands of the leadership role, and by conforming to the leadership role, they did not meet the gender-role expectations of their followers. To countermand these two prejudices, female leaders had to display masculine behaviors along with at least some feminine behaviors to garner more favorable evaluations from

their followers by better meeting their expectations of (Douglas, 2012; Eagly & Karau, 2002).

The situational leadership model depicts the same situation in which the leader matches his or her behavior to the performance needs of an individual or group with which the leader is working. The objective of this model is to balance the directive and supportive behaviors to match the readiness of individuals assigned to perform specific tasks or functions (McCleskey, 2014). If similarities among personalities exist between leader and followers, those leaders have a stronger influence on the attitudes and behaviors of their followers (Felfe & Schyns, 2010). For women to be competent leaders, a shift in their behavior has to occur for them to meet the expectations of their followers and stay in line with the role congruency theory. Two studies provided support for how a changed gender orientation in women can help with not violating the tenets of the role congruency theory. The first study conducted by Bongiorno et al. (2014) showed that female leaders with agentic behaviors achieved a similar level of influence as their male counterparts and were rated even more favorably than men. In this study, female leaders who projected agentic behaviors such as being independent, rational, and assertive were no longer a target for prejudice. The study's findings showed that nonagentic female leaders were less liked and less influential than agentic female leaders. Agentic female leaders had become more desirable than nonagentic female leaders (Bongiorno et al., 2014; Kusterer, Lindholm, & Montgomery, 2013; Wessel et al., 2015). The second study conducted by Kark, Waismel-Manor, and Sharmir (2012) showed a relationship between gender orientation and leadership competency as evidenced by the personal identification

of followers with their leader. The results of the study showed that followers who perceived their leaders as androgynous had a stronger personal identification with them. Further, leaders in cross-gender relationships who were not perceived as androgynous received lower ratings of their leadership effectiveness in terms of personal identification (Kark et al., 2012). Both studies indicated the importance of similarities in gender orientation with respect to the women's perceived leadership competency.

The desirable psychological traits associated with the androgynous orientation bring into focus the notion that androgynous individuals possess the characteristics of both masculinity and femininity (Bem, 1974). Women who are androgynous exhibit both traditionally feminine traits and masculine (i.e., task-oriented) traits, and other people consider them both likeable and competent (Carver et al., 2013). They have a better chance of not violating the tenets of the role congruity theory because they possess specific traits that meet the expectations of their followers (Chen et al., 1998; Dickman et al., 2013).

The question now becomes the following: How are some women able to avoid violating the role congruity theory and still elicit the perception of being a competent leader? Gershenoff and Foti (as cited in Ayman & Korabik, 2010) demonstrated that, in groups composed of women, those who were intelligent and androgynous would emerge as leaders. This study introduced the notion that an androgynous personality may be linked to the emergence of leadership capability. Further studies suggested that men afforded greater respect to women with an androgynous personality than to women who were predominantly feminine. These studies reported that women who were more

androgynous possessed desirable psychological traits such as a higher self-concept, better problem-solving skills, and higher career self-efficacy (Bongiorno et al., 2014; Kark et al., 2012; Maseko & Proches, 2013).

Even with a gender orientation that matches the followers' expectations so as not to violate the tenets of the role congruity theory, female leaders must have the ability to adjust their behaviors based on feedback from the environment to maintain their followers' ongoing perception of competence. This leads to the second theory undergirding the conceptual framework of this study: Bandura's (1977) social learning theory. This theory is used to explain how initial patterns learned can be refined through self-corrective adjustments based on feedback about one's performance. Strong influences through performance and accomplishments will help in shaping a person's perception of his or her self-efficacy. Through an exchange cycle, mutual reinforcement between performance and self-efficacy will occur. Self-efficacy affects performance through interest, motivation, and perseverance, while performance provides feedback and information regarding earlier estimates and expectations, resulting in modifications through self-evaluation. Self-efficacy applies in a variety of domains as long as the efficacy measure is tailored to the specific task being assessed, and in this respect, it is a broader concept than performance (Chen et al., 1998; Gist & Mitchell, 1992; Wong, 2012).

Self-efficacy is the central construct in Bandura's (1977) theory and a strong predictor of competency. People with high self-efficacy have more intrinsic interest in tasks, are more willing to expend their effort, and are more likely to show persistence in

the face of obstacles and setbacks (Avsec, 2012; Ayman & Korabik, 2010; Bandura, 1977; Bird et al., 2010; Chen et al., 1998; Gist & Mitchell, 1992). It is an individual's cognitive estimate of his or her ability to mobilize the motivation, cognitive resources, and courses of action necessary to control an event that is encountered (Chen et al., 1998; Gist & Mitchell, 1992). The self-corrective adjustments an individual can make to improve performance are representations of the self-monitoring ability that is also associated with the social learning theory (Ayman & Korabik, 2010; Bandura, 1977). The literature indicated that both self-efficacy and self-monitoring were associated with leadership emergence and leader competency (Foti & Hanuenstein, 2007). Women with strong self-efficacy and self-monitoring also demonstrated the ability to emerge as competent leaders, as long as they did not run counter to the tenets of the role congruity theory (Ayman & Korabik, 2010; Bandura, 1977; Charbonnier-Voirin et al., 2010; Chen et al., 1998).

Violations of the tenets of the role congruity did not even enter the picture if a woman was androgynous. Role congruity, evidently, is not a fixed point in a leader-follower relationship. Ongoing responsiveness to people and to the environment in which a woman leader operates can have an effect on her personality. For example, some studies showed that the time a woman spent functioning in a task-oriented environment could result in a shift in her gender orientation in order to maintain a high level of competency within her work environment (Baucom et al., 1985; Dickman et al., 2013; Silingiene & Stukaite, 2014). Based on this information, it seemed useful to conduct additional research to determine if women who have worked for some time in a highly

task-oriented profession such as public accountancy did experience a shift in their gender orientation, which led them to produce self-rated leadership competency scores similar to those of men in similar circumstances. To find an answer, I used a measuring instrument to generate a self-rated leadership-competency-practice score, which served as a numerical representation of the level of competency for each study participant. I formulated four research questions and put forth four null hypotheses with corresponding alternate hypotheses to be tested with statistical means. I used the following definitions when formulating the hypotheses for this study:

- *Androgynous*: Both masculine and feminine traits residing within an individual's personality (Bem, 1978-1981; Carver et al., 2013; Huang et al., 2012; Way & Marques, 2013).
- *Gender*: The state of being a man or a woman as expressed by social or cultural distinctions and differences, rather than biological ones, by focusing on the collective attributes or traits associated with a particular sex (Brandt & Laiho, 2013; Carver et al., 2013; Ciolac, 2013; Crites et al., 2015; Gedro, 2010).
- *Gender orientation*: The process of adjusting a personality to incorporate the collective traits associated with a man or a woman when useful for specific environments (Bandura, 1997; Bird et al., 2010; Brandt & Laiho, 2013; Carver et al., 2013; Ciolac, 2013; Crites et al., 2015; Gedro, 2010).

- *Leader*: An individual who has the responsibility of achieving a common vision and goal and the ability to influence followers' thinking, attitudes, and behaviors so that task completion can occur (Bird et al., 2010).
- *People-oriented environment*: An environment that requires the leader to exhibit specific behaviors such as kindness, nurturing, compassion, and gentleness, which are associated with femininity and characterize the female stereotype (Lin & Billingham, 2014).
- *Task-oriented environment*: An environment that requires the leader to exhibit specific behaviors such as stabilizing; organizing; assigning individual and group tasks; and demonstrating decisiveness, assertiveness, independence, and risk-taking behavior, which are traits associated with masculinity or the male stereotype (Lin & Billingham, 2014; Pfaff et al., 2013).

Research Question 1 asked: Do the self-rated leadership-competency-practice scores differ between male and female CPAs? In this question, gender is the independent variable, and self-rated leadership competency practice is the dependent variable. The null hypothesis tested to answer Research Question 1 was as follows:

- H_0 1: There is no difference between the self-rated leadership-competency-practice scores of men and women.
- H_a 1: A difference exists between the self-rated leadership-competency-practice scores of men and women.

Female CPAs whose gender orientation matched the professional environment in which they were working-should have the same competency skills as male CPAs in the

same environment (McCleskey, 2014). Female CPAs with androgynous personalities should have the ability to draw from both their masculine and feminine traits in response to various situations they will encounter as leaders (Rajah, Song, & Arvey, 2011; Srivastava & Nair, 2011). Possessing desirable psychological traits such as a high self-concept, excellent problem-solving skills, and high career self-efficacy provides an advantage to these female CPAs over other individuals (Chen et al., 1998; Dickman et al., 2013). Further, these female CPAs will have a higher level of self-monitoring, so they can adjust their behavior in a manner that does not violate the tenets of the role congruity theory in the eyes of their followers (Ayman & Korabik, 2010; Bongiorno et al., 2014; Chen et al., 1998; Dickman et al., 2013; Kark et al., 2012).

Self-efficacy and self-monitoring along with high intelligence and dominance were associated with both leadership emergence and competence (Foti & Hanuenstein, 2007). Further, a strong relationship seems to exist between self-efficacy and masculinity when the domain centers on competitiveness, independence, aggressiveness, and assertiveness. Some studies showed that androgynous individuals have more desirable psychological traits such as an elevated self-concept, better problem-solving skills, and higher career self-efficacy than others (Bongiorno et al., 2014; Kark et al., 2012; Wessel et al., 2015). Therefore, female CPAs with androgynous personalities should be able to produce similar self-rated leadership-competency-practice scores to those of men in the same profession; this was the focus of Hypothesis 1. The testing of Null Hypothesis 1 was intended to reveal if female CPAs possessed the same leadership competencies as their male counterparts in the profession.

Research Question 2 asked: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA? The null hypothesis tested to answer Research Question 2 was as follows:

- H_0 2: There is no correlation between the time spent working as a professional CPA and the masculinity score achieved by the CPA.
- H_a 2: A correlation exists between the time spent working as a professional CPA and the masculinity score achieved by the CPA.

Research Question 3 asked: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA? The null hypothesis tested to answer Research Question 3 was as follows:

- H_0 3: There is no correlation between the time spent working as a professional CPA and the femininity score achieved by the CPA.
- H_a 3: A correlation exists between the time spent working as a professional CPA and the femininity score achieved by the CPA.

Research Questions 2 and 3 focused on the relationship of time spent being a CPA and gender orientation scores of the CPA. Various factors influence gender orientation such as social learning conditions, reinforcement, and maturation (Lin & Billingham, 2014). Some recent research indicated that women between the ages of 27 and 43 years enter a transformational process in which feminine traits tend to decrease and masculine traits appear to develop. Carver, Vafaei, Guerra, Freire, and Phillips (2013) found that the masculinity scores of aging Brazilian women were thus increasing over time. As the women grew older, they became more organized, committed, and work oriented. Their

coping and cognitive skills increased, and they became less open to change (Jyrkinen, 2014; Sitingiene & Stukaite, 2014).

A task-oriented environment can also accelerate the transformational process. Women who functioned in highly task-oriented environments adapted their gender orientation to include a higher degree of masculine traits. They also possessed a significantly higher level of testosterone concentration than women who did not develop the same level of masculine traits (Baucom et al., 1985). Female CPAs who function in a task-oriented profession over a number of years could, thus, experience a shift in their gender orientation in order to maintain their leadership competencies; this was the focus of Null Hypotheses 2 and 3. Hypothesis testing was intended to reveal if time spent being a professional CPA does have an effect on the gender orientation of these CPAs.

Research Question 4 asked: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA? The null hypothesis tested to answer Research Question 4 was as follows:

- H_0 4: There is no difference between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.
- H_a 4: A statistically significant difference exists between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.

Self-efficacy strongly relates to masculinity, and both self-efficacy and self-monitoring are strongly associated with leadership emergence and competence (Bandura,

1977; Foti & Hauenstein, 2007; Hancock, Pérez-Quintana, & Homiga, 2014). Women functioning in task-oriented professions over a period time can develop masculine traits because of the increase in testosterone levels in their bodies (Baucom et al., 1985). The need for a high level of masculine traits to be present in a leader functioning in a task-oriented profession would explain why the number of women entering the profession under study is so small: The needed masculine orientation appears to be less readily available in younger women, as the Baucom, Besch, and Callahan (1985) study revealed. Testing of Null Hypothesis 4 would reveal the differences, if any, between self-rated leadership-competency-practice scores and the four types of gender orientation (i.e., feminine, masculine, androgynous, and undifferentiated). The expectation was that masculinity orientation would be correlated with high leadership competency practice scores. Establishment of any relational links would support Bandura's (1977) social learning theory by providing further insight into the impact that this task-oriented profession can have on the gender orientation of female CPAs who have worked in leadership positions over a period of time.

Literature Review on Leadership

Overview

Women in leadership positions experience the same relationship exchanges with followers as men do in similar positions. Leadership development and leadership style employed by leaders are not gender specific. Both male and female leaders understand how to be competent leaders, but followers must perceive them as competent and trustworthy (Azman, Mohamad, Rafiuddin, & Zhen, 2010). To achieve this perception

among followers, female leaders have to project greater ability or superior performance compared to male leaders (Eagly & Carli, 2003). It is at this point that leadership development based on gender begins to occur. Female leaders begin to function one way while male leaders function in another way in trying to create the same perceptions among their followers. To address this deviation of the genders, a useful transformational leadership style has emerged. Female leaders who want to establish the same perceptional goals among their followers as male leaders do (Eagly & Chin, 2010) can use embedded androgynous qualities, which is within the transformational leadership style (Kusterer et al., 2013). The androgynous personality allows female leaders to access masculine traits that can help address situations occurring with followers in a task-orientated environment.

Next, I present an in-depth discussion explaining how this gender deviation in leadership development came about. This discussion also presents what changes have occurred within female leaders to address this deviation. Also in this discussion, gaps in the literature will be identified that provided the impetus for this research. The chapter concludes with a description of the selected research method.

The Leader-Member Exchange (LMX) Model

In the literature, an explanation of leadership often starts based the understanding of the leader-member exchange theory (Wilson et al., 2010). The LMX theory illustrates a communication exchange that occurs between leaders and followers, as depicted in Figure 1. The LMX model consists of three main components: leader, follower, and the exchange. The follower is a person who can competently and proactively follow

instructions and support the efforts of the leader in achieving the overall goals (Wilson et al., 2010). The exchange component allows the contribution of knowledge concerning situations by both followers and leaders so that specific solutions can be developed (Van Gils, Van Quaquebeke, & Van Knippenberg, 2010).

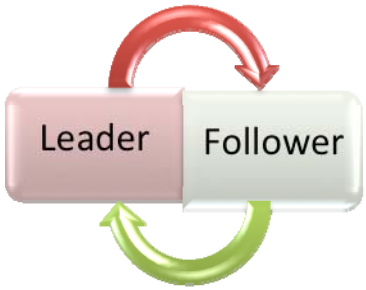

Figure 1. Leader-member exchange model.

Through the described exchange process, other aspects of human behavior begin to take shape between the leader and the follower such as trust, respect, loyalty, liking, intimacy, support, openness, and honesty (Huang, Wang, & Xie, 2014; Wilson et al., 2010). The burden to initiate the formalization of these desired human behaviors within the LMX model falls to the leader.

