

AN EXPLORATORY STUDY OF SERVANT LEADERSHIP, EMOTIONAL
INTELLIGENCE, AND JOB SATISFACTION AMONG HIGH-TECH EMPLOYEES

by

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ABSTRACT

The empirical data collected during this study supports the idea that the practice of servant leadership principles can increase the health of an organization. Additional empirical research is giving support and creditability to the servant leadership theory. The purpose of this quantitative, correlational study was to examine if a relationship exists among servant leadership, emotional intelligence, and job satisfaction among high-tech employees in the aerospace industry. The results of this study indicated a strong positive significant correlation between the six constructs of servant leadership and job satisfaction as measured by the Organization Leadership Assessment (OLA). The empirical data collected during the present study indicated a strong positive relationship and could be used to develop leadership training programs based on servant leadership principles, establish the importance of servant leadership regardless of the industry type, and remove the barriers that impede the practice of servant leadership. The findings of this study presented no significant relationship between servant leadership and emotional intelligence and no significant relationship between emotional intelligence and job satisfaction. This study could serve as a guide to refining or giving direction to future attempts to investigate similar issues.

DEDICATION

First and foremost, I dedicate this work to the glory of God. Throughout this process, the scripture Philippians 4:13 has been my encouragement. To my husband William (Ricky), and my mother, Ruby, who are both my best friends, thank you sincerely for your support, encouragement, and belief in me. I dedicate the success of this major milestone to you both and hope I have made you proud.

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CHAPTER 1: INTRODUCTION

Servant leadership is a style of or approach to leadership in which a leader is a servant or serves the needs of other people, and it can change organizations and societies because it stimulates personal and organizational metamorphoses (Russell & Stone, 2002). Servant leadership has been recognized, from a philosophical perspective, since the late 1970s (Greenleaf, 1977); however, it has only recently gained support from scholars (Graham, 1991; Rost, 1991; Russell & Stone, 2002; Spears, 1998). There are some researchers (e.g., Brumback, 1999; Quay, 1997; Tatum, 1995) who are not supportive of the leadership theory and consider servant leadership a passive, ineffective leadership style. This perception of servant leadership, by some scholars may limit the development of servant leaders and their effectiveness; therefore, it is necessary to understand servant leadership and its potential effectiveness in the workplace in order to combat this perception. Servant leadership offers enhancements to organizational leadership in many ways (Russell & Stone, 2002).

Successful organizations are able to compete in the global marketplace, and competitive organizations effectively manage resources, maximize investments, capitalize on organizational strengths, and focus on maintaining a highly-qualified, productive workforce. A highly-qualified, productive workforce is a value-added factor to an organization's bottom line. On an organizational level, human capital is a critical asset and an enormous investment that affects the organization as a whole. Organizations that recognize this tremendous investment understand the value of satisfied employees and seek to maximize fully the job satisfaction of employees (Hannay & Northam, 2000). Organizations seek to ascertain what determines employees' level of engagement (Lau,

Wing & Ho, 2003). The desired outcome is to maximize productivity by evaluating the level of engagement and creating an environment of increased engagement. Luthans (2002) stated that engaged workers are more satisfied, more productive, and demonstrate positive behaviors in teams and organizations.

To do this effectively, organizations need to understand all the factors that maintain or improve job satisfaction. Dissatisfaction with one's job has been identified as the single most important reason individuals leave their jobs (Barak, Michal, & Nissely, 2001; Mueller & Price, 1990; Sturges & Guest, 2001). Many studies that have examined the relationship between job satisfaction and a host of other work related constructs such as, job performance, absenteeism, turnover, and work commitment (Carmeli & Freund, 2004; Judge, Thoresen, Bono, & Patton, 2001; Judge & Ilies, 2004).

Although job satisfaction is recognized as an important component in successful organizations (Hannay & Northam, 2000), factors that affect employees' job satisfaction continue to be studied. Supporters of emotional intelligence suggested emotional intelligence improves organization performance (Goleman, 2000). Haskett (2003) found that EI influences people's success in the field of education, and Goleman (1998) found that EI influences people's success in the workforce. Emotional intelligence (EI) may be a factor that contributes to employees' job satisfaction, but few studies (Abraham, 2000; Busso, 2003; Clanton, 2005) have addressed the relationship between EI and job satisfaction. In addition, studies have only examined the relationship between job satisfaction and servant leadership in service-related industries. Therefore, the current study is designed to examine the relationship among EI, job satisfaction, and servant leadership in the aerospace industry, a nonservice-related industry.

Background of the Problem

A great deal of time and effort has been devoted to the study of leaders and their leadership styles because leadership plays a critical role in a global environment. Bass (1990) alluded that the study of leadership has evolved as the competitive nature of the workforce has become more global. Freeman (2004) explained that the reward of servant leadership is captured in that “the mission of servant leadership is especially important in today’s social, political, and economic climate because there seems to be a dearth of great leadership in the United States and on international landscapes” (p. 7).

It is important, therefore, to define effective leadership and identify the factors that affect it. Definitions of leadership have ranged from a God-given talent to a process, and leadership theories have addressed the leader, the leadership process, leadership behaviors, and the leadership situation (Bass, 1990; Harrison, 1999).

In the early 1900s, leadership theories focused on control and the centralization of power (Rost, 1991). By the 1940s and 1950s, a group approach was used to understand leadership (Harrison, 1999). According to Harrison (1999) in the 1950s, leadership was defined as a relationship in which the leader developed shared goals with employees. As the 1990s approached and the global marketplace became more important, the study of leadership became more established (Bass, 1990). Although many past leadership theories are considered insufficient for the leadership challenges in the global marketplace (Harrison, 1999), it is clear that current leadership theories are built on past leadership research.

As a result of the complexity of the global marketplace, it is difficult to find one leadership model that will be effective in every situation, and it appears that there is no

one-size-fits-all approach to leadership. Great leaders today are challenged more than great leaders of the past. Kipp (2001) offered two reasons for this increased challenge among leaders. One factor is increased diversity and the other is globalization. These factors, along with others (such as change and emotional intelligence), are intertwined as challenges of leadership. Haskett (2003) found that EI influences people's success in the field of education, and Goleman (1998) found the EI influences people's success in the workplace. Goleman (1998) concluded that organizations that recognize, understand, and leverage EI will be able to meet the challenges in today's work environment. Many changes have taken place in the work environment over the past decade, and the opportunity and challenges for leaders has led to more in-depth research that examines leadership and what it takes to be an effective leader. As a result of past research, four leadership models have been developed to define leadership and its effectiveness in today's environment: (a) transformational leadership, (b) transactional leadership, (c) innovation leadership, and (d) charismatic leadership.

Transformation leadership influences people and motivates them to go above and beyond their normal effort. Transformation leadership attempts to unlock the hidden potential in people and help them move beyond individual goals to organizational goals. Transformational leadership attempts to change people's thinking from what is in it for me to what is in me (Bass, 1990).

In contrast, transactional leadership is an exchange of values. According to Bass (1990), transactional leadership focuses on the terms of a contract. Transactional leaders place more emphasis on the exchange than on the interaction. To set up the transaction, the leader will specify a task or expectation and offer the follower a positive or negative

reinforcement based on the results, and transactional leaders rely on rewards and recognition programs to motivate followers. In transactional leadership, organizational goals are achieved by meeting individual goals.

Innovation leadership is similar to transformational leadership, and it seeks to gain a competitive edge or tap into unrealized potential. In transformational leadership, leaders attempt to increase the level of followers' motivation and morality. In innovation leadership, leaders attempt to increase the level of an organization using new ideas and technology. Innovation leadership occurs when a leader becomes a change agent in an organization (Kipp, 2001).

Charismatic and transformational leadership are closely aligned. Both focus on interaction at a personal level; however, charismatic leadership is commonly associated with spiritual or religious organizations. In charismatic leadership, leaders motivate followers by caring about them and giving them emotional attention (Harrison, 1999). Although charismatic leadership is usually found in spiritual or religious organizations, charismatic leaders are emerging in other organizations because people want to be treated with respect and have their individual differences recognized. People are more likely to do what leaders want or need them to do if they feel they are valued and needed (Harrison, 1999).

This study is designed to provide insight into the phenomena related to job satisfaction in the workplace by examining the relationship among job satisfaction and two variables: (a) servant leadership and (b) EI in high-tech employees, specifically engineers, in the aerospace industry. In this study, servant leadership, emotional

intelligence, and increasing job satisfaction were assessed at the organizational level, then each variable was correlated to understand its relationship to the other variables.

Servant leadership is similar to transformational leadership because servant leaders are also attempting to meet organizational goals by improving followers' motivation and morality. According to Greenleaf (1977), leaders who put the needs of other people first are considered servant leaders. Although Greenleaf conceptualized the notion of servant leadership, Jesus Christ is a highly recognizable model of servant leadership. This study will examine the impact of servant leadership on organizations and employees' job satisfaction.

One of the greatest challenges facing twenty-first century organizations is ensuring the well-being of their employees. An employee's level of job satisfaction is not only important to his or her well-being, but it also important for the well-being of an organization. From an organizational perspective, it is important to understand the factors that affect job satisfaction because of the high costs associated with employee turnover. In order to reduce the cost associated with employee turnover, organizations must create a bond between the employee and the organization, and this involves meeting the needs of employees and using their knowledge, skills, and attributes to shape a job position. Organizations that meet the needs of employees and help them reach their full potential are more likely to have employees with higher levels of job satisfaction whom are less likely to leave an organization (Hanson & Miller, 2002).

Cadman and Brewer (2001) suggested that people with enhanced emotional intelligence would be valuable employees, and they examined current issues such as employee effectiveness and retention. A recent study (Muhammad, 2005) tested the claim

that an EI quotient predicts an employee's level of job satisfaction and found that EI is not the only factor that affects job satisfaction. Thompson (2002) concluded that employees working in an environment where servant leadership principles are promoted enjoy a higher level of job satisfaction. Thompson (2002) further stated that one of the determining factors that encourage high level of organization commitment is job satisfaction. Research (Applebaum, 2003; Bowden, 2002; Hull, 2004) has also shown a positive relationship between preferred leadership style and employee job satisfaction. However, if there is a correlation among the level of EI, servant leadership, and job satisfaction, then organizations can use quantitative data to support their efforts to develop and enhance EI and improve job satisfaction among their employees using servant leadership principles. Organizations recognize human capital as a critical and enormous investment and seek to gain a return on that investment by fully maximizing the job satisfaction of employees (Hannay & Northam, 2000).

Statement of the Problem

Few studies (Herbert, 2004; Laub 1999) have examined the relationship between servant leadership and job satisfaction in nonservice-related industries, especially industries that employ high-tech employees. There is no known research that explored the relationship among servant leadership, EI, and job satisfaction. Studies (Carmeli & Freund, 2004; Judge & Ilies 2004; Michaud, 2000) have shown that job satisfaction significantly correlates with productivity and organization turnover and the perception that servant leadership is passive and ineffective (Tatum, 1995) in nonservice-related industries makes it difficult to use this type of leadership style to increase job satisfaction. Furthermore, scholars (Winston & Hartsfield, 2004) have found a strong positive

relationship between servant leadership and three emotional intelligence factors. The researchers examined the four-factor concept of emotional intelligence: (a) appraise and express emotion, (b) use emotion to enhance cognitive processes, (c) understand and analyze emotions, and (d) reflective regulation of emotion. Winston and Hartsfield (2004) determined that there was a strong positive relationship between servant leadership and three emotional intelligence factors, but there was not a strong relationship between servant leadership and the ability to understand and analyze emotions. Carmeli (2003) reported that research reflected that emotional intelligence was positively and significantly related to job satisfaction, thereby supporting the argument that emotional intelligent individuals are likely to display higher level of job satisfaction.

