Examining Supervisor Emotional Intelligence and Employee Organizational

Commitment

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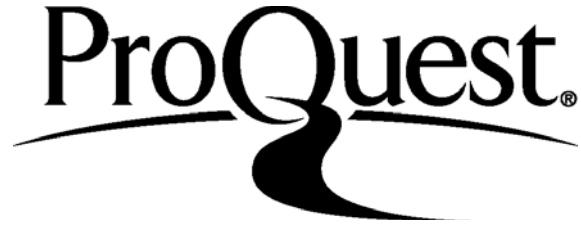KAREN J. SOOLEY

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Abstract

The organizational commitment of U.S. federal employees is low and has steadily

declined since 2008. Leadership can play a role in enhancing the organizational

commitment of employees. The problem that was addressed in the research was the

limited information regarding the relationship between the organizational commitment of

federal employees and the perceived emotional intelligence of their supervisors. Given

this research problem, the quantitative correlational study examined the relationship

between organizational commitment of federal employees and the perceived emotional

intelligence of their supervisors. The sample consisted of 118 employees of the U.S.

federal workforce. The results of the study were significant because the findings

addressed the low organizational commitment of U.S. federal employees and focused on

developing leadership. There was a significant correlation between organizational

commitment of U.S. federal employees and the perceived emotional intelligence of

supervisors. Organizational commitment was also significantly correlated to three of four

dimensions of emotional intelligence. Levels of organizational commitment were

significantly correlated to dimensions of self-emotions appraisal, others-emotions

appraisal, and use of emotions. The research indicated that emotional intelligence of

supervisors could predict the organizational commitment of their employees only through

the dimension of self-emotions appraisal. Future researchers may widen the sample to

include populations outside of the federal workforce, assess the validity of EI

instruments, or make use of a qualitative lens to gather in-depth perceptions from

employees and leaders.

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I dedicate this work to my daughter Jordyn, my mom Lois, my sister Diane, my niece Brittany, my four big brothers, and my close co-workers and friends. Each was critical to my continued effort and supported me throughout the pursuit of this degree.

Jordyn was my joy and helped to provide me much needed "play" breaks in the research process. My family and friends were a constant source of encouragement. To all of you, please know that I am forever grateful for your love and support.

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Chapter 1: Introduction

The organizational commitment (OC) of United States (U.S.) federal employees is low (U.S. Office of Personnel Management, 2014). Effective leadership can be utilized to address the low OC of U.S. federal employees (Shanker, 2014). Researchers have found that the emotional intelligence (EI) of leaders related to the OC of employees (Buki Folami et al., 2014; Raja & Palanichamy, 2011; Shanker, 2014). The focus of this study was on examining the relationship between OC of U.S federal employees and the perceived EI of their supervisors.

This chapter introduces the proposed study. The chapter includes (a) background to the study, (b) statement of the problem, (c) purpose of the study, (d) research questions, (e) hypotheses, (f) nature of the study, (g) significance of the study, and (h) definition of terms. The chapter concludes with a summary of the key points of the study.

Background to the Study

Many organizations, including the U.S. federal workforce were required to downsize, cease hiring, and furlough federal employees because of the economic recession (Badiru, 2014; Eaglen, 2014). Organizational change because of fierce competition, globalization, downsizing, re-organizing, and consistently emerging technology can be stressful to employees, which may result in various negative outcomes such as diminished OC (Halbesleben, Wheeler, & Paustian-Underdahl, 2013). OC has been defined as the psychological state of employees with regard to their relationship with the organization and the employees' desire to remain employed by the organization (Meyer & Allen, 1997). Maintaining the OC of employees during uncertain and austere

economic times is challenging for organizational leaders (Buki Folami, Asare, Kwesiga, & Bline, 2014; Cheng, 2012; Deni, 2012; Grdinovac, 2012).

Leaders play an important role in the transformation of organizations, including the acceptance and implementation of change (Anand, 2010; Behery, Paton, & Hussain, 2012). Leaders who lack self-awareness and awareness of others during periods of transition in the workplace can cause lack of OC among their employees (Halbesleben, Wheeler, & Paustian-Underdahl, 2013). Conversely, supervisors have the ability to influence their worker output significantly by utilizing behaviors associated with EI, such as empathy and awareness of self and others (Anari, 2012; Webb, 2014). Emotionally intelligent leaders create organizational trust and develop commitment among employees, resulting in positive organizational outcomes (Haver, Akerjordet, & Furunes, 2013).

Researchers have defined EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (Bar-On, 1997, p. 14). EI can be conceptualized as the verbal and non-verbal capacity of a person to perceive, evaluate, understand, and manage their own, as well as others' emotions to guide thoughts and actions and effectively cope with situation-specific demands (Goleman, 2011). When a manager has high EI and exhibits positive leadership styles associated with EI, the OC of employees is likely to be positive (Buki Folami et al., 2014; Raja & Palanichamy, 2011).

Based on the results of the annual Federal Employee Viewpoint Survey (FEVS), the OC of U.S. federal workers is low and has steadily declined since 2008 (U.S. Office of Personnel Management, 2014). Focusing on employee perceptions of behaviors exhibited by their leaders may provide valuable insight into the OC of employees, given

that leadership practices and characteristics have been found to influence OC in public sector agencies (Moldogaziev & Silvia, 2014). However, information regarding the relationship between the EI of supervisors and the OC of U.S. federal employees, a segment of the U.S. workforce that suffered furloughs of more than 600,000 personnel in 2013, remains limited (Badiru, 2014; Eaglen, 2014; Lee & Sanders, 2013). The lack of research on U.S. federal employees underscores the need to examine the relationship of EI of leaders and the OC of employees.

Statement of the Problem

The general problem was that the OC of U.S. federal employees is low (U.S. Office of Personnel Management, 2014). Based on the report of the Federal Employee Viewpoint Survey, the OC of federal employees in the U.S. is 65% (U.S. Office of Personnel Management, 2014). The OC of employees can impact the effectiveness of an organization in terms of improved productivity, increased job satisfaction, and lower turnover rate of employees (Chao-Chan, 2014; Pierro, Raven, Amato, & Belanger, 2013; Yucel, 2012). Supporting the importance of OC, organizations lose an average of one million dollars because of the turnover of 10 highly skilled and proficient employees (Ramlall, 2012).

The characteristics of leaders and managers can play a role in influencing the level of organizational commitment of employees (Moldogaziev & Silvia, 2014). Outside of the U.S. federal workforce, researchers have related the EI of leaders to the OC levels of employees (Buki Folami et al., 2014; Raja & Palanichamy, 2011; Shanker, 2014). Within the public sector, Moldogaziev and Silvia (2014) found that leadership predicts the OC of employees. The specific problem was that research on the relationship

between the OC of federal employees and the perceived EI of their supervisors is limited (Badiru, 2014; Eaglen, 2014; Lee & Sanders, 2013). If one does not address the problem, the low OC in the U.S. federal workforce might lead to high turnover rates that can potentially affect the efficacy of the departments they serve (Pierro, Raven, Amato, & Belanger, 2013).

Purpose of the Study

The purpose of the quantitative correlational study was to examine the relationship between the organizational commitment of U.S. federal employees and the perceived emotional intelligence of their supervisors. In this study, the researcher utilized two standardized instruments to examine employee OC and perceived supervisor EI. The researcher used the Wong and Law Emotional Intelligence Scale (WLEIS) to measure the direct reports' perceptions of the EI of their supervisors based on four dimensions: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion (Wong, Wong, & Law, 2007). The researcher used the Three Component Model (TCM) Employee Commitment Survey to measure OC based on three dimensions: affective commitment, continuance commitment, and normative commitment (Meyer & Allen, 1997). For the purpose of this study, the researcher created an anonymous, publicly open, online Facebook profile and posted a survey link. This link requested that U.S. federal employees participate voluntarily in an anonymous survey during their own personal time, which ensured that a statistically significant response reached the minimum target sample size of 82. This sample size reached 118 and more than represented the minimum number of participants required as determined by the G*Power analysis conducted.

Research Question

A critical look at the relationship between EI of leaders and OC of employees was important to maintain the organizational stability and efficiency of the U.S federal workforce. Based on the research problem, the research question was:

RQ1. What is the relationship between the organizational commitment of U.S. federal employees as measured by the Three Component Model (TCM) Employee Commitment Survey and the perceived emotional intelligence of supervisors as measured by the four dimensions of the Wong and Law Emotional Intelligence Scale (WLEIS)?

Hypotheses

H1$_0$. There is no statistically significant relationship between the organizational commitment of U.S. federal employees as measured by the TCM Employee Commitment Survey and the perceived emotional intelligence of supervisors as measured by the WLEIS.

H1$_a$. There is a statistically significant relationship between the organizational commitment of U.S. federal employees as measured by the TCM Employee Commitment Survey and the perceived emotional intelligence of supervisors as measured by the WLEIS.

Nature of the Study

This researcher used a quantitative research approach to examine the relationship between the EI of leaders and the OC of the federal workforce of the U.S. Quantitative researchers focus on examining an observable and measurable phenomenon using statistical methods (Goertz & Mahoney, 2012). Qualitative research was not appropriate because this research approach is more applicable in studies that involve detailed

exploration of a phenomenon using data collection tools, such as interviews and observations (Corbin & Strauss, 2014).

Correlational research involves the examination of the relationship of variables without determining which causes an effect (Chrisman, Jordan, Davis, & Williams, 2014). A correlational research design using regression analysis was appropriate, given that the focus of the study was examining the relationship between different variables. Other quantitative research designs, such as experimental and quasi-experimental designs, were not appropriate because this researcher could not manipulate the variables in the study since it occurred in a controlled environment (Pierce, 2013).

Significance of the Study

This study is significant because the findings can lead to changes that can benefit the U.S. federal workforce. Addressing the low OC of federal employees can prevent high turnover rates that can potentially influence the efficacy of the departments in which they serve (Pierro et al., 2013). Enhancing the OC of U.S. federal employees can also lead to improved job satisfaction and performance, influencing organizational sustainability (Zampetakis & Moustakis, 2011).

The results of the study are significant because the findings can address the low OC of U.S. federal employees by focusing on developing leadership. If the results of the data analysis support the relationship between OC and the EI of leaders, one may propose strategies that focus on effective leadership. Leadership development and training can focus on developing the EI of leaders (Sadri, 2012) to enhance the OC of federal employees.

Definition of Key Terms

Affective commitment. Affective commitment refers to a psychological identification to the organization, such as the extent to which employees feel emotionally attached to the organization. Employees with strong affective commitment stay with an organization because they want to (Meyer & Allen, 1997).

Continuance commitment. Continuance commitment refers to the cost assessment of the losses associated with leaving the organization. The employee continues their relationship with the company because they feel like they have to. They may not have other job opportunities, or leaving could cost them in terms of benefits they have accrued (Meyer & Allen, 1997).

Emotional intelligence. Mayer and Salovey (1997) defined EI as the "ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 10). Bar-On (1997) described EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14). EI reflects an individual's capacity to understand, regulate, and manage emotions (Law, Wong, & Song, 2004). One may think of EI as the verbal and non-verbal capacity of a person to perceive, evaluate, understand, and manage their own, as well as others' emotions to guide thoughts and actions and effectively cope with situation-specific demands (Goleman, 2011).

Emotional Intelligence Quotient (EQ). Similar to Intelligence Quotient (IQ) measurement, EQ is the measurement of the EI of an individual and focuses on emotion rather than intellectual intelligence (Parker, Keefer, & Wood, 2011).

Emotional competence. Emotional competence is a learned capability based on EI that results in outstanding performance at work (Goleman, 1998).

Empathy. Empathy is recognizing, understanding, and considering other people's feelings, especially when making decisions (Mayer et al., 2000).

Normative commitment. Normative commitment refers to a perceived moral obligation to remain an employee of the organization. Employees who remain with a company because of normative commitment stay with the organization because they feel like they should. Through socialization, employees have been taught that the organization expects their loyalty and that it is appropriate for them to remain loyal to the employer (Meyer & Allen, 1997).

Organizational commitment. OC refers to the employee's positive or negative feelings toward the organization's goals and values (Clares & Ven, 2008).

Others-emotions appraisal. Others-emotions appraisal reflects an individual's ability to perceive and understand the emotions of people (Wong et al., 2007).

Regulation of emotion. Regulation of emotion refers to an individual's capacity to regulate emotions, permitting a swift recovery from positive or negative mood swings (Law et al., 2004).

Self-emotions appraisal. Self-emotions appraisal relates to the capability of an individual to understand and naturally express emotions (Wong et al., 2007).

Transformational leadership. Transformational leadership is the process of greatly affecting and changing individuals' attitudes, behaviors and beliefs, and commitment to the organizational tasks, aims and strategies of the corporation (Bass, Avolio, Jung, & Berson, 2003).

Turnover intention. Turnover intention refers to an individual who has planned to leave the work environment or become a potential attrition (Chen, Ployhart, Thomas, Anderson, & Bliese, 2011). Turnover intention has been described as the mediating attitude of intent to quit and actually quitting (Yucel, 2012).

Use of emotion. Use of emotion refers to an individual's ability to understand and direct emotions toward positive performance activities (Law et al., 2004).

Summary

The problem, addressed in this research, was the limited information regarding the relationship between the OC of U.S. federal employees and the perceived EI of their supervisors (Eaglen, 2014; Lee & Sanders, 2013). The purpose of the quantitative correlational study was to examine the relationship between OC of federal employees and the perceived EI of their supervisors. The results of the study were significant because the findings might address the low OC of U.S. federal employees from the focus of developing leadership.

The next chapter involves the presentation of the literature review relevant to EI and OC. The literature review includes the following topics: (a) emotional intelligence, (b) major emotional intelligence theories, (c) emotional intelligence and leadership in business, (d) relevant emotional intelligence studies, (e) biological foundation of emotional intelligence, (f) emotional intelligence training, (g) critiques of emotional

intelligence, and (h) organizational commitment. The literature review is essential in providing rationale for the purpose of the study.

Chapter 2: Literature Review

The OC of U.S. federal employees is low, with only 65% of employees considered as having high OC (U.S. Office of Personnel Management, 2014). Leadership can play a role in the OC of their subordinates, given that emotionally intelligent leaders create organizational trust and develop commitment among employees, resulting in positive organizational outcomes (Haver et al., 2013). The problem, addressed in this research, was the limited information regarding the relationship between the OC of U.S. federal employees and the perceived EI of their supervisors (Badiru, 2014; Eaglen, 2014; Lee & Sanders, 2013). The purpose of the quantitative correlational study was to examine the relationship between OC of federal employees and the perceived EI of their supervisors.

In this chapter, the researcher provides a review of the historical and current literature regarding the constructs of EI and OC. This chapter includes discussions on the different organizational outcomes that relate with EI. The researcher provides a brief overview of the EI of leaders in the workplace and the potential correlation to the OC of their direct reports. Additionally, the researcher provides a brief discussion of the benefits of the EI of managers on the OC of employees and organizational outcomes. Lastly, reviews of studies that examine the EI and OC relationship provide the foundation for this study. The chapter concludes with a summary of the key findings from the literature review.

Documentation

The literature for this study was obtained from electronic searches and recently published books/articles discussing EI, OC, and the relationship between EI and OC. The

research sources accessed included EBSCO Host Research Database, ProQuest Research Database, Google Scholar, Ebrary, and NCU dissertations database. To ensure that the latest findings were included in the study, the majority of the literature entailed studies published in the last 5 years. Older articles were included in some instances where limited research only exists on particular topics or when seminal studies need to be included to have a deeper understanding of an issue pertinent to EI and OC.

Some of the search terms used to gather literature for this study were the following: *leadership, transformational leadership, leadership effectiveness, emotional intelligence, emotional quotient, organizational commitment, organizational trust, job satisfaction, turnover intention, employee turnover, organizational change, organizational culture,* and *organizational sustainability.* The results of the literature search served as the foundation for the different discussions in the review. The literature review includes the following topics: (a) emotional intelligence, (b) major emotional intelligence theories, (c) emotional intelligence and leadership in business, (d) relevant emotional intelligence studies, (e) biological foundation of emotional intelligence, (f) emotional intelligence training, (g) critiques of emotional intelligence, and (h) organizational commitment.