For leadership to come into play, the person in the leadership position must have the ability to induce others to act toward the achievement of certain goals that represent the values and motivations of all parties involved in the exchange (Collins, Burrus, & Meyer, 2014; Douglas, 2012; Tzinerr & Barsheshet-Picke, 2014). The leader has the dubious task of assigning and determining what actions must occur (Wilson et al., 2010).

In order for a leader to be effective, the individual must have the ability to cope with mental challenges associated with managing complex planning and budgeting activities, while being perceived by followers as an honest, competent, forward-looking, inspiring, and intelligent person (Allen, Shankman, & Miguel, 2012; Lee, Haught, Chen, & Chan, 2013; Rajah et al., 2011; White, 2015; Wolfram & Gratton, 2014).

The LMX model is a representation of how exchanges between leaders and followers are occurring regardless of gender or the environment in which the exchanges take place. Establishing the perception of the leader's trustworthiness and competence among the followers is a prerequisite for this exchange to work. Female leaders functioning in task-oriented environments need an approach to leadership that allows them to tap into their masculine traits in order to act as competently as male leaders do in the same environment.

Leadership Development

The ability to motivate followers to carry out a specific task is a skill that leaders must cultivate in order to achieve the desired overall goals; however, not all leaders come naturally by this refined ability, and some form of training is necessary to bring out the desired skills. Amit, Popper, Gal, Mamane-Levy, and Lisak (2009) found that leaders who had prior experience with being a leader could influence people better than leaders without such prior experience. The study implied that a developmental process is occurring to help refine such skills as self-perception and self-efficacy, and the accumulation of psychological and behavioral knowledge related to strong leadership will manifest in these individuals (Amit et al., 2009). This developmental process must start

with didactic learning, move to situation scenarios, and conclude with real-world events (Caligiuri, 2006). Individuals going through this developmental process experience changes in their abilities.

Maon, Lindgreen, and Swaen (2009) observed that such a change modification consists of four stages: unfreezing, moving, refreezing, and sensitizing. To relate this study to leadership development, the unfreezing stage represents the unlearning of past assumptions associated with the status quo. The moving stage represents the introduction of a new set of assumptions. The refreezing stage represents the new assumptions taking effect. The final stage is marked by awareness of the importance of sustainability, which is the driving force behind the reasons why change must occur in the first place (Maon et al., 2009; Sturm et al., 2014; White, 2015).

Change is a constant. Individuals operating in leadership positions have to accept and cope with this fact if they want to remain in those positions. Organizational environments have the capacity to shape perceptions and behaviors by influencing how people interpret various aspects of their work within a certain environment (Thoroughgood et al., 2011). Individuals within their environments will learn what kind of behaviors are acceptable, noted Thoroughgood, Hunter, and Sawyer (2011), which implies that an internal process is occurring that allows the individual to adjust (Skinner, 1953). For leaders, this internal process will be crucial in their quest to become effective leaders. The internal process is revolving around three components: resilience, insight, and identity (Clarke, 2011)—see Figure 2. Each component requires the other components to be in effect in order to create the desired change within the leader.

Resilience represents the ability to adapt to changing circumstances within an environment. Insight represents the capacity to make a realistic assessment of whether the change is feasible. Identity is the channeling of energy, behavior, and performance toward a specific objective related to the change (Clarke, 2011).

The internal process is constantly providing information about the input from external events. Through this internal process, certain abilities such as self-awareness, self-management, social awareness, and relationship management will begin to develop further within a leader. These developing abilities represent the structural components of the emotional intelligence model and can predict the successful movement of individuals into the top levels of leadership within an organization (Charniss & Goleman, 2001; Sturm et al., 2014).

Figure 2. Change as an internal process.

Along with developing the core abilities associated with emotional intelligence, the leader needs high levels of self-efficacy and self-monitoring. Research conducted by Clarke (2011) demonstrated that individuals who possessed a high level of self-efficacy

were also successful in leadership positions. By engendering the belief that the capability to complete the task is there, self-efficacy serves as the catalyst that maintains the passion to pursue task completion. Task completion ties into the emotional intelligence theory by predicting performance (Charniss & Goleman, 2001; Clarke, 2011; Wu et al., 2010). Self-monitoring serves as the coordinator between the abilities associated with emotional intelligence such as self-awareness, self-management, social awareness, and relationship management (Ayman & Korabik, 2010; Charniss & Goleman, 2001; Wu et al., 2010), so that the leader can maintain a regulated desired appearance. Possessing high levels of self-efficacy and self-monitoring can be beneficial for developing the emotional intelligence components that individuals functioning in leadership positions need. Foti and Hauenstein (2007) determined that a combination of high self-efficacy and high self-monitoring was a strong predictor that leadership ability would emerge. This study was, however, gender specific; including both genders could produce different results (Foti & Hauenstein, 2007). Furthermore, the variation between genders with respect to the development of emotional intelligence could also have an impact on the leadership style selected by the person in charge.

Transformational Leadership Theory

As the literature indicated, the transformational process is part of an efficient leadership style used by leaders to motivate their followers. Employment of the transformational style, in preference over the transactional style, is a current phenomenon. In the past, transactional leadership characterized the efficient manager who could focus on the task, communicate clear expectations to subordinates, solve

immediate problems, and reward performance (McCleskey, 2014; Powell, 2012). Economic contract, economic exchange, or the cost-benefit concept performed on a short-term basis, were the foundation for the transactional leadership style. The two main factors driving this leadership style were contingent reward and management by example (Azman et al., 2010; Flora, 2014). Transactional leadership was a one-directional flow from leader to follower to get the task done without questioning the status quo. This type of leadership limited the opportunity for any fruitful exchanges to occur between leaders and followers.

By contrast, the transformational leadership style describes leaders as charismatic, intelligent people who create a vision of the future and inspire their followers to question the status quo, see beyond the here and now, and pursue a new purpose (Berkery et al., 2013; Flora, 2014; Kuchynkova, 2013; Powell, 2012). By definition, transformation is central to this leadership style; four factors clearly distinguish this style from the transactional style. The first factor revolves around idealized influence. The leader has to embody a trustworthy role model to follow and exert extra effort in novel and complex environments. The second factor is inspirational motivation. The leader has to set, articulate, and communicate a compelling vision of the future that empowers followers to take initiative and change the organizational structure. The third factor is intellectual stimulation. It allows leaders to encourage followers to question beliefs and assumptions, reframe problems, take risks, and look for new ways of doing things. The last factor engages individualized consideration. The leader treats followers on a one-on-one basis, focusing on the followers' individual strengths, and helps them to cope with stressful

situations (Charbonnier-Voirin et al., 2010; Kuchynkova, 2013; Lopez-Zafra, Gracia-Retamero, & Berrios-Martos, 2012; Reichard et al., 2011). This type of leadership allows for the exchange between leaders and followers to flow efficiently and encourages them to seize opportunities for affecting change in the organizational structure. The ability to motivate followers by communicating an inspiring vision of the future is the real focus of this style of leadership (Charbonnier-Voirin et al., 2010; Kuchynkova, 2013), and all individuals using this style should be viewed by followers as trustworthy and competent leaders. The leader's gender could, however, affect the communication exchange created by this leadership style. Even though this leadership style provides for the embedment of androgynous qualities, if a female leader cannot embrace those qualities, the establishment of a fruitful exchange with her followers will not occur.

Leadership and Gender

The literature makes it clear that leadership positions are not universally available to both genders (Thoroughgood et al., 2011). Literature regarding the relationship between leadership and gender is limited. Gender is a multidimensional and multilevel phenomenon, which includes intrapsychic aspects such as gender schemas and stereotypes; gender-role identity; and gender-role traits, attitudes, and values (Ayman & Korabik, 2010; Lopez-Zafra et al., 2012). Some studies have shown that men and women take different approaches to activities and to what behaviors they will display (Clarke, 2011). Because of this difference, men and women operating in a LMX relationship, employing the transformational leadership style, should expect different responses from leaders, followers, and the composition of the leader-follower dyad (Collins et al., 2014;

Way & Marques, 2013). One reason this difference in thinking and approach might be occurring is that men view their world in terms of hierarchical relationships, whereas women tend to lead from the center, which means that their leadership practices operate like a web that connects and brings people together (Gedro, 2010).

Unfortunately, this type of relationship has created distorted views of groups of individuals within the structure. For example, women who are in leadership positions are perceived as different from male leaders because of societal stereotypes, which hold that women are not competent to hold such positions in society (Thoroughgood et al., 2011). As a result, male followers may show more negative attitudes toward female leaders than female followers might (Kark et al., 2012). In the past, the leadership role was more congruent with a man's role in life, resulting in prejudice against female leaders. In the literature, the notion of a relationship between masculine orientation and leadership emergence is considered a conceptional belief (Archard, 2013; Ayman & Korabik, 2010). Leaders who were more in line with the expectations of followers of the same gender received more favorable evaluations than leaders who were not (Douglas, 2012; Nichols & Cottrell, 2014). The lack of congruence between stereotypes of the leadership role and the traditional roles of women will contribute to higher levels of scrutiny and more trouble legitimizing the authority of female leaders. Some female leaders operating in task-dominated settings have tried to adopt stereotypical masculine leadership behaviors in an attempt to overcome this lack of congruity. Yet, female leaders employing this approach have met with negative responses from their followers as a result (Ayman & Korabik, 2010; Ely et al., 2011; Gedro, 2010; Heintz, 2012). Unnatural masculine

leadership behavior indicates falseness to followers, thus reducing the female leader's ability to establish trustworthiness with her followers.

Overcoming the problem of role congruence requires consideration of another leadership approach that female leaders can use effectively. An androgynous style of leadership proposed by Eagly and Chin (2010) incorporates culturally masculine and feminine elements of human behavior into the leadership style. The leadership style is transformational in nature and provides an advantage to female leaders who have androgynous personalities (Berkery et al., 2013; Eagly & Carli, 2003; Kusterer et al., 2013; Maseko & Proches, 2013). Androgynous individuals possess both masculine and feminine traits. These individuals will have the capability of adopting task-oriented as well as the socioemotional leadership styles. For example, they can display socioemotional leadership with masculine partners and task-oriented leadership with feminine partners. Androgynous women will have both traditional feminine qualities and task-oriented masculine qualities (Carver et al., 2013; Halim et al., 2011; Huang et al., 2012; Li, Bao, & Jiang, 2013; Srivastava & Nair, 2011). Kark et al. (2012) examined the effects of the leader's gender and gender-role identity on leadership effectiveness, as well as the followers' gender and the dynamics that develop in same-gender versus cross-gender relationships. The results showed that androgynous leaders received higher ratings for being transformational leaders than nonandrogynous ones. Further, followers who perceived their leaders as androgynous had a stronger personal identification with their leaders. Finally, androgynous leaders in cross-gender relationships received higher competency ratings for leadership in terms of (a) transformational leadership and (b)

personal identification, in comparison to leaders in same-gender relationships (Kark et al., 2012). From this study, I concluded that androgynous leaders create better relationships to inspire their followers to complete the required tasks so that the completion of the desired goals can occur.

Key Variables, Methodology, and Methods

Despite the reported favorable ratings of androgynous female leaders, a mismatch between the female leaders' androgynous personality and the followers' expectations can still occur. Role congruity, discussed earlier in this chapter, is not a fixed point in the leader-follower relationship. Changes are regularly occurring in the work environment, which can affect the leader-follower relationship. Thus, leaders have to make adjustments to compensate for the changes in order to maintain the relationship with their followers. For example, some studies have shown that time spent by a woman functioning in a task-oriented environment resulted in a shift in the gender orientation so that the woman could maintain a high level of competency in the eyes of her followers (Baucom et al., 1985; Dickman et al., 2013; Sitingiene & Stukaite, 2014). I concluded that additional research should be conducted with women who have spent time in a task-oriented profession such as public accountancy to determine if a shift in gender-orientation had occurred within these women in order for them to produce self-rated leadership-competency-practice scores similar to the scores of men in the same profession.

CPAs were the target population for this study for the purpose of investigating the relational links, if any, between leadership self-rated practice scores, service time, and gender orientation of female CPAs operating in task-oriented environments. The

selection of the research design resulted from the research questions posed for the study. A qualitative research design would focus on exploring a phenomenon in order to gain an understanding by extrapolating evidence for a theory from what people say or write, whereas quantitative research infers evidence for theories through measurement of variables that produce numeric outcomes (Field, 2014). The research questions posed for this study focused on variable relationships that supported a quantitative approach. The research method chosen for this study was, therefore, a quantitative survey design, using online assessment instruments to collect responses from a sample of participants and using independent samples *t* tests, Pearson's correlation coefficients, and ANOVA to analyze the collected data.

A quantitative design can be either descriptive, survey, quasi-experimental, or experimental. Descriptive designs seek to describe the current state of affairs among the participants. Survey designs attempts to determine the extent of a relationship between variables using statistical data. For descriptive and survey designs, measurements are usually taken once; whereas in quasi-experimental and experimental studies, which attempt to establish cause-and-effect relationships between variables related to a specific treatment, measurements are taken pre- and posttreatment.

How best to answer the research questions determines which design should be used. Quasi-experimental and experimental designs, focusing on testing the effect of a treatment or measuring treatment outcome by manipulating the independent variable, would not have been applicable to this study or provided answers to the research questions. The descriptive design, seeking to provide systematic information about a

phenomenon, would also not have provided the results needed to answer the research questions. By contrast, a survey design using correlation coefficients to determine if a relationship existed between variables was the method of choice because it permitted answering the research questions. Describing and predicting the relationship between independent and dependent variables without manipulation of the independent variable provides support for the researcher's claim that specific behaviors would be occurring in a selected sample (Gast & Ledford, 2014). Analysis of specific uncontrolled variables such as leadership competency practice (self-rated), service time, and gender orientation determined if an attitude was being displayed in a sample of CPAs. To determine if a correlation among variables existed in the sample of this study, the survey design was the appropriate choice.

Settling on the appropriate study design allowed me to move forward and determine a proper sample size, measuring instruments, collection period, and statistical means for analyzing the data. The population to be sampled comprised individuals functioning in a professional industry in a specific region of the United States. The profession was accounting, and the target population was composed of professional CPAs. The sample needed to consist of individuals who held a CPA license for more than 5 years and lived in a delimited area of the United States. Using a sample calculator with an error rate of 6%, confidence level of 90%, and response distribution rate of 50% on a population size of 2,635 generated the desired sample size of 176 (Raosoft, 2015). I proceeded to use disproportionate stratified sampling because the population consisted of far fewer female CPAs than male CPAs, and oversampling of female CPAs would

improve the accuracy of the results (Frankfort-Nachmias & Nachmias, 2008). Women represented 38% of the target population. The desired sample had to be equally proportioned with respect to gender (n = 88 men, n = 88 women).