Organizations that are focused on maintaining a highly qualified and productive workforce are doing so by gaining a better understanding of the influencing factors. Job satisfaction, as suggested by Lok and Crawford (1999), is the most determining factor that encourages the highest level of organizational commitment. Job satisfaction has been studied to a great extent; however, there is a gap in the understanding of how job satisfaction is related to emotional intelligence (Dong, 2006). Therefore, this quantitative, correlational study will examine the relationship between servant leadership, emotional intelligence, and job satisfaction among high-tech employees, specifically engineers, in the aerospace industry headquartered in the southwestern region of the United States.

Purpose of the Study

The purpose of this quantitative, correlational study is to examine if a relationship exists among servant leadership, EI, and the job satisfaction of high-tech employees in the U.S. aerospace industry. The independent variable, servant leadership was measured

using the Organizational Leadership Assessment (OLA; Laub, 1999). The independent variable emotional intelligence was assessed using the Emotional Intelligence Appraisal (EIA; Emotional Intelligence Appraisal, 2006), and the dependent variable job satisfaction was measured using both the OLA and the Mohrman-Cooke-Mohrman Job Satisfaction Survey (MCMJSS; Mohrman, Cooke, Mohrman, Duncan, & Zaltman, 1977).

Significance of the Study

The results of this current study can add to the empirical research that examined servant leadership and contribute to the body of knowledge about leadership, organizational development, and organizational wellness. This information will be important because “modern Western management practice is undergoing change slowly and painfully, recognizing that the quick solutions on which it has relied for many years do not work” (Korac-Kakabadse, Kouzmin, & Kakabadse, 2002, p. 182).

An understanding of servant leadership attributes could produce a how-to approach to developing leaders who can increase employees’ job satisfaction, individual performance, and organizational commitment. Leadership development that uses servant leadership attributes as a foundation could produce more effective, successful leaders. Russell and Stone (2002) concluded that servant leadership is an important topic for all types of organizations because this type of leadership offers enhancements to organizational leadership in many ways.

The empirical data obtained during this study could potentially be used to develop leadership training programs based on servant leadership principles, establish the importance of servant leadership, and remove the barriers that impede the practice of servant leadership. In addition, the information derived from this study will provide

information about job satisfaction and how it relates to the EI of employees and may reveal how servant leadership can motivate employees with low EI.

Nature of the Study

The nature of this study is quantitative; and a nonexperimental, correlational research design was used to examine the relationship among servant leadership, EI, and the job satisfaction of high-tech employees in the aerospace industry. This study is not designed to uncover a cause-and-effect relationship; instead, it is designed to reveal the correlations between variables. The objective of this research is to see if servant leadership in an organization has any relationship with the EI of employees and job satisfaction. Previous research has found a positive correlation between perceptions of servant leadership and employees' job satisfaction (Girard, 2000; Laub, 1999; Miears, 2004; Stramba, 2003; Thompson, 2002), and the current study will examine the correlation among the level of employees' EI in nonservice industries, the use of servant leadership, and its effect on employees' job satisfaction.

This correlational study will look for a consistent relationship between phenomena (Kamil, 2002) of servant leadership, emotional intelligence, and job satisfaction. The study will consist of employing the OLA to assess the level of servant leadership and the individuals' level of job satisfaction. The MCMJSS instrument is used to validate the job satisfaction assessment of the OLA instrument. Finally, EIA-ME survey is administered to assess the emotional intelligence level of the participants. The participants of this study were a sample population of full time engineers that work in the aerospace industry. The design of the study facilitates a systematic approach to

examining the relationship between servant leadership, emotional intelligence, and job satisfaction among engineers in the aerospace industry.

Research Questions

This study explores three research questions in determining the relationship, if any, that exists between three variables: servant leadership within the organization, the employees' level of emotional intelligence, and the employees' level of job satisfaction. It is hypothesized that there is a correlation between servant leadership, emotional intelligence and job satisfaction among high technical employees working in a large aerospace organization.

The following research questions were used to guide the study:

1. To what extent do the principles of servant leadership relate to the level of job satisfaction among aerospace engineers as measured by the OLA?
2. To what extent does the level of aerospace engineers' EI, as measured by the EIA, relate to the level of job satisfaction among aerospace engineers as measured by the MCMJSS?
3. To what extent does the level of aerospace engineers' EI, as measured by the EIA, relate to the perception of servant leadership within the organization as measured by the OLA?

Hypotheses

Based on previous research (Fisher 2002b; Girard, 2000; Laub, 1999; Muhammad, 2005), servant leadership within an organization may have strong positive correlation between emotional intelligence and job satisfaction. This study will explore to what extent a relationship exists between each variable.

The following hypotheses will be tested in this study:

H1o: There is no relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H1a: There is a positive relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2o: There is no relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2a: There is a positive relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H3o: There is no relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

H3a: There is a positive relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

Theoretical Framework

Previous research (Girard, 2000; Miers, 2004; Stramba, 2003; Thompson, 2002) found a positive correlation between the perception of servant leadership and employee job satisfaction; however, these studies were limited to the field of education. Other studies that examined servant leadership (Ledbetter, 2003; White, 2003) focused on the area of public service. While there are a variety of studies that examine servant leadership

and the correlation between servant leadership and job satisfaction, these studies, to date, have been conducted in the service industries, and few studies (Braye, 2000; Horsman, 2001) have examined servant leadership in the for-profit sector. Other than Laub's (1999) study, in which OLA was developed, there is no research data that relates to servant leadership and job satisfaction in nonservice-related industries.

Servant Leadership

The main part of the theoretical framework in the current study is servant leadership. Servant leadership is a simple leadership model: That is, a servant leader selflessly meets other people's needs. The servant leader places an emphasis on organizational stewardship and developing people's potential. The leader is a servant first (Greenleaf, 1977) and places the needs of an organization and its most valuable resource (i.e., its people) ahead of his or her needs. The theory of servant leadership, which was first expressed by Greenleaf, holds that the most effective leaders are motivated by an innate desire to serve others and not by the desire for wealth and power. Research (Graham, 1991; Rost, 1991; Russell & Stone, 2002, Spears, 1998) that examined servant leadership from the early 1990s through 2003 focused on identifying themes that could help to operationalize the concept of servant leadership, and Thompson (2002) concluded that employees working in an environment where servant leadership principles are promoted enjoy a higher level of job satisfaction.

Emotional Intelligence

The second part of the theoretical framework for this study is emotional intelligence. Recent research (Muhammad, 2005) examined EI and job satisfaction and concluded that a person's EI quotient is not a significant predictor of his or her level of

job satisfaction. The concept of EI, however, has continued to gain popularity, and its applicability to several industries and different levels in organizations has been noted by Goleman (1999). Fisher (2002b) argued that emotions are moderately related to job satisfaction, but this idea has been opposed by other scholars who proposed that other factors are more related to job satisfaction (Schermerborn, Hunt, & Osborn, 2003). Goleman (1998) found that emotional intelligence influences people's success in the workplace. In terms of maintaining a healthy work environment, Abraham (2000) found that individuals with high emotional intelligence were successful in building and maintaining healthy relationships in the workplace. Although no research has found a statistically significant correlation between EI and job satisfaction, there remains a need to better understand the effects of EI and its relevance in the workplace as some studies (Goleman, 2000; Spencer, 2001) have shown that employees with high emotional intelligence get results and out perform set goals. Emotional intelligence can enhance performance outcomes because the phenomena help foster a positive sense of well-being (Druskat, Sala, & Mount, 2006). Research (Bar-on, Handley & Fund, 2006; Durskat, Sala & Mount, 2006) has shown that emotional intelligence leads to high job performance.

Job Satisfaction

Research (Girard, 2000; Miers, 2004; Thompson, 2002) has shown that various factors influence job satisfaction. Thompson (2002) claimed that factors such as salary, responsibility, advancement, and recognition influence job satisfaction. In addition, research (Girard, 2000; Miers, 2004) has found a significant positive correlation between job satisfaction and an employee's perception of servant leadership in the educational field. The employees' job satisfaction level was related to the perception

level of servant leadership within the educational organization. To date, however, no studies have explored the relationship between job satisfaction and servant leadership in nonservice-related industries, in particular, a high-tech industry such as the aerospace industry.

The issues surrounding job satisfaction are complex, and there is considerable debate about job satisfaction in the current literature. Job satisfaction can be measured in two ways: (a) overall job satisfaction and (b) facet job satisfaction (Landy & Conte, 2004). Job satisfaction contains both cognitive and emotional components; however, job satisfaction is often described as “an affective response to one’s job” (Fisher, 2002a, p. 4). In addition, according to the dispositional model of satisfaction (Greenberg & Baron, 2003), “some individuals are always more satisfied with their jobs than others” (p. 150). Affective and dispositional responses are associated with emotions; therefore, emotional intelligence continues to be examined in relation to job satisfaction.

Definition of Terms

The following terms will apply in this study.

Emotional intelligence (EI). EI is a type of social intelligence that involves the ability to monitor one’s own and others’ emotions, to discriminate among these emotions, and use this information to guide one’s thinking and actions (Mayer & Salovey, 1997).

Emotional quotient (EQ). EQ is a set of social and emotional abilities that helps individuals relate to the demands of daily life, and it is a counterpart to the cognitive domain popularly known as intelligence quotient (Bar-On & Parker, 2000).

Job satisfaction. Job satisfaction refers to how pleased employees are with their jobs. Job satisfaction contains both cognitive and emotional components. *Job satisfaction*

is defined as “the degree of pleasure an employee derives from his or her job” (Muchinsky, 2000, p. 271).

Servant leadership. “The servant-leader is servant first” (Greenleaf, 1970, p. 7), and the test for servant leadership lies in the following questions: “Do those served grow as persons, do they, while being served, become healthier, wiser, freer, more autonomous, more likely themselves to become servants?” (p. 7). Servant leadership is a style of or approach to leadership in which a leader is a servant or serves the needs of other people. When practiced, a servant leader values people, helps people develop their abilities, builds community, displays authenticity, provides leadership, and shares leadership. OLA, an instrument developed by Laub (1999) to measure servant leadership will be used in the study. In addition, the current study will use Laub’s definition of servant leadership:

[Servant leadership is] an understanding and practice of leadership that places the good of those led over the self-interest of the leader. Servant leadership promotes the valuing and development of people, the building of community, the practice of authenticity, the providing of leadership for the good of those led and the sharing of power and status for the common good of each individual, the total organization and those served by the organization. (p. 83)

Assumptions

This study is based on several assumptions: (a) High-tech employees will have a low level of EI based on the historical perspective that the high-tech sector’s workforce is comprised of individuals and leaders with low EQ (Goleman, 1998; Maccoby, 2000) ; (b) EI is not a single indicator of job satisfaction; (c) the researcher will be allowed access to

employees at the organization targeted for conducting the study; (d) the majority of employees and leaders working in service-related, education, or religious organizations would be predisposed to a level of servant leadership based on the similarities found between servant leadership and emotional intelligence factors (Winston & Hartsfield, 2004) and the fact that the first goal of servant leadership is to serve; and (e) participants will respond truthfully to the surveys.