Emotional Intelligence

Researchers have defined EI as the capacity for executing concise thinking regarding emotions (Mayer, Roberts, & Barsade, 2008). One may also consider EI as a principal segment of affirmative psychology because of the impact on human performance, happiness, well-being, and the quest for meaning in life, all of which are focus points of interest in positive psychology (Bar-On, 2010). Mayer and Salovey

(1997) provided a more descriptive definition of EI, as the "ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (p. 10). Based on these abilities, emotional quotient (EQ) is the measurement of the EI of an individual that focuses on emotions rather than intellectual intelligence (Parker et al., 2011).

The science of EI is young, and the exploration of the relationship between EI of managers and employee OC in the workplace is limited (Fu, 2014; Kaplan, 2014). The OC of federal employees and ways in which this relates to how they perceive their supervisor's EI is an area that has not yet been examined. In 1909, educator John Dewey described "social intelligence and social power" (Zeidner, Matthews, & Roberts, 2009, p. 20) as an individual's ability to observe and comprehend social situations. Researchers have credited Thorndike (1920) with first identifying the construct of EI when he discussed social intelligence as distinct from academic intelligence (Zeidner et al., 2009). According to Locke (2005), little research on the construct of social intelligence took place over the next several years. The construct of social intelligence at that time was lauded by psychology practitioners but rejected by serious scholars and scientists (Locke, 2005).

David Wechsler supported Thorndike's conceptualization of multiple intelligences (Wechsler, 1940). Wechsler created the Wechsler (1955) Adult Intelligence Scale (WAIS) in order to test the non-intellective factors (affective, personal, and social) and their influence on intelligent behavior. Intelligence models would be lacking if they did not sufficiently illustrate non-intellective factor and intelligent behavior (Killian,

2012). Howard Gardner (1983) provided the foundation for future EI research 40 years later when he developed a theory of multiple intelligences, indicating that individuals possess aptitudes in several areas, such as, verbal, mathematical, musical, special, movement-oriented, environmental, intrapersonal, and interpersonal (Zeidner et al., 2009).

One may regard EI as a person having different levels of abilities or skills (Bar-On, 1997). At the most basic level, EI manifests in terms of a person recognizing facial expressions and interpreting their meanings (Mayer & Salovey, 1997). More advanced levels of EI involve people resolving conflicts, understanding emotions of oneself and other people, and managing and regulating emotions (Mayer & Salovey, 1997). Individuals who have high EI can often exhibit these different levels of abilities (Bar-On, 1997; Mayer & Salovey, 1997).

Major Emotional Intelligence Theories

Khalili (2012) discussed multiple theories attached to EI, including the ability model, matured by Mayer and Salovey, that concentrates on using intelligence to guide emotions; the mixed model developed by Bar-On (1988); and then Goleman (1998), wherein EI is not solely dependent on cognition, but upon a socio-emotion centered in personality trait. Khalili (2012) recognized the importance of EI and how organizations have begun to make a conscious effort to hire individuals who exude greater levels of EI, particularly because EI leaders were found as more effective. These individuals are more capable of establishing mutual trust, respect, and a certain warmth and closeness with the other members of their group. This article also touched on the cost-effectiveness of EI in the workplace, citing the U.S. Air Force's use of Bar-On's Emotional Quotient Inventory

(EQ-i) to select program recruiters. By choosing persons with higher EI, they increased their ability to select successful recruiters and saved $3 million per year (Khalili, 2012).

In 1988, Reuven Bar-On created the first of the major theories of EI (Bar-On, 2007). Bar-On (1997) defined EI as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14). Mayer and Salovey (1997) were credited with creating a model of EI that defined EI as a "type of social intelligence that involved the ability to monitor emotions, to discriminate among them, and to use this information to guide one's thinking and actions" (p. 8). In 1997, the definition of EI was revised to a four-branch model of special skills. The amended definition of EI, in hierarchal order, presented EI as the ability to "(a) perceive emotions in oneself and others, (b) use emotions to aid thinking, (c) understand emotions, emotional language, and the signals conveyed by emotions, and (d) manage emotions to attain explicit goals" (Mayer, Salovey, & Caruso, 2008, p. 506).

Mayer, Salovey, and Caruso (2004) described the Mayer-Salovey-Caruso EI Test (MSCEIT) as a series of scales developed to measure EI that consists of eight tasks, two to measure each of the four branches. One measures branch one, perceiving emotions, through showing participants photographs that depict facial expressions of different people, as well as photographs of various landscapes. Participants are shown photos of faces and asked to identify the displayed emotion. Secondly, participants are shown pictures of landscapes and are asked to identify the emotions conveyed. Branch two, using emotions to facilitate thought, is measured by sensations wherein participants compare emotions to tactile and sensory stimuli. Branch three, using emotions to

facilitate thought, is measured by changes and blends. Changes are characterized as sensations by which participants compare emotions to tactile and sensory stimuli. Blends task participants to identify the emotions involved in affective states. Branch four, managing emotions, is measured by presenting participants with hypothetical scenarios and asking how they would handle their feelings (Mayer et al., 2004).

Mayer et al. (2004) submitted that EI met the standard for traditional intelligence because the MSCEIT items could be operationalized in a way that there were correct answers. To test which answers were "correct," the theorists used the consensus method and expert scoring. The consensus method identified the optimal answer to the EI questions based on what the majority of test takers chose as the correct answer. Expert scoring method identified the optimal answer to the EI questions based on the answers selected by a large number of emotions experts who took the test. The test scores on the MSCEIT were calculated by general and expert scoring and correlated between $r = .96$ and .98 respectively (Mayer et al., 2004). According to Mayer et al. (2004), the overall reliability of the MSCEIT is $r = .91$ or .93, depending on whether employing consensus or expert scoring. Area reliabilities scored $r = .86$ to .90, and the four branch scores were $r = .76$ to .91. Test-retest reliability was $r = .86$ (Brackett & Mayer, 2003). Mayer et al. (2004) maintained that the MSCEIT is an easily administered test that is highly reliable and valid.

Fiori and Antonakis (2011) examined the MSCEIT, which was developed subsequent to the MEIS (Multi-branch Emotional Intelligence Scale). The MSCEIT was supposed to improve construct validity and be more psychometrically sound compared to the MEIS; however, the MSCEIT demonstrated high unreliability in its measures

(Follesdal & Hagtvet, 2009). Follesdal and Hagtvet (2009) found high unreliability in the MSCEIT measures when they conducted an analysis to estimate variance components associated with the generalizability coefficients of the four branches. Keele and Bell (2009) also determined weak support for the MSCEIT.

Daniel Goleman broke EI ground in 1995 with his seminal book, *Emotional Intelligence: Why It Can Matter More Than IQ.* Goleman (1998) expanded the concept of EI from an ability model to a mixed model that included personality traits, social activities, and self-motivation. A criticism of Mayer et al. (2008) is that the construct is devoid of personality traits. Bar-On (1997) and Goleman (1995) maintained that EI models should be a combination of mental and personality abilities. Goleman's EI model includes self-awareness, self- management, empathy, social awareness, and relationship management. Goleman (1998) asserted one way in which the most effective leaders are alike is that they share a high degree of EI. Although numerous EI theories exist, the work of Bar-On, Goleman, and Salovey and Mayer ultimately produced the major theories used to measure EI today (Weinberger, 2009).

Researchers have generally divided EI into either ability-based model or a mixed-based model (Cherniss, 2010; Fiori & Antonakis, 2011; Goleman, 1998; Landau & Meirovich, 2011). Ability-based models disregard personality, motivation, and skills and only consider EI as pure intelligence or cognitive ability (Law et al., 2004; Mayer et al., 2004). Conversely, proponents of mixed-based models contend that EI is a combination of psychological ability, personality, motivation, and skills (Goleman, Boyatzis, & McKee, 2013; Joseph, Jin, Newman, & O'Boyle, 2015; Landau & Meirovich, 2011).

Emotional Intelligence and Leadership in Business

Mayer et al. (2000) defined EI as "the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in self and others" (p. 396). Business leadership can benefit from the integration and development of EI through vision, renewal of purpose, and enhanced understanding of the implications of emotions and behaviors (Boyatzis & Soler, 2012; Goleman, 2011; Mayer et al., 2000; Sadri, 2012). EI may be more important compared to intellectual intelligence in terms of determining success in leaders (Sadri, 2012). EI accounts for approximately 90% of what differentiates outstanding leaders from those considered average (Goleman, 2011).

In the business sector, the EI of leaders can positively transform enterprises (Boyatzis & Soler, 2012). EI is related to self-awareness and empathy, the principal underpinnings of transformational or visionary leadership (Goleman, 2011). According to Goleman (2011), these concepts are so closely intertwined that EI is often considered synonymous with effective leadership. Therefore, EI is a new competitive reality that is at a premium in the workplace (Goleman et al., 2013). Given that these qualities and characteristics can benefit organizations, leadership development and training often involves the development of EI (Sadri, 2012).

With technology transforming at an exponential rate, companies are in a constant state of change and transformation (Wu, 2009). To stay competitive, businesses are going to need more than a traditional manager. They are going to need energetic leaders who have a keen awareness of self and their interactions with others to develop employees and instill a sense of commitment (Caldwell, 2012; Ingram & Cangemi, 2012;

Kumar, 2012; Wu, 2009). Supervisor leadership ability is often cited in relation to employee job satisfaction and OC (Anari, 2012; Benson, Zigarmi, & Nimon, 2012; Brunetto, 2012; Buki Folami et al., 2014). Ultimately, good leaders are a critical factor in the success or failure of an organization (Da Cruz, Nunes, & Pinheiro, 2011).

Business is changing at a rapid speed, marked with fierce competition, globalization, and consistently emerging technology (Colfax, Rivera, & Perez, 2010; Groves & Vance, 2009; Noe, 2010; Ottenbacher & Harrington, 2010). Today's complex organizational environments require managers able to demonstrate multidimensional thinking such as traditional linear or analytic thinking skills and nonlinear skills of flexibility, intuition, insight and emotional assessment (Groves & Vance, 2009). Colfax et al. (2010) stated that EI is the foundation to achieving business success because "the human factor will ultimately underscore and sustain longevity for global business" (p. 90). Nafukho (2010) cited Noe (2010) who suggested that "today, more and more companies recognize the increased value of their intangible assets or human capital as a way to gain competitive advantage" (p. 655).

EI is concerned with understanding one's self and others, relating to people, and adapting to and coping with the immediate surroundings to be more successful in dealing with different demands in the environment (Goleman, 1998). Emotionally intelligent leaders know how to navigate people and are more socially adept (Colfax et al., 2010). Suggesting that EI theory can be practically applied to enhance better business practices, Bradberry and Greaves (2009) tested 500,000 people over the last decade utilizing the EI Appraisal Test. Their findings indicated, "EI is the single biggest predictor of

performance in the workplace and the strongest driver of leadership and personal excellence" (Bradberry & Greaves, 2009, p. 21).

Relevant Emotional Intelligence Studies

EI continues to be a relevant research topic as exemplified by the amount of current studies in the EI literature (Yucel, 2012; Zampetakis & Moustakis, 2011). Researchers generally found support regarding the positive relationship between EI and leadership outcomes (Mahanta, 2012; Vigoda-Gadot & Meisler, 2010; Weinberger, 2009; Yucel, 2012; Zampetakis & Moustakis, 2011). EI has also been found to be related in various positive organizational outcomes such as higher job satisfaction, lower turnover intention, and leadership effectiveness (Mahanta, 2012; Vigoda-Gadot & Meisler, 2010; Weinberger, 2009; Yucel, 2012; Zampetakis & Moustakis, 2011).

Moon and Hur (2011) examined how EI affects emotional exhaustion and how emotional exhaustion then influences job performance in terms of OC and job satisfaction. Findings on the significance of EI and job performance have been inconclusive, which is why the purpose of their study was to use burnout as the mediating variable. Data were collected using partial least squares regression analysis from 295 retail sales employees in South Korea who had worked at major department stores for at least one year. Using seven-point Likert type scales to measure the constructs, EI was measured using 33 items. Several areas were examined, including job satisfaction, OC, appraisal of emotions, social skills, utilization of emotions, optimism, and emotional exhaustion.

The results of the data analysis that Moon and Hur (2011) conducted confirmed the mediating effects of emotional exhaustion on three factors in EI--appraisals of

emotions, optimism, and social skills--as well as two components of job performance: OC and job satisfaction. Essentially, the higher an individual's EI, the more likely they can cope effectively with environmental demands and pressures stemming from occupational stress. The authors suggested that in future studies, common method bias should be controlled and detected through research design by using multiple sources of data collection versus a single questionnaire.

Jorfi, Fauzy Bin Yacco, and Md Shah (2012) theorized that while gender impacts an individual's level of EI, EI in turn leads to better communication effectiveness, and communication effectiveness has a significant relationship with job satisfaction of employees. The model for their study was composed of four key constructs; EI, communication effectiveness, job satisfaction, and gender. The initial sample consisted of 260 randomly selected managers and employees working in different universities in Iran. However, only 120 responded to the questionnaire (i.e., 35 managers and 85 employees), among which 90 were male and 30 were female respondents. The questionnaire consisted of 133 items related to EI, rated on five-point Likert type scales. Independent variables were gender, age, education, level, job position, and work experience. The data were processed through Statistical Package for the Social Sciences (SPSS) software using a regression analysis. Results confirmed the authors' hypothesis that gender positively influences the level of EI an individual has, which in turn leads to communication effectiveness. Women were shown to have higher EI levels when compared to their male colleagues. The authors conceded that while EI by itself does not always guarantee effective communication in an organization, there are benefits to using EI to achieve a competitive advantage in certain markets. Future studies would be wise

to consider intrinsic and extrinsic factors, which may have an impact of the EI of employees and their behaviors.

Weinberger (2009) focused her research questions on the relationship between the EI of leaders and their leadership style, as well as the relationship between the EI of leaders and their leadership effectiveness. Weinberger (2009) described the impact of emotions and emotion management in organizational settings as what drove her research. She conducted the study using correlational research design. The sample consisted of managers of an organization based in the Mid-western part of the United States. A total of 151 managers, each having more than three direct reports, participated in the study. The managers were composed of 27 females and 124 males (Weinberger, 2009).

Weinberger (2009) described how the MSCEIT instrument was administered to the 151 managers to measure the variable of EI. A response rate of 93.3% occurred among the management group. The managers' subordinate employees then completed the Multifactor Leadership Questionnaire (MLQ 5x), which measured how they perceived their leader's effectiveness and style of leadership. A total of 1,165 subordinates were requested to participate, but only 791 subordinate responses were tied to a particular manager. Those responses were aggregated throughout the data set by matching managers to their subordinates for a total of a 68.9% response rate. Both of the instruments were scored and analyzed using descriptive and correlational statistics. Each instrument was measured by calculating Cronbach's alpha for each scale for the MLQ5x and Split ½ for the MSCEIT. The data sets were merged to test the questions relative to EI and leadership style. Correlational statistics were used to evaluate the degree of the relationship between EI and leadership outcomes (Weinberger, 2009).

The results of Weinberger (2009) indicated managers' EI was not related to perceived leadership effectiveness. The four branches of EI and leadership effectiveness indicated: perceiving emotions ($r =.015$), facilitating thought ($r = .118$), understanding emotions ($r = .047$), and managing emotions ($r = .129$). The branches of EI had no significant relationship with leadership outcomes (Ashkanasy & Dasborough, 2009; Weinberger, 2009).

The results of the Weinberger (2009) study indicated that EI as an ability model was not related to perceptions of leadership style. One explanation for the finding could be that the MSCEIT is not effective at capturing significant differences in EI among individuals. A limitation of this study was the applicable generalizability because the only population studied were employees of a single manufacturing organization. Based on the results of the study, it would be inappropriate to draw general implications for practice. Further replication of this study is warranted, as well as further examination of the validity and reliability of the MSCEIT to test EI as an ability.

Emotional intelligence and job satisfaction. Research has indicated that EI and job satisfaction are related concepts (Ealias & George, 2012; Shooshtarian, Ameli, & Aminilari, 2013; Vigoda-Gadot & Meisler, 2010; Zampetakis & Moustakis, 2011). According to Ealias and George (2012), EI is related with job satisfaction regardless of position in the organization. Vigoda-Gadot and Meisler (2010) hypothesized that commitment to public service and job satisfaction among public administration officials is directly related to EI and negatively related to burnout, exit intentions, and negligent behavior. Their sample consisted of 820 employees from two medium sized municipalities in the center of Israel. Data were then collected using multiple survey

methods. Bivariate correlations, simple multiple hierarchical regression analysis, and interaction effects within hierarchical regression analysis were used to test the relationships suggested in the model. The scales not only supported the authors' hypothesis, but also additionally found that EI positively related to age and negatively related to education.