The focus of this study was to collect data concerning three variables: self-rated leadership practice, service time, and gender orientation. I decided on two online assessment instruments to collect responses concerning self-rated leadership practice and gender orientation from the sample of 176 CPAs. The first instrument was the LPI-Self, a self-rated leadership practice inventory (Statistics Solutions, 2013), which produced the self-rated leadership practice score for each participant. This instrument consists of a 30-item questionnaire containing five subscales for each of the five practices of exemplary leadership. The subscales include (a) Model the way, (b) Inspire a shared vision, (c) Challenge the process, (d) Enable others to act, and (e) Encourage the heart (Kouzes & Posner, 2013; Statistics Solutions, 2013). Reliability of the items in the LPI-Self is highly correlated within each scale, and test-retest reliability is also high. Internal reliability, as measured by Cronbach's alpha, is strong with all scales above the .75 level (Kouzes & Posner, 2013). The second instrument was the Bem Sex Role Inventory, or BSRI (Bem, 1978-1981; Mind Garden, 2013), which produced the gender orientation score for each participant. This instrument consists of a 60-item questionnaire to measure masculinity, femininity, androgyny, and nondifferentiation by using the masculinity and femininity scales. Bem reported high internal consistency and test-retest reliability of the instrument. Coefficient alphas computed for masculinity and femininity revealed high reliability (masculinity alpha = .86; femininity alpha = .82). The test-retest reliability of the

instrument, demonstrated over a 4-week period for a sample of 28 men and 28 women, showed high reliability (masculinity $r = .90$, femininity $r = .90$, androgyny $r = .93$; Holt & Ellis, 1998). Demographic information provided the service time spent in the profession for each participant.

The assessment instruments were on online Web-based platforms provided by the publisher of each instrument. I purchased an access code for each participant who had sent in his or her Informed Consent Form (see Appendix A). Data collection was cross-sectional. I performed statistical analyses with the independent samples *t* test, Pearson correlation coefficient, and ANOVA on the collected data to provide evidence indicating whether the null hypotheses had to be accepted or rejected in favor of the alternate hypotheses. Chapter 3 includes further discussions concerning the selection of the research design and a rationale for the choice of methods.

Summary and Conclusions

This chapter presented a review of the literature related to women and leadership development. To establish a theoretical framework for the study, I discussed two pertinent theories: Eagly and Karau's (2002) role congruity theory and Bandura's (1977) social learning theory. These theories shed light on the relationship between female leaders and their followers. The role congruity theory takes into consideration the importance of congruity between the gender role and the leadership role, as well as specific key factors and processes that influence congruity perceptions by followers and prejudicial behaviors (Eagly & Karau, 2002). The social learning theory explains how

initial patterns learned can be refined through self-corrective adjustments based on feedback from prior performance (Bandura, 1977).

Eagly and Karau's (2002) research resulted in findings that female leaders must overcome two main forms of prejudice: The first prejudice results from the way the term *leadership role* is defined. The more masculine the definition of leadership role, the less congruent are a woman's gender role and her leadership role. The second prejudice focuses on the actual leadership behavior of women because certain behaviors are considered less desirable in women than in men (Eagly & Karau, 2002).The authors found that female leaders who displayed masculine behaviors such as aggressiveness, ambition, dominance, forcefulness, independence, self-sufficiency, self-confidence, and proneness to acting as a leader were perceived as narcissistic. Followers seeing these behaviors instead of the traditional feminine behaviors of being affectionate, helpful, kind, sympathetic, interpersonally sensitive, nurturing, and gentle tended to provide unfavorable evaluations to such female leaders (Atewologun & Doldor, 2013; Bird et al., 2010; Brandt & Laiho, 2013; Ciolac, 2013; Eagly & Karau, 2002; Paris & Decker, 2012; Pillemer et al., 2014; Schuh et al., 2014). To countermand these prejudices, female leaders could use an androgynous leadership style and utilize both masculine and feminine behavioral traits, thus garnering more favorable evaluations by meeting their followers' expectations (Douglas, 2012; Eagly & Chin, 2010; Eagly & Karau, 2002; Kark et al., 2012).

A mismatch between the female leaders' androgynous orientation and the followers' expectations can still occur. The leader-follower relationship, as well as

gender orientation, is not a fixed point. Depending on the task-orientation level of the environment, the gender orientation of the woman operating in that environment could be affected. For example, female leaders with androgynous orientation functioning in a highly task-oriented environment over a period of time can experience a shift in their gender orientation in order to maintain a level of competency within that environment (Baucom et al., 1985; Dickman et al., 2013; Sitingiene & Stukaite, 2014). This observation, expressed repeatedly in the current literature, led to the question: Could this same type of shift in gender orientation occur in any woman functioning over a period of time in a task-oriented profession to maintain a high level of competency? If this were occurring, what would the gender orientation of these women reveal? The current literature has not addressed these two underlying questions. For this reason, the purpose of this study was to examine the differences, if any, between a group of male and female CPAs working in leadership positions in a task-oriented environment with respect to self-rated leadership-competency-practice scores, service time, and gender orientation. The study focused on this target population because all individuals must meet the same rigorous requirements to hold a CPA certification, work in environments that are normally highly task-oriented in nature, and maintain the perception in their followers that they are competent and trustworthy leaders. I used an online assessment instrument to generate a self-rated leadership-competency-practice score, which served as the numerical representation of the level of competency of each study participant.

This chapter concluded with discussions about the key variables, methodology, and methods used in this study. Chapter 3 provides a more detailed discussion of the

selected research design and the rationale for choosing requisite methods of data collection and data analysis. It also provides further information about other components of the study such as population and sample, sample size and sampling procedures, participation criteria and recruiting, data collection, instrumentation, and organization of constructs presented. Chapter 3 concludes with a discussion of the threats to validity and measures taken to avoid them, as well as ethical procedures in research, including the protection of participants' rights and anonymity.

Chapter 3: Research Method

The purpose of this quantitative survey study was to examine the differences, if any, within a group of male and female CPAs in leadership positions with respect to their leadership competency practice (self-rated), service time, and gender orientation in a task-oriented environment. I used a quantitative survey design and online assessment instruments for collecting responses from a sample of participants. I performed data analysis with independent samples *t* tests, Pearson correlation coefficients, and ANOVA. The four research questions proposed for this study focused on relationships between three variables: self-rated leadership competency practice, time spent in the profession, and gender orientation in a group of CPAs. The first relationship I examined was between leadership competency practice and gender orientation in the CPA profession. The second and third relationships I examined were between the time spent working as professional CPAs and the masculinity or femininity scores, respectively, achieved by the CPAs. The fourth relationship I examined was between the self-rated leadership-competency-practice score and the type of gender orientation exhibited by the CPA. For this study and its type of testing, quantitative methods were best suited because they could be used to identify significant differences among variables (Teddlie & Tashakkori, 2009). This chapter presents a critical examination of the quantitative design along with specific procedures used in this study.

Presented in this chapter are the research design and rationale as well a description of the research methods used. Within the methodology portion of this chapter, I present the following components: population, sample, and sampling procedures;

recruiting and criteria for participation in the study; data collection and instrumentation; and the organization of constructs. The chapter concludes with a description of how I handled threats to validity and measures taken to ensure ethical conduct in protecting the participants' rights and anonymity.

Research Design and Approach

Quantitative Method

With this quantitative survey design, I studied the differences within a group of male and female CPAs with respect to their leadership competency practice (self-rated), service time, and gender orientation in a task-oriented environment. The selection of the research design was based on the research questions posed for the study and how best to answer them. A qualitative research design focuses on exploring a phenomenon to gain an understanding by extrapolating evidence for theory formation from what participants say or write about the phenomenon. The quantitative research design, by contrast, is used to test hypotheses from measurements taken of variables that produce numeric outcomes (Field, 2014). It enables the researcher to carry out studies in natural, real-life settings using a probability sample, which increases the external validity of the study (Frankfort-Nachmias & Nachmias, 2008). The research questions posed for this study focused on variable relationships that could best be answered by using a quantitative survey design.

Survey Design

A quantitative design can be descriptive, nonexperimental (correlational or survey), quasi-experimental, or experimental. The appropriate choice for this study was the survey design because it was best suited to obtain the data needed to answer the

research questions. Describing and predicting the relationship between independent and dependent variables without manipulation of the independent variable provides support for the researcher's claim that specific behaviors would be occurring in a selected sample (Gast & Ledford, 2014). Analysis of specific uncontrolled variables such as leadership competency practice (self-rated), service time, and gender orientation would determine whether an attitude was being displayed in a sample of CPAs in this study. The survey design was, therefore, the appropriate design.

Research Questions and Hypotheses

To answer the research questions posed for this study, I employed specific procedures of data collection, data analysis, and interpretation of findings. For data collection, the procedures included selecting a representative sample, using an appropriate sample size, and recruiting individuals to participate in the study. To aid in the data collection process, I used two online assessments to collect data needed to answer the research questions. Data collected through two online assessments followed specific procedures: I purchased access codes and obtained permission to use each assessment in this study. Access codes allowed participants to complete each assessment one time. Access codes for each assessment had a 1-year life. Each participant received a notice of the length of time available for completion of each online assessment. I downloaded a completed assessment from each provider for analysis. Analyses performed on collected data included independent samples *t* tests, Pearson correlation coefficients, and ANOVA. The following four research questions were answered through hypothesis testing:

Research Question 1: Do the self-rated leadership-competency-practice scores differ between male and female CPAs?

- H_0 1: There is no difference between the self-rated leadership-competency-practice scores of men and women.
- H_a 1: A difference exists between the self-rated leadership-competency-practice scores of men and women.

Research Question 2: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA?

- H_0 2: There is no correlation between the time spent working as a professional CPA and the masculinity score achieved by the CPA.
- H_a 2: A correlation exists between the time spent working as a professional CPA and the masculinity score achieved by the CPA.

Research Question 3: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA?

- H_0 3: There is no correlation between the time spent working as a professional CPA and the femininity score achieved by the CPA.
- H_a 3: A correlation exists between the time spent working as a professional CPA and the femininity score achieved by the CPA.

Research Question 4: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA? (The four types of gender orientation tested were masculinity, femininity, androgyny, and nondifferentiation.)

- H_0 4: There is no difference between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.
- H_a 4: A statistically significant difference exists between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.

For Hypothesis 1, I performed an evaluation using an independent samples *t* test to determine whether a relationship existed between self-rated leadership-competency-practice scores of men and women. This analysis included the means of two independent variables (Green & Salkind, 2011). Gender represented the independent variable (X), and self-rated leadership competency practice represented the dependent variable (Y). The analysis indicated whether the mean of a variable differed significantly from the mean of the other variable. In performing an independent samples *t* test, the researcher must keep in mind three underlying assumptions (Green & Salkind, 2011):

- The test variable is normally distributed in each of the two populations (as defined by the grouping variable), which means the test yields reasonably accurate *p* values even when the normality assumption is violated. A larger sample size may be required to produce valid *p* values if the population distributions are substantially nonnormal.
- The variances of the normally distributed test variable for the populations are equal. Violation occurs when the sample sizes differ for the two populations. However, the independent-samples *t*-test procedure computes an approximate

t test that does not assume that the population variances are equal in addition to the traditional *t* test that does assume that the population variances are equal.

- The participants represent a random sample from the population, and the scores on the test variable are independent of each other. The *p* value should not be trusted if the independence assumption is violated.

As part of the independent samples *t*-test analysis, I performed a Levene's test to determine whether the population variances for the two groups were equal. If Levene's test is not significant (i.e., $p > .05$), then the variances are roughly equal and the assumption is upheld (Field, 2014; Green & Salkind, 2011). To determine whether the independent samples *t* test is significant, the *p* value must be less than 5% (Green & Salkind, 2011).

For Hypotheses 2 and 3, I calculated the Pearson correlation coefficients to determine whether a linear relationship existed between time spent in the profession and the masculinity or femininity scores achieved by participants. Time spent in the profession represented the independent variable (X), and degree of masculinity for Hypothesis 2 and degree of femininity for Hypothesis 3 represented the dependent variable (Y). In performing a Pearson correlation coefficient, the researcher must keep in mind two underlying assumptions (Green & Salkind, 2011):

- The variables are bivariately normally distributed, which means each variable is normally distributed ignoring the other variable, and each variable is normally distributed at all levels of the other variable. If the assumption is not

violated, the only type of statistical relationship that can exist between two variables is a linear relationship. If violated, a nonlinear relationship might exist.

- The participants represent a random sample from the population, and the scores on variables for one participant are independent of scores on these variables for other participants. The correlation significance test for this coefficient is not robust to violate the independence assumption. Performance of significance test does not occur if an assumption violation has occurred.

To determine whether the Pearson correlation coefficient is significant, the *p* value must be less than 5% (Green & Salkind, 2011).

For Hypothesis 4, I performed an ANOVA to determine whether the self-rated leadership-competency-practice scores for masculinity orientation was significantly higher than the other three gender-orientation types. The purpose of conducting this test was to evaluate whether the group means of the self-rated leadership-competency-practice score (dependent variable) differed significantly for the four gender orientation types (factors). ANOVA is used to assess the relationship of one or more factors with a dependent variable. Should the self-rated leadership-competency-practice score differ significantly in relationship to the masculinity orientation, rejection of the null hypothesis and acceptance of the alternative hypothesis would be indicated. Performance of post hoc comparison can occur if the analysis findings are significant. In performing the analysis, the researcher must keep in mind the two underlying assumptions associated with using analysis of variance testing (Green & Salkind, 2011):

- The dependent variable is normally distributed for each of the populations as defined by the different levels of the factor. In violations of the assumption, but with a sample size that is moderate or large, ANOVA might still yield reasonably accurate *p* values.
- The variances of the dependent variable are the same for all populations. In violation of the assumption and differences in sample sizes among groups, the resulting *p* value for the overall test is untrustworthy. Under these conditions, use statistics that do not assume equality of population variances.

To determine whether the ANOVA is significant, the *p* value must be less than 5% (Green & Salkind, 2011).

Setting and Sample

Population

The population from which the sample for the study was drawn comprised the 17,488 individuals who are functioning in accounting, specifically as CPAs, in the Eastern United States. The accounting industry views CPAs as leaders. Individuals who are licensed CPAs are a leading source of information and advice and are consulted by individuals or organizations when they consider events that affect business operations. Trustworthiness and professional competency are core attributes a CPA must project in order to function in the profession.

To identify the population that fit the study parameters, I reviewed more than 17,000 actively licensed CPAs (both male and female) living in the United States and being board certified by their respective state. From this population, I identified 2,635

CPAs licensed for 5 years or more. The number of women within this population was 1,005 (38%); men accounted for 1,630 (62%). The 2,635 CPAs represented a finite population, which contained a countable number of sampling units that could be selected for the study (Frankfort-Nachmias & Nachmias, 2008).

Sampling Procedures and Sample

The sample size for this study was determined with the use of a sample size calculator. Using a sample calculator with an error rate of 6%, confidence level of 90%, and response distribution rate of 50% on a population size of 2,635 generated a desired sample size of 176 participants (Raosoft, 2015). I used disproportionate stratified sampling to select the sample from this population because female CPAs were represented by a smaller number than their male counterparts. Oversampling of female CPAs improved the accuracy of the results (Frankfort-Nachmias & Nachmias, 2008). CPAs eligible for selection were required to possess a CPA license for a minimum of 5 years. The sample was to be equally proportioned by gender (n = 88 men; n = 88 women). Based on the sample size, information related to each instrument, as well as error rate and confidence level set for the study, the sample size of 176 participants was considered appropriate for this study.