Past studies have focused on service related industries such as education (Miears, 2004; Stramba 2003; Thompson, 2002), law enforcement (Ledbetter, 2003); and public works (White, 2003). It is assumed the employees working in such service related industry are predisposed to a level of servant leadership. This predisposition may be related to the level of emotional intelligence. One researcher (Morehouse, 2006) highlighted that there may be differences in emotional intelligence demonstrated by people in different disciplines. The author suggests that there may be disciplinary differences in those for which the construct of EI has an appeal. Morehouse (2006) gives a comparative example of teachers and social workers compared to business people and social scientists. The similarities found between servant leadership principles and the emotion intelligence constructs (Winston & Hartsfield, 2004) also lends to the predisposition conclusion. The conclusion is that the strong positive relationship between the four factor concept of emotional intelligence and the servant leadership models lends themselves to the high similarities between the constructs.

If the high-tech sector's workforce is composed of individuals with low emotional intelligence and there is a strong relationship between servant leadership and several factors of emotional intelligence, past studies that have shown a positive correlation

between perceptions of servant leadership and employee job satisfaction (Girard, 2000; Laub, 1999; Miers, 2004) may hold true only to specific service related industries. This positive correlation may not hold true to nonservice related industries, specifically those that employ high-tech employees.

Scope and Limitations

The scope of this quantitative, correlational study will examine the relationship between the perceived level of servant leadership within the organization, the emotional intelligence level, and the level of job satisfaction among engineers in the aerospace industry. The research will be conducted among a random sample of full-time engineers who are part of the Engineering and Technology (E&T) group of an aerospace organization in the southwestern United States.

This study is limited by several factors. First, the study is limited because the participants will be from one organization. Second, this study will be limited because the majority of engineers in the aerospace industry are male, and it will not be possible to determine how women view job satisfaction. Third, the validity of this study will rely on the validity of the three pre-existing survey instruments. The OLA has demonstrated a high level of reliability in past studies (see Laub, 1999; Miers, 2004; Thompson, 2002), the MCMJSS has been shown to be a valid assessment of job satisfaction (Proffit, 1990), the EIA instrument has been tested and carries a high reliability coefficient. Finally, this study does not account for other factors that affect job satisfaction.

Delimitations

This study will confine itself to surveying full-time engineers within the Engineering and Technology group based in the United States. This study will focus on

the level of servant leadership within the organization, the emotional intelligence and job satisfaction of high-tech employees. Only full time United States based engineers will be included in the study. The workforce of the organization includes non engineers as well as subcontractors, consultants, and global engineering resources; however, limiting the participants to full time US based engineers eliminates variables resulting from differing culture and nature of work.

Summary

It has been determined that job satisfaction is a key factor in workforce retention, and job satisfaction among employees equals success for organizations (Michaud, 2000). Leadership style is one factor that has a large impact on job satisfaction (Applebaum et al., 2003). Researchers (Laub, 1999; Miears, 2004) have suggested that servant leadership has a positive impact on employees' job satisfaction. Job satisfaction is a complex construct and there are several factors, all which have not been determined, that affect job satisfaction. Emotional intelligence is a factor that may affect the level of employees' job satisfaction. The constructs of emotional intelligence and servant leadership are noteworthy factors to examine as they relate to job satisfaction. Furthermore, scholars (Winston & Hartsfield, 2004) have suggested similarities and overlap between the emotional intelligence constructs with servant leadership.

Chapter 1 outlined a study that is designed to examine the correlation among servant leadership, job satisfaction, and EI in the aerospace industry. The significance of this quantitative, correlational study to the body of knowledge about leadership and organizational wellness was discussed. The research questions and hypothesis to be tested

were also presented. This chapter also discussed the assumptions, limitations, and scope of this study.

Chapter 2 presents a review of the literature associated with servant leadership, job satisfaction, and EI and the results of previous studies. Chapter 3 describes the research methodology that will be used in the study. The results of the study and conclusions will be presented in chapters 4 and 5.

CHAPTER 2: REVIEW OF THE LITERATURE

The purpose of this quantitative, correlational study is to examine if a relationship exists among servant leadership, emotional intelligence, and job satisfaction of high-tech employees working in the aerospace industry. The results of this study might add to the body of knowledge about leadership, organizational development, and organizational wellness. The three variables (servant leadership, emotional intelligence, and job satisfaction) continue to be debated topics in literature.

Chapter 2 outlines data from existing literature relating servant leadership, emotional intelligence, and job satisfaction. Although servant leadership is emerging in the literature, few studies (Anderson, 2005; Girard, 2000; Laub, 1999; Miers, 2004; Stramba, 2003; Thompson, 2002) have examined the impact of servant leadership on job satisfaction, and most of these studies were related to service industries. This type of research is important because understanding the impact of servant leadership on job satisfaction could produce a practical, how-to approach to increasing employees' job satisfaction. Effective leaders must understand how to create an environment that fosters high performance, and they must care for their employees. Technical expertise and the experience of employees are not the only factors that produce success in an organization;

instead, it appears that a person's level of EI is also a factor that affects his or her success in an organization (Goleman, 1998). Historically, high-tech employees have been perceived as having low EI (Goleman, 1998), and this literature review will examine how the variable of EI relates to servant leadership and job satisfaction among high-tech employees.

It has been concluded, through research (Carmeli & Freund, 2004; Judge et al., 2001; Judge & Ilies, 2004), that numerous factors influence employees' job satisfaction. On an organizational level, human capital is an important asset and an enormous investment that affects the organization as a whole (Hannay & Northam, 2000). Organizational leaders recognize the value of satisfied employees, and to maximize job satisfaction among employees, organizations would benefit from fully understanding what elements can potentially impact job satisfaction. The data in this literature review provides support for the proposed relationship among servant leadership, EI, and the job satisfaction of high-tech employees.

Servant Leadership

Leadership theories have been developed and implemented, with varying levels of success. Servant leadership theory has become more accepted among the various leadership theories; however, most of the discussion in the literature is about the more popular models, namely the charismatic and transformational leadership models. The theory about servant leadership first appeared in conceptual work and was supported by little empirical research. As a result of limited empirical data, there are opportunities to explore the effects and outcomes of servant leadership (Barbuto & Wheeler, 2006), and information about the principles of servant leadership and the impact of servant

leadership on an organization may help organizations achieve desired outcomes such as increased job satisfaction.

Some people have criticized servant leadership as a practical leadership theory. Tatum (1995) claimed that servant leadership is weak and ineffective and presents a view that is different from what many people have come to consider leadership. Quay (1997) considered servant leadership impractical and idealistic. Bridges (1996) claimed that servant leadership brings nothing new to the leadership scene and does not offer any improvements: “Too often, the literature on the subject takes a moralistic tone and leaves people with the impression that participation is next to godliness, when in fact it is simply a different tool for a different task” (p. 17). Russell and Stone (2002) pointed out that “if servant leadership is different from other forms of leadership, then one should be able to observe characteristics and behaviors in such leaders that are distinctive” (p. 147). To this end, Spears (1998) outlined 10 major observable attributes to indicate the presence of servant leadership principles: (a) listening, (b) empathy, (c) healing, (d) awareness, (e) persuasion, (f) conceptualization, (g) foresight, (h) stewardship, (i) commitment to the growth of people, and (j) building community. These attributes, although not exhaustive, are derived from Greenleaf (1970), who first conceptualized servant leadership.

Listening is a catalyst attribute for a servant leader. Listening is an active behavior that requires discipline and self sacrifice that encourage trust and growth. Jennings (2002) expressed Listening provides not only a medium for sharing information and concerns but establishes a strong desire by the servant leader to help the follower grow and prosper. The next attribute, empathy, is closely related with the first.

Empathy implies that there is an understanding of others' perspective. Taylor (2002) concluded that a leader shows empathy by standing and seeing things from where the other person is standing. This means seeing and feeling what others' see and feel. Jennings (2002) expound on the benefits of the empathy attribute in that it helps build trust.

Healing involves repairing or restoring emotional and/or spiritual damage. Healing is a by-product of demonstrated sincere empathy (Taylor, 2002). A servant leader helps others in the healing process by capitalizing on opportunities to influence others (Lubin, 2001).

Awareness assists in opening the environment and according to Greenleaf (1977) it enables a leader to lead more effectively. According to Lubin (2001) the benefits of developing awareness are that "a servant leader's awareness creates an inner disturbance that motivates him/her to continually discover the surrounding world" (p. 33).

Persuasion is a skillfully technique that can promote harmony and a shared sense of ownership. A characteristic of a servant leader is leading from a position of relationship not position. "Persuasion does not come from a position of power, but rather by seeking to listen and convince others" (Lubin, 2001, p. 33).

Conceptualization is being able to see the big picture. Effective leaders should create a vision and share that vision among their followers. Foresight aligns closely with conceptualization. Spears (1998) concluded that foresight is the attribute that "enables servant leaders to understand the lessons from the past, the realities of the present, and the likely consequence of a decision for the future" (p. 5).

Stewardship is oversight with trust. The leader is not only responsible for the resources but also for the health and welfare of the people. Commitment to the growth of people fosters growth of other servant leaders. As servant leaders commit to the development and growth of others, the end goal is that followers will “grow into leaders who will be willing and able to serve” (Taylor, 2002, p. 53). Building community is about linking the individual efforts to support the success of the organization. It entails promoting interdependency. Servant leadership promotes sharing and the sense of oneness.

Greenleaf (1977) suggested that people will follow a leader who has the primary goal of serving. The servant-first attribute of a servant leader fosters a level of trust and commitment in followers. Greenleaf formulated his concept of servant leadership from Hesse’s (1956) work. According to Hesse,

a new moral principle is emerging which holds the only authority deserving one’s allegiance is that which is freely and knowingly granted, by the led to the leader in response to, and in proportion to, the clearly evident servant nature of the leader. (p. 23)

Greenleaf (1970) summarized servant leadership and interpreted the meaning of Hesse’s (1956) writing in the following way: “The great leader is seen as servant first, and that simple fact is the key to his greatness” (p. 2).

Greenleaf (1970) described different attributes of servant leadership, and he provided an approach in which individuals can assess their level of being a servant leader. Greenleaf’s conceptualization of servant leadership and its attributes (e.g., vision, trust, listening, empathy, foresight, and persuasion) was the result of his observations and

extensive experience. Although much of Greenleaf's writing was based on experience, it served as a foundation for the servant leadership theory. It is not to imply that the attributes named above are exclusive to servant leadership but that Greenleaf's concept is unique in that the focus is on the leader's motivation (Smith, Montagno, & Kuzmenko, 2004). "...Servant leadership may produce a different type of culture because of the underlying motivation of the leader." (Smith et al., 2004, p.81).