Shooshtarian et al. (2013) conducted a study to examine the effect of EI on the job satisfaction, performance, and commitment of employees. Shooshtarian et al. proposed that EI is an important predictor of job satisfaction, while also summarizing multiple past studies that supported their hypothesis. The sample consisted of 350 randomly selected employees from Fars Province industries in Iran. The Persian version of the Modified Schutte Emotional Intelligence Scale (MSEIS) was the primary measure used. The MSEIS is a self-report 41-item questionnaire using a five-point Likert scale. Results indicated that not only is an employee's EI positively related to job satisfaction, but higher EI was also related to increased job performance and commitment levels. Other variables seemed to influence EI levels as well, including age, marriage, and education. The authors concluded that the higher an individual's EI, the more likely it will be for them to recognize and confront stressful situations in a workplace.

Zampetakis and Moustakis (2011) expanded the research of manager EI by focusing on group outcomes. Specifically, they examined the impact of managers' trait EI on group job satisfaction. Trait EI refers to the collective emotion-related disposition that integrates emotion-related self-perceptions and emotion self-efficacy (Petrides & Furnham, 2006). Trait EI is typically measured through self-report questionnaires that measure personality and describe how the person normally reacts to different situations

(Zampetakis & Moustakis, 2011). According to Hulsheger, Anderson, and Salgado (2009), basic and applied research on organizational behavior has revealed the significance of employee job satisfaction on organizational performance outcomes. Satisfied employees have more positive attitudes toward tasks, experience less conflict, and promote teamwork and collaboration (Benson, Zigarmi, & Nimon, 2012).

Job satisfaction has been frequently examined by previous researchers, but often as a variable with efforts to identify its causes (Lam & O'Higgins, 2012). Job satisfaction at the individual level is consistently linked to individual performance, OC, and negatively tied to turnover intention, anxiety, and stress (Brunetto et al., 2012; Mahanta, 2012; Yucel, 2012). Even though there is a significant amount of research devoted to job satisfaction at the individual level, there is limited research on the way in which leaders may affect subordinates' attitudes and emotions in terms of group job satisfaction (Bono, Foldes, Vinson, & Muros, 2007). Zampetakis and Moustakis (2011) considered leadership as a "process of social influence through which a leader affects subordinates' feelings, perceptions, and behavior" (p.78). Group managers' socio-emotional skills may be the most necessary for positive team outcomes (Koman & Wolff, 2008).

Trait EI related to job satisfaction at an individual level (Brunetto et al., 2012; Mahanta, 2012; Yucel, 2012). Academic research has been scarce on the effects of managers' EI on group level outcomes (Koman & Wolff, 2008). Zampetakis and Moustakis (2011) set out to investigate "if and how group managers' trait EI is related to group job satisfaction" (p. 79). They argued that team members develop a shared view of the managers' EI. In an attempt to "advance the research on the effect of team leader EI

on team dynamics and outcomes," Zampetakis and Moustakis (2011) hypothesized that the groups "shared evaluative judgment coupled with the manager's trait EI forms critical components that collectively may explain group job satisfaction" (p.79).

The variables in Zampetakis and Moustakis' (2011) study were: (a) group manager; (b) team or group – used interchangeably; (c) trait EI – emotion-related disposition that integrates emotion-related self-perceptions and emotional efficacy; and (d) group evaluative judgment of manager's trait EI – shared evaluation of the members based on the manager's behavior and emotion-related dispositions. The EI ability approach refers to one's ability to recognize, process, and use emotion-laden information. Ability EI is tested typically for using an instrument such as the MSCEIT that assesses individual differences in the interface of emotional and cognitive processes (Mayer & Salovey, 1997).

Zampetakis and Moustakis (2011) measured group job satisfaction using the Job Satisfaction Instrument (JSI) created by Brayfield and Rothe (1951) to aggregate the individual job satisfaction ratings of the group. The JSI consists of 18 items measuring job satisfaction. Examples of sample items include "I feel fairly satisfied with this job" and "Each day at work seems like it will never end" (reverse scored). Cronbach's reliability coefficient for all 18 items was .89.

The results of Zampetakis and Moustakis (2011) provided support for hypotheses 1, 2, and 3; however, manager's trait EI was not significantly related to group job satisfaction, providing support for the notion that the impact of managers' trait EI on group job satisfaction is insignificant. Managers' trait EI correlated positively with group evaluative judgment of managers' trait EI and group evaluative judgment of managers'

trait EI correlated positively with group job satisfaction. Additionally, managers' tenure correlated positively with group evaluative judgment (Zampetakis & Moustakis, 2011). The findings of Zampetakis and Moustakis (2011) provided empirical support concerning the effects of managers' trait EI on employee job satisfaction. Some limitations of the study include data that was cross sectional and the utilization of self-report measures, which often lack reliability.

Measuring emotional intelligence. Measures of EI often involve consequential criteria such as societal effects, routine, and mental and physical health (Mayer et al., 2008). Various EI measurement scales exist and scholars question their validity (Antonakis & Dietz, 2011; Ashkanasy & Dasborough, 2009; Fiori & Antonakis, 2011; Law et al., 2004). Some of the standardized instruments that have been used to assess the EI of individuals include the Emotional Quotient Inventory, Mayer-Salovey-Caruso Emotional Intelligence Test, and WLEIS (Bar-On, 1997a; Law et al., 2004; Sadri, 2012).

Bar-On (1997a) assessed the construct of EI. The Emotional Quotient Inventory (EQ-i) i[=s used to assess the level of EI an individual may possess. The inventory is a self-report measure of emotionally and socially intelligent behavior. The EQ-i was the first measure of its kind when Bar-On published it in 1997. It contains 133 items and employs a five-point Likert type scale. The inventory is suitable for individuals 16 years of age or older with at least a sixth grade reading level, and takes approximately 40 minutes to complete. Scores are then provided for the individual's responses using four validity scales, five composite scales, 15 subscales, and a total quotient. The original sample was normed on 3,831 individuals, ages 15 to over 60 years of age, from the United States and Canada. The characteristics of this North American sample were

adequate relative to gender, ethnic origin, age, education level, and geographic distribution. The EQ-i appears to be an excellent measure of the EI concept and is still frequently used today in more than 30 different languages with data collection taking place worldwide.

Sadri (2012) discussed the usefulness of the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), a self-report instrument intended to measure the level of EI of individuals. The MSCEIT measures an individual's ability to perceive and interpret different emotions using the facial expressions of others. The instrument also measures how well an individual uses emotion to facilitate thought and determine how one should react to others in emotional situations. In addition, the MSCEIT assesses an individual's aptitude for labeling as well as understanding the relationships associated with shifts in emotion, and lastly, it measures one's ability to manage emotion effectively. Other self-report measures were also cited for their value in assessing EI. For example, the Emotional Competency Inventory (ECI) and the Emotional and Social Competency Inventory (ESCI).

Davies, Stankov, and Roberts (1988) reviewed all of the existing EI scales and using exploratory factor analyses determined that most of the scales had salient cross-loadings on personality dimensions. EI measures continue to develop while some question the utility of EI for serious scientific research (Ashkanasy & Dasborough, 2009; Law et al., 2004; Locke, 2005; Landy, 2005). Measures of EI tend to load more heavily on intelligence, whereas self-report measures of EI load more strongly on personality (Davies et al., 1998; Matthews, Zeidner, & Roberts, 2004).

Similar to the assertions of Mayer, Salovey, and Caruso (2000), Law et al. (2004) found that EI is best defined as an abilities model and is distinctly different from personality traits. When the Mayer Emotional Intelligence Scale (MEIS) was developed, which later was revised to the MSCEIT in 2002, preliminary data indicated that EI differed from personality traits. Wong and Law (2002) indicated in multiple samples that EI, when measured as a four-dimensional definition, was empirically distinct from personality dimensions. Additionally, Mayer et al. (2000a) and Wong and Law (2002) demonstrated empirical evidence that EI meets the correlational criterion of an intelligence facet. Lastly, Wong et al.'s (2007) findings comported with Mayer et al. (2000a) in the argument that EI as an intelligence facet should develop over time. Wong et al. (2007) found that EI is related positively to increased age and experience.

Law et al. (2004) conducted a study for the purposes of examining the domain and definition of EI and to explore their newly developed EI scale, the Wong and Law (2002) Emotional Intelligence Scale (WLEIS) based on the generally agreed upon EI definition. In addition, the researchers attempted to establish the predictive validity of EI in social and organizational settings. The researchers used self and others' ratings of EI to examine construct validity using multitrait-multimethod (MTMM) analysis. Their hypotheses included the following: (a) EI is distinct from, but correlated with, the Big Five Personality dimensions of extraversion, agreeableness, conscientiousness, neuroticism, and openness to experience; (b) EI is positively associated with life satisfaction; (c) EI is negatively associated with feelings of powerlessness; and (d) EI is positively associated with the job performance of employees (Law et al., 2004).

Law et al. (2004) collected data comparable to Davies et al.'s (1998) data, which enabled a more rigorous testing of the EI construct using construct factor analyses (CFA). Law et al. (2004) examined two stage samples of undergraduate students from large universities in Hong Kong. The students were asked to complete self-assessments on EI-related scales, Big Five personality scales, and life satisfaction measures. The first stage consisted of 202 participants and the second stage had 216. The second sample was collected to provide cross-validation data on the WLEIS, personality measure, and life satisfaction (Law et al., 2004).

In Law et al.'s (2004) study, descriptive statistics, coefficient alphas, and correlations among all measures for the two samples supported that EI is related, but distinct from the Big Five personality dimensions. In addition, after controlling for relevant variables, their study supported that EI was a predictor for job performance. To demonstrate the predictive validity of the EI construct, hierarchical regression analyses were conducted and demonstrated the incremental predictive power of others' rating of EI on psychological and organizational outcomes (Law et al., 2004). A limitation of the Law et al.'s (2004) study was that it only included data collected in China. One concern might be the cross-cultural generalizability of the results. Additionally, future research should investigate the relationship between EI and criterion variables other than job performance, as other workplace variables may be equally as important.

Emotional intelligence and leadership. The emotions of leaders can influence and affect their followers, as well as their followers' evaluation of the leader (Madera & Smith, 2009). Employees develop a perception of their managers' EI dimensions (i.e., use of emotions, regulation of emotions), resulting in development of a consistent

perception across group members (Zampetakis & Moustakis, 2011). Zampetakis and

Moustakis (2011) presented the following hypotheses for their study: (H1) Managers'

trait EI will not be directly related to group job satisfaction; (H2) A manager's trait EI

will correlate positively with group job satisfaction; (H3) Group evaluative judgment of

managers' trait EI will correlate positively with group job satisfaction; and (H4) Team

group evaluative judgment of managers' trait EI will mediate the relationship between

managers' trait EI and group job satisfaction. The sample for Zampetakis and Moustakis

(2011) consisted of 209 participants of both managers (n = 51) and their team members

(n = 158), from 11 public and quasi-public organizations, located on the island of Crete,

Greece. A total of 158 team members participated in the study, with an average of 3.06

subordinates per manager (SD =8.4). The overall response rate was 31.8% for managers,

100% for employees, and 44% for organizations.

The main constructs of Zampetakis and Moustakis (2011) were all assessed with

self-report measures based on multi-item scales. Responses to all items were made on 7-

point Likert-type scales (1 = *strongly disagree*, 7 = *strongly agree*). Native speaking

translators converted all of the responses. Manager EI was measured using the WLEIS.

The WLEIS is a 16-item self-reporting measurement instrument that assesses the four EI

capabilities of the EI ability model. The WLEIS measures perception of one's own

emotions, (self-emotional appraisal-SEA), other's emotions (others' emotional appraisal-

OEA), regulation of emotions (ROE), and utilization of emotions (UOE; Wong & Law,

2002). The WLEIS holds promise as a research tool because of its brevity, evidence of

its predictive validity, especially in the organizational sphere, and good basic

psychometric properties across student and nonstudent samples in numerous countries (Law et al., 2004; Wong & Law, 2002; Zampetakis & Moustakis, 2011).

The WLEIS has shown to be different and distinct from the Big Five personality factors and appears to have convergent validity with other EI measures, such as Trait Meta-Mood Scale as well as parts of the MSCEIT (Law et al., 2004). Cronbach's α reliabilities for self-emotional appraisal, other's emotional appraisal, regulation of emotions, and utilization of emotions were .78 (four items), .76 (four items), .76 (four items), and .71 (four items), respectively (Zampetakis & Moustakis, 2011).

In Zampetakis and Moustakis' (2011) study, the same four subscales of the WLEIS construct were given to the subordinates, with the wording of the items referring to their immediate supervisor. The test was designed to capture the employees' perceived managers' self-emotional appraisal (SEA), other's emotional appraisal (OEA), regulation of emotions (ROE), and utilization of emotions (UOE). An example of how the wording was changed from "I" to "My manager" is "My manager has a good understanding of the emotions of people around him or her," "My manager always sets goals for himself or herself and then tries his or her best to achieve them," and "My manager is able to control his or her temper and handle difficulties rationally (Zampetakis & Moustakis, 2011, p. 89). Cronbach's α reliabilities for perceived SEA, OEA, ROE, and UOE were .84 (four items), .87 (four items), .71 (four items), and .88 (four items), respectively. Cronbach's reliability coefficient for all 16 items was .86 (Zampetakis & Moustakis, 2011).

Momeni (2009) assessed the EI of managers and ways in which EI directly influences organizational climate. Organizational climate derives from a set of characteristics that describe an organization. Research indicated that 70% of employees'

perceptions of organizational climate are a direct result of a manager's style of leadership and behavior. Momeni (2009) chose 30 randomly selected managers as a sample and, by using 360-degree feedback approach questionnaires, attempted to measure the EI and the organizational climate of each manager. The ECI-360 uses four subscales to measure an individual's self-awareness, self-management, social awareness, and relation management. Correspondingly, 140 employees and supervisors at the participating mangers' organizations completed foreign- and home-designed questionnaires to assess organizational climate.

The results of Momeni's (2009) study using Pearson product-moment correlation coefficient indicated the higher a manager's EI, the better that manager's organizational climate. Regression analysis of the data further indicated that 55% of organizational climate is caused by the EI of managers. Using the ECI-360 assessment, self-awareness, and social awareness were also shown to influence organizational climate more so compared to the other subscales. This suggests that interpersonal capability and good communication are core assets in raising employee morale.

Research has shown that EI is associated with transformational leadership (Esfahani & Soflu, 2013; Follesdal & Hagtvet, 2013; Harms & Crede, 2010). Follesdal and Hagtvet (2013) conducted a study to assess EI as a predictor for transformational leadership. Harms and Crede (2010) found that EI, when measured as ability, was unrelated to subordinates' rating of supervisor EI. EI as ability is usually measured by the MSCEIT the only performance test measuring the entire four-branch ability model of EI (Mayer et al., 2004). Follesdal and Hagtvet (2009) identified an alternate set of scales in the MSCEIT that provided reliable and interpretable scores. Their 2013 study used the

alternate set of scales, in addition to the standard MSCEIT scales, to examine EI as a predictor of transformational leadership (Follesdal & Hagtvet, 2013).

Transformational leadership is a four-component concept consisting of several leader behaviors and characteristics (Cavazotte, Moreno, & Hickmann, 2012; Esfahani & Soflu, 2013). The different components of transformational leadership are the following: (a) Idealized Influence – leaders who are admired and who exhibit behavior that their followers want to emulate; (b) Inspirational Motivation – leaders who inspire their followers and motivate them; (c) Intellectual Stimulation – leaders who are able to foster creativity and stimulate their subordinates to approach problems in new ways; and (d) Individual Consideration – leaders who create new opportunities for their subordinates to learn and who provide a supporting and caring working environment (Esfahani & Soflu, 2013).

There are several models and measures for the construct of EI (Bar-On, 2000; Petrides, 2010). Some models such as Bar-On (1997, 2000) and Petrides (2010) encompass a set of personality traits, whereas other models, such as by Boyatzis et al. (2000), encompass a mixture of effective leadership behaviors and personality traits. Currently, the most widely used EI test is the MSCEIT because the MSCEIT is the only performance test that measures the entire four-branch model of EI (Follesdal & Hagtvet, 2013).

Follesdal and Hagtvet (2009) discovered that in most studies where the MSCEIT was found to contain excessive measurement error and the reliability of the scores were low. The researchers had only reported the reliability coefficients in the User's Manual, rather than estimating the reliability coefficients in the actual sample of the study.