Data Collection and Data Analysis

I obtained approval from the Institutional Review Board (IRB) of Walden University before beginning the data collection process. Selection of participants was the first step. Selection of the sample consisted of recruiting equal numbers of men and women. I selected and contacted 200 CPAs (100 men and 100 women). Selected CPAs

received e-mail invitations to participate in the study. The invitation (see Appendix A) described the study procedures, assessment instruments, management of the findings, and distribution of results. All participants involved would receive the results of the study upon request at its conclusion. CPAs who wished to volunteer their participation in the study had to submit a completed Participant Demographics Profile Form (see Appendix B) to me. A completed confidentiality agreement (see Appendix C) was available to participants upon request. The demographics profile form included the following information: name, e-mail address, phone number, age, educational level, race, industry, job position, and time spent in the accounting profession. I solicited participants from the CPA population until an equal number of men and women was obtained to meet the sample size of 176 participants.

As the researcher, I purchased licenses for the two online assessments, and provided assessment access codes to each participant who submitted a completed demographics profile form. The first online assessment was the LPI-Self (Statistics Solutions, 2013), which measured the leadership competency levels for each participant. The second online assessment was the BSRI (Bem, 1978-1981; Mind Garden, 2013), which measured the gender-role orientation of each participant. Once the participants had completed and submitted both online assessments, no follow-up procedures occurred.

When all online assessments had been completed by the participants, I downloaded the collected numerical data for both assessments and consolidated assessment data and demographic data into a database format for access by the SPSS software. I checked for duplicate and missing data while consolidating the data into the

database format. The SPSS software accessed the database to perform specific statistical analyses related to each hypothesis. I performed the statistical analyses, which included independent samples *t* tests, Pearson correlation coefficients, and ANOVA on the collected data to provide evidence that would either support the acceptance or the rejection of the null hypotheses. I maintained a log in chronological order to track performed procedures, completed forms, and assessments, development of codebook and database, and analysis results performed by the SPSS software. The data collection and data analysis process concluded with my summary of the findings and the reporting of the overall conclusions of the study's results.

Instrumentation and Materials

The following four research questions required two different instruments to collect and provide measurements of the needed data:

1. Research Question 1: Do the self-rated leadership-competency-practice scores differ between male and female CPAs?
2. Research Question 2: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA?
3. Research Question 3: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA?
4. Research Question 4: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA?

Research Questions 1 and 4 focused on self-rated leadership-competency-practice scores of the sample of participants. The LPI-Self version of the Leadership Practices

Inventory (Kouzes & Posner, 2013; Statistics Solutions, 2013) was the assessment used to collect these data. The assessment consists of a 30-item questionnaire containing five subscales for each of the five practices of exemplary leadership: challenging, inspiring, enabling, modeling, and encouraging. Each subscale contains six questions, with a 10-point Likert response scale. The LPI-Self focused on leaders' rating themselves on the frequency with which they thought they engaged in each of the 30 behaviors. Kouzes and Posner (2013) created the assessment. The reliability of the LPI items was highly correlated within each scale, and test-retest reliability was consistently strong, generally at the .90 level and above. Internal reliability, as measured by Cronbach's alpha, was strong for all scales above the .75 level (Kouzes & Posner, 2013). Sample questions from the online assessments are presented in Appendix D.

As explained in Chapter 1, the use of the LPI-Self of the Leadership Practice Inventory (Statistics Solutions, 2013) presents a limitation to the study. The assessment has two versions: LPI-Self and LPI Observer. The assessment developer has addressed this limitation by performing empirical testing on both versions to determine which practices among the versions produced significant differences, if any, among the five practice areas measured by each. Empirical tests of differences between the two versions revealed no statistically significant differences between the versions on the *challenging* and *modeling* practice areas. The mean differences for the *inspiring, enabling*, and *encouraging* practice areas had little practical significance, with the exception that leaders viewed themselves as engaging slightly less in the *inspiring* and *encouraging* practice areas, and slightly more in the *enabling* practice area than did their observers. As

for assessment validity, Georgia Tech Professor Herold and colleagues performed a confirmatory factor analysis on their own LPI data, using the statistical software package LISREL VII. They concluded that the LPI items had correlations with LISREL items exceeding .50, resulting in a confirmatory model with acceptable fit (Chi square = 399.9, $df = 363$, $p < .09$). Furthermore, all of the hypothesized structural coefficients linking the observed variables to the five factors of the LPI were highly significant with all *t* values exceeding 7.0, suggesting that, when modeled appropriately, the LISREL estimates confirmed the LPI factor model (Leadership Practices Inventory, 2015). Several fields of study have used this assessment, for example health care, higher education, business, and the not-for-profit and government sectors. Some of the following research projects have used this assessment (Statistics Solutions, 2013):

- Bieber, V. H. (2003). *Leadership practices of veterans health administration nurse executives: An exploration of current practices and professional development needs.* East Tennessee State University.
- Diaz, A. L. (2008). *Leadership training and emotional intelligence in school nurses.* University of Nevada, Las Vegas.
- Ferrara, L. R. (2008). *Relationship of work experience to clinical and leadership competence of advanced practice nursing students*. University of Phoenix.
- Porter-OGrady, T. (2007). *Comparative nurse executive leadership practices in United States magnet and non-magnet hospitals*. University of Phoenix.

- Vitello-Cicciu, J. (2001). *Leadership practices and emotional intelligence of nursing leaders*. Fielding Graduate Institute.
- Wicker, T. L. (2008). *Self-report of nursing leadership practice after completion of training*. The University of Arizona.

The LPI-Self version of the inventory cost $5 per access code. Estimated costs for 177 access codes (i.e., 176 codes for participants + 1 code for the IRB reviewer) needed for this study was $885. The vendor who provides the online version requires researchers who used this version in their research projects to complete a research request form. I submitted this form to the vendor to gain permission prior to purchasing the access codes. The granting of permission usually takes from 4 to 6 weeks to complete before online versions of the assessment are available for access. I submitted an online research request form March 10, 2014, and received an approval letter March 17, 2014 (Wiley, 2014).

Research Questions 2, 3, and 4 focused on the gender orientation of the sample participants. To identify the gender orientation of each participant, the BSRI (Mind Garden, 2013) was used. This assessment generates the different types of gender orientation by separating the femininity and masculinity psychological traits. The psychologist Bem (1974, 1978-81) argued that masculinity and femininity are two separate dimensions and proceeded to developed this assessment tool in 1974. It is still the most widely used scale for performing gender-orientation assessments. Bem's insight implied that individuals enact varying degrees of both masculinity and femininity traits. Bem stated that an individual who scores high on the masculinity scale and low on the femininity scale would have a masculine behavior pattern, whereas an individual who

scores high on the femininity scale and low on the masculinity scale would have a feminine behavior pattern. The individual who scores high on both masculinity and femininity is likely to enact both masculine and feminine behaviors creating an androgynous behavior pattern. Bem's (1974) insight introduced a clearer understanding of gender differences by showing that gender attributes are complex and gender-appropriate behaviors are flexible (Carver et al., 2013; Hancock et al., 2014; Mind Garden, 2013).

The BSRI instrument was originally published in 1974 (Bem, 1974, 1978-1981) and consisted of a 60-item questionnaire using a 7-point Likert response scale to measure masculinity, femininity, androgyny, and nondifferentiation by using the masculinity and femininity scales (Mind Garden, 2013). Bem reported high internal consistency and test-retest reliability of the instrument. Coefficient alphas computed on masculinity and femininity revealed high reliability (masculinity alpha = .86; femininity alpha = .82). Test-retest reliability for the instrument, with a sample of 28 men and 28 women, proved to be highly reliable over a 4-week testing period (masculinity r = .90; femininity r = .90; androgyny r = .9; Holt & Ellis, 1998). Holt and Ellis (1998) assessed the instrument concerning its validity in relationship to the changes occurring in American society since the 1970s in traditional masculine and feminine gender-role perceptions. A sample of 138 participants (n = 68 men, n = 70 women) reaffirmed the validity of this instrument in measuring the gender orientation of the participants. All, but two of the adjectives were validated; the exceptions were *loyal* and *childlike*. Holt and Ellis (1998) concluded that

the BSRI is still a valid instrument for assessing gender roles. Administration, scales, and scoring of the instrument are contained in Appendix E.

The online version of the BSRI assessment had a cost of $192 for 200 access codes. The assessment provider granted permission, based on the purchase of access codes by a researcher, to reprint several of the assessment questions in the dissertation (Mind Garden, 2013). Scores generated by the two assessment instruments provided data used in the analysis process to produce statistical evidence that required either acceptance or rejection of the null hypotheses put forth in order to answer the four research questions guiding the study.

Threats to Validity

This quantitative survey design using two online assessment instruments faced several internal, external, construct, and statistical validity threats. The internal validity threat relates to adequate participation by CPAs during the data collection phase. The test sample came from a designated area in the United States. To address this internal validity threat, additional participants from other areas in the state could be recruited. The external validity threat pertained to female CPAs located in a specific part of the United States: Culture, scope of leadership responsibilities, and climate attributes can vary from place to place and can affect the size of the available population. To address this external validity threat, I used disproportionate stratified sampling to ensure an equal proportion of both genders.

Construct validity threats identified for this study centered around the measuring instrument used to produce the self-rated leadership-competency-practice scores. I used

the LPI-Self version of the Leadership Practices Inventory (Kouzes & Posner, 2013; Statistics Solutions, 2013) for this study. The instrument has two versions: LPI-Self and LPI Observer. Kouzes and Posner (2013) performed empirical testing on both versions to determine which practices in the five practice areas might show significant differences between the two versions. Empirical testing revealed no statistically significant differences between the versions in the *challenging* and *modeling* practice areas. The mean differences for the *inspiring, enabling,* and *encouraging* practice areas had little practical significance, except that the leaders viewed themselves as engaging slightly less often in the *inspiring* and *encouraging* practice areas and slightly more often in the *enabling* practice area than did their observers. As for instrument validity, the scores related significantly to other measures of leadership.

Threats to validity due to drawing faulty conclusions of the statistical results were also considered. In analyzing the collected data with the use of independent samples *t* tests, Pearson correlation coefficients, and ANOVA, inaccurate conclusions could still be drawn. Inadequate calculation and violations of statistical assumptions can result in faulty conclusion about the collected data. To address these threats, I used the SPSS software to perform the calculations during the analysis process. This software identifies violations of statistical assumptions associated with specific analyses while analyzing the collected data. I also consulted a statistician to confirm that accurate inferences were made regarding the data analysis. The statistician signed a confidentiality agreement prior to reviewing the collected data (see Appendix C).

Ethical Procedures and Protection of Participants' Rights

The IRB of Walden University required adherence to certain procedures to meet the ethical guidelines established for studies conducted under its auspices. IRB approval for conducting this study was obtained prior to the start of participant selection and the collection of data. The IRB application was completed by stating that this was to be a quantitative survey design using online assessment instruments. I described the procedures involving human participants in this study. A public database would be used to select potential participants for this study. Information contained in this database consisted of a name, mailing address, license number and date issued, as well as expiration date. Potential participants received an invitation by e-mail explaining the purpose of the study, procedures, assessment instruments, time involved, and results distribution at the conclusion. This e-mail also explained that participation was entirely voluntary and that all information collected would remain confidential. The e-mail invitation also stated that, by returning the completed Participant Demographics Profile Form provided, the potential participant acknowledged his or her understanding of the terms related to participation in this study.

Upon receipt of a completed demographics profile, the participant received an access code for the two online assessments from me. To ensure the participants' anonymity, I assigned each participant an identification number and listed this number instead of the participant's name when setting up the online assessment. I downloaded the completed online assessment data to combine with the demographic data provided to create a single database. Analyses were performed on a single database with the use of

the SPSS software. All demographic data and assessment results, along with statistical analysis data from the SPSS software, were stored on an external hard drive and kept in a secure location to protect the confidentiality of the data for a period of at least 5 years after completion of the study, as required by the university. At the end of the 5-year period, I will erase all data from the external hard drive.

The target population receiving the e-mail invitations was CPAs. Demographic information required from participant were name, e-mail address, industry type, job position, and time spent in the accounting profession. Until the required sample size of 176 participants would be reached, I continued to send e-mail invitations to potential participants listed in the public database. All participants were informed that they could request a copy of the results at the conclusion of the study.

Upon receipt of the completed demographics information form, I e-mailed the access codes for both online assessments to the participant. I prepurchased the required access codes for all study participants. The first assessment instrument was the LPI-Self, which measured the leadership competency levels of the participant. The second assessment instrument was the BSRI, which measured the gender-role orientation of the participant. Once a participant had completed and submitted the two online assessments, no follow-up procedures were conducted by me.

To summarize, when all the participants had completed the two online assessments, I downloaded the collected numerical data from both assessments and consolidated these data with the demographics information provided by the participants into one database format that could be accessed by the SPSS software. I checked for

duplicate and missing data while consolidating the data into the database format. The SPSS software accessed the database to perform specific statistical analyses related to each hypothesis. I performed statistical analyses such as independent samples *t* tests, Pearson correlation coefficients, and ANOVA to provide statistical evidence indicating whether the null hypotheses set forth had to be accepted or rejected. I maintained a log in chronological order to track performed procedures, completed forms and assessments, the development of a code book and database, and the results of the analyses performed by SPSS. The data collection and data analysis procedures concluded with a summary of the findings and the development of overall conclusions of this study.

Summary

This chapter included the research design and rationale along with a description of the population, sample, and sampling procedure; the recruitment of participants; and data collection and data analysis procedures. I described instrumentation and organizing constructs and discussed threats to validity. I discussed measures taken to ensure the ethical protection of participants' rights and anonymity. In Chapter 4, I present the results of the study and answer the four research questions posed.

Chapter 4: Results

The purpose of this quantitative survey research was to examine the differences, if any, between a group of female CPAs and male CPAs in leadership positions in a highly task-oriented environment regarding self-rated leadership competency practice, service time, and gender orientation. I collected responses from the participants by using a demographics profile form and two online assessment instruments. The following four research questions were answered through hypothesis testing:

Research Question 1: Do the self-rated leadership-competency-practice scores differ between male and female CPAs?

- H_0 1: There is no difference between the self-rated leadership-competency-practice scores of men and women.
- H_a 1: A difference exists between the self-rated leadership-competency-practice scores of men and women.

Research Question 2: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA?

- H_0 2: There is no correlation between the time spent working as a professional CPA and the masculinity score achieved by the CPA.
- H_a 2: A correlation exists between the time spent working as a professional CPA and the masculinity score achieved by the CPA.

Research Question 3: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA?

- H_0 3: There is no correlation between the time spent working as a professional CPA and the femininity score achieved by the CPA.
- H_a 3: A correlation exists between the time spent working as a professional CPA and the femininity score achieved by the CPA.

Research Question 4: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA?

- H_0 4: There is no difference between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.
- H_a 4: A statistically significant difference exists between the self-rated leadership-competency-practice scores with respect to the four types of gender orientation reported by the CPAs.

I used the SPSS software to perform analyses that included the independent samples *t* test, Pearson correlation coefficients, and ANOVA to determine whether the null hypotheses associated with each research question, respectively, had to be accepted or rejected. In this chapter, I provide the results of the study through descriptive and inferential statistics. The chapter begins with an overview of the data collection methods. Demographic characteristics of the sample are presented next, followed by a statement of the results. The chapter concludes with a summary and an introduction to Chapter 5, which presents a discussion, conclusions, and recommendations based on the results of this study.