Graham (1991) focused on how to operationalize the concept of servant leadership and concluded that servant leadership addresses the pitfalls associated with the "absence of moral safeguards" (p. 105) in value-neutral leadership paradigms such as charismatic leadership and claimed that servant leadership is inspirational and moral. Rost (1991) concluded that servant leadership theory is a paradigm shift that provides a new perspective of leadership that is focused on the well-being of followers as opposed to the achievements of a leader. These attributes highlight that servant leaders view leadership as an opportunity as opposed to a position or status. That viewed opportunity is one to serve others (Smith et al., 2004). Lubin (2001) supported the notion that the primary focus or priority of a servant leader is the people relationship and claimed a servant leader places interaction and relationship development above the organizational task or output.

The most popular leadership theories include charismatic, transactional, transformational and servant leadership. Charismatic focuses on the extraordinary personality of the leader. Transactional leadership is a method of social exchange, Transformational leaders inspire and motivate followers to see, buy-in, and share the vision. Transformational leaders are seen as role models. And servant leadership

emphasizes development and empowerment of the followers. Servant leaders act as facilitators to help all achieve a shared vision (Smith et al., 2004).

Servant leadership differs from other leadership models because the servant leader's first goal is to serve and not lead. According to Greenleaf (1997), leaders who put the needs of other people first are considered servant leaders. The servant leader is focused on improving followers' motivation and morality and serving the needs of the followers to meet the goals and objectives of the organization. Servant leadership is now becoming more popular in many organizations. For example, Herb Kelleher, former CEO of Southwest Airlines, practiced servant leadership, and under his leadership, this airline "had one of the most distinguished organizational cultures in America" (Sendjaya & Sarros, 2002, p. 62). Although servant leadership does exist in organizational settings, more research is needed to produce a practical model that can be used by today's leaders.

Although servant leadership has only been used in some organizations, this leadership approach has influenced many of today's leadership models and leaders. Over the years, many people have revisited Greenleaf's writings about servant leadership and tried to make this theory applicable to organizations and leaders. For example, Spears (1995) identified 10 characteristics of servant leadership and stated that

servant-leadership has slowly but surely gained thousands of practitioners over the past quarter century. The seed which Greenleaf first planted 25 years ago has begun to sprout in many institutions, and in the hearts of people who long to improve the human condition. (p. 36)

As Sendjaya (2003) pointed out, however, these characteristics are derived solely from the writings of Greenleaf's early work on servant leadership and not from any foundational research.

The seminal works of Greenleaf were instrumental in the servant leadership movement; however, his observations were based on experience and not research (Thompson, 2002), and in the early days, few empirical studies were conducted to verify the theory (Bowman, 1997). Bass (2000) concluded that more empirical research was needed to increase the validity of the theory, and researchers (Russell & Stone, 2002; Sendjaya & Sarros, 2002) conducted studies that produced the necessary empirical data needed to show organizations the benefits of implementing servant leadership principles. In particular, Thompson's (2002) research has been used to raise awareness about and increase the acceptance of servant leadership in modern organizations. Although discussions about servant leadership mostly appear in the popular press, the theory is now being discussed in scholarly journals (Russell, 2000).

It is difficult to define and measure servant leadership; however, it is important to find a way to define and measure this type of leadership in order to show how it is distinct from other types of leadership approaches. More important, a clear definition may make it possible to produce a how-to approach that can be used to promote servant leadership in today's organizations.

The ability to distinguish the difference between servant leadership and transformational leadership and other leadership theories is important for identifying the attributes of servant leadership that can impact the effectiveness of a leader when it is measured by job satisfaction and organizational commitment. Stone, Russell, and

Patterson (2004) examined transformation and servant leadership to determine, from a conceptual view, what similarities and differences exist. They concluded that the primary difference lies in the focus of the leader. Russell (2003) examined the values and attributes of servant leadership from an empirical perspective and concluded that servant leaders have values that are distinct and attributes that are atypical. Spears (1998) identified 10 characteristics of servant leadership, and Sendjaya (2003) developed a measurement scale of servant leadership that has six dimensions: (a) voluntary subordination, (b) authentic self, (c) covenantal relationship, (d) responsible morality, (e) transcendent spirituality, and (f) transforming influence.

Laub (1999) identified valuing people, developing people, building community, displaying authenticity, providing leadership, and sharing leadership as core elements of servant leadership: “Servant leadership is an age-old concept that is being resurrected and promoted as the best way of dealing with the current age of ambiguity, fast-paced change and desire for human development” (p. 4). According to Laub, in order to provide organizations with a leadership approach that can meet the challenges in today’s workplace, there was a need to develop a tool that can assess the level of servant leadership in an organization, and Laub developed the six-factor Organization Leadership Assessment (OLA).

The OLA has become a standard tool for measuring servant leadership at the organizational level; therefore, in the current study, the OLA will be used to measure servant leadership at the organizational level. Laub proposed that there will be a higher level of job satisfaction in a servant organization, and in this study, the OLA will also be used to measure job satisfaction. In addition, the MCMJSS will be used to validate the

six-item job satisfaction scale on the OLA. The OLA has been used in several empirical studies (Anderson, 2005; Drury, 2004; Hebert, 2004; Laub, 1999; Ledbetter, 2003). Anderson examined the correlation between servant leadership and job satisfaction in a religious educational organization. The mixed methods study used the OLA tool to determine the existence of a strong correlation between job satisfaction and the superior and subordinate perception of servant leadership practiced within a private religious education organization. The sample population for this study included teachers and administrators in Utah. This sample population, 285 teachers and 145 administrators scored significantly higher on the OLA than other organizations studied using the OLA (Anderson, 2005). “This higher mean score on the OLA lends support to the claim that faithful followers of Christian traditions are more likely to implement principles of servant leadership than other people implement these principles” (Anderson, 2005, p. 97).

Drury (2004) examined the relationship between servant leadership and organizational commitment in a nontraditional college environment. In the study, Drury used the multilevel employee ratings from the OLA and demonstrated that the characteristics of servant leadership can be measured within an organization. Drury’s study explored the relationship of three variables: organizational commitment, job satisfaction and servant leadership at different levels and included hourly workers. The sample population was of employees of a nontraditional college in the Midwest. The results revealed a positive relationship between the perception of servant leadership and job satisfaction as measured by the OLA.

Herbert (2004) studied the perceived level of servant leadership from the follower’s perspective, and the sample was drawn from public and private sector

organizations. This study included participants from both the private and public sector. A total of 12 different organizations were represented in the study. A sample population in this study numbered 153. The results indicated that the six servant leadership traits, as assessed by the OLA, existed in the organizations in which the sample was taken. A positive correlation was found between the two variables: servant leadership and job satisfaction. The researcher (Herbert, 2004) concluded “...the greater the perception of servant leadership in organizations the greater the intrinsic job satisfaction of the employee” (p 102).

Laub (1999) used a quantitative reliability test to validate OLA. Laub concluded that the OLA was internally reliable, with an alpha coefficient of .98. This was a three-part Delphi study which used the expertise knowledge of 14 authorities within the field of servant leadership. From the panel of experts naming and rating of characteristics of a servant leader, the Servant Organizational Leadership Assessment (SOLA) was constructed. The study included the field test of 828 participants from over 40 different organizations. The study revealed a positive correlation between servant leadership scores and job satisfaction scores.

Ledbetter (2003) quantitatively analyzed the reliability of the OLA by studying a sample of law enforcement groups. Ledbetter’s (2003) study provided additional support for the reliability of the OLA. While there were previous studies (Miears, 2004; Stramba, 2003; Thompson, 2002) that examined the relationship between perceived servant leadership and variables such as job satisfaction, organizational commitment, and team effectiveness, this current correlational study will examine EI, which is believed to be a

determinant factor in the effectiveness of servant leadership as it relates to job satisfaction.

To date, few studies (Beazley, 2002; Horsman, 2001) have examined the relationship between servant leadership and job satisfaction in nonservice-related industries, especially industries that employ many high-tech people. As the workplace becomes more competitive, technology will continue to be a key to organizations' success. Technology does not emerge without people, and typically, these people are technical. Organizations must find a way to keep these people because they are valuable resources. It has been determined that job satisfaction strongly correlates to workforce retention, and job satisfaction among employees equals success in an organization (Michaud, 2000).

Emotional Intelligence

As with servant leadership, the topic of emotions being avoided or even considered taboo in the workplace is no longer the perspective of competitive businesses (Goleman, 1998). Goleman, a leading expert, concluded that emotional intelligence is vital to individuals and organizations success. EI was based on the concept of social intelligence, which was thought by Thorndike (1920) to be only an aspect of one's IQ and it was thought to add little or no value to individuals' or organizations' performance. Newson and Hayes (2005), however, concluded that emotions drive motivation more than logic. Although the idea of leaving one's emotions at home or out of tough decision-making situations has been the rule in most businesses, this idea contradicts human nature.

After the initial work on EI, this subject disappeared from the literature until Gardner (1983) introduced the theory of multiple intelligences. Gardner identified eight intelligences, two of which were interpersonal and intrapersonal intelligence. In 1988, Bar-On used the term *emotional quotient* then the term *emotional intelligence*. Bar-on (1996) defined *EI* as “an array of emotional and social knowledge and abilities that influences a person’s overall ability to effectively cope with environmental demands” (p 4). Bar-on (1990) is credited with developing the oldest instrument for measuring EI: the Bar-on Emotional Quotient Inventory. In 1990, EI was conceptualized by Mayer and Salovey, and they are credited with coining the term *emotional intelligence*. In their model, Mayer and Salovey identified EI as the “ability to monitor one’s own and other’s feelings and emotions, to discriminate among them, and to use this information to guide one’s thinking and action” (p. 189). The concept of EI has had a large impact on the views of leadership and organizational development because of the corporate world’s desire to maximize employees’ productivity.

Winston and Hartsfield (2004) examined the four-factor concept of emotional intelligence defined by Mayer and Salovey (1997) in relation to five servant leadership models (see Table 1). These researchers found a strong positive relationship between servant leadership and three constructs of emotional intelligence: Appraise and express emotion, use emotion to enhance cognitive processes, and reflective regulation of emotion, but they did not find a strong positive relationship between servant leadership and the ability to understand and analyze emotions.

Table 1

The Relationship of EI Constructs with Constructs of Servant Leadership (SL) Models

EI construct	Page and Wong's (2000) SL Model	Patterson's (2003) SL Model	Russell and Stone's (2002) SL Model	Sendjaya and Sarros' (2002) SL Model	Winston's (2003) SL Model
Appraise and express emotion	Caring for others	Trust	Trust, appreciating others	Authentic self	Commitment to the leader, trust
Use emotion to enhance cognitive processes	Integrity	Altruism, trust, service to the follower	Trust, integrity, credibility	Equality, trust	Altruism, commitment to the leader, service to the leader
Understand and analyze emotions	Authentic	<i>Agapao</i> , humility	Internal self-change	Self-awareness, self-perception	<i>Agapao</i>
Reflective regulation of emotion	Visioning, goal-setting, leading, modeling, team-building, decision making	Vision, trust, empowerment, service	Persuasion, influence, service, modeling, pioneering, appreciation, of others, empowerment	Vision, trust, role modeling, empowerment, mentoring	Service

Note. From *Similarities between emotional intelligence and servant leadership* by B. E. Winston and M. Hartsfield, 2004, Retrieved June 6, 2006, from http://www.regent.edu/acad/sls/publications/conference_proceedings/servant_leadership_roundtable/2004pdf/winston_emotional_intelligence.pdf Adapted with permission.