According to Follesdal and Hagtvet (2013), the overall score for the MSCEIT branch of Perceiving Emotions has not been supported by psychometric findings. However, the scores from Faces, not Pictures, seem reliable. The Follesdal and Hagtvet (2013) study incorporated alternative scales from Faces: Absence of Positive Emotions in faces expressing Negative Emotions (APE/NE), Absence of Negative Emotion in faces that mostly express Negative Emotion (ANE/NE), and Absence of Negative Emotion in faces that mostly express Positive Emotion (ANE/PE).

Follesdal and Hagtvet (2013) studied a total of 111 leaders, as well as 459 of their subordinates. The participants were recruited through the Administrative Research Foundation (ARF) and through a municipality, both located in Norway. The leaders completed the MSCEIT 2.0 to measure their EI. Their subordinates rated each leader on 16 items from the Multi-factor Leadership Questionnaire (MLQ 5X) to measure the personality factors in the Five Factor Model (FFM). General Mental Ability (GMA) was not measured, but was controlled for by obtaining correlations between GMA and the other variables. The stability of regression parameters were assessed using the Monte Carlo study. Their hypotheses were: (H1) The scores from the four standard subscales from the MSCEIT predict transformational leadership after controlling for the FFM and GMA; (H2) The Total EI score from the MSCEIT predicts transformational leadership after controlling for FFM and GMA; and (H3) The scores from the alternative set of scales from the MSCEIT predict transformational leadership after controlling for the FFM and GMA.

In Follesdal and Hagtvet's (2013) quantitative study, after controlling for Five Factor Model (FFM) and General Mental Ability (GMA), the results of whether EI is a

predictor of transformational leadership indicated a significant relationship among transformational leadership, extroversion, and openness, as well as for three of the EI scales. However, the four standard MSCEIT scales were found to be not predictive of transformational leadership when controlling for FFM, GMA, and leader age. Therefore, H1 was not supported. Likewise, the Total EI score did not predict transformational leadership after controlling for FFM, GMA, and leader age. Thus, H2 was also not supported. The alternative scales of EI revealed that they were significant predictors of transformational leadership after controlling for FFM, GMA, and the age of leaders. H3 was supported. These findings support that the EI ability to identify correctly the emotions another person is experiencing is important in social interactions and a predictor of transformational leadership (Follesdal & Hagtvet, 2013).

In Follesdal and Hagtvet (2013), the evidence suggested that perhaps the MSCEIT does not measure EI appropriately. The validity of the scores from the standard scales remained questionable. Without the alternative scales, the results indicated that EI as an ability was unrelated to transformational leadership. Some limitations to the study were that given the insignificant correlations between EI and transformational leadership, the sample size might have been too small to reveal strong relationships. In addition, many of the MSCEIT scales provide scores with low generalizability. Lastly, for EI to be viewed as an important construct in leadership, EI will be important to demonstrate incremental validity. The Follesdal and Hagtvet (2013) study provided hope that with additional modification of the MSCEIT, it could become "the" generally accepted EI test.

Biological Foundation of Emotional Intelligence

EI encompasses more than emotion managing. According to research, the limbic system in the brain can be trained to become more emotionally intelligent (Goleman, 2011; Goleman et al., 2013). Goleman (2011) described the work of neuroscientists regarding the identification of distinct circuitry for EI. In a landmark study by Bar-On, Tranel, Denburg, and Bechara (2003), the brain regions associated with specific behaviors and mental functions, including emotional and social intelligence, were identified. The right amygdala is generally accepted as the seat of emotional awareness (LeDoux, 2012). Bar-On et al. (2003) found that lesions to this area negatively affected patient's EI (as measured with the Emotional Quotient inventory or EQ-i).

According to Goleman (2011), another brain area crucial for EI is in the right somatosensory cortex. This area governs self-awareness as well as empathy, which is the awareness and understanding of emotions in others. Empathy is also processed by the insula, an area that monitors our entire bodily state. The insula plays a key role in how we sense and understand what someone else is feeling. The anterior cingulate manages impulse control, our ability to handle distressing emotions, and strong feelings. Lastly, the ventral medial strip of the prefrontal cortex processes our abilities to solve personal and interpersonal problems, manage our impulses, express our feelings effectively, and to relate well with others (Goleman, 2011).
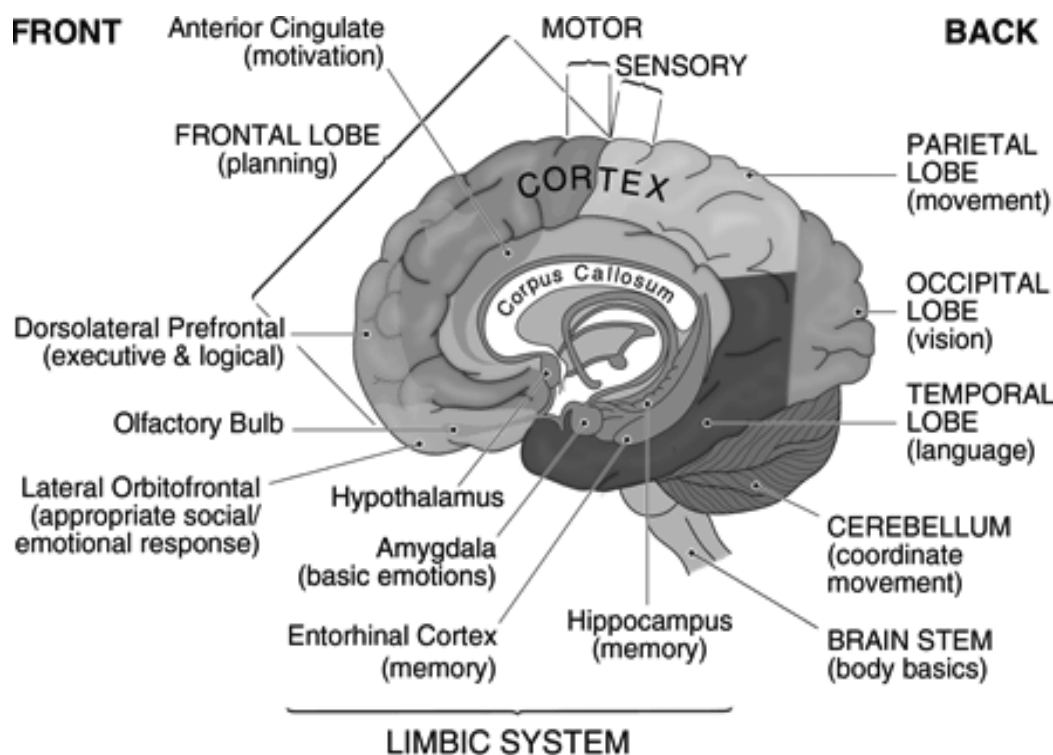
Figure 1. Limbic System Model. Adapted from "Your brain and what it does: A diagram of how the brain works" by The Brainwaves Center. (2013). Building Mental Muscle [Web Graphic]. Retrieved from http://brainwaves.com/

Kunnanatt (2012) described EI as the newest and fastest growing branch in the study of psychology. In business, EI has become a multi-million dollar training industry. Across cultures and corporations, emotions, like IQ, are becoming recognized as playing a large role in corporate performance. The practical implications for human resource development (HRD) professionals means carefully crafted EI development programs where participants are trained to understand their neural pathways and comprehend how emotions, reactions, interactions, and motivations, either interfere or guide how they manage themselves and others (Goleman et al., 2013).

Emotional Intelligence Training

EI includes emotional knowledge of the self and others, a skill that one can develop with appropriate training (Killian, 2012). Given this proposed ability to learn EI, current studies tend to focus on coaching EI. Malek, Noor-Azniza, and Farid (2011) stated since EI can be developed, creating EI programs should be further explored. According to Murphy (2014), training programs for EI improvement are growing at an exponential rate, suggesting that some organizations find the concept of EI useful.

Leadership development and training often involves the development of EI because its association with positive organizational outcomes (Sadri, 2012). Organizations that possess leaders with high levels of EI benefit from increased productivity and commitment of their employees (Goleman, 2011; Khalili, 2012). Conversely, organizations suffer setbacks when employees have low EI (Goleman, 2011). The costs can include decreased productivity, missed deadlines, mistakes and mishaps, and an exodus of employees to more congenial settings (Goleman, 2011). Khalili (2012) found that emotionally intelligent leaders were effective managers, due to their heightened ability to foster trust, respect, and closeness with team members. Effective leaders are essential in fast-paced modern organizations, with EI being a central component of effective leadership (Goleman et al., 2013). Despite the increasing popularity of this field of research, substantial gaps remain concerning EI and effective leadership.

Lopez-Zafra, Garcia-Retamero, and Barrios (2012) found that characteristics that are more associated with women such as emotional clarity and emotional repair predicted the extent to which people were transformational leaders. These findings reflect the fact

that an individual's gender is less important than proficiency with so-called "feminine" traits, such as active listening, compassion, and empathy. This supports the idea that EI and effective leadership skills can be fostered in anyone regardless of gender.

Critiques of Emotional Intelligence

Research on EI has been consistent since the framework was in developed in 1990 by Salovey and Mayer, but some controversies and criticisms regarding the concept have been broached in the literature (Lindebaum & Jordan, 2012; McCleskey, 2014). According to Lindebaum and Jordan (2012), EI can be a relevant characteristic or quality but its positive effect on overall performance of leaders is exaggerated. Moreover, EI does not appear to be a characteristic that produces universal effects across all work contexts (Lindebaum & Jordan, 2012).

Although there are some controversial aspects of EI regarding its explanation, use, measurement, and nature (McCleskey, 2011), there seems to be more support for continued investigation. Boyatzis and Saatcioglu (2008) found recent socio-emotional constructs rising from the disciplines of practical, emotional, and social intellect bring new disputes for study, predominantly in test scoring and construction. This is mainly because depictions of emotional and social conditions are much more difficult to plainly interpret, manipulate, or judge than the stimuli commonly used in conventional cognitive testing (Boyatzis & Saatcioglu, 2008). Differing definitions and constructs, as well as the variety of EI tests on the market detract from the validity of EI (Landy, 2005; Locke, 2005; Murphy, 2014).

Antonakis, Ashkanasy, and Dasborough (2009) provided a debate on the theoretical construct of EI, its validity, and potential impact in practical application of EI

and provided a deeper understanding of social interactions, and in particular leadership effectiveness in organizational settings. Antonakis (2009), a harsh critic of EI, wrote that although EI has "become a standard concept in general and applied psychology, as well as in applied business settings, he questions the "fanfare EI is receiving" (p. 247). Antonakis (2009) argued that EI has not proven itself useful in leadership. However, the ongoing process of inquiry is advancing leadership research by revealing that EI in leadership might be irrelevant.

Antonakis (2009) further argued that one of the problems with EI is the inappropriate use in research as a theoretical framework. For one, with regard to construct validity, he asks, "Are the measures associated with their constructs as theory would suggest a priori?" When it comes to criterion validity, "do the constructs predict a practically-useful outcome," such as leadership? For discriminant validity, "do the constructs measure something different from competing constructs," such as personality or IQ? For convergent validity, "do tests measuring a similar construct correlate strongly with each other?" Finally, for incremental validity, "does EI predict practically-useful outcomes controlling for IQ and personality?" He stated that to date, he has not found one psychometrically sound study indicating that EI predicts leadership effectiveness (p.249). Antonakis (2009) criticized the way EI tests were scored (based on expert judgment or consensus response) and cited this as the reason for the unreliability and ambiguous interpretation.

Ashkanasy and Dasborough (2009) responded to Antonakis' (2009) claims and stated the shortcomings of EI testing measures are known "but this is no reason for scientists to throw up their hands in despair. Indeed it should be motivation to continue

to forge ahead to develop new, more reliable, more valid, and more relevant measures" (p.251). Regarding EI and leadership effectiveness, Ashkanasy and Dasborough (2009) wrote, "It has been empirically demonstrated that leaders evoke emotional responses in employees in workplace settings" and it is widely accepted that "leadership is an emotion-laden process" (p. 252). Leaders who can manage their own emotions and read the emotions of others while exercising empathy will be more effective in the workplace.

Antonakis (2009) went on to say that until EI is rigorously tested, strong claims about the validity should not be made. He acknowledged that one reason for lack of testing is that EI is still a young theory. Antonakis (2009) concluded that EI had become sensationally popular but was concerned that the concept had evaded true science.

Ashkanasy and Dasborough (2009) provided one final response to Antonakis (2009) and cited that it is indisputable that empirical evidence on EI is growing. Early findings of EI have been open to criticism and alternate explanations but the work should not be prematurely aborted because of these findings. Ashkanasy and Dasborough (2009) concluded that since the EI construct had made its way into the *Annual Reviews of Psychology* (Mayer et al., 2008) as a viable and important construct, EI research was going to continue.

Organizational Commitment

OC is a concept that has been examined by many previous researchers given its relevance on positive employee outcomes (Clares & Ven, 2008; Clinebell, Skudiene, Trijonyte, & Reardon, 2013; Imran, Arif, Cheema, & Azeem, 2014; Meyer & Allen, 1997; Yoon & Hanjun, 2011; Yucel, 2012). OC refers to an employee's positive or negative feelings toward an organization's goals, vision, and values (Clares & Ven,

2008). Meyer and Allen (1997) defined OC as the psychological connection between the employee and the organization.

The level of connection individuals feel towards an organization directly influences whether or not they will want to remain a member of that company (Clares & Ven, 2008; Clinebell et al., 2013; Imran et al., 2014; Meyer & Allen, 1997; Yoon & Hanjun, 2011; Yucel, 2012). An employee's increased emotional attachment to the company will also lead to an increase in their involvement in, and identification with, the organization. Companies should aspire towards helping their employees *want* to be committed versus feeling as if it is a *need* that has been placed on them by management. By eliminating the feeling that commitment is only a forced obligation, leaders of organizations can decrease turnover rates and increase genuine loyalty from their employees (Meyer & Allen, 1997).

Yucel (2012) stated that OC and employee turnover intention are significant organizational issues. Employees either like or dislike their jobs; therefore, under these conditions employees will chose to stay or leave the organization. Employee involvement is a construct that combines OC and turnover intention and is one way in which job satisfaction can be tested. Turnover intention is the mediating factor between and employees' intent to leave and actually leaving an organization. Employees with strong OC are more likely to choose to stay with the organization and exhibit less likelihood of choosing to leave the organization.

Yoon and Hanjun (2011) suggested that employees need to trust the organization for which they are employed. Trust allows someone to be vulnerable based on the expectation that the other party will perform in a reasonable way (Yoon & Hanjun, 2011).

Yoon and Hanjun (2011) also stated that there are three types of trust within organizations: trust in management, which is reflective of organizational policies, processes, and programs; trust is in supervisors; and trust in co-workers. The last level of trust has gained increased attention over recent years because learning to work on a team with fellow colleagues facilitates information sharing within groups, which also increases an individual's problem-solving capacity. All forms of trust increase employee satisfaction, as well as OC.

OC can be influenced by leadership style (Clinebell et al., 2013; Imran et al., 2014). According to Clinebell et al. (2013), along with trust, OC is influenced by a manager's leadership style. Transactional leadership derives from the underlying principal that "transactions" take place between managers and employees, where expectations are explained to subordinates and compliance is expected in order for them to earn rewards, or risk punishment. This is what Bass et al. (2003) originally referred to as a cost-benefit exchange process. Transformational leadership is held on the belief that followers personally identify with leaders and thus are determined to surpass simple self-interest because of a shared vision (Clinebell et al., 2013). Employees under a transformational regime are strongly motivated and often overachieve. These leaders inspire, intellectually stimulate, and literally "transform" their employees into more productive workers. The last style is referred to as passive-avoidant leadership. While the former styles represent active leaders who generally aim to prevent problems, some leaders act indifferently. These leaders avoid responsibility and usually fail to form meaningful relationships with their employees (Clinebell et al., 2013).

Summary

A significant relationship exists between EI, OC, and leadership effectiveness (Goleman, 1998; Kerr, Garvin, Heaton, & Boyle, 2006; Rosete & Ciarrochi, 2005; Walter, Cole, & Humphrey, 2011). Petrides and Furnham (2006) stated that the EI of a leader in an organization correlated to the quality of the leader's relationship with their subordinates. These congenial relationships in turn improve subordinates' job performance, OC, and retention.