Data Collection

Time Frame, Recruitment, and Response Rate

Recruitment for this study started December 6, 2014, after I had obtained IRB approval to conduct the research (IRB Approval #2-05-14-0178666) on the previous day; recruitment concluded April 20, 2015. In Chapter 3, I reported that e-mail invitations were sent to 200 potential participants with the goal of recruiting a sample of 176 (6.7%) participants out of a population of 2,635 CPAs. The error rate was set at 6%, confidence level at 90%, and response distribution rate at 50%. Disproportionate stratified sampling was used in the selection of the 200 participants to ensure that an equal number of men and women would be selected. An equal number of men and women was needed in the sample, but female CPAs in leadership positions are represented in much smaller numbers than their male counterparts; therefore, oversampling of female CPAs was necessary to achieve accurate results (Frankfort-Nachmias & Nachmias, 2008). Due to time constraints of the study and insufficient responses obtained from the available target population, I had to expand the population size to 3,803 and reduce the sample size to 100. The primary reason for the change in population and sample sizes was the lack of response by participants due to high workloads and demands on their time during the data collection period. The change in population size actually produced a sample size of 129 (3.4%), which resulted in an error rate of 8.48%, confidence level of 95%, and response distribution rate of 71%. I did not use disproportionate stratified sampling on the expanded population because submitted results came from an equal number of men and women during the data collection process.

The data collection process began with e-mailing invitations to potential participants. I removed from the e-mail list names of individuals who requested no further correspondence about the research study. Participants who consented to participate in the study completed two online assessments and provided some demographic information. If participants who had consented to participate in the study later requested by e-mail to terminate their participation, the request was noted in the log and any data already collected from these initial participants were removed from the consolidated database.

Demographic Characteristics

The 129 participants who offered to participate in this study had been licensed CPAs for 5 years or more and lived in the Eastern United States. Of these 129 participants , 92 (71%) participants were able to complete the two online assessments and provide the demographic information requested. Descriptive statistics of the demographic variables for participants ($N = 92$) are presented in Table 1. Of the 92 participants, 46 (50%) were women and 46 (50%) were men. The majority of the participants ($n = 82$, 89.1%) identified themselves as White/Caucasian with smaller percentages of CPAs identifying themselves as Black/African American, Hispanic, or Multiracial. As for age, the heaviest concentration was in two groups: 48 (52.2%) participants were between 50 and 64 years old, and 33 (35.9%) participants were 30-49 years old.

Table 1

Demographic Characteristics of Participants (N = 92)

Variables	Frequency	Percentage
Gender		
Men	46	50.0
Women	46	50.0
Ethnicity		
Black/African American	7	7.6
White/Caucasian	82	89.1
Hispanic	1	1.1
Multiracial	2	2.2
Age range		
< 30	1	1.1
30 - 49	33	35.9
50 - 64	48	52.2
65 +	10	10.9
Degree held		
Bachelor's	52	56.5
Master's	38	41.3
Doctoral	1	1.1
Professional	1	1.1
Industry		
Public	24	26.1
Private	37	40.2
Government	18	19.6
Not-for-Profit	13	14.1
Employment position		
Upper management	43	46.7
Middle management	20	21.7
Supervisory	3	3.3
Staff	11	12.0
Consultant	11	12.0
Educator	1	1.1
Other	3	3.3

(*table continues*)

Variables	Frequency	Percentage
Years of experience		
< 10	8	8.7
10 - 17	23	25.0
18 - 25	30	32.6
26 - 33	20	21.7
34 +	11	12.0

Degrees held by CPAs included 52 (56.5%) bachelor's degrees and 38 (41.3%) master's degrees, with a smaller percentages holding doctoral or professional degrees. Regarding employment, a higher concentration of CPAs was in private (n = 37, 40.2%) and public (n = 24, 26.1%) industries, while the government (n = 18, 19.6%) and not-for-profit (n = 13, 14.1%) sectors reflected a lower concentration. Most of the participants held upper-management (n = 43, 46.7%) or middle-management (n = 20, 21.7%) positions. The mean for years-of-work experience was M = 21.71 years (SD = 9.21 years), which places the years of work experience between 12 and 31 years.

Statement of Results

Following are the results of hypothesis testing to answer the four research questions posed for this study.

Research Question 1

Research Question 1 asked: Do the self-rated leadership-competency-practice scores differ between male and female CPAs?

To test Hypothesis 1, I performed the independent samples t test with gender representing the independent variable (X) and leadership competency practice (self-rated)

representing the dependent variable (Y). The results showed that the mean of self-rated leadership-competency-practice scores for men was $M = 44.73$ ($SD = 6.42$), and for women it was $M = 44.27$ ($SD = 6.78$), as shown in Table 2.

Table 2

Self-Rated Leadership-Competency-Practice Scores

Gender	*n*	Mean	*SD*	*SE*
Men	46	44.73	6.42	.95
Women	46	44.27	6.78	1.00

Levene's test for equality of variances was found not to be violated for the present analysis, F (1, 90) = .110, $p = .741$. The p value was greater than .05. Levene's test statistic was not significant, indicating that the homogeneity-of-variance assumption was not violated. The independent-samples t-test analysis was found to be not statistically significant with t (90) = .34, $p = .74$. This result indicated that Null Hypothesis 1 had to be accepted, stating that there was no difference in the self-rated leadership-competency-practice scores of male and female CPAs.

Research Question 2

Research Question 2 asked the following: Does time spent as a professional CPA relate to the masculinity score achieved by the CPA?

For Hypothesis 2, I performed the Pearson correlation coefficient analysis. Time spent as a professional CPA represented the independent variable (X), and masculinity orientation represented the dependent variable (Y). The mean of time spent being a CPA was $M = 21.71$ ($SD = 9.21$), and the masculinity score was $M = 5.3$ ($SD = .59$). The correlation analysis indicated a positive statistical significance between the two variables,

$r = .21$, $N = 92$, $p = .024$. Null Hypothesis 2 was, therefore, rejected and the alternative hypothesis was accepted, which stated that a correlation existed between time spent as a professional CPA and the masculinity score possessed by the CPA.

Research Question 3

Research Question 3 asked: Does the time spent working as a professional CPA relate to the femininity score achieved by the CPA?

For Hypothesis 3, I performed a Pearson correlation coefficient analysis. Time spent as a professional CPA was the independent variable (X), and femininity orientation was the dependent variable (Y). The mean of time spent as a professional CPA was $M = 21.71$ ($SD = 9.21$), and the femininity score was $M = 4.61$ ($SD = .58$). The correlation analysis indicated no statistical significance between the two variables, $r = .047$, $N = 92$, $p = .329$. Null Hypothesis 3 was, therefore, accepted, stating that no correlation existed between time spent as a professional CPA and the femininity score possessed by the CPA.

Research Question 4

Research Question 4 asked: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA?

This research question sought to explore the relationships, if any, between the self-rated leadership-competency-practice scores and the four types of gender orientation (i.e., masculinity, femininity, androgyny, or nondifferentiation) a CPA could possess. Figure 3 illustrates the types of gender orientation possessed by the study participants. Of the $N = 92$ participants, 44 (47.8%) had a masculine orientation, of which 24 (54.5%)

were reported by women. Androgynous orientation showed the next highest concentration of CPAs: *n* = 20 (21.7%), of which 10 (50.0%) were women. Table 3 provides a detailed breakdown of CPAs in each gender-orientation category.

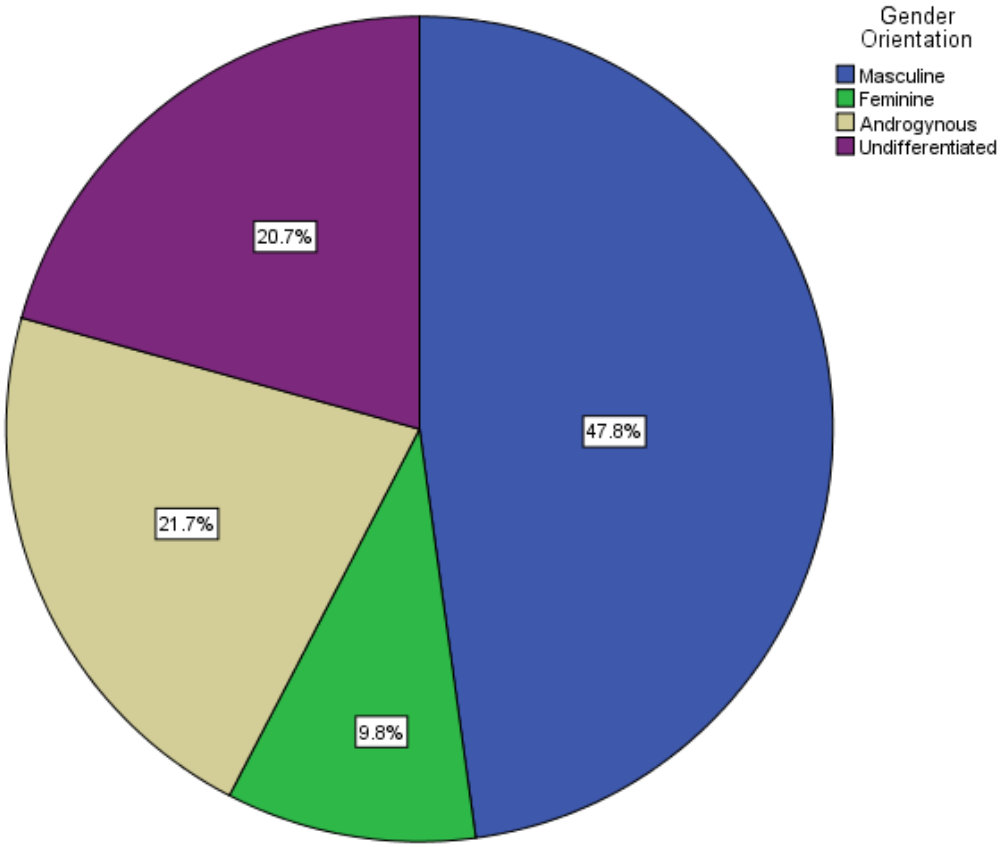

Figure 3. Gender-orientation types displayed by the participants.

Table 3

Gender Orientation in Relationship to Gender

	Gender Orientation									
	Masculine		Feminine		Androgynous		Undifferentiated		Total	
	n	%	*n*	%	*n*	%	*n*	%	*n*	%
Men	20	21.7%	5	5.4%	10	10.9%	11	12.0%	46	50.0%
Women	24	26.09%	4	4.3%	10	10.9%	8	8.7%	46	50.0%
Total	44	47.8%	9	9.8%	20	21.7%	19	20.7%	92	100.0%

I performed an ANOVA to determine whether the self-rated leadership-competency-practice score for masculinity orientation would be significantly higher than for the other three gender orientations. The results of the ANOVA showed no significant differences in the self-rated leadership-competency-practice scores at the $p < .05$ levels with respect to the four gender orientation types [$F(3, 88) = 1.791$, $p = .155$]. Figure 4 illustrates the LPI-Self mean scores for each gender-orientation type.

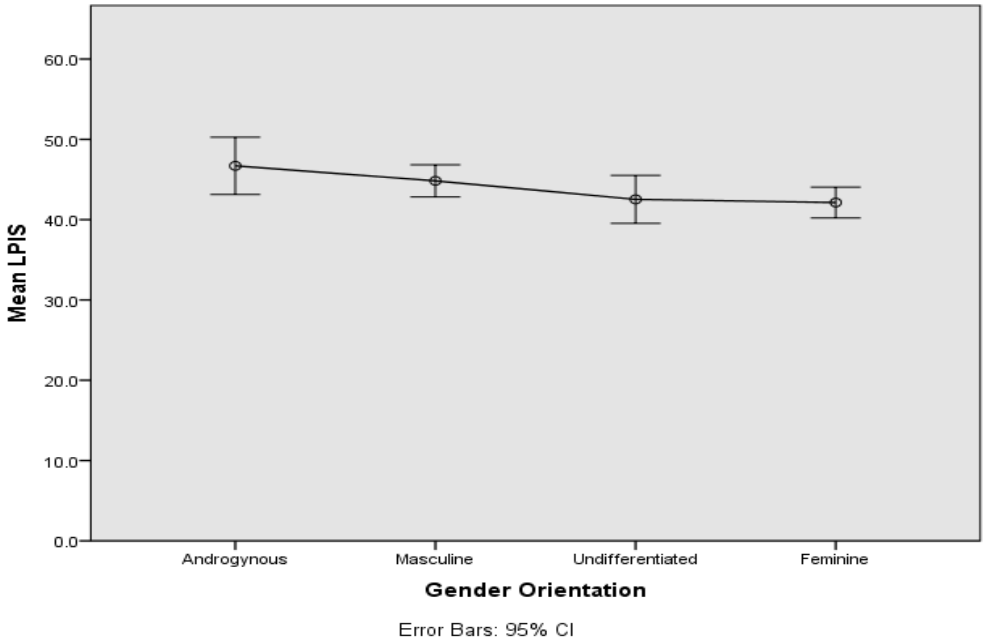

Figure 4. Gender-orientation type and LPI-Self mean scores.

Although the null hypothesis could not be rejected because no significant differences were found between the LPI-Self scores for any of the gender orientation types, the fact that 24 (52%) out of 46 female CPAs possessed a masculine orientation could not be ignored. Using a combination of masculinity and femininity scores determines the gender-orientation type an individual will possess. As a result, I performed further analysis to determine what variables influenced the LPI-Self score an individual could receive. I developed a stepwise multiple regression equation to identify control variables that would be strong predictors of LPI-Self scores. Control variables identified as strong predictors were gender, age, time spent working as a professional CPA, and masculinity and femininity scores. By using the SPSS software, the control variables showed the probability of *F* being < = .050 for the masculinity and femininity scores. Table 4 shows two predictor-combination models: Masculinity and femininity scores together and masculinity scores by themselves.

Table 4

Predictor-Combination Model Summary

					Change Statistics					
Model	*R*	*R* Square	Adjusted *R* Square	*SE* Estimate	*R* Square Change	*F* Change	*df*1	*df*2	Sig. *F* Change	Durbin-Watson
1	.339[a]	.115	.105	6.2136	.115	11.710	1	90	.001	
2	.405[b]	.164	.145	6.0741	.049	5.183	1	89	.025	2.351

a. Predictors: (Constant), Masculinity

b. Predictors: (Constant), Masculinity and Femininity

The *R* square for Model 1 is 12%, and for Model 2, it is 16%. The *R* square difference between the two models is 4.9%. Model 2 is a stronger predictor than Model 1 because of the masculinity-femininity score combination. Table 5 reflects the ANOVA

analysis for Model 2. The regression equation for Model 2 was significant with F (2, 89) = 8.719, $p < .0001$.