Goleman (1998) highlighted that in the past, intellectual intelligence was thought to be the key predictor of a person's success, but Goleman (1995, 1998) contended that it is the emotions, not intellect, that provides a better indicator of a person's success, and research (Goleman, 2000; Spencer, 2001) has shown that individuals and leaders with high EI surpass organizational targets.

Researchers (Goleman, 1998; Haskett, 2003) have found that EI relates to people's success in the field of education, and Goleman (1998) found that EI relates to people's success in the workplace. Although EI research has been limited by issues of

confidentiality and competition in the business world, researchers (Goleman, Boyatzis, & McKee, 2002; Kelley & Caplan, 1993) found that businesses acknowledge the relevance of EI in the workplace and continue to embrace the concept. One key study (Kelley & Caplan, 1993) examined employees' IQ and found that even though all the participants had high IQs not were star performers. The researchers concluded that high IQ did not predict who would be a star performer; instead, they found that star performers had effective interpersonal strategies.

The business world has changed as a result of a global expansion of the marketplace, innovation, decentralization, and changing business practices. According to some researchers (e.g. Bardzil & Slaski, 2003; Goleman, 1998), organizations that recognize, understand and leverage EI will be able to meet the challenges of the global marketplace and succeed if their employees have high EI and their leaders are able to motivate people with low EI. The stereotype that high-tech employees have low emotional intelligence remains; however, in our high technology environment, high tech employees are the center of the *war on talent*. Organizations are struggling to retain the knowledge of high-tech employees. Increasing the level of job satisfaction and the performance of high tech employee becomes more critical in the health of the organization. Organizations want to recruit and retain the top performers. Researchers (Goleman, 2001; Spencer, 2001) have suggested that the best measure of top performers include personal and social skills.

Goleman (1995) concluded that effective leaders have high levels of EI and identified a five-step process that promotes EI: (a) self awareness, (b) management and self-regulation of emotions, (c) self-motivation and performance, and (d) empathy and

perspective. The process starts with self-awareness, which enables a person to recognize and manage his or her emotions and in the process, make better decisions for the organization. Mayer and Salovey (1997) described EI as the ability to perceive emotions in other people and express emotions. They suggested that emotions can be regulated and assessed and used to promote emotional and intellectual growth. People who benefit from EI understand their own emotions, can relate to others, and know the practical application of EI in the workplace.

High-tech organizations recognize that knowledge and innovation are important indicators of economic performance, but the industry's thinkers and innovators are considered socially and emotionally inept (Goleman, 1998; Maccoby, 2000). Many people still think that the high-tech sector's workforce is composed of individuals and leaders with low EQ (Goleman, 1998; Maccoby, 2000). Few studies (Cherniss, 2001; Spencer, 2001) have examined why this stigma exists, and even less research has been conducted to investigate how EI impacts the effectiveness of the servant leadership style and its relationship to employees' job satisfaction. Although EI may be just one of many factors that increase job satisfaction, EI may be a critical factor for increasing job satisfaction; therefore, it is important to understand the role played by EI in today's workplace.

EI is very complex, which makes it difficult to measure, and there are many definitions of EI, which complicates an already complex concept. Salovey and Mayer (1990) defined *EI* as "the ability to think intelligently about emotions and their meanings" (p. 5). They concluded that EI is a type of intelligence that exists independent of personality traits: "Emotional intelligence is the ability to perceive emotions, to access

and generate emotions so as to assist thought, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (p. 5). Goleman (1995) claimed that EI encompasses other personal traits, and by its nature, it is too difficult to define. As with the definition, there is no consensus about the appropriate instrument for measuring EI. Although there are many differences in the methods used to measure EI, these assessment tools also share some common elements (Wakeman, n.d.).

The oldest EI measuring instrument (i.e., the Bar-on Emotional Quotient Inventory [EQ-i]) was developed by Bar-on (1990), and it was designed to measure individual success and well being. The Bar-on Emotional Quotient Inventory (EQ-i) is a self-report instrument that measures EI using five composite scales: (a) interpersonal, (b) intrapersonal, (c) adaptability, (d) stress management, and (e) general mood. In addition, there are 15 subscales. Conte (2005) argued that the conceptual relationship of each of these composites to emotional intelligence is not clear.

Boyatzis, Goleman, and Rhee (2000) developed the Emotional Competence Inventory (ECI) to assess emotional competencies and positive social behaviors. This 110-item instrument evaluates four clusters composed of 20 competencies: (a) self-awareness, (b) social awareness, (c) self-management, and (d) social skills. To date, few studies have used ECI, and as a result, there is not much data to support its reliability and validity: “Overall, discriminant and predictive validity evidence for the ECI has not been provided, and the scale does not deserve serious consideration until peer-reviewed empirical studies using this measure are conducted” (Conte, 2005, p. 445).

Conte (2005) reviewed several instruments that were designed to measure emotional intelligence. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) is an ability test that uses four subscales: (a) perception, (b) assimilation, (c) understanding, and (d) managing emotion. This EI measure requires the test-taker to engage in emotion-related tasks.

Other assessment instruments include the Perception of Affect Scale, the EQ MAP test, the Emotional Intelligence Scale, and the Emotional Intelligence Appraisal. Although EI measures can be divided into ability-based or self-reporting instruments, there is no one comprehensive tool that measures EI because there is a lack of consensus about EI. In spite of this lack of consensus, the Emotional Intelligence Appraisal will be used to assess EI in this study. The EIA is appropriate for this study because it contains competencies that are derivatives of Goleman's (1995) benchmark model of EI, and it produces an overall score as well as scores for each competency. The survey is self-guided and relatively short, which makes it suitable for the online method of data collection that will be used in the study.

Job Satisfaction

Job satisfaction has been conceptualized as both affective and cognitive (Brief & Weiss, 2002). This dual aspect creates challenges in aligning the definition and measurement of job satisfaction. Brief and Weiss (2002) examined job satisfaction and noted a disconnect in studies that examine job satisfaction: That is, job satisfaction is often expressed in affective terms, but only its cognitive aspects are measured. The researchers proclaimed that "it should no longer be acceptable to define job satisfaction one way (affectively) and blindly measure it another (cognitively)" (p. 284). Therefore,

instead of just examining the relationship between personality traits and job satisfaction, this study will examine the relationship between EI and job satisfaction.

Several theoretical frameworks have been developed to explain job satisfaction, but there does not appear to be a model that fully explains this complex concept. Researchers (Carmeli & Freund, 2004; Hull, 2004; Thompson, 2002) have credited various factors such as achievement, recognition, compensation, and promotion, as influencers to job satisfaction. Thompson (2002) highlighted that one of the determining factors that encourage high level of organizational commitment is job satisfaction. Leadership style is another factor that has a large impact on job satisfaction (Applebaum et al., 2003). Studies (Bowden, 2002; Hull, 2004; Thompson, 2002) have also demonstrated a relationship between preferred leadership style and employee job satisfaction. Many studies (Carmeli & Freund, 2004; Judge et al., 2001; Judge & Hies, 2004) have examined the relationship between job satisfaction and work-related constructs such as performance, attrition, absenteeism, and work commitment, and personality and mood have also been studied in relation to job satisfaction. Carmeli and Freund (2004) examined the relationship between joint commitments, job satisfaction, and job performance of lawyers in privately held firms. The study revealed that job satisfaction plays a mediating role in the relationship between work commitment and job performance. Judge and Hies (2004) studied 74 participants and found that job satisfaction affected mood. Judge et al., (2001) conducted a meta-analysis study of a sample of 300 participants to examine the relationship between job satisfaction and job performance. The researchers reviewed the mixed findings on job satisfaction and job performance relationship.

According to Yousef (2000) studies have examined the relationship between leaders' behavior and how it impacts employees' job satisfaction. Findings have been mixed, but these studies have indicated that some leadership styles correlate to job satisfaction more than other styles. Researchers (Laub, 1999; Miers, 2004) have suggested that servant leadership has a positive impact on employees' job satisfaction. Laub concluded that the more an employee perceives the principles of servant leadership being implemented in the workplace, the higher the level of job satisfaction. Miers found a similar correlation between perceived servant leadership and job satisfaction among teachers in a Texas public school district. Winston and Hartsfield (2004) showed similarities and overlap between the emotional intelligence constructs with servant leadership. The authors stated "the amount of similarity warrants researchers and leadership development practitioners to consider the role of emotional intelligence in servant leadership" (Winston & Hartsfield, 2004. p 5).

Greenberg and Baron (2003) suggested that some individuals will always be more satisfied with their jobs than other people, and some people are predisposed to be more satisfied with their job than other people. From this predisposition model, Muhammad (2005) examined the relationship between a person's level of EI and his or her level of job satisfaction. The study was designed to identify the relationship between emotional intelligence and job satisfaction. If a relationship exists, then the variable of emotional intelligence could be concluded to be a predictor of the level of job satisfaction. The participants of this study included 200 undergraduate students who were also employed. The majority (75%) of the participants were females. To measure emotional intelligence, the researcher used the 125 Bar-on questionnaires. The JDI/JIG was used to measure the

overall job satisfaction level of the participants. Although the study revealed that EI was not a significant predictor of job satisfaction, the findings suggested that EI, although not the single factor, is a contributing factor to job satisfaction. Additional research is needed in this area to gain a better understanding of the relationship between the two variables.

Job satisfaction, as a construct, is very complex because many workplace behaviors affect job satisfaction, and there is no one model that captures the construct as a whole (Hagedorn, 2000). According to Wofford (2003), there are more than 3,000 articles and studies that deal with job satisfaction, and several theoretical frameworks have been developed to explain job satisfaction. In addition, Wofford found that there are several different definitions for job satisfaction (see Table 2).

Table 2

Definitions of Job Satisfaction

Researcher(s)	Definition
Carlson, Dawis, England, and Lofquist (1962); Scarpello and Vandenberg (1992)	Job satisfaction might be the extent to which the individual's expectations concerning work have been fulfilled.
Vroom (1964)	Job satisfaction is based on an employees' evaluation of whether they get what they want from a job.
Dawis, England, and Lofquist (1964)	The Minnesota Theory of Work Adjustment defines job satisfaction in terms of the relationship between reinforcers in the work environment and a person's needs. The closer the relationship between the reinforcers and the person's needs, the higher the level of job satisfaction.
Herzber (1968)	Job satisfaction is based on a human relations theory, which posits that employees develop positive job attitudes if their jobs allow them to fulfill their needs.
Locke (1976)	Job satisfaction refers to employees' affective relations to their work role and is a function of the perceived relationship between what one wants from one's job and what one perceives it is offering.
Ulrich and Lake (1991)	Job satisfaction is a positive emotional state produced from a person's experience associated with his or her job.
Kalleberg (1977); Spector (1997)	Job satisfaction is conceptualized as an affective response to the job situation and can be defined as how much an employee likes her/his work.