High EI positively influences workplace stress, perceived control, satisfaction, and commitment (Petrides & Furnham, 2006). Minimal research exists on the relationship between leadership styles and EI of U.S. federal executives. Angelidis and Ibrahim (2012) reported that EI is poised to become a primary tool in personnel selection, as more recent studies (Groves & Vance, 2009; Mohd Soieb, Othman, & D'Silva, 2013; Raja & Palanichamy, 2011; Seyal & Afzaal, 2013) revealed that the competencies associated with EI are twice as important as IQ or technical ability for career success.

U.S. federal organizations could benefit immensely from using EI assessment instruments for hiring and promotion decisions, as well as for developing training programs to strengthen the EI skills of current employees. The human resource departments could benefit from choosing personnel who are better equipped to manage high-stress and high-pressure environments. EI training diminishes the potential for team member burnout, interpersonal frictions, and interpersonal conflicts in the workplace (Hur, Van den Berg, & Wilderom, 2011). In this study, the researcher illuminated the importance of emotionally intelligent leaders for promoting employee OC. A greater understanding of the role of EI in the workplace, particularly in federal supervisors,

would provide insight for future hiring and promotion considerations.

Leaders of organizations need to adapt to rapid changes in the world in order to remain competitively advantaged. Such an environment requires employees and leaders who are flexible self-starters and who are customer-focused and share the company's vision. Leadership is the key element to organizational sustainability (Weinberger, 2009). Goleman (1998) noted the most effective leaders are alike in that they all have a high degree of EI. Higher levels of EI will lead to greater leadership effectiveness and Sadri (2012) proposed that leadership developmental programs would benefit from leaders that were EI.

This researcher sought to add to an important area of research regarding organizational behavior among federal U.S. employees. With downsizing and organizational change, paying attention to employees' OC is significantly important when examining future organizational sustainability. Federal employment is not an arena that many people can access easily. In this study, the researcher explored EI and OC of federal employees within the U.S. The results might yield insightful data that one could use in hiring, promotion, and retention of employees. Only by investigating the level of variance EI accounts for in organizational outcomes over known predictors of organizational outcomes could this researcher establish the utility of EI in predicting organizational outcomes.

The problem that was addressed in the proposed research included the limited information regarding the relationship between the OC of federal employees and the perceived EI of their supervisors (Badiru, 2014; Eaglen, 2014; Lee & Sanders, 2013). Given this research problem, the purpose of the quantitative correlational study was to

examine the relationship between OC of U.S. federal employees and the perceived EI of their supervisors. The next chapter involves the discussion of the proposed methodological plan for the study. The chapter includes discussions of the research methodology and design, measurement that used for the study, population and the selection of participants, the procedures for conducting the study, operationalization of variables, data collection methods, and data processing and analysis.

Chapter 3: Research Method

The purpose of the quantitative correlational study was to examine the relationship between OC of U.S. federal employees and the perceived EI of their supervisors. In this chapter, the researcher describes the research methodology and measurement used for this study, the procedures for conducting the study, variables, data collection methods, processing and analysis, and selection of participants. The chapter concludes with a summary of the key points of the proposed methodology.

Research Methods and Design

The researcher utilized a quantitative correlational research design to examine the relationship between the EI of leaders and the OC of employees in the U.S. federal workforce. Quantitative researchers focus on examining measurable phenomenon using statistical methods (Goertz & Mahoney, 2012). Quantitative research is appropriate in studies where one can transform concepts into variables so that several relationships can be examined (Walter & Andersen, 2013).

Qualitative research was not appropriate because this research approach is more applicable in studies that involve detailed exploration of a phenomenon using data collection tools, such as interviews and observations (Corbin & Strauss, 2014). Qualitative research is more appropriate in exploratory studies wherein the selected research topic is relatively new and only limited information exists from the literature (Silverman, 2013).

Correlational research involves the examination of the relationship of variables without determining, which causes an effect (Chrisman et al., 2014). A correlational research design using regression analysis is appropriate, given that the focus of the study

was examining the relationship between different variables. Other quantitative research designs, such as experimental and quasi-experimental designs, were not appropriate because the researchers could not manipulate variables in the study while in a controlled environment (Pierce, 2013).

Population

The population for this study included U.S. federal employees. The federal workforce of the United States employs approximately four million people, 1% of the total workforce of the nation (U.S. Office of Personnel Management, 2014). Over 200,000 federal jobs were cut due to the recession, and the federal workforce now employs the fewest people since 1966 (Zumbrun, 2014).

Sample

In this quantitative study, the sample comprised of 118 U.S. federal employees. For the purpose of this study, the researcher created an anonymous public Facebook page with a link to a Qualtrics survey containing the TCM Employee Commitment Survey and the WLEIS. The informed consent, at the beginning of the survey, asked the survey taker to certify that he or she is a U.S. federal employee and between the ages of 18 and 65.

Snowball sampling technique was used to increase the number of participants based on the target sample size. Snowball sampling entails a technique wherein existing participants were asked to refer other participants from their own personal networks or contacts (Baltar & Brunet, 2012). Because it was unknown how many people would take the voluntary survey, a large sample pool ensured the minimum sample size of 82 with 118 participants. The minimum sample size of 82 was determined based on the results of the G*Power analysis based on the .05 level of significance (Faul, Erdfelder, Buchner, &

Lang, 2009). The purpose of the research study was to measure the perceived EI of supervisors and explore that relationship to the OC of their direct reports.

Instruments

Two validated survey instruments were utilized in the study. The WLEIS was used to measure the direct reports' perceptions of the EI of their supervisors based on the four dimensions of EI: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion (Wong et al., 2007). The TCM Employee Commitment Survey was used to measure direct reports' OC based on affective commitment (desire-based), continuance commitment (cost-based), and normative commitment (obligation-based (Meyer & Allen, 1997). Affective commitment refers to the employees' identification with and emotional attachment to the organization. Continuance commitment refers to the employee staying for reasons, such as not having other job opportunities or a feeling of a need to stay not to miss entitlements (e.g., retirement). Normative commitment refers to the employee feeling a sense of obligation to remain loyal to the organization (Meyer & Allen, 1997).

Operational Definition of Variables

The two main variables of the study are operationally defined in this section:

Emotional intelligence. EI was operationally defined as the score of the participants on the WLEIS. The WLEIS was developed by Wong et al. (2004) and was used to measure subordinates' perceptions of the EI of managers derived from EI dimensions: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion (Law et al., 2004).

Organizational commitment. OC was operationally defined as scores on the TCM Employee Commitment Survey. The TCM was developed to measure total OC and its components: affective commitment, continuance commitment, and normative commitment. The OC components were subsumed into single value to represent the criterion variable (Meyer & Allen, 1997).

Organizational commitment was the dependent criterion variable of an 18-item interval variable on a 7-point Likert-style scale. Emotional intelligence was an independent predictor variable on a 16-item interval variable 7-point Likert-style scale. The independent variables included self-emotional appraisal, emotional appraisal, regulation of emotions, and utilization of emotions, which were predictor interval variables. The summary of the variables and the corresponding type, definition, level of measurement, and source for each are presented in Table 1.

Table 1

Variables Examined to Determine Organizational Commitment

Variable	Type of Variable	Definition	Levels of Measurement	Source
Organizational commitment	Dependent	Positive or negative Feelings toward the organization's goals.	Interval	Survey
Emotional intelligence	Independent	The ability to regulate emotions to promote emotional and intellectual growth.	Interval	Survey
Regulation of emotion	Independent	An individual's capacity to regulate emotions, permitting a swift recovery from positive or negative mood swings	Interval	Survey
Others-emotions appraisal	Independent	The capability of an individual to understand and naturally express emotions	Interval	Survey
Self-emotions appraisal	Independent	The capability of an individual to understand and naturally express emotions	Interval	Survey
Use of emotions	Independent	An individual's ability to understand and direct emotions toward positive performance activities	Interval	Survey

Data Collection, Processing, and Analysis

This study utilized two validated survey instruments: the WLEIS (Wong et al.,

2004), and the TCM Employee Commitment Survey (Meyer & Allen, 1997). Both the

WLEIS and the TCM Employee Commitment Survey combined entailed only 34

questions and were administered online. An anonymous online survey was the preferred

data collection method for this study because of its low cost; moreover, it reached intended recipients with ease, and results were quickly and conveniently collected and analyzed. The survey was cross-sectional and captured the data of a random set of participants at one point in time. Current employees were asked to participate voluntarily in the survey to determine whether a correlation existed between employee OC and the perceived EI of their supervisors. The sample for the survey derived from U.S. federal employees. An example of the survey questions is provided in Appendix B.

The researcher analyzed the data collected from the survey using descriptive statistics, correlation, and multiple regression analyses utilizing the Statistical Package for the Social Sciences (SPSS) software. The results provided information about the relationship between perceived supervisor EI and total OC in subordinates. The research question was analyzed using Pearson's correlational analysis and regression analysis to determine the relationship between the EI of leaders and the OC of employees in the U.S federal workforce.

Assumptions

The first assumption of the study was that the participants would remain honest with their responses in the questions from the survey questionnaires. All survey questionnaires were administered online without the direct supervision of the researcher. There was a note at the beginning of the survey that indicated the anonymity and protection of data, encouraging participants to take their time to answer the questions as accurately as possible and based on their own opinions and experiences.

The second assumption of the study was that the target sample size of 82 participants could be accessed. If sufficient participants could not be reached, snowball

sampling technique was used to increase the number of participants based on the target sample size. Snowball sampling entailed a technique wherein existing participants were asked to refer other participants from their own personal networks or contacts (Baltar & Brunet, 2012).

The final assumption of the study was that the selected research design of correlation would be sufficient in providing information necessary to answer the research questions. The purpose of the study was to examine the relationship between two variables that could be measured using standardized instruments. The purpose of the study was in alignment with the principles and framework of correlational research design (Chrisman et al., 2014).

Limitations

The first limitation of the study was that correlational research design would not provide data needed to conclude a cause and effect relationship between OC of employees and the EI of leaders. Despite this limitation, the results of the study could still provide valuable insight into effective leadership and be used as a foundation for future studies to strengthen the literature on OC and EI in the U.S federal workforce.

The second limitation of the study was that all variables would be measured using self-report survey instruments. Both the WLEIS (Wong et al., 2004) and the TCM Employee Commitment Survey (Meyer & Allen, 1997) were considered valid and reliable instruments. Despite the instruments' validity and reliability, the measurement of OC and the EI of leaders would only derive from the judgment of the participants based on their own assessment and evaluation.

Delimitations

Federal employees of the U.S. are employed all over the world, but the sample only included those who utilized the social media venue Facebook. Federal employees who did not use Facebook were not included in the population and sample unless they were sent the link to the survey through snowball sampling. The study was also delimited to collecting survey data through an online service provider, such as Qualtrics. There was no face-to-face contact between the researcher and the participants.

Ethical Assurances

Prior to the online collection of data, the approval of the Internal Review Board (IRB) of Northcentral University was secured. The appropriate application forms with the required attachments were submitted to the IRB for processing and approval. If revisions were required, the researcher resubmitted an application form with the changes integrated in the proposal. After the IRB approval was secured, data collection commenced.

Informed consent forms (Appendix A) were used to protect the participants from abuse and other practices that can one could consider as unethical. The informed consent forms included general information about the credential of the researcher, the process for withdrawal, and the dissemination of findings. The informed consent forms were affixed to the survey questionnaire, which was administered online. To minimize the inconvenience of using electronic signature and to ensure anonymity, participants could affirm voluntary participation by simply clicking a checkbox in place of their signatures.

Voluntary participation was emphasized, starting with the recruitment for the study through the data analysis procedure. In instances in which participants wanted to

withdraw from the study, withdrawal from the research could be requested through email. If the request was received before data collection, the researcher instructed the participants simply to ignore the previous information intended for accessing the online survey. If the request was received after data collection, all data collected from the participant who expressed the desire for withdrawal was excluded during data analysis.

Data collected from the participants remained protected by an anonymous online survey. For convenience and facility, numbers 1-118 were used during the encoding of the raw data in the SPSS software. Personal information of the participants was not collected or used during the analysis or in the presentation of the findings.

After the approval and publication of this dissertation, all data were kept for a period of seven years. The data, kept for archival records, included the raw data from the online survey and the data analysis files generated from SPSS. Seven years after the approval and publication of the dissertation, this researcher will permanently delete all files from the researcher's hard drive.

Summary

The researcher used a quantitative correlational research design in the study. Two validated survey instruments measured the OC of federal employees of U.S. and the perceived EI of their supervisors. The WLEIS measured the direct reports' perceptions of the EI of their supervisors based on the four dimensions of EI: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion (Wong et al., 2007). The TCM Employee Commitment Survey was used to measure direct reports' OC based on affective commitment, continuance commitment, and normative commitment (Meyer & Allen, 1997).

The sample included 118 federal employees of the U.S. The study entailed sending a 34-question anonymous survey to employees using Qualtrics via the Internet. The survey included a compilation of the WLEIS and the TCM Employee Commitment Survey. The scores from the two testing instruments demonstrated the correlation or non-correlation between federal employees' OC and ways in which they perceived their supervisors' EI.

The study might add to an important area of research regarding organizational behavior. With downsizing and organizational change, paying attention to employees' OC is significantly important when examining future sustainability. The U.S. federal workforce is not an arena that many people can easily access. In this study, the researcher examined EI and OC within the realm of federal employees in the U.S., an area never before examined in research. The results might yield data that one could use in hiring, promoting, and retaining employees. The next chapter will contain the results of the data analysis.

Chapter 4: Results

The purpose of this quantitative correlational study was to examine the relationship between the organizational commitment of U.S. federal employees and the perceived emotional intelligence of their supervisors. The researcher utilized two standardized instruments to collect data for the study variables of OC and perceived supervisor EI. The WLEIS (Wong, Law, & Wong, 2004) was used to measure direct reports' perceptions of the EI of their supervisors based on four dimensions: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion. The TCM Employee Commitment Survey (Meyer & Allen, 1997) was used to measure OC. The study was guided by the following research question and hypotheses:

Research question. Is there a significant relationship between organizational commitment of U.S. federal employees as measured by the Three Component Model (TCM) Employee Commitment Survey and the perceived emotional intelligence of supervisors as measured by the Wong and Law Emotional Intelligence Scale (WLEIS)?

This chapter will provide the descriptive characteristics of the sample of the study and the results of the statistical analyses conducted. The descriptive characteristics presented include the study variables of OC, as measured by the TCM Employee Commitment Survey, and the perceived EI, as measured by the WLEIS, including its four dimensions of regulation of emotion, others-emotions appraisal, self-emotions appraisal, and use of emotions. The researcher used Pearson's correlation and multiple linear regression to answer the research question for the study. A summary is presented to emphasize the main findings of this chapter.

Data Collection

Two validated instruments were used to conduct the survey: the WLEIS (Wong et al., 2004) and the TCM Employee Commitment Survey (Meyer & Allen, 1997). The survey was administered online to a sample of U.S. federal employees between the ages of 18 to 65 years old. Based on the results of the G*Power analysis, as discussed in the previous chapter, the minimum sample size derived from the .05 level of significance was 82. A total of 127 samples were obtained; however, nine of these had incomplete data, and as such, these were excluded from the statistical analyses. The total sample size for this study included 118 participants, which more than fulfilled the minimum required sample size of 82. The dependent variable of OC was computed as a single value as an average of the responses to the TCM Employee Commitment Survey (Meyer & Allen, 1997). The independent variable of EI was computed as both a single value, as the average of the responses to the WLEIS; and as its four dimensions of: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion (Wong et al., 2004). The four dimensions of perceived EI were computed as the average of the items presented in Table 2. No demographic information was collected from the participants.

Table 2

Dimensions of Emotional Intelligence

Dimensions	Items
Self-emotions appraisal	I believe my manager has a good sense of why he/she has certain feelings most of the time.
	I believe my manager has a good understanding of his/her own emotions.
	I believe my manager understands what he/she feels.
	I believe my manager always knows whether or not he/she is happy.
Others-emotions appraisal	I believe my manager can determine others' emotions from observing their behavior.
	I believe my manager is a good observer of others' emotions.
	I believe my manager is sensitive to the feelings and emotions of others.
	I believe my manager has a good understanding of the emotions of people around him/her.
Regulation of emotion	I believe my manager is able to control his/her temper and handle difficulties rationally.
	I believe my manager is quite capable of controlling his/her emotions.
	I believe my manager can always calm down quickly when he/she is very angry.
	I believe my manager has good control of his/her own emotions.
Use of emotion	I believe my manager always sets goals then tries his/her best to achieve them.
	I believe my manager always considers himself/herself to be a competent person.
	I believe my manager is a self-motivating person.
	I believe my manager is always self-motivated to do his/her best.