Table 5

ANOVA Results of Masculinity-Femininity Score Combination

	Model	Sum of Squares	*df*	Mean Square	*F*	Sig.
	Regression	643.335	2	321.667	8.719	.000[a]
2	Residual	3283.584	89	36.894		
	Total	3926.918	91			

a. Predictors: (Constant), masculinity and femininity scores

The coefficient for the model is presented in Table 6. The nonstandardized coefficient Beta indicated positive amounts. For Model 2, the masculinity score was the stronger predictor with 4.016: shared: $(.365)^2 = 13.3\%$, unique: $(.358)^2 = 12.8\%$. Femininity score was 2.496: shared: $(.235)^2 = 5.5\%$, unique: $(.221)^2 = 4.9\%$. The regression equation is as follows:

$$\text{Model 2 Equation: } Y = 4.016x_1 + 2.496x_2 + 11.698 + \varepsilon$$

Table 6

Coefficients for Masculinity and Femininity Model

		Nonstandardized Coefficients		Standardized Coefficients			Correlations		
	Model	Beta	*SE*	Beta	*t*	Sig.	Zero-order	Partial	Part
	(Constant)	11.698	8.030		1.457	.149			
2	Masculinity	4.016	1.087	.359	3.693	.000	.339	.365	.358
	Femininity	2.496	1.096	.222	2.277	.025	.189	.235	.221

Figure 5 shows a regression standardized residual, and Figure 6 shows a normal P-P plot of regression standardized residual of the LPI-Self as the dependent variable.

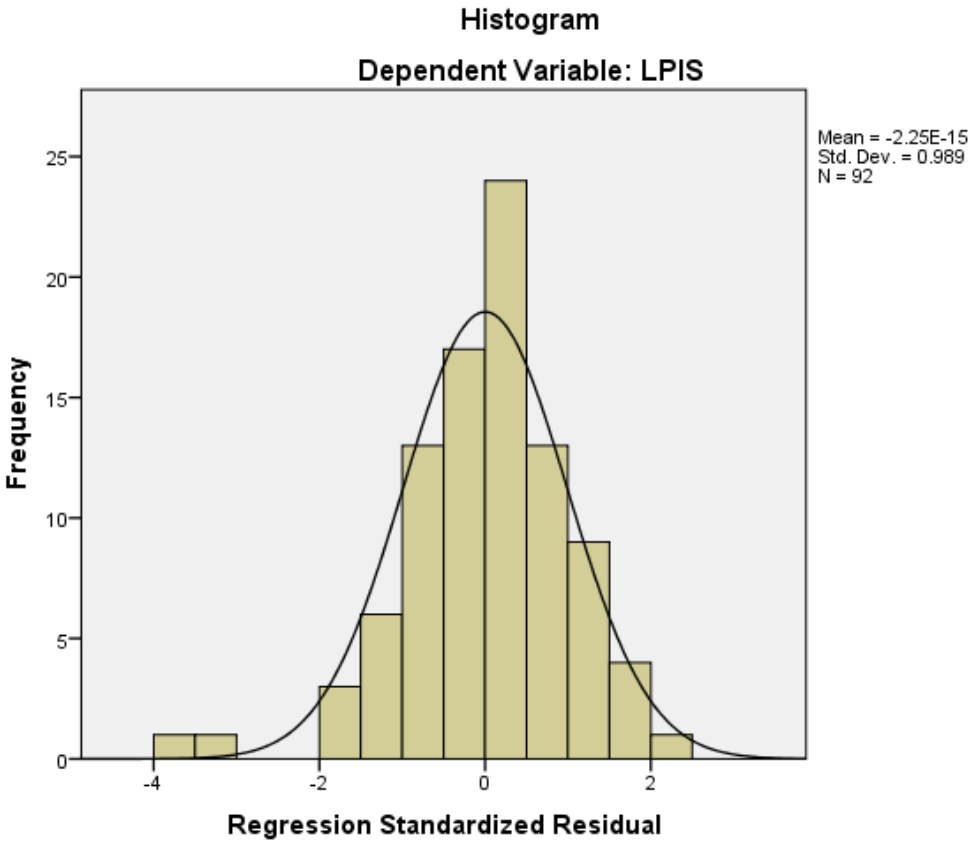

Figure 5. Regression standardized residual of LPI-Self.

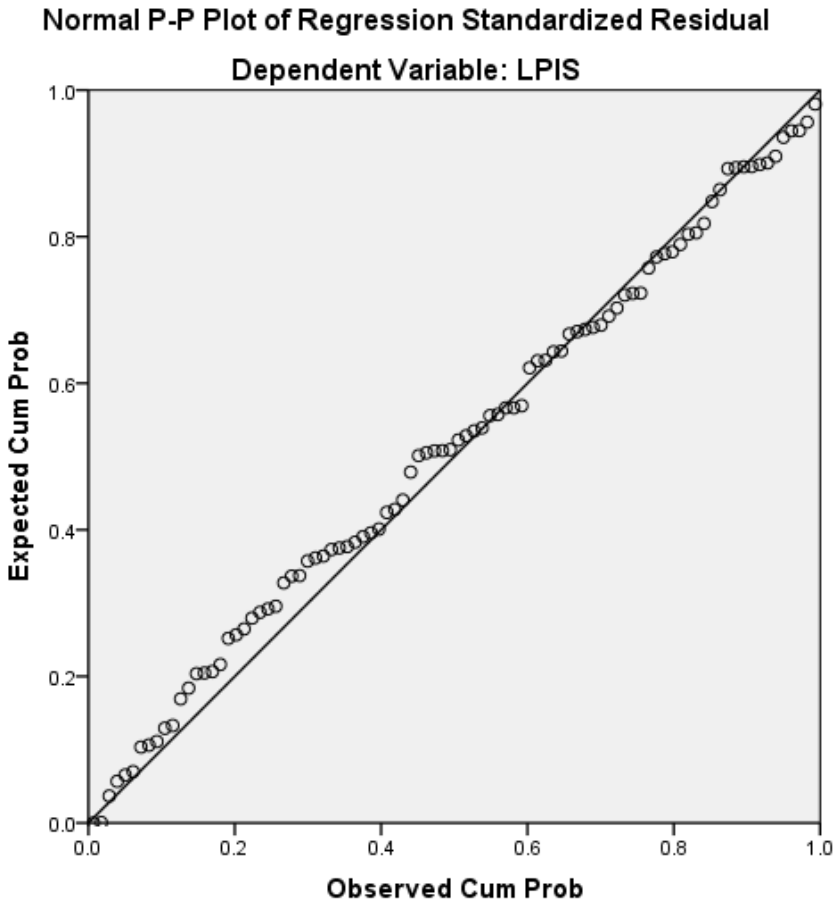

Figure 6. Normal P-P plot of regression standardized residual of LPI-Self.

The semipartial correlation coefficient is .365 ($t = 3.653$, $p < .0001$) for the masculinity score. This indicates a stronger effect for that predictor than for the femininity score whose semipartial is .235 ($t = 2.277$, $p < .05$). After accounting for gender, age, and time working as a professional CPA, significance testing supported a combination of masculinity and femininity scores as a significant predictor of perceived leadership scores. The combination of masculinity and femininity scores, however, can generate one of the four gender orientation types (masculinity, femininity, androgyny, or

nondifferentiation) a person could possess. The focus of Research Question 4 was to determine if there was a relationship between self-rated leadership-competency-practice scores and a specific type of gender orientation possessed by the CPA. The ANOVA result indicated no significant effect of the self-rated leadership-competency-practice scores at the $p < .05$ levels for the four gender orientation types [$F(3, 88) = 1.791$, $p = .155$]. The fact that 24 out of 46 female CPAs generated a masculine orientation (see Table 3) could not be ignored. Bem (1974) stated and Hancock et al. (2014) elaborated further that an individual with a high masculinity score and a low femininity score would have a masculine orientation. The stepwise multiple regression equation yielded significant results, indicating that the increase in the masculinity score was the best predictor of self-perceived leadership effectiveness. While it is true that the research design sought a significant effect in the ANOVA design, the stepwise multiple regression analysis tested the data in a similar way and did support the conclusion that higher masculinity scores, controlling for femininity scores, are the best predictor of self-rated leadership-competency-practice scores. Therefore, Null Hypothesis 4 was rejected and the alternate hypothesis was accepted instead, which stated that masculine gender orientation was correlated with the highest self-rated leadership-competency-practice scores.

Summary

The purpose of this quantitative survey study was to examine the differences between male and female CPAs and who were in leadership positions in a task-oriented environment regarding their self-rated leadership competency practice, service time, and

gender orientation. Recruitment of the sample started December 6, 2014, after I had received IRB approval to conduct the study on the previous day, and concluded April 20, 2015. During this period, $N = 92$ participants, consisting of 46 (50%) women and 46 (50%) men, participated in the data collected process, which involved completing two online assessments and a demographics profile form. The majority of the participants identified themselves as White/Caucasians with a bachelor's degree and between 50 and 64 years of age. The majority of the participants also worked in upper-management positions in the private industry. The mean for years-of-work experience was $M = 21.71$ years, and years of work experience ranged from 12 to 31 years.

I used hypothesis testing to answer the four research questions guiding the study. Independent samples *t* tests, Pearson correlation coefficients, ANOVA, and stepwise multiple regression analyes were conducted with the SPSS software. Null Hypothesis 1 postulated that there would be no difference in the self-rated leadership-competency-practice scores between male and female CPAs. The independent samples *t* test indicated no statistical significance with $t\ (90) = .34$ and $p = .74$. Null Hypothesis 1 was, therefore, accepted. Null Hypothesis 2 postulated that there would be no correlation between time spent working as a professional CPA and the masculinity score possessed by the CPA. Correlation analysis indicated a positive statistical significance between the variables with $r = .21$, $N = 92$, and $p = .024$. Null Hypothesis 2 was, therefore, rejected and the alternate hypothesis was accepted instead, which stated that a correlation existed between time spent working as a professional CPA and the masculinity score possessed by the CPA. Null Hypothesis 3 postulated that there would be no correlation between time spent

working as a professional CPA and the femininity score possessed by the CPA. Correlation analysis indicated no statistical significance between the variables with r = .047, N = 92, and p = .329. Null Hypothesis 3 was, therefore, accepted.

Null Hypothesis 4 postulated that there would be no differences between self-rated leadership-competency-practice scores with respect to the four types of gender orientation (i.e., masculinity, femininity, androgyny, and nondifferentiation) reported by the CPAs. ANOVA analysis indicated no significant differences between the competency practice scores with respect to the four types of gender orientation. The fact that 24 out of the 46 female CPAs generated a masculine orientation (see Table 3), however, could not be ignored. Bem (1974) stated and Hancock et al. (2014) elaborated further that an individual with a high masculinity score and a low femininity score would have a masculine orientation. In view of the fact that an individual can possess masculine and feminine traits in various proportions, I sought to refine the analysis through stepwise multiple regression. The addition of stepwise multiple regression analysis revealed that the masculinity score did, indeed, have an influence on the LPI-Self score an individual could achieve. The semipartial correlation coefficient was .365 (t = 3.653, p < .0001) for the masculinity score, which indicated a stronger predictor effect than the one received for the femininity score with a semipartial correlation coefficient of .235 (t = 2.277, p < .05). After accounting for gender, age, and time spent working as a professional CPA, significance testing supported a combination of masculinity and femininity scores as a significant predictor of perceived leadership scores. Various combinations of masculinity and femininity scores could generate one of the four gender orientations. The focus of

Research Question 4 was to determine if there was a relationship between the self-rated leadership-competency-practice score and the type of gender orientation possessed by the CPA. While it is true that the research design sought a significant effect with the ANOVA design, the stepwise multiple regression analysis tested the data in a similar way and did support the conclusion that higher masculinity scores, controlling for femininity scores, were the best predictor of self-rated leadership-competency-practice scores. Null Hypothesis 4 was, therefore, rejected on the basis of the stepwise multiple regression analysis. The self-rated leadership-competency-practice score was significantly higher in CPAs rating high on masculinity orientation.

The statistical analysis of the empirical data presented in this chapter supported rejection of two of the four null hypotheses tested. These findings require further interpretation, discussion, and conclusions, along with an examination of their implications for social change. These considerations, as well as limitations of the study and recommendations for future research are presented in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative survey study was to examine the differences, if any, between a sample of male CPAs and female CPAs working in leadership positions in a highly task-oriented environment regarding self-rated leadership competency practice, service time, and gender orientation. Knowledge can be gained from the results of this study about the preferences in professional behavior exhibited by its members and why the percentage of women in this profession is relatively low. In this final chapter, I present an interpretation of the research findings related in Chapter 4. I describe solutions employed to countermand limitations related to this study, and I offer recommendations for further research on this topic. The chapter concludes with a description of positive social change as a result of these findings and how this change could benefit individuals and society at large.

Interpretation of Findings

Eagly and Karau (2002) stated that women need to make sure that their behaviors are congruent with the role expectations in their positions so as not to violate the tenets of the role congruity theory. The current literature exemplified the commonly held organizational belief that masculine behavior and leadership emergence are linked (Ayman & Korabik, 2010). As a result, a transformational transition in the gender orientation of female leaders appeared to be occurring over the past few years. Prior research has shown that the length of time female leaders were functioning in a highly task-oriented environment could result in a shift in their gender orientation, which allowed them to maintain a high level of competency (Baucom et al., 1985; Muhr, 2011;

Sitingiene & Stukaite, 2014). As related in Chapter 2, Kark et al. (2012) examined the effects of leaders' sex and gender-role identity on leadership effectiveness. Kark et al. found that androgynous leaders received higher ratings for their competency as transformational leaders and higher ratings for leadership in terms of personal identification with the leader in cross-gender relationships. Through self-corrective adjustments based on feedback from prior performance, women who displayed masculine behavior along with some traditional feminine behaviors had a better chance of steering clear of violating the tenets of the role congruity theory (Ayman & Korabik, 2010; Bandura, 1977; Bem, 1974; Carver et al., 2013; Eagly & Karau, 2002).

The transformational shifts in gender orientation of female leaders continued to occur as environments became more task oriented in nature. This was evident in the results of the analyses performed to answer the four research questions guiding this study and presented in Chapter 4. Female CPAs appeared to possess the ability to employ a combination of masculine and feminine traits in various proportions to maintain a high level of competency equal to that of male CPAs. A closer analysis of the results of this study revealed that an increase in the masculinity score was the best predictor of a high self-perceived leadership effectiveness score. Bem (1974) stated and Hancock et al. (2014) elaborated further that an individual with a high masculinity score and a low femininity score would have a masculine gender orientation. Of the 46 female CPAs in this study, 26 possessed a masculine orientation (see Table 3). From this study, it can be concluded that the gender orientation of female leaders will become more masculine in order for them to maintain the same level of competency as their male counterparts. The

current literature does not address this transformational shift in gender orientation within female leaders, which presents a serious gap in the professional literature. It is this gap in the literature that I sought to close with this study. Four research questions were posed to determine whether relational links existed between self-rated leadership-competency-practice scores, service time, and gender orientation in female leaders operating in a demanding, task-oriented profession. CPAs were the target population for this study because all individuals must meet the same rigorous requirements to hold certification. CPAs also work in environments that are usually highly task oriented in nature, and others tend to perceive them as leaders.