Wiesmann, Alexander, and Chase (1980)	Job satisfaction is the degree of positive affect toward the overall job or its components.
Brooke, Russell, and Price (1988)	Job satisfaction is defined as an individual's general attitude towards one's job.
Scarpello (1992)	Job satisfaction can be conceptualized as the disparity between what the employee desires or wants from a job and what he or she actually receives from the work.
DeLeon and Taher (1996)	Job satisfaction is a function of its intrinsic rewards, extrinsic rewards, and employees' needs, expectations, and characteristics.
Comm and Mathaisel (2000)	Job satisfaction is the difference between perception of work and expectations about and importance of work.
Tang, Kim, and Tang (2000)	Job satisfaction is an affective response to specific aspects of the job.
Johnson and Johnson (2000)	Job satisfaction is the employees' response to the conditions of workplace.

Note. From *A study of worker demographics and workplace job satisfaction for employees in a global engineering and construction organization* by T.D. Wofford, 2003.

Job satisfaction is a critical construct because job dissatisfaction has been acknowledged as the single most important reason people leave their job (Barak, Michal, Nissely, & Levin, 2001; Sturges & Guest, 2001). Several studies (Applebaum & et al, 2003; Bowden, 2002; Hull, 2004; Thompson, 2002) have attempted to predict job satisfaction; however, there is little agreement about how to measure job satisfaction.

Job satisfaction can be measured as an overall concept or as multiple components. Landy and Conte (2004) explained that overall job satisfaction can be determined by “mathematically combining scores based on satisfaction with specific important aspects of work or a single overall evaluative rating of the job...[and facet satisfaction is] information related to specific facets or elements of job satisfaction” (p. 386). Instruments such as the Job Descriptive Index (JDI) measures both overall and facet job satisfaction. The Minnesota Satisfaction Questionnaire assesses job satisfaction at the intrinsic and extrinsic level. In this study, job satisfaction will be measured using MCMJSS. This instrument is designed to measure eight facets of perceived job satisfaction: Four items measure intrinsic job satisfaction, and four items measure

extrinsic job satisfaction. The data from the MCMJSS will be analyzed for intrinsic, extrinsic, and overall job satisfaction scores for each participant. In addition, the OLA (Laub, 1999), which includes six items to measure job satisfaction in an organization will be used in this study.

Conclusion

A review of the literature shows that there is a need for empirical research that examines servant leadership and how it impacts an organization. In addition, job satisfaction is still not fully understood, and given its importance in retaining employees, more research is needed to identify its components and the factors that influence it. Research (i.e., Ledbetter, 2003; Miers, 2004; Stramba, 2003; White, 2003) found a positive correlation between the principles of servant leadership implemented within an organization and the level of job satisfaction among the employees indicating that servant leadership relates to job satisfaction. These studies, however, have been limited to service educational organizations and service related industries, such as public services.

Although servant leadership and job satisfaction are not fully understood, a positive correlation has been identified among servant leadership and job satisfaction, (Ledbetter, 2003; Miers, 2004; White, 2003) and servant leadership and emotional intelligence (Winston & Hartsfield, 2004), and it is possible that these variables are important for effective leadership and the well-being of an organization. When organizations recognize that human capital is a critical asset and an enormous investment that affects the whole organization (Hannay & Northam, 2000) the need to understand all the factors that maintain or improve job satisfaction becomes important and effort is put forth to maximize the job satisfaction level of employees. Therefore, the current study is

designed to examine the relationship among servant leadership, emotional intelligence, and the job satisfaction of high-tech employees.

Summary

The literature review showed a lack of empirical research regarding servant Leadership and emotional intelligence as it relates to job satisfaction among technical employees working in an organization within the high tech industry. Studies (Miears, 2004; Stramba, 2003; Thompson, 2002) have examined the relationship between job satisfaction and servant leadership in service related industries. However, there is a need to examine this relationship in non service related industries. There are also limited studies (Abraham, 2000; Busso, 2003; Clanton, 2005) that have addressed the relationship between emotional intelligence and job satisfaction. These studies, as well, were limited to service related industries. This study is designed to provide insight into the phenomenon job satisfaction by examining the relationship of job satisfaction with servant leadership and emotional intelligence in the high tech industry and determine what relationship exist between the variables. Chapter 3 details the methodology that will be used in the study.

CHAPTER 3: RESEARCH METHODOLOY

This quantitative, nonexperimental, correlation study is designed to examine if a relationship exists among servant leadership, EI, and the job satisfaction of aerospace engineers. Three research questions were generated to determine the factors influencing job satisfaction in a high-tech environment such as aerospace engineering. Previous research (Ledbetter, 2003; Miears, 2004; Stramba, 2003; White, 2003) has shown a positive correlation between servant leadership and job satisfaction in service-related

fields. In addition, previous research (Muhammad, 2005) has examined the relationship between EI and job satisfaction; however, Muhammad (2005) found no statistical evidence to support the claim that EI quotient is a single predictor of a person's level of job satisfaction. However, additional research can contribute to our understanding of emotional intelligence and how it relates to other factors that may contribute to job satisfaction. Research has already shown that emotional intelligence leads to high job performance (Bar-On, Handley & Fund, 2006; Druskat, Sala, & Mount, 2006) and organizational success (Mount, 2006). Studies (Laub, 1999; Ledbetter, 2003; Stramba, 2003; Thompson, 2002) have also shown that servant leadership within an organization has a positive correlation with job satisfaction. Those studies listed above were conducted on service related industries. Winston and Hartsfield (2004) concluded that there was a strong positive relationship between the servant leadership principles and many of the emotional intelligence factors. That relationship may be a factor which impacts the level of job satisfaction. This study is designed to explore emotional intelligence and how it relates to servant leadership and job satisfaction. It is assumed that engineers have low EI (Goleman, 1998) compared to employees in service related industries such as education and health care. Therefore, this study will be guided by the following primary question: Is there a correlation between servant leadership and job satisfaction among employees who historically have been categorized as having low EI.

Chapter 3 contains a discussion about the research design, appropriateness of the research design, research questions and hypotheses, variables, population, instruments, data collection, and data analysis.

Research Design

It is hypothesized that the level of job satisfaction among aerospace engineers is directly related to the perceived level of servant leadership in their organization and his or her level of EI. Servant leadership and job satisfaction in service related industries has shown to have a positive correlation; however, emotional intelligence factors are closely aligned with the principles of servant leadership (Winston & Hartsfield, 2004). To this end, this current study also explores the relationship, if any, of the level of emotional intelligence to servant leadership and its impact on job satisfaction. To test the hypotheses discussed below, a quantitative correlation of each variable (servant leadership, EI, and job satisfaction) was conducted. Three independent survey instruments were used to collect data: (a) the Organizational Leadership Assessment (OLA; Laub, 1999), (b) the Mohram-Cooke-Mohram Job Satisfaction Scale (MCMJSS; Mohrman et al., 1977), and (c) the Emotional Intelligence Appraisal survey (EIA; Emotional Intelligence Appraisal, 2006).

The OLA assesses levels of servant leadership in organizations, and it contains items that assess the intrinsic job satisfaction level of an employee. Similar to Thompson (2002) study, the intrinsic job satisfaction results from the OLA were correlated to the job satisfaction assessment results from the MCMJSS. This convergence of data strengthened the overall internal validity of the study.

This study was also designed to determine if EI is a single predictor of job satisfaction. Previous research (Muhammad, 2005) has demonstrated that EI is not a single predictor of job satisfaction. Muhammad (2005) suggested that “this study could be replicated using different measures of both emotional intelligence and job satisfaction to determine if, indeed, there is a relationship between emotional intelligence and job

satisfaction” (p. 44). Therefore, this study is designed to use the EIA-ME survey to test EI and the OLA and MCMJSS to assess job satisfaction. These instruments as they are designed were used to measure the three variables independently. The OLA survey is based on the six specific constructs of servant leadership, the MCMJSS measures both intrinsic and extrinsic elements of job satisfaction as well as an overall perception of job satisfaction, and the EIA-ME captures the four EQ competencies as well as an overall EQ score. These instruments were chosen because each captures all the critical elements within each variable assessed in this current study.

Appropriateness of Design

This study focused on the relationship among servant leadership, emotional intelligence, and the job satisfaction of a sample population of engineers employed in the aerospace industry. A quantitative, correlational method is considered appropriate for this study because the factors are known, and in order to answer the research questions, it is necessary to describe the nature of the data using correlation analysis, which provides information about the direction and strength of the relationship between variables (Leady & Ormrod, 2001). A quantitative methodology is also considered appropriate because there are instruments available to measure all three variables (i.e., OLA, MCMJSS, and EIA). These instruments have been tested and shown reliable in previous studies. In addition, the hypotheses are designed to test the directional relationships between variables, and directional relationships between variables are best tested using quantitative methodologies (McGrath & Johnson, 2003).

Reliability and validity are critical in the study because this study is intended to provide support for and acceptability of servant leadership in nonservice-related organizations. McGrath and Johnson (2003) stated,

One of the strengths of quantitative approaches is their ability to provide explicit assessments of the quality of information obtained in a study. Quantitative techniques are often designed to provide definitive, though arbitrary answers to questions about the reliability (that is, repeatability), validity (that is, truth value), and generalizability (that is, scope and boundaries of applicability) of a study's measures, of its findings, and of its conclusion. (p. 42)

According to Kamil (2002), quantitative research is predicated on the treatment of the data collected. He contended that a study is quantitative if it involves counting and comparisons. Kamil asserted that a correlational study is a descriptive study that looks for a consistent relationship between two phenomena. Correlational studies examine the degree and direction of correspondence between two things and a correlational design provides a systematic approach for examining the relationship between independent variables and a dependent variable (Kamil, 2002). In this study, job satisfaction is the dependent variable and servant leadership and EI are the independent variables. This study is not designed to explore or understand why the variables affect each other but to simply determine, through objective measures if a relationship exists; therefore, a qualitative approach would not be appropriate for this study. This study will also use structured survey instruments to obtain objective measures which reduces interpreter's bias (Leedy & Ormrod, 2001).

Research Questions

This study is designed to determine if there are correlational relationships among servant leadership, emotional intelligence, and the job satisfaction of aerospace engineers. Data were gathered to answer the following research questions:

1. To what extent do the principles of servant leadership relate to the level of job satisfaction among aerospace engineers as measured by the OLA and MCMJSS?
2. To what extent does the level of aerospace engineers' EI relate the level of job satisfaction among aerospace engineers as measured by the EIA?
3. To what extent does the level of aerospace engineers' EI relate to the level of perceived servant leadership within the organization?

Hypotheses

Previous research that focused on populations in the field of education (Girard, 2000; Miars, 2004; Stramba, 2003; Thompson, 2002) found a positive correlation between servant leadership and job satisfaction. Similar studies (i.e. Anderson, 2005), showing similar results, have been conducted in religious organizations. Limited research (Braye, 2000; Horsman, 2001) has explored servant leadership in for-profit organizations; therefore, this correlational study is conducted in a nonservice-related, high-tech organization in order to expand the body of knowledge about servant leadership to another population, in particular, to a population that has been perceived historically to have low EI. The data from the study will be used to test the following hypotheses:

Primary hypothesis: There is a relationship among servant leadership, emotional intelligence, and job satisfaction in a high-tech industry.

H1o: There is no relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H1a: There is a relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2o: There is no relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2a: There is a relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H3o: There is no relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

H3a: There is a relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

Variables

“A variable is any thing that can take on different values.” (www.socialresearchmethods.net p 4). Three variables will be assessed and analyzed in this study. There are two independent variables: (a) servant leadership and (b) EI. The dependent variable is job satisfaction. In past research these variables have been examined; however, these variables are complex and still are not fully understood. More research is needed to continue to uncover relationship between servant leadership,

emotional intelligence, and job satisfaction and how these variables can help in leadership effectiveness.