Results

The descriptive statistics of the study variables of OC and EI, including the four

dimensions of EI, are presented in Table 3. OC was computed as the average of the

responses of the 18-item TCM Employee Commitment Survey. Organizational

commitment scores ranged from 1.56 to 6.83, with an average of 4.18 ($SD = 0.92$). As

the responses ranged from 1 (strongly disagree) to 7 (strongly agree), the average score is

an indication that the participants have slightly positive feelings toward the organizations

they currently work in.

Table 3

Descriptive Statistics of Study Variables (N=118)

	Minimum	Maximum	Mean	Std. Deviation
Organizational Commitment	1.56	6.83	4.18	.92
Emotional Intelligence	1.00	7.00	4.99	1.32
Self-Emotions Appraisal	1.00	7.00	4.93	1.54
Others-Emotions Appraisal	1.00	7.00	4.61	1.69
Regulation of Emotion	1.00	7.00	5.07	1.51
Use of Emotion	1.00	7.00	5.35	1.31

Test of normality. Normality of data were tested through Shapiro-Wilk's test of normality, as well as through observing skewness and kurtosis of the data, and Q-Q plots of the data of the study variables. The Shapiro-Wilk's test of normality indicated that data for the study variables were not normally distributed ($p > .05$). However, upon observation, skewness and kurtosis statistics of the data of all study variables fall within the acceptable range of -1 to 1. In addition, the Q-Q plots indicate approximate linearity of the points in Figures 2 to 7. These indicate that, although the data may not be normally distributed, as per the Shapiro-Wilk's test, the skewness and kurtosis values, as well as the Q-Q plots, indicate that the data are approximately normally distributed.

Table 4

Shapiro-Wilk's Test of Normality

	Statistic	df	Sig.
Organizational Commitment	.974	118	.021
Emotional Intelligence	.946	118	.000
Self-Emotions Appraisal	.923	118	.000
Others-Emotions Appraisal	.920	118	.000
Regulation of Emotion	.899	118	.000
Use of Emotion	.918	118	.000

Table 5

Skewness and Kurtosis

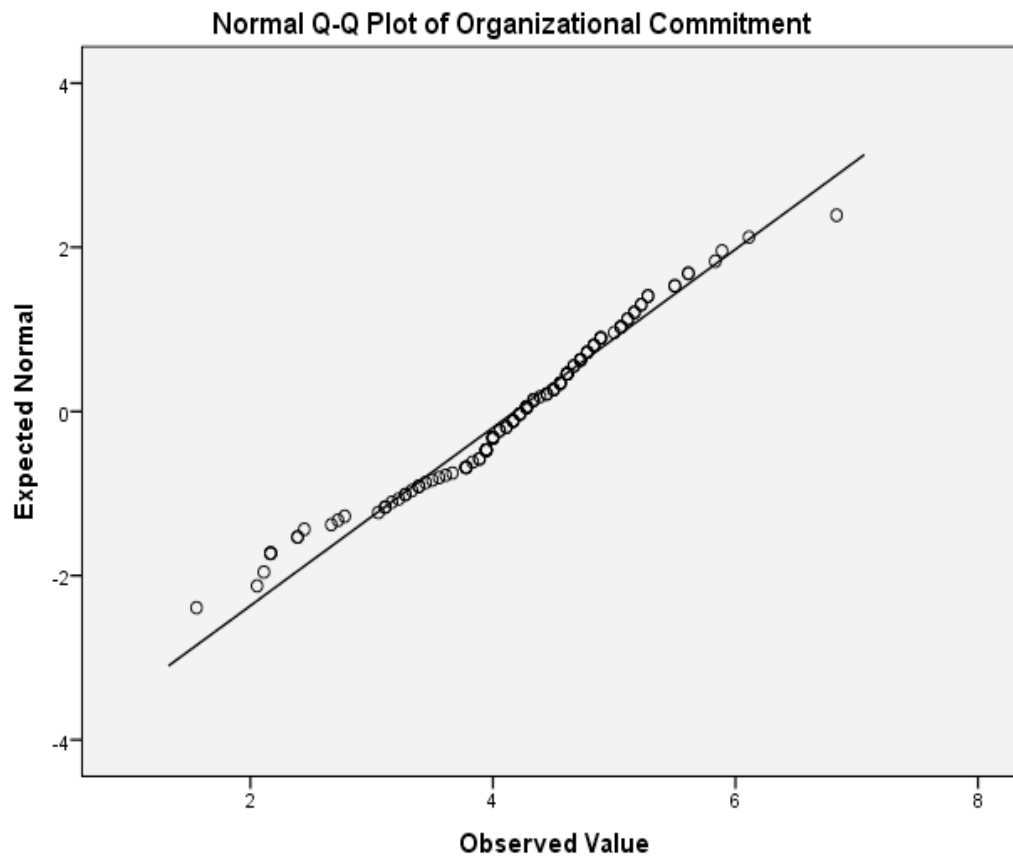|	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Organizational Commitment	-.407	.223	.614	.442
Emotional Intelligence	-.790	.223	.265	.442
Self-Emotions Appraisal	-.984	.223	.259	.442
Others-Emotions Appraisal	-.833	.223	.057	.442
Regulation of Emotion	-.631	.223	-.714	.442
Use of Emotion	-.959	.223	.712	.442

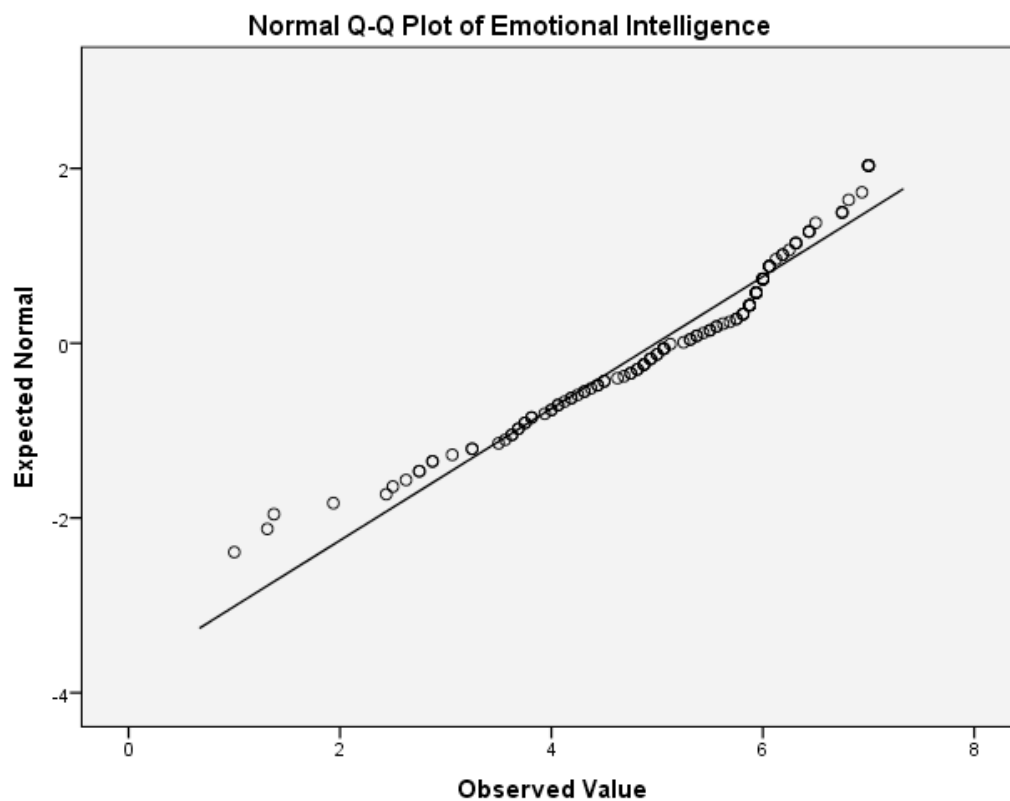*Figure 2*. Q-Q plot of organizational commitment.

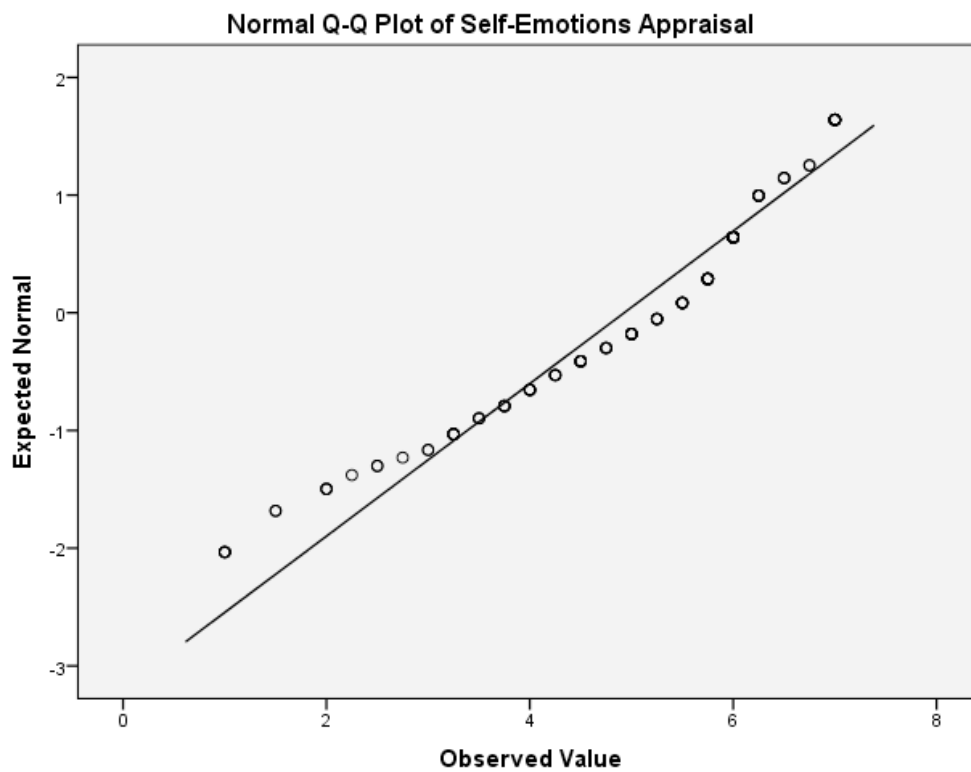*Figure 3.* Q-Q plot of emotional intelligence

Figure 4. Q-Q plot of self-emotions appraisal.
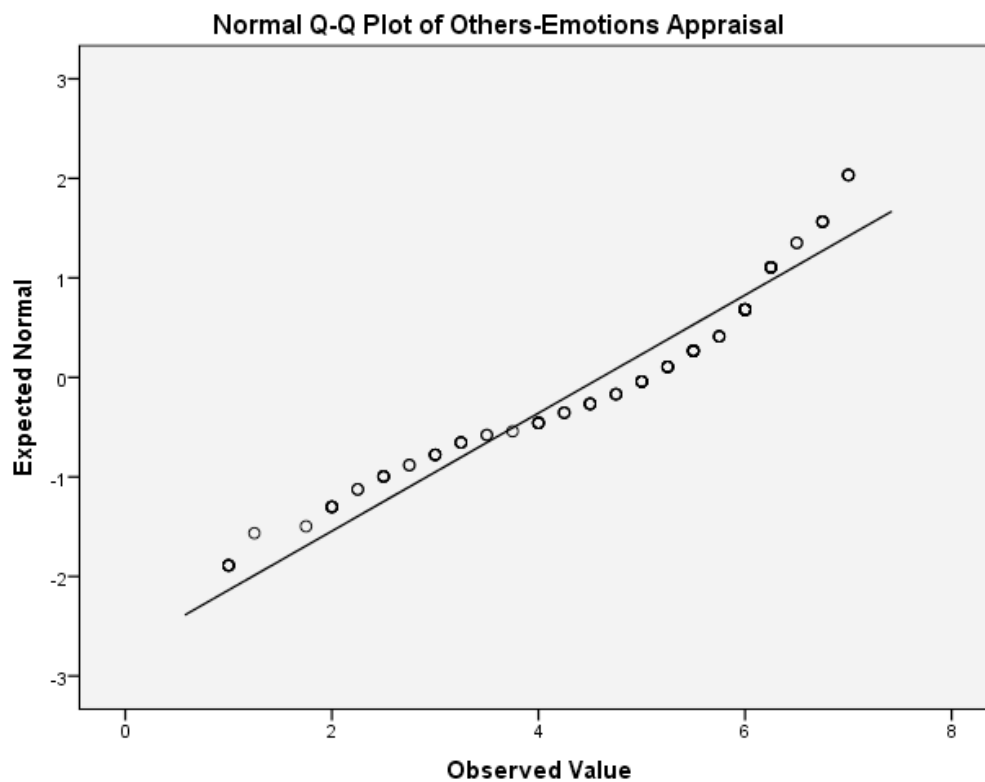
Figure 5. Q-Q plot of others-emotions appraisal.
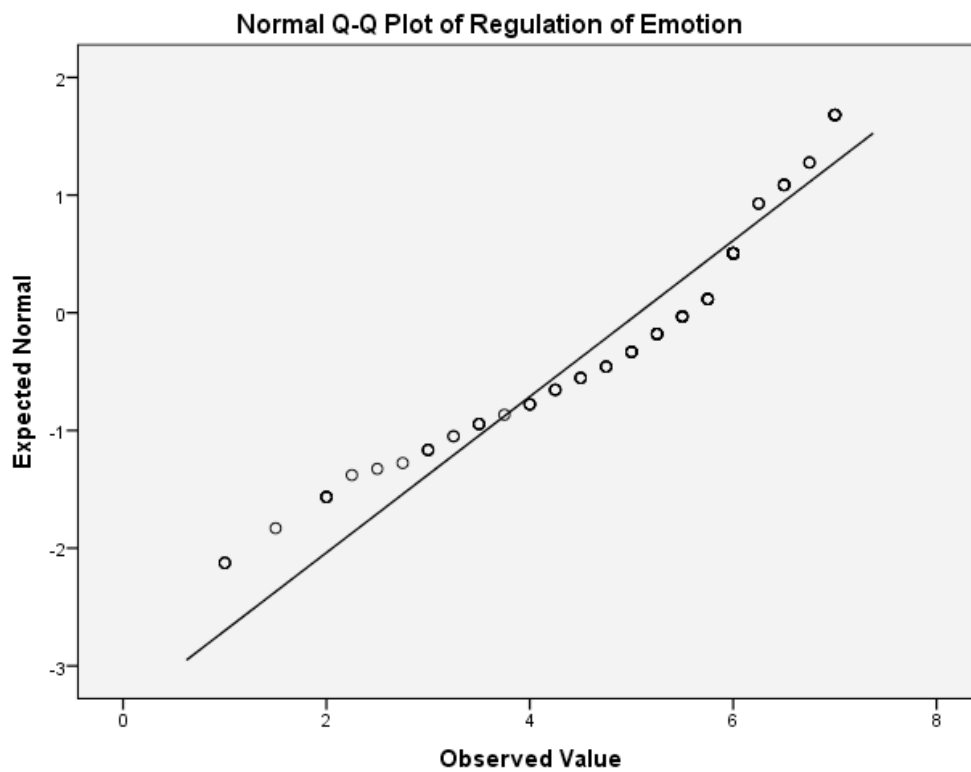
Figure 6. Q-Q plot of regulation of emotion.
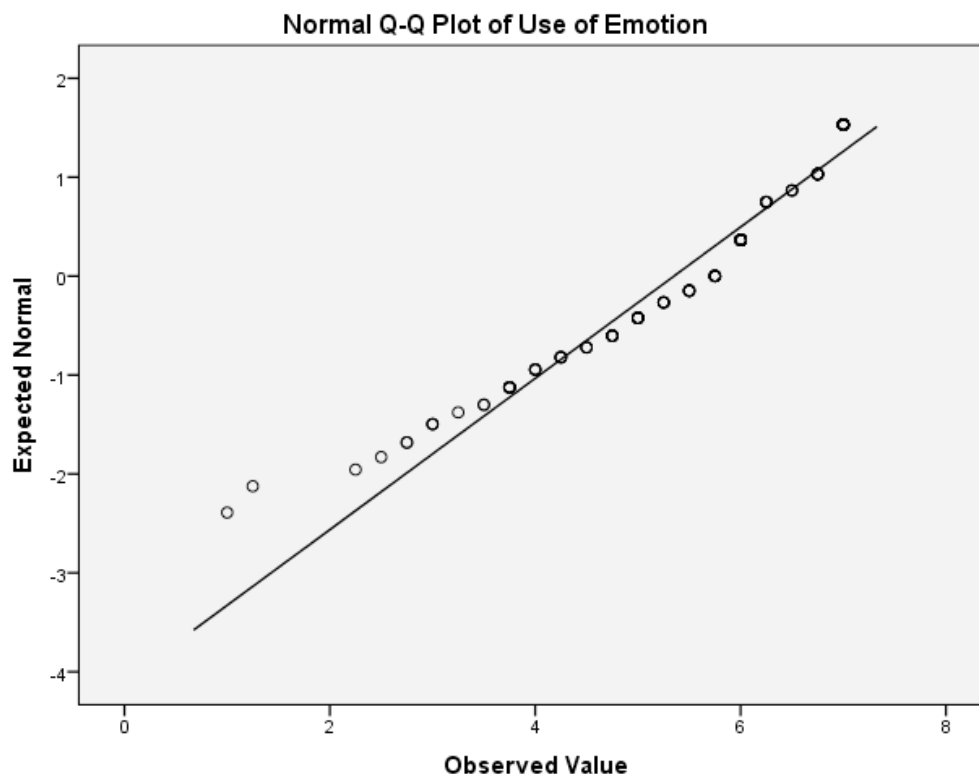
Figure 7. Q-Q plot of use of emotion.