In Chapter 4, I presented the statistical results for each of the four research questions. Research Question 1 asked the following: Do the self-rated leadership-competency-practice scores differ between male and female CPAs? The independent variable was gender, and the dependent variable was leadership competency practice (self-rated). The mean of the leadership competency practice scores for men was M = 44.73 (SD = 6.42), and for women it was M = 44.27 (SD = 6.78), as shown in Table 2. The independent samples t test indicated that no statistical significance existed with t (90) = .34 and p = .74. Null Hypothesis 1 was, therefore, accepted, meaning that no difference existed between male CPAs and female CPAs with respect to their self-rated leadership-competency-practice scores. The statistical analysis that upheld Null Hypothesis 1 also provided evidence that female CPAs were able to overcome the two prejudices pointed out by the role congruity theory (Eagly & Karau, 2002), which female leaders had difficulty in overcoming in the past. The results indicated that female CPAs were

developing the masculine traits needed for leadership to produce similar self-rated leadership-competency-practice scores as male CPAs did. The developing masculine traits exhibited, together with some traditional feminine traits, appeared to have enabled these female CPAs to project leadership competency without violating the tenets of the role congruity theory in the eyes of their followers (Eagly & Karau, 2002).

Research Questions 2 and 3 addressed the relationship, if any, between service time as a professional CPA and masculine or feminine gender orientation, respectively. I performed a statistical analysis using the Pearson correlation coefficient. While Null Hypothesis 3 had to be accepted, stating that no correlation existed between time spent as a professional CPA and femininity orientation ($r = .047$, $N = 92$, $p = .329$), Null Hypotheses 2 had to be rejected and the alternative hypothesis accepted, which stated that a correlation existed between time spent as a professional CPA and masculine gender orientation ($r = .206$, $N = 92$, $p = .024$).

Of the $N = 92$ participants, $n = 46$ were women. Of these 46 female participants, 24 (52%) had a masculine orientation, 10 (22%) had an androgynous orientation, eight (17%) had an undifferentiated orientation, and four (9%) had a feminine orientation (see Table 3). The rejection of Null Hypothesis 2 provided support for the claim that female leaders did, over time, experience a shift in their gender orientation toward masculinity. Various factors such as environment, time, and social learning conditions can influence the gender orientation of an individual (Lin & Billingham, 2014). The analysis results for Research Questions 2 and 3 indicated that female CPAs were adapting their behaviors based on feedback from prior performance to cope with the environment in which they

had been operating for some time. Although the majority of women participants had a masculine orientation, the other types of gender orientation were also represented. Viewing the results of Hypotheses 2 and 3 together lent support to Bandura's (1977) social learning theory in that female CPAs were adjusting their behavior based on feedback they were receiving from their work environment. An individual's gender orientation is not a fixed quantity. It can change under the influence of a number of factors in the work environment (Muhr, 2011).

Research Question 4 asked the following: Does the self-rated leadership-competency-practice score relate to the type of gender orientation possessed by the CPA? Originally, I had selected ANOVA for hypothesis testing. Statistical results of the ANOVA indicated that no significant relationships existed between the self-rated leadership-competency-practice scores and any of the four gender orientation types [$F(3,88) = 1.791$, $p = .155$]. The analysis of Null Hypothesis 1 with an independent samples *t* test, however, indicated that there was no difference between male CPAs and female CPAs with respect to self-rated leadership-competency-practice scores, and 24 out of 46 female CPAs had a masculine gender orientation (see Table 3). These results seemed to warrant that further analysis be undertaken.

To determine which control variables were significant in predicting self-rated leadership-competency-practice scores, I developed a stepwise multiple regression equation. Control variables included gender, age, service time, and masculinity and femininity scores, while the self-rated leadership-competency-practice score was the dependent variable. The stepwise multiple regression analysis indicated that a

combination of masculinity and femininity scores was the better predictor of self-rated leadership-competency-practice scores (see Tables 4 and 5), with the masculinity score being significant (see Table 6). The combination, in varying proportions, of masculinity and femininity scores would generate one of the four gender orientation types: masculinity, femininity, androgyny, or nondifferentiation. Bem (1974) stated and Hancock et al. (2014) elaborated further that an individual with a high masculinity score and a low femininity score would have a masculine orientation. The stepwise multiple regression equation showed the masculinity score to be significant in predicting self-rated leadership-competency-practice scores, which indicated that a relationship did, in fact, exist between masculinity orientation and self-rated leadership competency practice. Null Hypothesis 4 was rejected on the basis of the results obtained with the stepwise multiple regression analysis and supported by the results for Hypothesis 1. The self-rated leadership-competency-practice score will be significantly higher with masculinity orientation than with any of the other three types of gender orientation.

Overall, the analysis of the four null hypotheses indicated that female CPAs possessed the necessary traits for holding leadership positions comparable to those of male CPAs. Eagly and Karau (2002) pointed out two prejudices female leaders must face. The first prejudice involves variability in how the term *leadership role* is defined. The more masculine the definition of leadership role, the more it will diverge from a woman's role in life in the eyes of the followers. The second prejudice focuses on the leadership behavior the female leader actually displays because some behaviors are considered less desirable in women than in men in the views of society (Eagly & Karau, 2002).

Bandura's (1977) social learning theory can explain how the female CPAs were able to overcome the two prejudices associated with role congruity (Eagly & Karau, 2002). To maintain the same level of leadership competency as male CPAs, adjustments in gender orientation were taking place over time within the female CPAs. The blending of masculine and feminine traits, however, needed to be addressed with respect to specific work environments or situations that were not affecting female CPAs alone, but also their male counterparts. From the results of the analysis, I inferred that gender orientation is not a static feature; female leaders can draw on both masculine and feminine traits as necessary for addressing the changing needs of their work environment.

Limitations of the Study

Several limitations pertained to this study, which are described in Chapter 1. The first limitation involved sample selection and the difficulty in achieving the desired sample size. Sample selection took place in a specific area in the Eastern United States. Originally, the goal was to identify 200 potential participants and aim for a sample size of 176, or 6.7% of a population of 2,635. The error rate was set at 6%, confidence level at 90%, and response distribution rate at 50%. To overcome inadequate response to the invitation due to heavy workloads and demands on the CPAs' time, I had to expand the sampling frame and invite additional potential participants in other areas of the region. I expanded the population size to 3,803 and reduced the sample size to 100. The change in the population size actually produced a sample size of 129 (3.4%), which resulted in an error rate of 8.48%, confidence level of 95%, and response distribution rate of 71%.

The second limitation involved the use of an online assessment instrument to produce the leadership self-rated practice scores. The assessment has two versions: Self and Observer. I used the LPI-Self version of the Leadership Practice Inventory for this study (Statistics Solution, 2013). The assessment developer had already addressed this limitation by performing empirical testing on both versions to determine which practices in the five practice areas measured by each version would produce significant differences, if any. Empirical tests of the two versions revealed no statistically significant differences between the two versions with respect to *challenging* and *modeling* practices. The mean differences for *inspiring*, *enabling*, and *encouraging* had little practical significance; they merely showed that the leaders viewed themselves as engaging slightly less often in *inspiring* and *encouraging*, and slightly more in *enabling* practices than did their observers. As for assessment validity, the scores related significantly to other measures of leadership.

The third limitation focused on a group of professional women functioning in a specific industry within a particular geographical area of the United States. Female CPAs, who were the professionals selected for this study, represent 30% of the entire CPA population in the United States (Catalyst, 2013). The low number of female CPAs is an inherent limitation associated with this profession. To address this limitation, I used disproportionate stratified sampling to ensure equal numbers of female CPAs and male CPAs, drawn from a larger geographical area than originally envisioned.

The last limitation to consider was potential researcher bias because I am also a licensed CPA in the state from which the participants were recruited. The selected

research design was intended to minimize this potential limitation. I used a quantitative survey design with two online assessment instruments for collecting participants' responses. The collected data were analyzing with the use of independent samples *t* tests, Pearson correlation coefficients, ANOVA, and stepwise multiple regression analysis. I could conceivably still make faulty inferences or draw inaccurate conclusions from the results of the statistical analyses. To address this limitation, I called on a statistician to verify the statistical analyses and my inferences and conclusions. A confidentiality agreement, signed by the statistician prior to reviewing the collected data, is presented in Appendix C.

Recommendations

The results of this study indicated that female CPAs were overcoming the two prejudices pointed out in the role congruity theory (Eagly & Karau, 2002) by displaying behaviors explained by Bandura's social learning theory (1977). Eagly and Karau (2002) found two prejudices female leaders had to overcome. The first prejudice involves the variability in defining the term *leadership role*. The second prejudice focuses on the actual leadership behavior of women because some behaviors are considered less desirable in women than in men. To maintain the same level of leadership competency as male CPAs, female CPAs made adjustments in their gender orientation over time. The results of the study provide support for a link between masculine behavior and leadership emergence (Foti & Hauenstein, 2007). In researching the answers to Research Question 4, it became apparent that traditionally feminine behavioral traits also needed to be part of the relationship between gender orientation and leadership competency of female

CPAs. The results indicated that changes in the work environment could affect the proportion of masculine and feminine traits female CPAs are using in carrying out their leadership roles. As stated in Chapter 2, the transformational leadership style, which seems to be replacing the transactional leadership style at present, encourages leaders to embrace masculine and feminine qualities in order to be charismatic, creative, and inspiring to their followers. This same blending of behavioral traits is also occurring in male CPAs, so they too will have an effective transformational leadership style.

Another consideration is that culture, scope of leadership responsibilities, and climate attributes can vary from state to state and can affect the responses of the selected sample. The sample of CPAs selected for this study came from a specific area in the Eastern United States; the results of the study might, therefore, not be generalizable to other areas of the country. This study should be replicated with other populations and in other areas of the country. I recommend that more research be undertaken in other geographical areas but focusing on similar target populations among licensed CPAs.

Another study should be considered with CPAs who have been licensed for less than 5 years. A criterion for participation is this study was that the CPAs had to be licensed for 5 years or longer. With the higher educational requirements, incorporation of leadership skills development into the curriculum, and implementation of mentoring and monitoring programs in today's accounting firms, the younger generation of CPAs may be better equipped to handle the demands of the profession in the 21st century (Acker, 2014; Dow, 2014; Female Leaders, 2013; Lindawati & Smark, 2015;Vien, 2015). The profession recognizes that, in order for female CPAs to be successful in leadership roles,

programs focusing on career building, networking-skills development, and mentoring are essential (Schulz & Enslin, 2014; Vien, 2015; Virick & Greer, 2012; Waymon, Alphonso, & Bradley, 2014; Wilson, 2015). A PricewaterhouseCoopers (PwC) report, titled *The Female Millennial: New Era of Talent*, stated that women are ambitious and that 53% of them named opportunities for advancement as one of their top goals when considering an employer (Vien, 2015b). The new generation of women understands that, to be successful, they must demonstrate that they have the capability to create an understanding environment, facilitate cooperation among subordinates, and handle conflictual situations (Rink, Ryan, & Stoker, 2013). These women are driven, and they are looking for guidance from their employers to reach their goal of advancing to leadership positions (Ward, Popson, & DiPaolo, 2010). According to the Institute for Women's Policy Research, women in the accounting profession are more highly educated; 36% of these women have college degrees versus 28% of the men (Vien, 2015b). To replicate the results of the present study with this new generation of CPAs, I recommend that further research be conducted with CPAs licensed for less than 5 years.

Another area of research should involves other highly task-oriented environments or professions in which women are functioning to determine if similar transformational processes in gender orientation are taking place. As indicated by the results of this study, female CPAs were adapting their behavior based on feedback received from the environment over a period of time. If similar transformations are occurring with women in other task-oriented environments or professions, further research could explore how these women are overcoming the prejudices identified by the role congruity theory (Eagly

& Karau, 2002) and how they manage to maintain the same level of competency as their male counterparts. Leadership development programs are incorporated into current college curricula. The primary focus of these programs is to provide students with an opportunity to struggle with meaningful leadership challenges while being mentored by adult staff (Fischer, Wielkiewicz, Stelzner, Overland, & Meuwissen, 2015). These programs fuel creativity, promote awareness, and enhance reasoning and coping skills (Blackmore, 2014; Johnson, 2012), while, at the same time, emphasizing to students that collaboration is an essential ingredient for developing an authentic leadership style (McNae, 2010). As previously noted, over 52% of college graduates in the United States are women (United States Census Bureau, 2015a). Many in this new generation of women function in other task-oriented environments or professions, similar to the environments of female CPAs, and they may possess similar emotional sensitivity and interpersonal skills—traits that are highly valued and needed in the market place, especially during times of crisis (Cook & Glass, 2014a, 2014b). Further research is recommended to determine if replication of the results of this study might occur with other women working in other task-oriented environments or professions.

Last, a reverse comparison study of male leaders in a people-orientated environment or profession, which is more in line with feminine role congruity, would be an interesting topic for future research. Such an investigation could reveal if a similar transformational shift in gender orientation occurs with men in such positions of leadership. Gender tends to determine the role and behavior expectations people have in a particular culture and at specific times (Carver et al., 2013). Yet, men, just like women,

can possess variations in type of gender orientation. Of the 46 men participating in this study, 10 were androgynous, and five had a feminine orientation (see Table 3 for complete data). A reverse shift compared to the gender orientation transformation observed in CPAs in leadership positions might be occurring with male leaders in people-orientated environments or professions in order for them to maintain a high level of leadership competency considered suitable for their work environments.

Implications

> Positive social change, as defined by Walden University (2012), is a deliberate process of creating and applying ideas, strategies, and actions to promote the worth, dignity, and development of individuals, communities, organizations, institutions, cultures, and societies. . . . Positive social change results in the improvement of human and social conditions. (p. 1)

The results of this study are intended to prompt the development of strategies to assist women in fostering behavioral traits that are necessary to maintain the same level of leadership competency as men do. The interpretation drawn from the results of this study suggested that women in a task-oriented environment are developing, over time, three domains of competency: technical skills, purely cognitive abilities, and abilities in the emotional-intelligence range (Charnis & Goleman, 2001). These skills are necessary to maintain a high level of leadership competency in both men and women. In addition, masculine traits such as self-reliance, independence, and assertiveness will emerge when one works in a task-oriented environment (Berkery et al., 2013). At the same time, it is necessary to display some traditionally feminine traits so as not to violate the tenets of the

role congruity theory. Women moving into leadership positions need to understand why developing and blending masculine and feminine traits is crucial if they wish to succeed as leaders. Furthermore, women aspiring to leadership positions must be made aware of the importance of transformational leadership and the transformations that are likely to occur in their gender orientation in order to make them successful transformational leaders. These potential leaders among female CPAs need to be receptive and rise to the challenges that will help them to develop the necessary new traits. This knowledge can also benefit women in other professions who wish to move into leadership roles. Women whose gender orientation has experienced a transformational shift may find that they are able to excel in other leadership roles outside of their normal profession, which could be a tremendous contribution to society as a whole.

Knowing that a link exists between masculine gender orientation and the emergence of leadership will also benefit future generations. Society has tried for a long time to discourage the development of masculine traits in young girls after the age of 12 years (Amit et al., 2009). With the results of this study and the example of female leaders who have made the transformational shift in gender orientation, society's resistance to masculine-trait development in young girls after the age of 12 years should decrease. Future generations of young women can begin to experience situations that will enhance self-perception, strengthen self-efficacy and the ability to influence people, and increase their knowledge about personal leadership (Amit et al., 2009). The two prejudices identified in the role congruity theory (Eagly & Karau, 2002) will no longer be an obstacle to future generations of women because they will have the ability to develop

new traits through social learning (Bandura, 1977), which is essential for maintaining a high level of leadership competency.