Population

Informal permission to conduct the study was requested from the leadership team of the target organization. The target population for this study is employees of an organization that is a leading global supplier of aircraft components, engines, avionics, and related products and services for commercial airlines, business and regional aircraft, and spacecraft. The sample population only included full-time engineers employed by a business with headquarters in the southwestern United States. The sample population comes from the engineering and technology (E&T) group in the organization. The E&T group is composed of more than 8000 engineers in various engineering disciplines, such as aerospace, mechanical, material sciences, and electrical. The Mechanical Center of Excellence (MCOE) group within E&T comprises of 1100 full time United States based engineers. The MCOE was the targeted population. Based on the total targeted population of 1080 with a confidence level of .95 with a .05 margin of error, the target sample size was 100 engineers.

The process for selecting the sample population is illustrated in Figure 1.

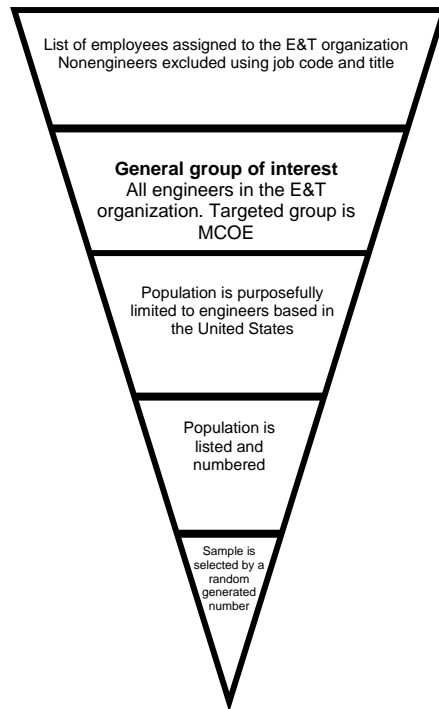


Figure 1. Sample selection process.

Informed Consent

A consent form (see Appendix A) was made available to each participant to read before the start of the study, and it outlined the study and ensured the participants that their responses to the surveys will be confidential and anonymous. It also informed the participants that their individual responses will not be reflected in the dissertation. Each participant was directed to read and acknowledge the consent form. The acknowledgement statement as read ‘I acknowledge that I understand the nature of the study, the potential risks to me as a participant, and the means by which my identity will be kept confidential. My acknowledgement also indicates that I am 18 years old or older and that I give my permission to voluntarily serve as a participant in the study described.’ Once participants select acknowledge, they were automatically directed to the surveys. The surveys were administered through the Internet, and there was no opportunity to

obtain original signatures on the consent forms; therefore, completing the surveys was considered passive consent in participating in the study.

Confidentiality

Participants' responses were kept confidential and their anonymity was also guaranteed by limiting the access to anything that could identify individuals to the researcher. Individual responses will not be reflected in the final results of the study. Each participant was given the opportunity to review the informed consent form prior to participating in the study. Each participant was asked to acknowledge the consent form before being directed to the survey instruments used in the study.

Geographical Information

This study is limited to full-time engineers who are part of the E&T group of an aerospace organization located in the southwestern United States. The participants, however, may not be located at the organization's headquarters.

Instruments

This study used three different reliable, valid instruments: (a) the Organizational Leadership Assessment (OLA; Laub, 1999), (b) the Mohram-Cooke-Mohram Job Satisfaction Scale (MCMJSS; (Mohrman et al., 1977), and (c) the Emotional Intelligence Appraisal survey (EIA; Emotional Intelligence Appraisal, 2006). The OLA was used to assess servant leadership in the organization and assess the participants' job satisfaction. The MCMJSS was also used to evaluate the job satisfaction of full-time engineers in the organization. In addition, The EIA-Me instrument was used to measure the engineers' level of EI. For the purposes of reporting demographic statistics within this study, participants were also asked to provide answers to some questions that seek demographic

information that includes age, gender, work location, level in the organization, years of experience with organization, and years of experience in the aerospace industry.

Organizational Leadership Assessment

Laub (1999) developed the OLA survey to measure the level of servant leadership in an organization. The survey contains 60 items based on six specific constructs: (a) valuing people, (b) developing people, (c) building community, (d) displaying authenticity, (e) providing leadership, and (f) sharing leadership. The OLA is a three-section Likert-type scale, ranging from 1 indicating strongly disagree to 5 indicating strongly agree, that assesses an organization as a whole, the leadership of the organization, and the organization and leadership from the perspective of an individual's personal experience. Laub (1998) conducted a study that found a strong positive correlation between servant leadership and job satisfaction. After Laub concluded that a positive correlation existed between the two variables, he added six job satisfaction related questions to the survey. Laub (1999) reported that the reliability score for the OLA instrument, using the Cronbach-Alpha coefficient, was .9802. Laub (1999) also used the Delphi process and a panel of experts to determine the survey's validity and found that the constructs were valid.

Mohrman-Cooke-Mohrman Job Satisfaction Scale

The MCMJSS instrument was designed to measure self-perception of job satisfaction using an 8-item scale divided into two sections. Each section contains four questions and uses a 6-point Likert-type scale. The highest response is indicated as 6, and the lowest response is indicated as 1. The instrument is designed to measure eight facets of perceived job satisfaction: Four items measure intrinsic job satisfaction, and four items

measure extrinsic job satisfaction. The data from the MCMJSS were analyzed to determine the intrinsic, extrinsic, and overall job satisfaction of each participant.

Emotional Intelligence Appraisal

TradeSmart, Inc. (Emotional Intelligence Appraisal, 2006) developed the EIA survey as part of a trilogy of instruments that measure overall emotional quotient (EQ) and the four EQ competencies: (a) self-awareness, (b) self-management, (c) social awareness, and (d) relationship management. These four EQ competencies are derivatives of Goleman's (1995) benchmark model of EI. EIA is a survey developed and designed to assess EI using a six-point scale that ranges from never to always. The survey is short and self-guided, and it produces an overall emotional quotient score and a score for each EQ competency.

Validity

To confidently draw meaning from the results of the assessment instruments, the instruments must have validity. There are two parts of validity: Internal (content, criterion, and construct) and External (generalization of results) (Leedy & Ormrod, 2001).

Previous research (Laub, 1999) has shown that the OLA and MCMJSS are valid instruments for measuring servant leadership and job satisfaction, respectively. The OLA instrument was field tested by Laub (1999) and has a reliability of .98. The MCMJSS instrument has also been shown to be a valid assessment of job satisfaction in previous research (Proffit, 1990). According to Mohrman et al. (1977), the MCMJSS has reliability coefficients of .87 and .82. The EIA was tested and has a reliability coefficient that ranges from .85 to .91 (Emotional Intelligence Appraisal Technical Manual, 2005).

The internal validity of this study depended on the reliability of the instruments used. The external validity of this study was demonstrated by the relevancy of the instruments in assessing the variables.

Data Collection

The data for this study were collected using a web-based instrument. This web-based instrument contained the following items: (a) basic demographic questions (e.g., gender, age, tenure at job, work location, and years in the aerospace industry); (b) the OLA (Laub, 1998); (c) the MCMJSS (Mohrman et al., 1977); and (d) the EIA (Emotional Intelligence Appraisal, 2006).

A web-based format enables data to be collected electronically. As a result of the geographically dispersed nature of the organization examined in this study, a web-based format made it possible to easily and quickly contact members of the sample frame. Accessibility to the website was limited by time, but there were efforts to ensure that the study had an adequate sample size. Participants received an initial email inviting them to participate in the study, and each participant also received two follow-up emails approximately one week apart. The link to the surveys was imbedded in the invitation email. The surveys were presented to all participants in the same order and the survey link directed participants to the next survey preventing participants from going to the next survey without completing the previous survey.

Each of the randomly selected participants in the sample population was contacted using e-mail and notified when they can access the surveys and informed consent form. Consent was implied after completion of the surveys. Although implied permission does not carry the equivalent legal weight as a signed form, implied

permission is generally acceptable for informed consent if the researcher has no reason to believe participants will misrepresent themselves (Anderson & Kanuka, 2002).

Data Analysis

The data collected from the surveys were entered into the software program for the social sciences (SPSS), and a Pearson correlation between each variable was conducted to determine differences by category and any relationship between the independent and dependent variables. A Pearson Product Moment correlation was used to examine the correlation between the six constructs of servant leadership and the overall job satisfaction, to determine if a significant correlation exists between the constructs of emotional intelligence and the constructs of servant leadership, and to discover if there is a significant relationship between the constructs of emotional intelligence and job satisfaction. Regression models were ran to identify predictors of responses. The demographic data collected during this study were used as descriptive of the sample population.

Summary

This quantitative, correlational study was designed to examine if a relationship exists among servant leadership, emotional intelligence, and the job satisfaction of engineers working in the aerospace industry. This chapter detailed the research design and its appropriateness, reviewed the research questions and hypotheses, described the targeted population, discussed the established reliability and validity of the research instruments, and discussed data collection and data analysis. Chapters 4 and 5 will

present an analysis of the data and offer recommendations based on the results, respectively.

CHAPTER 4: PRESENTATION AND ANALYSIS OF DATA

The quantitative, correlational study discussed in this dissertation was designed to determine if a relationship exists among servant leadership, EI, and the job satisfaction of high-tech employees in the U.S. aerospace industry. Significant research supported the argument that a number of factors affect job satisfaction, but few studies have examined the relationship between servant leadership and job satisfaction in nonservice-related industries, specifically industries that employ high-tech employees. The present study was designed to build on the understanding of servant leadership in nonservice-related industries and how this type of leadership relates to job satisfaction and emotional intelligence. This chapter presents the results of analyses of the data collected during the present study and concludes with a summary of the findings.

An email invitation to participate in the present study was sent out to a random list of 200 engineers. The email informed the participants that the study contained three surveys and directed the participants to a website that contained an overview of the study, consent form for acknowledgement, and links to the survey instruments.

The present study included three survey instruments: (a) OLA, (b) MCMJSS, and (c) EIA. Of the 200 engineers invited to participate in the study, 90 completed the OLA instrument, 68 completed the MCMJSS, and 53 completed the EIA. The results of this study are presented in four sections: The first section describes the demographic data collected about the participants in the study, and the other sections present detailed statistics from the three assessments as they relate to the research questions in this study.

Subjects

Demographic Statistics

The target population was full-time engineers employed by an organization that is a leading global supplier of aircraft components, engines, avionics, and related products and services for commercial airlines, business and regional aircraft, and spacecraft with headquarters located in the southwestern United States. The engineers represent a variety of disciplines and years of experience in the aerospace industry. Table 3 presents the demographic data gathered from the sample population. The sample population included 79.7% ($n = 55$) individual contributors and 20.3% ($n = 14$) leaders/managers. Of these participants, 86.8% ($n = 59$) were male, and 13.2% ($n = 9$) were female.