Research question. The research question asks what relationship, if any, exists between organizational commitment of U.S. federal employees as measured by the TCM Employee Commitment Survey and the perceived EI of supervisors, as measured by the WLEIS. The research question was further examined with OC and perceived EI of supervisors as a univariate variable and the four dimensions of EI: OC and regulation of emotion dimension of EI; OC and others-emotions appraisal dimension of EI; OC and self-emotions appraisal dimension of EI; and OC and use of emotions dimension of EI. To test the aforementioned relationships, Pearson's correlation tests were conducted, as the data exhibited approximately normal distribution. The results of the Pearson's correlation tests are presented in Table 6.

As observed, OC was significantly, positively correlated with EI as a univariate variable at $p < .05$. The correlation coefficient indicates that there is a significant weak positive relationship between OC and EI. As such, the results indicated that there is a statistically significant correlation between the OC of U.S. federal employees and the perceived EI of supervisors.

OC was observed as significantly, positively correlated with the EI dimension of self-emotions appraisal at $p < .01$. The correlation coefficient indicates that there is a significant weak positive relationship between OC and self-emotions appraisal. As such, there is a statistically significant correlation between the OC of U.S. federal employees and the self-emotions appraisal dimension of perceived EI of supervisors.

OC was observed as significantly, positively correlated with the EI dimension of others-emotions appraisal at $p < .05$. The correlation coefficient indicates that there is a significant weak positive relationship between OC and others-emotions appraisal. As such, there is enough evidence to support a statistically significant correlation between the OC of U.S. federal employees and the others-emotions appraisal dimension of perceived EI of supervisors.

OC was observed as not significantly correlated with the EI dimension of regulation of emotion ($p > .05$). As such, there was not enough evidence to support the statistically significant correlation between the OC of U.S. federal employees and the regulation of emotion dimension of perceived EI of supervisors.

OC was observed as not significantly correlated with the EI dimension of regulation of emotion ($p > .05$). As such, there was not enough evidence to support the

statistically significant correlation between the OC of U.S. federal employees and the regulation of emotion dimension of perceived EI of supervisors.

Table 6

Pearson's Correlation Test between Organizational Commitment and Emotional Intelligence

	Organizational Commitment
Emotional Intelligence	.209*
Self-Emotions Appraisal	.255**
Others-Emotions Appraisal	.183*
Regulation of Emotion	.103
Use of Emotion	.190*

* $p < 0.05$, ** $p < 0.01$

Based on the results of the research question and hypotheses of the study, the researcher also examined if EI of supervisors, as measured by the four dimensions of the WLEIS, could predict OC of U.S. federal employees as measured by the TCM Employee Commitment Survey. This was answered by conducting a multiple linear regression analysis with the dependent variable of OC and the dimensions of perceived EI as independent variables: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion. To determine whether multicollinearity was an issue between the independent variables, the collinearity statistics, represented by the tolerance and Variance Inflation Factor (VIF), were calculated. A tolerance value of less than 0.20 (Menard, 1995) or a VIF value over 5 (Rogerson, 2001) would indicate multicollinearity among the predictors in the multiple linear regression model. The collinearity statistics of the independent variables are presented in Table 7. As observed, none of the tolerance values were below 0.20, and none of the VIF values were over 5. As such, there were no multicollinearity issues between the predictors.

Table 7

Collinearity Statistics of Independent Variables

	Collinearity Statistics	
	Tolerance	VIF
Others-Emotions Appraisal	.311	3.212
Regulation of Emotion	.414	2.418
Self-Emotions Appraisal	.275	3.641
Use of Emotion	.537	1.863

The results of the multiple linear regression test are presented in Table 8. The adjusted R^2 value indicates that the independent variables (four dimensions of perceived EI) explain 5.2% of the variance of the dependent variable, OC. The results indicate that the independent variable statistically significantly predict the dependent variable, $F(4, 113) = 2.62$, $p = .039$, which means that the regression model is a good fit for the data. Finally, out of the four dimensions of perceived EI of supervisors, the dimension of self-emotions appraisal was found as a statistically significant positive predictor of OC at $p < .05$. This indicates that a higher self-emotions appraisal score would contribute to a higher OC score. The dimensions of others-emotions appraisal, regulation of emotion, and use of emotion were not found as significant predictors of OC. With the results of the multiple linear regression test, H2$_o$ was rejected in favor of the alternate; however, from the four dimensions of EI, as measured by the WLEIS, only the appraisal of self-emotions demonstrated a statistically significant positive predictor of OC of U.S. federal employees, as measured by the TCM Employee Commitment Survey.

Table 8

Multiple Linear Regression Test Summary Table

Variable	B	$SE\ B$	β
(Constant)	3.453	.364	
Others-Emotions Appraisal	-.016	.088	-.029
Regulation of Emotion	-.121	.085	-.198
Self-Emotions Appraisal	.218	.103	.366*
Use of Emotion	.063	.087	.090

* $p < .05$

Evaluation of Findings

Based on the results of the analyses for the research question, the 118 responses from U.S. federal employees indicated that the dimension of self-emotions appraisal was a significant predictor of OC. In other words, this study could effectively predict the OC of employees based on how well supervisors understand and express emotions. The present research builds on prior literature by better understanding the variables of EI and ways in which these relate to conditions of the workforce. In a multi-faceted study, Momeni (2009) discovered that 70% of employee's perception towards their organizational climate was a direct result of the manager's leadership style and behavior. Further, Momeni discovered that EI of managers was responsible for 55% of the employee's feelings regarding the organizational climate. The subscale used in Momeni's research included four aspects of EI, all related to self-emotions appraisal: self-awareness, self-management, social awareness, and relation management. The present study remained grounded in similar aspects of EI through the dimension of self-emotions appraisal and the predictive power of OC therein.

Three other dimensions of EI were also measured for their predictive power on OC. The dimensions of others-emotions appraisal, regulation of emotion, and use of

emotion were not significant predictors of OC of U.S. federal employees. Although these do exhibit a relationship, business leaders would not be advised to predict OC based on these three dimensions of EI. Since one of the four dimensions (self-emotions appraisal) is a predictor of OC, it is important to understand why these differences exist. The lack of predictive power regarding the other dimensions may be a result of limited perception of the participants. The 118 U.S federal employees were asked to assess the EI of their supervisors on two different levels. One level was outward emotional behavior (i.e., use of emotion, regulation of emotion, and others-emotions appraisal), while another level was an inward emotional behavior (i.e., self-emotions appraisal). It is possible that a perceptual limitation existed between these levels of emotional behavior, which was inaccessible to the respondents and/or immeasurable through surveys. This phenomenon would explain the lack of predictive power in certain dimensions of EI and explain the fact that these findings do not align with several conclusions in the literature. In terms of outward emotional behavior, Moon and Hur (2011) confirmed that outward EI skills such as appraisal of others' emotions and social skills were highly related to EI as well as OC. In terms of inward emotional behavior, Zampetakis and Moustakis (2011) found that managers' self-emotional appraisal and regulation of emotions had positive relationships with group job satisfaction, an analog for organizational commitment.

Summary

This chapter presented the results of the statistical analyses that were conducted to address the research question of the study. In addressing the research question, the research discovered that OC significantly and positively correlated with the perceived EI of supervisors when taken as a univariate variable. When EI was taken as four

dimensions, OC was found to be significantly, positively correlated with self-emotions appraisal, others-emotions appraisal, and use of emotion. OC was not found to be significantly correlated with the dimension of regulation of emotion. In addressing the research question, this researcher discovered that, in a multiple linear regression model, only the dimension of self-emotions appraisal demonstrated was a significant positive predictor of OC. The dimensions of other-emotions appraisal, regulation of emotion, and use of emotion were not found to be statistically significant predictors of OC. The next chapter will discuss the findings presented in Chapter 3 and align these with existing literature. The next chapter will also present recommendations for future studies, as well as the conclusion of this study.

Chapter 5: Implications, Recommendations, and Conclusions

Organizational commitment of U.S federal employees is low (U.S. Office of Personnel Management, 2014). The presence of low OC could affect numerous variables regarding employee productivity and well-being. Emotional intelligence, on the other hand, has been found to predict organizational success. In fact, researchers have found that EI demonstrates as more important than intellectual intelligence when it comes to predicting the success of leaders in the workforce (Sadri, 2012). EI is responsible for roughly 90% of the difference between average and outstanding leaders (Goleman, 2011). For this reason, the present research study was conducted to reveal the relationship between a supervisor's EI and the OC of employees based on 118 responses from U.S. federal employees.

The research question proposed in the current study: What is the relationship between the organizational commitment of U.S. federal employees as measured by the Three Component Model (TCM) Employee Commitment Survey and the perceived emotional intelligence of supervisors as measured by the four dimensions of the Wong and Law EI Scale (WLEIS)? After the researcher collected responses, the data were analyzed and statistical analyses were conducted. These analyses indicated that there is indeed a relationship between perceived EI of supervisors and employee's OC. Further, a supervisor's ability to understand and naturally express emotions can significantly predict the level of OC of that supervisor's employees. Not only did this research confirm that there is a relationship between EI and OC, but this study also revealed the uniqueness associated with the dimensions of EI.

The purpose of this research was to understand the relationship between organizational commitment of employees and their perceived EI of supervisors. Since the data collected from 118 U.S. federal employees revealed a relationship between employee OC and supervisor EI, this study could be used for the strategic advisement of organizational policy to enhance employee OC. The results could also inform leadership development programs by focusing on teaching EI to develop EI of leaders. Since both tests successfully revealed significant relationships, these could be used to determine the EI of prospective hires. Similarly, the Three Component Model (TCM) Employee Commitment Survey could confidently be used to gauge the employee's OC.

This chapter will summarize the meaning of these research findings and how these could be carried into practice and to expand the existing literature review. Each hypothesis and associated result will be discussed and placed within the context of existing literature to indicate ways in which the present study advances current research. The implications of the findings will be discussed alongside the potential impact on the field's understanding of OC and EI. Limitations regarding the present research will then be discussed. The chapter will also outline directions for future research with recommendations and suggestions that broaden the scope of implications, while outlining and addressing limitations that were encountered. Lastly, this chapter will conclude with a brief discussion on the importance of this type of inquiry.

Implications

EI is described in a number of ways (Bar-On, 2010; Mayer et al., 2008; Mayer & Salovey, 1997), but researchers have operationally defined EI as the score of the participants on the WLEIS, which is used to measure subordinates' perceptions of their

supervisor's EI. OC was defined as the scores a participant received on the TCM

Employee Commitment Survey, which measures total OC and the three components:

affective, continuance, and normative commitment. Results from each scale were tested

for statistical significance and indicated that OC and levels of EI are indeed related.

The OC of 118 U.S. federal employees correlated with the perceived EI of their

supervisors. After significance tests were performed, the results indicated that there is a

positive relationship between OC and EI, with a p value of $p < .05$. Participants of the

present research felt more committed to their job when working with supervisors (whom

they felt) possessed high EI, as determined by the TCM and WLEIS. EI is often

measured in units of emotional quotients (EQ). According to Khalili (2012), leaders with

high EQ are more capable of building mutual trust and forging relationships of warmth,

closeness, and respect with members of their group. That said, the results from the

research question of the present study confirmed that supervisors with high EI have a

positive impact on OC. Although the direction of causality could not be determined, the

positive relationship remains in line with prior research.

The research question examined whether a significant relationship exists between

employee OC and perceived EI of supervisors, utilizing the four dimensions of self-

emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion,

alongside the TCM and WLEIS scales to determine whether a correlation exists. These

sub-categories of EI were in line with previous research, which suggested multi-faceted

utilization of EI and organization through branches (Mayer & Salovey, 1997; Mayer et

al., 2004). The results indicated that three of the four dimensions of EI had significant

correlation with OC. The dimension of regulation of emotion was the only dimension

lacking a significant relationship to OC. This may derive from perceptual limitations consistent with quantitative and survey based data. The exclusivity, regarding the lack of relationship in the EI dimension of regulation of emotion, also highlighted the discretionary nature of each dimension. This exclusivity represented evidence of a distinct characteristic of EI and encouraged branch modeling.

Dimension of self-emotions appraisal. According to Wong et al. (2007), self-emotions appraisal is a dimension of EI that relates to the capability to understand and naturally express emotions. The current study of 118 U.S. federal employees and the perceived EI of their supervisors indicated that there is a significant relationship between OC and dimensions of the self-emotions appraisal of supervisors. The p value for this significance test was $p < .01$. If a supervisor was more capable of understanding and naturally expressing emotions, then the employees were often more committed to the organization. This finding helped bring insight to the personal expression of supervisor's emotions and could inform hiring processes, executive coaching, and supervisor training policies. Supervisors with high self-emotions appraisal could recognize indicators of burnout, exit intention, and negligent behavior, all indicators of lack of employee OC (Vigoda-Gadot & Meisler, 2010), which supported the position that high EI leads to high OC and positive welfare of employees.

Dimension of others-emotions appraisal (OEA). Others-emotions appraisal is the dimension of EI that reflects an individual's ability to understand and gain perspective on other's emotions (Wong et al., 2007). In the present study, a statistically significant relationship was discovered between others-emotional appraisal and OC of U.S. federal employees. This finding indicated that more organizational success is

present when supervisors were more aware of their employee's emotional well-being. This remains in line with prior research from Zampetakis and Moustakis (2011), who posited that leaders of organizations influence the social conditions, feelings, behaviors, and perceptions of their subordinates, further emphasizing the importance of understanding the employee's emotional state. Given that people using EI remain concerned with understanding themselves and others, the present research built on prior analysis from Colfax et al. (2010) who posited that EI leaders are skilled at navigating people and possessed social agility. The relationship between OC of employees and the dimension others-emotion appraisal further highlighted the interconnectedness of these phenomena as seen in prior literature.

Dimension of regulation of emotion (ROE). Law et al. (2004) defined the regulation of emotion as an individual's capacity to regulate emotions, which allowed swift recovery from positive or negative mood swings. The present study did *not* find a relationship between supervisor's regulation of emotion and OC of U.S federal employees. However, the absence of a relationship between these two variables emphasized the value of the relationships discovered in the other tests of EI dimension. This means that EI was more adequately associated with other metrics (i.e., self-emotions appraisal, others-emotion appraisal, and use of emotion). Other research by Moon and Hur (2011) indicated that higher EI is linked to more effective coping with occupational and environmental stressors. One limitation to explain this disconnect in the present study is that perceived regulation was more difficult to measure due to positionality of the employee and supervisor. Specifically, the codified embodiment of authority (supervisor to employee) could skew the emotional regulation that employees perceived from their

supervisors. Given that every other dimension of EI yielded a relationship, it is important to consider the exclusivity of these variables and the differing relationship each dimension had with EI.