For change to occur, society must embrace and encourage the development of masculine traits in women to enable them to assume future leadership roles. This embracing may be more difficult in some societies than in others because of a strict belief system that defines what roles and careers men and women can hold within that society. Global influences, however, can ease societal restrictions. Dubai, one of the most modern and liberal societies in the Arab world, is expected to exhibit workplace characteristics similar to the rest of the world and be less influenced by the traditional Arab culture, dictating the type of work women can do, observed Sikdar and Mitra (2012). The authors investigated the emergence of female leaders in organizations in the United Arab Emirates (UAE) by going beyond biological sex-role biases to identify relationships between leadership and gender orientation. Their findings revealed that gender orientation influenced leadership intention and behavior more than individual biological sex and related traditions did. Female leaders who had a higher proportion of masculine traits and a lower proportion of feminine traits were found to be successful leaders in the UAE (Sikdar & Mitra, 2012). The same blending of masculine and feminine traits that occurred in female leaders in Dubai was also observed in the female CPAs studied in this research. To be successful leaders, women are adjusting their behavior to cope with the changing work environments in which they must function.

Conclusion

The purpose of this quantitative survey study was to examine the differences, if any, between male CPAs and female CPAs in leadership positions in a highly task-oriented environment with respect to self-rated leadership competency practice, service time, and gender orientation. The intention for this study was to close a gap in the professional literature by providing additional empirical evidence about female CPAs who were able to overcome two common prejudices identified in the role congruity theory (Eagly & Karau, 2002). Successful female leaders were accomplishing this by engaging in transformational shifts in their gender orientation, as explained by Bandura's social learning theory (1977). Altering their gender orientation over time allowed them to maintain the same level of leadership competency as male CPAs do. The results obtained through statistical testing of the four null hypotheses to answer the research questions posed for the study can be summarized as follows:

- There were no differences between male CPAs and female CPAs with respect to self-rated leadership-competency-practice scores;
- a correlation existed between time spent as a professional CPA and the masculinity score of the CPA;
- no correlation existed between time spent as a professional CPA and the femininity score of the CPA; and
- the self-rated leadership-competency-practice score is significantly higher with masculine gender orientation than with any of the three other types of gender orientation possessed by the CPA.

Conclusions drawn from the results of the study suggested that female CPAs in a task-oriented environment are developing, over time, three crucial domains of competency: technical skills, purely cognitive abilities, and abilities in the emotional-intelligence range (Charnis & Goleman, 2001), all of which are needed to maintain a high level of leadership competency in both women and men. Future research is needed to determine if the results of this study can be replicated focusing on a similar target population in other geographical areas of the United States. Studies should also be undertaken with individuals who have been licensed for less than 5 years and whose more recent educational preparation may have included specific leadership skills development and training. Women in other task-oriented environments or professions who are in leadership positions should be studied with respect to potential transformational shifts in their gender orientation. An interesting field of study might be person-orientated environments or professions with men in leadership positions because such environments were, traditionally, considered women's work, with a need for feminine behavioral traits. A reverse comparison could be conducted to determine if a similar transformational shift takes place in male leaders with respect to their gender orientation toward greater femininity.

This study provided insight into the transformational shift in gender orientation occurring, over time, in female leaders who were functioning in a task-oriented environment. These female leaders were able to overcome the two prejudices identified in the role congruity theory (Eagly & Karau, 2002). The female CPAs knew that, in order to maintain a level of competency equal to that of male CPAs, modification of their

leadership behavior would have to take place. This shift in behavior, in response to feedback from the environment and the self-monitoring capacity of these female leaders can be explained with Bandura's (1977) social learning theory. The number of women moving into leadership positions will increase in the future if society allows girls to develop the necessary masculine traits after the age of 12 years. Cultivation of leadership behavior takes time, and for society's benefit, the process must start early.

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Appendix A: E-mail Invitation

E-MAIL INVITATION

CPA's Name

You are invited to take part in a research study to determine the relationships between leadership competency practice of the practitioner, service time within the profession, and gender orientation within a group of practitioners. The researcher is inviting certified public accountants (CPAs) who have been licensed for 5 years or more to participate in the study.

This study is being conducted by a researcher named Delores C. King, who is a doctoral student at Walden University. You may already know the researcher as a CPA located in this area, but this study is separate from that role.

Background Information:
The purpose of this study is to examine the differences between a group of CPA men and CPA women who are in leadership positions regarding leadership competency practice (self-rated), service time, and gender orientation in a task-oriented environment.

Procedures:
If you agree to be in this study, you will be asked to:

- Complete and return to the researcher the attached Participant Demographics Profile Form , which will require all of the following information to be completed: e-mail address, industry work field type, job position, time spent in the accounting profession, other certifications held, and 11 self-efficacy questions.
- Upon receipt of your completed demographics profile, two e-mails with an ID code, instead of your name, will be e-mailed to you, which contain links to two secure Websites that contain two online surveys for your completion.
- The two online surveys to complete are:
    - The LPI-Self version of the Leadership Practices Inventory (LPI), which measures the leadership competency of each participant. The survey consist of 61 questions; estimated completion time is 15-30 minutes. This survey allows you to save your answers, exit the survey, and return to complete the remaining portion of the survey at a later time. All questions must be answered in order to complete the assessment. If you start the survey and want to terminate it, click on the "cancel" button to terminate the survey. No data will be saved.
    - The Bem Sex-Role Inventory (BSRI) measures the gender orientation of each participant. The survey consist of 30 questions with an estimated completion time of 10-15 minutes. This survey must be completed in one sitting. If you start the survey and want to terminate it, closing the Web page will terminate the survey. No data will be saved.

- For each Website, you will have to login using your e-mail address as listed on your Demographics Profile Form and create a password.
- No follow-up procedures will be required once the online surveys are completed.
- An independent statistician will be used by the researcher to verify study results. A signed confidentiality agreement from the statistician is attached.
- Survey and study results can be requested of researcher by e-mail at the conclusion of the study. Estimated completion time of study is May, 2015.

Here are some sample questions from both surveys:

- From the LPI-Self, using a 10-point Likert response scale, provide responses to the following statements:
    - I set a personal example of what I expect of others
    - I talk about future trends that will influence how our work gets done
    - I describe a compelling image of what our future could be like
- From the BSRI, using a 7-point Likert response scale, provide responses to the following statements about yourself:
    - Self-reliant
    - Make decisions easily
    - Strong personality
    - Willing to take a stand

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. If you decide to join the study now, you can still change your mind later. You may withdraw at any time.

Risks and Benefits of Being in the Study:
Being in this study will not pose risks to your safety or well-being. The potential benefit from the study is that it will help in determining what adjustments should be made to current educational curricula in order to teach and strengthen specific skills needed by future CPA candidates. Further, knowing the gender orientation of professional CPAs and their leadership competency practice score can provide insight into what adjustments are necessary to enhance your own ability as a leader within the profession.

Payment:
Participants for this study will not receive any compensation for participating in the study. However, each participant does have the option of requesting from researcher by e-mail the results of the study and their surveys at the conclusion of the study.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the

study reports. Data will be stored in a secure location and kept for a period of at least 5 years after completion of the study, as required by the university.

Statement of Consent:
If you would like to participate in this study, please complete the attached Demographics profile Form and return by *(Date)* via e-mail (xxxx@waldenu.edu). By returning the completed demographic profile, you are providing an informed consent that you have read the above information, you feel you understand the study well enough to make a decision to be involved, and you agree to the terms described above.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via e-mail (xxxx@waldenu.edu) or phone (xx-xxx-xxx). If you want to talk privately about your rights as a participant, you may call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is xxx-xxx-xxx. Walden University's approval number for this study is **IRB will enter approval number here** and it expires on **IRB will enter expiration date.**

Thank you.

Delores C. King
Doctoral Student
Walden University

Appendix B: Participant Demographics Profile Form

PARTICIPANT DEMOGRAPHICS PROFILE FORM

Please complete all questions listed below. Also provide the e-mail address at which you want to receive e-mails containing the access links for the two surveys. Thank you.

E-mail: _____

Questions: (For Questions 1 through 7, indicate an "**X**" for the answer that is most appropriate)

1. What is your gender? ___Male ____ Female

2. What is your age?
   ___ Less than 30 years old
   ___ 30-49 years old
   ___ 50-64 years old
   ___ 65 years and over

3. What is the highest level of education you have completed?
   __ Bachelor's degree
   __ Master's degree
   __ Doctoral degree
   __ Professional degree (MD, JD, other)

4. How would you classify yourself?
   __ Arab __ Asian/Pacific Islander __ Black __Caucasian/White
   __ Hispanic __ Indigenous or Aboriginal __ Latino __ Multiracial
   __Would rather not say __ Other: _____

5. How long have you been a certified public accountant? _____ years

6. What industry do you work in?
   __ Public sector __ Private sector
   __ Governmental sector __ Not-for-profit sector

7. Which of the following best describes your role within your work industry?
   __ Upper management __ Middle management __ Supervisor
   __ Staff __ Consultant __ Educator
   __ Researcher __ Other: _____

8. What other certifications do you hold? Please list below.

Certification	Granting Organization	Year Received

9. For each statement listed below, check in the column that best describes you.

	Not at All	Rarely	Some times	Often	Very Often
A. I tend to do what I think is expected of me, rather than what I believe to be "right."					
B. I handle new situations with relative comfort and ease.					
c. If something looks difficult, I avoid doing it.					
D. I keep trying, even after others have given up.					
E. If I work hard to solve a problem, I'll find the answer.					
F. I achieve the goals I set for myself.					
G. When I face difficulty, I feel hopeless and negative.					
H. I relate to people who work very hard, and still don't accomplish their goals.					
I. I need to experience success early in a process, or I won't continue.					
J. When I overcome an obstacle, I think about the lessons I've learned.					
K. I believe that if I work hard, I'll achieve my goals.					

Appendix C: Confidentiality Agreement

Leadership Competency Practices, Service Time, and Gender Orientation Relationships Research Study

CONFIDENTIALITY AGREEMENT

Name of statistician reviewing the study: Dean Frost, Ph.D.

During the course of my activity in collecting data for this research, titled "Determine the relationships between leadership competency practice, service time, and gender orientation of a group of Certified Public Accountants," I will have access to information that is confidential and should not be disclosed. I acknowledge that the information must remain confidential and that improper disclosure of confidential information could be damaging to the participant.

By signing this Confidentiality Agreement I acknowledge and agree that

1. I will not disclose or discuss any confidential information with others, including friends or family.
2. I will not in any way divulge, copy, release, sell, loan, alter, or destroy any confidential information except as properly authorized.
3. I will not discuss confidential information where others can overhear the conversation. I understand that it is not acceptable to discuss confidential information even if the participant's name is not used.
4. I will not make any unauthorized transmissions, inquiries, modification, or purging of confidential information.
5. I agree that my obligations under this agreement will continue after termination of the job that I will perform.
6. I understand that violation of this agreement will have legal implications.
7. I will only access or use systems or devices I'm officially authorized to access, and I will not demonstrate the operation or function of systems or devices to unauthorized individuals.

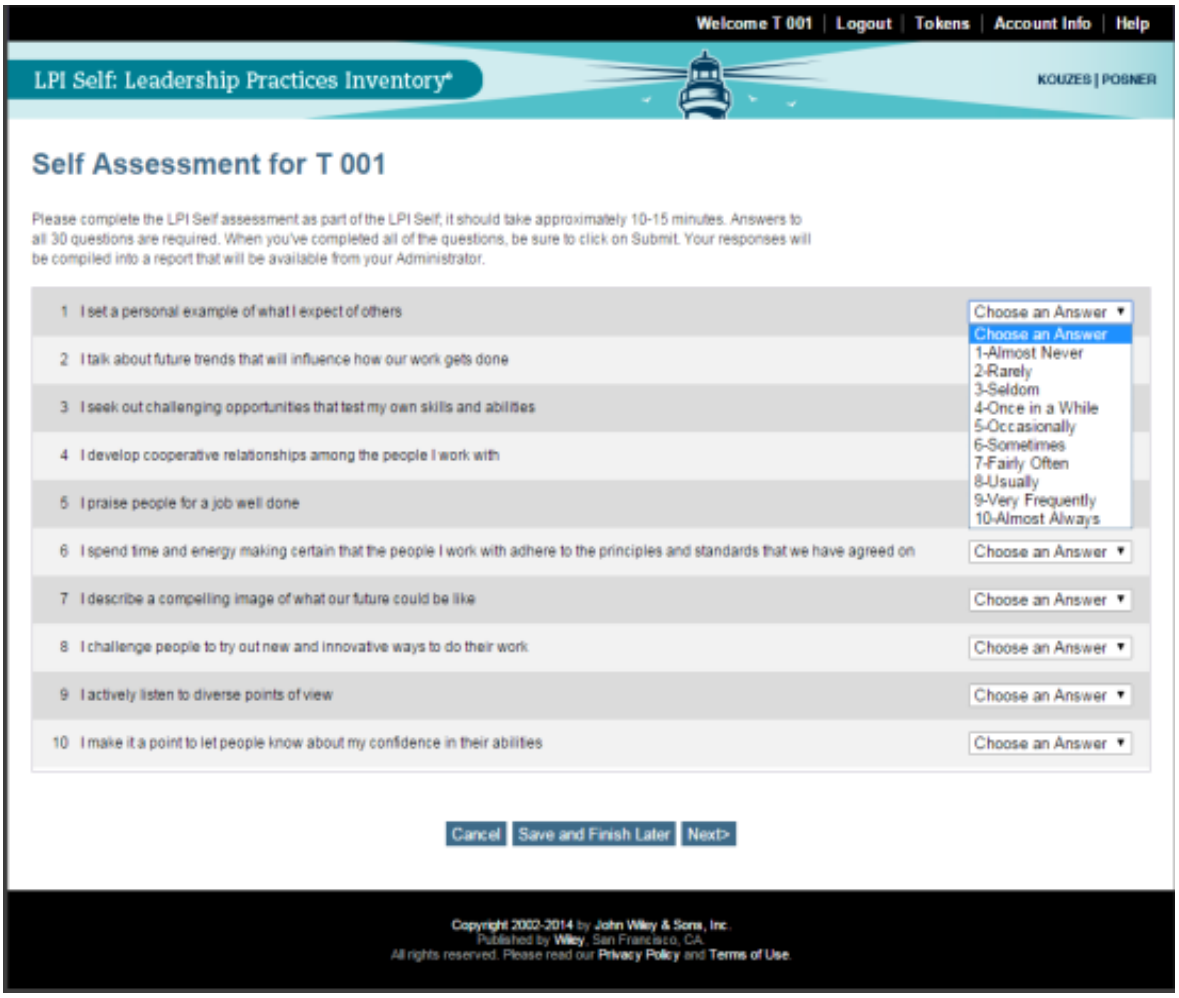
By signing this document, I acknowledge that I have read the agreement, and I agree to comply with all the terms and conditions stated above.

Signature: *Dean Frost* **Date:** August 29, 2014

(Copy of agreement submitted to IRB contains original signature from Dean Frost, PhD)

Appendix D: LPI Self: Leadership Practice Inventory

Screenshot of the online version



Appendix E: Bem Sex Role Inventory Online Version

Screenshot of the online version