Dimension of use of emotion (UOE). Prior literature defined the use of emotion as one's ability to comprehend and focus emotional activities toward positive performance (Law et al., 2004). The use of emotion is especially important to modern day business leaders due to the changing states of globalization and technological advances (Wu, 2009). With increased change, leaders face new challenges and consistently refocus emotional energy towards positive performance. The responses from 118 federal employees indicated a significant relationship between the commitment of U.S. federal employees and the use of emotions dimension of EI. Given that supervisors and leaders in the workforce were more likely to positively transform institutions if they possess high EI (Goleman, 2011), the link between OC and positive transformation was revealed through the abovementioned results of the present research. The research suggested that organizations were more likely to experience positive transformation when OC was strong.

The research further explored the predictive power of the dimensions of EI: self-emotions appraisal, others-emotions appraisal, regulation of emotion, and use of emotion. The results revealed that only one dimension of EI, self-emotions appraisal, possessed predictive qualities concerning OC. As mentioned earlier, this variable exclusivity highlighted the distinctions between each dimensions of EI. The resulting exclusivity also indicated that both tests (TCM and WLEIS) could determine differences regarding the dimensions of EI.

The perceived EI of supervisors and the OC of their employees significantly related in a participant pool of 118 U.S. federal employees. The potential impact for positive social change would apply to the public sector workforce. Results from the present study indicated that organizational climate of the public sector could be improved if supervisors displayed high levels of EI. Consequently, employees would also be more committed to their organization. Efforts to enhance OC prevents turnover and contributes to departmental efficacy (Pierro et al., 2013). Increasing the levels of supervisor EI would ultimately increase productivity and longevity of employees. Business leaders could use this information to understand better OC, anticipate or catalyze positive organizational transformation, and deepen the contextual relationship employees have with the organization.

Due to the varying degrees of predictability and correlation between dimensions of EI, the research also indicates that WLEIS and TCM are significant predictors of both EI and employee commitment. This means that organizations could confidently employ these tests to understand better the respective state of the organization's employees and supervisors. Leadership training and scouting could be guided by the results of this study. For example, during preliminary interviews for leadership positions, an organization can administer the WLEIS. The score an applicant receives on this test could help hiring managers to gauge the impact a potential leader would have on the OC of other employees. Future methodologies could also use the WLEIS and TCM tests as stable predictors of EI and OC, especially since the findings of the present research remained consistent with results in the field.

Limitations

Participants for the present study were gathered through a public Facebook page that contained a Qualtrics survey link. This limited the implications of the research study because not everyone has a Facebook account. As with any quantitative, survey-based study, limitations to this research also included the varying perceptions and degrees of EI both in literature and in lived experiences of participants.

Other limitations arose regarding the population characteristics, scope of implications, and instruments used. Demographic data for the participants were not collected during this research. Further, the data were collected through snowball sampling technique where participants were asked to forward other participants from their personal networks (i.e., Facebook; Baltar & Brunet, 2012). This sampling technique, combined with the lack of demographic data, narrowed the application of the results found in the present research. One could argue that only a single population was reached, and the participants do not represent the full spectrum of U.S. federal employees. However, it would be nearly impossible to gauge variations of respondents and the characteristics therein (e.g. geography, age, field of work, income, etc.) without performing a qualitative analysis. The Facebook platform does provide access to qualitative data; and methods for adding a qualitative lens and broadening the scope of implications in future research are both suggested in the next section.

Since this research derived from U.S. federal employees, the implications should only apply to the federal workforce in the United States - a workforce that makes up 1% of the entire working U.S. population (U.S. Office of Personnel Management, 2014). The instruments used to collect data from 118 U.S. federal employees also present

limitations. Both the WLEIS and the TCM are self-report style surveys, which means that truthfulness of the responses may vary. Further, numerous scales measure EI. These scales vary widely in various demographic targets, structure, and overall composition. Some scholars even question their validity and efficacy in predicting EI (Antonakis & Dietz, 2011; Antonakis et al., 2009; Fiori & Antonakis, 2011; Law et al., 2004).

The implications of this research are not limited by the presence or absence of a causal relationship between EI of supervisors and OC of employees. Respondents revealed other important relationships between these two variables, especially concerning the predictive power of self-emotions appraisals in regards to OC. Furthermore, the overall well-being of a company carries larger social value than the EI of one particular individual. It is important to keep in mind the impact that a positive institution can have on the well-being of an individual and in turn - their EI. Consequently, the direction of this relationship is not important to grasp as this may vary from institution to institution.

Recommendations

Since there was a significant relationship between OC of employees and their perceived supervisors' EI, future research into this field should widen to include populations outside of the federal workforce. However, some limitations to the current study did exist and should be advised accordingly. Future research should be guided in a direction to adequately account for these limitations and enhance the scope of the study's implications.

Recommendations for research. As mentioned earlier, this research lacks demographic data and would benefit from a qualitative lens. Because the platform used a social media outlet, adding a qualitative analysis would be feasible given the time.

Collecting demographic data at the beginning of surveys, for example, could boost the value of implications offered by the present study. This type of data would allow future research and policy to improve OC more effectively based on specific demographic indicators. Prior research sometimes includes geographic location (Law et. al., 2004; Shooshtarian, 2013; Vigoda-Gadot & Meisler, 2010; Zampetakis & Moustakis, 2011), which helps advance methodology and procedure but limits implications. For this reason, it is important that research remains focused on either geography or occupation as a demographic indicator. Implications from this research could be placed in a more accurate context if this differentiation is built into the research methodology. For example, studying the values of EI in the service industry may produce different results than the values of EI expressed by medical professionals. This may move the focus away from organizational discourses and into micro-social processes like specific work environment, or physical limitations. That said, if an EI study takes place with an emphasis on geography, then the results might apply to larger macro-social process like religion, or political ideologies, as it did for the federal workforce in the present research study.

The debate regarding scales of EI encourages experimental research design for future studies. To address the question of whether scales of EI are accurate, future studies could administer the same surveys to two separate companies on either end of the axis of success. Hypothetically, future research could confirm whether the EI scales work both ways (if indeed organizational success is linked to EI). For example, supervisors at a successful start-up may exhibit high levels of EI while supervisors at a failing organization indicate lower levels of EI. This type of research, if confirmed,

would piggyback on the results discussed in the present study, thereby strengthening the link between organizational success and EI of supervisors. Future studies can build upon the branch model, which describes the utilization of emotions through perceiving emotions, using emotions to facilitate thought, and managing emotions (Mayer et al., 2004). The validation of EI tests is vital to future projects and should be inherent in all design aspects of future studies.

The participant pool of the current study was composed of 118 U.S. federal employees and their assessments of their supervisor's EI. To understand the variation that EI may exhibit, future studies should be analyzed with respect to their different occupational levels (e.g., supervisors, subordinates, executives, assistants). Since the majority of research is focused on leadership (Caldwell, 2012; Goleman, 2011; Ingram & Cangemi, 2012; Kumar 2012; Wu, 2009), studies that follow shall extend these implications to the larger body of workers who the leaders govern.

Recommendations for practice. The findings of the current study may help businesses increase the overall EI of their employee base through hiring practices and human resource policies. Combined with the discretionary predictability of OC (e.g., the fact that only self-emotions appraisal was a predictor of OC), leaders should gravitate towards more non-traditional avenues of assessment and embrace potential branches of impact regarding both EI and OC. Understanding the predictors, metrics, and source of an employee's OC can help inform individuals in all positions of a company. In particular, employees responsible for training and professional development may wish to focus on the areas of EI that have a correlation with employee OC.

Conclusions

The goal of this research was to determine the relationship, if any, between EI of supervisors and OC of employees. Prior research suggested that high EI leads to integration, renewal of purpose, enhanced understandings, and overall organizational success (Boyatzis, & McKee, 2013; Joseph et al., 2015; Landau & Meirovich, 2011). Consequently, one may feel unsurprised that the positive correlation between employee's OC and the EI of their supervisors existed. This understanding can also inform the hiring and training process of organizations to effectively identify and train individuals for leadership positions at federal organizations.

There was a significant correlation between OC of U.S. federal employees and the perceived EI of supervisors. OC was also significantly correlated to three of four dimensions of EI. Levels of OC were significantly correlated to dimensions of self-emotions appraisal, others-emotions appraisal, and use of emotions. The research indicated that EI of supervisors could predict the OC of their employees *only* through the dimension of self-emotions appraisal. The dimensions of other-emotions appraisal, regulation of emotion, and use of emotion indicated no qualities that predict the OC of employees. Both EI and OC were measured using validated instruments (Wong et al., 2004; Meyer & Allen, 1997, respectively). The efficacy of such tests has been brought into question in prior literature (Antonakis et al., 2009). However, the confirmation of hypotheses present in the current research helped forge the positive possibility that EI and OC were indeed measurable and had varying implications across dimensions of EI. This confirmation also supported the notion that dimensions of EI (i.e., self-emotions

appraisal) could be cataloged through a branch model as put forth by Mayer, Salovey, and Caruso (2008).

This research and other studies regarding EI are intended to inform positive organizational outcomes. As globalization and economic complexities begin to take hold of countless organizations, researchers have stated that EI is the framework that produces business success (Colfax et al., 2010). Specifically, Colfax et al. (2010) posited that tacit human characteristics, such as EI, are what build longevity for successful global businesses. It is also important to study these variables within regional, occupational, and defined dimensions, such as U.S. federal employees. Since the federal workforce in the United States is relatively standardized and has identifiable characteristics (i.e., job security, health insurance benefits), the present study provided an insightful beginning to understanding the organizational characteristics of this type of workforce. Consequently, this research carried increased importance because of the occupational specificity of the participants. Since the 118 U.S. federal employees were compensated with tax dollars, all tax-paying individuals could be implicated in this research. Increasing OC in this context may provide social welfare for a large subset of the world. Research into the public sector workforce shall continue to build upon this type of inquiry, especially since this particular workforce has been documented to have low OC in the recent past (U.S. Office of Personnel Management, 2014). This chapter concludes the study.

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Appendix A: Informed Consent

Introduction:

My name is Karen J. Sooley I am a doctoral student at Northcentral University in Arizona. I am conducting a research study on percieved emotional intelligence of supervisors and employee organizational commitment. I am completing this research as part of my doctoral degree. I invite you to participate.

Activities:

If you participate in this research, you will be asked to:
1.   Complete an online survey that should take approximately 15 minutes.

Eligibility:

You are eligible to participate in this research if you:
1.   Are a U.S. federal employee between the ages of 18 and 65.

You are not eligible to participate in this research if you:
1.   Are not a U.S. federal employee between the ages of 18 and 65.

I hope to include 82 participants in this research.

Risks:

There are minimal risks in this study. Some possible risks include: uncomfortable feelings about answering questions regarding your commitment to the organization or your perceptions of the your supervisor's emotional intelligence.

To decrease the impact of these risks, you can: skip any item in the survey, and/or, stop participation at any time, and/or, refuse to answer any interview question.

Benefits:

If you decide to participate, there are no direct benefits to you.

The potential benefits to others are: a deeper understanding of the role of emotional intelligence (EI) in leaders and if this perceived supervisor EI is correlated to the organizational commitment of their subordinates.

Confidentiality:

The information you provide will be kept confidential to the extent allowable by law. Some steps I will take to keep your identity confidential are: I will not ask for your name and the survey will anonymize your response.

The people who will have access to your information are: myself and/or, my dissertation chair.

I will secure your information with these steps: locking the computer file with a password.

I will keep your data for 7 years. Then, I will delete electronic data and destroy paper data.

Contact Information:

If you have questions for me, you can contact me at: (karen.sooley0744@email.ncu.edu or 407-921-3095.

My dissertation chair's name is Bob Cook. (He works at Northcentral University and is supervising me on the research. You can contact him at: (bcook@ncu.edu or 214-886-7616.

If you have questions about your rights in the research, or if a problem has occurred, or if you are injured during your participation, please contact the Institutional Review Board at: irb@ncu.edu or 1-888-327-2877 ext 8014.

Voluntary Participation:

Your participation is voluntary. If you decide not to participate, or if you stop participation after you start, there will be no penalty to you. You will not lose any benefit to which you are otherwise entitled.

Signature:

A signature indicates your understanding of this consent form. You will be given a copy of the form for your information.

Participant Signature	Printed Name	Date

Researcher Signature	Printed Name	Date

Appendix B: Example Survey for Subordinates' Perceived EI and OC

Instructions:
Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by clicking on a number from 1 to 7 using the scale below.

1 = strongly disagree
2 = disagree
3 = slightly disagree
4= undecided
5 = slightly agree
6 = agree
7 = strongly agree

Three Component Model Employee Commitment Survey

1. I would be very happy to spend the rest of my career with this organization.
2. I really feel as if this organization's problems are my own.
3. I do not feel a strong sense of "belonging" to my organization.
4. I do not feel "emotionally attached" to this organization.
5. I do not feel like "part of the family" at my organization.
6. This organization has a great deal of personal meaning for me.
7. Right now, staying with my organization is a matter of necessity as much as desire.
8. It would be very hard for me to leave my organization right now, even if I wanted to.
9. Too much of my life would be disrupted if I decided I wanted to leave my organization now.
10. I feel that I have too few options to consider leaving this organization.
11. If I had not already put so much of myself into this organization, I might consider working elsewhere.
12. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives.
13. I do not feel any obligation to remain with my current employer.
14. Even if it were to my advantage, I do not feel it would be right to leave my organization now.
15. I would feel guilty if I left my organization now.
16. This organization deserves my loyalty.
17. I would not leave my organization right now because I have a sense of obligation to the people in it.
18. I owe a great deal to my organization.

Wong and Law Emotional Intelligence Scale Survey

1. I believe my manager has a good sense of why he/she has certain feelings most of the time.
2. I believe my manager has a good understanding of his/her own emotions.
3. I believe my manager understands what he/she feels.
4. I believe my manager always knows whether or not he/she is happy.
5. I believe my manager can determine others' emotions from observing their behavior.
6. I believe my manager is a good observer of others' emotions.
7. I believe my manager is sensitive to the feelings and emotions of others.
8. I believe my manager has a good understanding of the emotions of people around him/her.
9. I believe my manager always sets goals then tries his/her best to achieve them.
10. I believe my manager always considers himself/herself to be a competent person.
11. I believe my manager is a self-motivating person.
12. I believe my manager is always self-motivated to do his/her best.
13. I believe my manager is able to control his/her temper and handle difficulties rationally.
14. I believe my manager is quite capable of controlling his/her emotions.
15. I believe my manager can always calm down quickly when he/she is very angry.
16. I believe my manager has good control of his/her own emotions.

Appendix C: Letter Requesting Permission to Use the WLEIS

Chi-sum Wong (wongcs@cuhk.edu.hk)

Department of Management

Chinese University of Hong Kong

Dear Dr. Wong Chi Sum,

My name is Karen J. Sooley and I am a doctoral candidate in the business administration program at Northcentral University, Prescott Valley, Arizona. My dissertation is entitled, "Examining Supervisor Emotional Intelligence and Employee Organizational Commitment". In order to complete my research, I would like to secure permission to use the Wong and Law Emotional Intelligence Scale (WLEIS), as discussed in your article, "The construct and criterion validity of emotional intelligence and its potential utility for management studies." The instrument will be administered to U.S. federal employees for the purposes of this study. Your permission to use the WLEIS is essential to my research. If you approve this request, I would appreciate any guidance concerning the requirements or other recommendations regarding the administration of the survey. You may contact me by phone or e-mail with any questions. Your prompt reply would be greatly appreciated and facilitate the timely completion of my study. Thank you for your assistance and attention to this matter.

Sincerely,

Karen J. Sooley

Doctoral Candidate, Northcentral University

Appendix D: Letter Requesting Permission to Use the TCM

To: Dr. Natalie J. Allen (nallen@uwo.ca)

Department of Psychology

University of Western Ontario

Dear Professor Allen,

I am a doctoral candidate in the business administration program at Northcentral University, Prescott Valley, Arizona. My dissertation is entitled, "Examining Supervisor Emotional Intelligence and Employee Organizational Commitment". In order to complete my research, I would like to secure your permission to use the Three Component Model (TCM) Employee Commitment Survey, as presented in your 1997 book entitled, "Commitment in the Workplace: Theory, Research, and Application." The instrument will be administered to U.S. federal employees for the purposes of this study. Your permission to use the TCM is essential to my research. If you approve this request, I would appreciate any guidance concerning the requirements or other recommendations regarding the administration of the survey. You may contact me by phone or e-mail with any questions. Your prompt reply would be greatly appreciated and facilitate the timely completion of my study. Thank you for your assistance and attention to this matter.

Sincerely,

Karen J. Sooley

Doctoral Candidate, Northcentral University