Table 3

Demographic Characteristics of Engineers

Data	<i>n</i>	%
Role in organization		
Individual contributor (IC)	55	79.7
Manager	12	17.4
Senior leader	2	2.9
Gender		
Male	59	86.8
Female	9	13.2
Age		
18–20	0	0.0
21–30	5	7.4
31–40	11	16.2
41–50	35	51.5
51–60	12	17.6
over 60	5	7.4
Years of experience in industry		
0–5	10	14.5
6–10	6	8.7
11–15	7	10.1
16–20	10	14.5
21–25	20	29.0
26–30	9	13.0
over 30	7	10.1
Years employed with company		
0–5	17	24.6
6–10	9	13.0
11–15	10	14.5
16–20	8	11.6
21–25	17	24.6
26–30	4	5.8
over 30	4	5.8

Instruments

Mohrman-Cooke-Mohrman Job Satisfaction Survey (MCMJSS)

Table 4 contains the descriptive analyses for MCMJSS. This survey consisted of an 8-item scale divided into two sections: (a) intrinsic and (b) extrinsic. The responses

were captured using a 6-point Likert-type scale, with 6 being the highest response and 1 being the lowest response.

Table 4.

Descriptive Analysis of the MCMJSS Scores

MCMJSS	Mean	SD	Min	Max
Overall	4	0.88	2	6
Intrinsic	4	1.00	2	6
Extrinsic	4	0.93	1	6
	Mean	SD		
Q1	5	1.00		
Q2	4	1.30		
Q3	5	1.10		
Q4	4	1.10		
Q5	5	1.10		
Q6	4	0.98		
Q7	4	1.48		
Q8	4	1.15		

Emotional Intelligence Appraisal (EIA)

The EIA variables consisted of four subgroups: (a) self-awareness, (b) self-management, (c) social awareness, and (d) relationship management. The descriptive analyses are presented in Table 5. The EIA overall scores are broken down into the following five categories:

1. 90–100: strength to capitalize on
2. 80–89: strength to build on
3. 70–79: with a little improvement, this could be a strength
4. 60–69: something to work on
5. 59 and below: concern to address

Table 5.

Descriptive Analysis of the EIA Subgroups

Emotional intelligence appraisal	Mean	SD	Minimum	Maximum
Overall score	79.6	7.6	50	92
Self-awareness	81.9	5.3	70	92
Self-management	80.7	10.3	39	98
Social awareness	80.3	8.8	47	93
Relationship management	74.8	10.5	39	91

Organization Leadership Assessment (OLA)

The Organization Leadership Assessment (Laub, 1999) was designed to measure six different constructs of servant leadership (see Table 6). The responses of all 90 participants yielded a mean score of 3.43. This score indicated that the organization represented in the present study is a level 3 organization, which Laub called Limited Health.

Table 6

Laub's Six Organization Levels

Level	Range	Category
Org 1	1.00–1.99	Toxic health
Org 2	2.00–2.99	Poor health
Org 3	3.00–3.49	Limited health
Org 4	3.50–3.99	Moderate health
Org 5	4.00–4.49	Excellent health
Org 6	4.50–5.00	Optimal health

The Research Questions

This study was designed to determine if there are correlational relationships among servant leadership, emotional intelligence, and the job satisfaction of full-time engineers employed with an aerospace organization in the southwestern region of the United States. Servant leadership is the main part of the theoretical framework in this

study; therefore, OLA (Laub, 1999) was used to uncover the extent to which the principles of servant leadership exist in the organization.

OLA is subdivided into six constructs of servant leadership: (a) values people, (b) build community, (c) display authenticity, (d) develop people, (e) provide leadership, and (f) share leadership. The six constructs are listed above from highest to lowest. The average scores of the organization represented in the present study for each construct are shown in Figure 2. Further analysis of the data showed only a slight difference between the mean scores of top leadership, management, and workforce (see Figure 3).

The OLA instrument has groups of questions that correspond to each construct. There are 10 questions related to the construct of values people, 9 questions related to develops people, 10 questions related to builds community, 12 questions related to displays authenticity, 9 questions related to provides leadership, and 10 questions related to shares leadership. The other 6 questions are designed to assess the job satisfaction of participants.

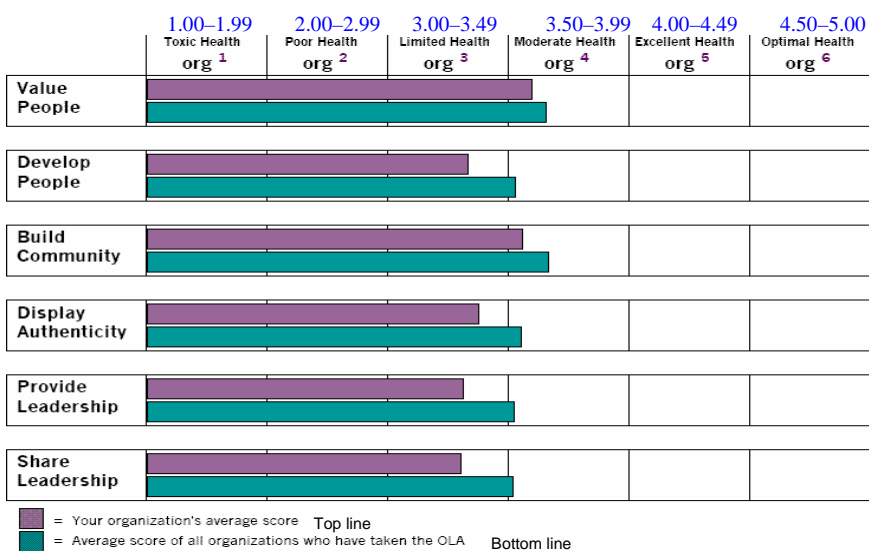


Figure 2. Organization's average scores in the six OLA constructs.

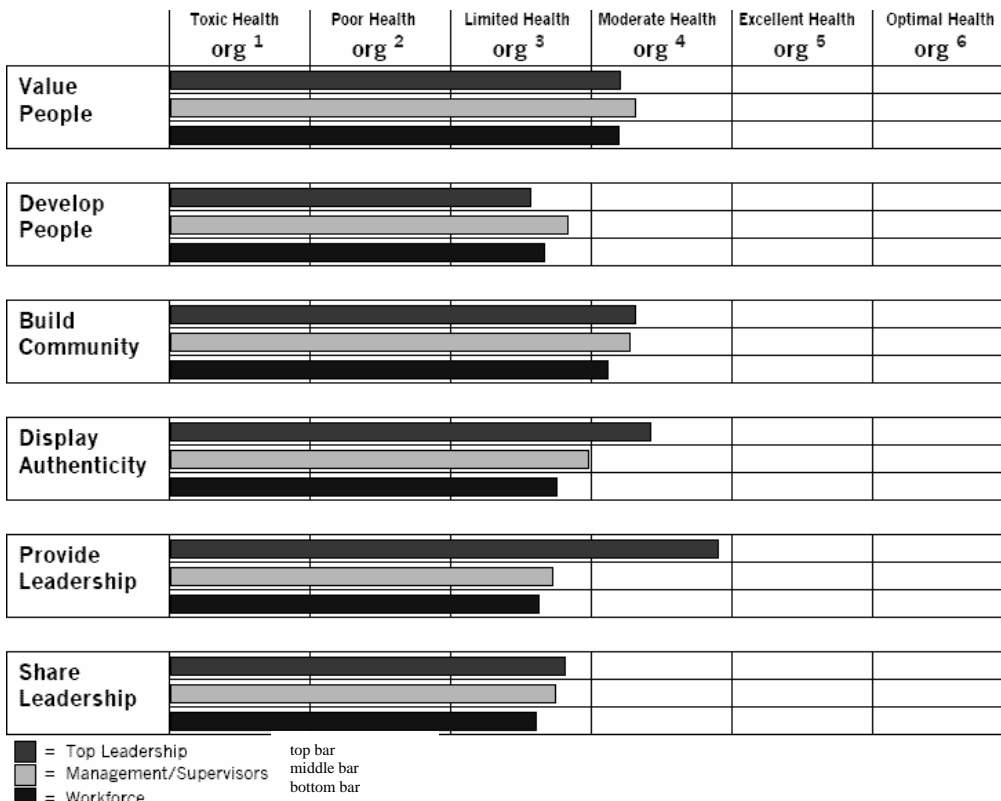


Figure 3. Organization's average scores on the six OLA constructs by position.

Data were collected in the present study to answer the following research questions:

1. To what extent do the principles of servant leadership relate to the level of job satisfaction of engineers as measured by OLA?
2. To what extent does the level of aerospace engineers' EI relate to the level of job satisfaction of aerospace engineers as measured by EIA?
3. To what extent does the level of aerospace engineers' EI relate to the perception of servant leadership principles implemented in the organization?

Research Question One

The first research question was designed to explore the extent to which the principles of servant leadership relate to the level of job satisfaction of engineers, as measured by OLA. To answer this question, data collected from the 60 OLA questions

related to the six constructs were analyzed with the data from the six OLA questions related to job satisfaction (i.e., questions 56, 58, 60, 62, 64, and 66). This was accomplished by correlating each construct with each job satisfaction score using the Pearson Product Moment correlation coefficient (see Table 7). The analysis revealed a positive correlation ($p = .01$) between each of the six constructs and the job satisfaction level of the participants, and it appears there is a positive correlation between the perception of servant leadership principles and engineers' job satisfaction in the aerospace industry. For example, the level of job satisfaction of individual contributors was strongly correlated to all six constructs of servant leadership. In the construct values people, the leaders/managers had a correlation of .547, while the individual contributors produced a correlation of .738.

Table 7

Pearson Coefficient of Servant Leadership and Job Satisfaction

	Value people	Develop people	Builds community	Display authenticity	Provides leadership	Shares leadership
Organization	0.719*	0.667	0.637	0.572	0.645	0.558
Individual contributors' job satisfaction	0.738*	0.674	0.657	0.582	0.653*	0.583
Leaders and managers' job satisfaction	0.547	0.586	0.301	0.411	0.446	0.194

* Correlation is significant at the 0.05 level

N=90

Research Question Two

The second research question was designed to determine the extent to which the level of engineers' emotional intelligence, as measured by EIA, relates to the level of job satisfaction, as measured by OLA and MCMJSS. To address this question, data collected

from EIA were analyzed with the data from the six questions on OLA related to job satisfaction and the eight questions that make up the MCMJSS survey. This relationship was examined using the Pearson correlation coefficient (see Tables 8 and 9). The analysis showed no significant relationships among the overall emotional intelligence measure, any of the emotional intelligence subgroups (i.e., self-aware, self-management, social aware, and relationship management), and the overall job satisfaction scores. The analysis did reveal a significant relationship between the intrinsic measure of job satisfaction measured by MCMJSS and overall emotional intelligence. There was no significant relationship between the overall JS score and the extrinsic JS score.

Table 8

Pearson Coefficient of JS (OLA) and Overall EI

		JS (OLA)	EIA overall	Self- aware	Self- management	Social aware	Relationship management
JS (OLA)	Pearson correlation	1	.038	.060	.043	-.041	.050
	Sig. (1-tailed)		.393	.336	.381	.385	.362
	N	53	53	53	53	53	53

Table 9

Pearson coefficient of Overall EI and JS (MCMJSS)

		EIA overall	Self- aware	Self- management	Social aware	Relationship management	MCMJSS overall	Intrinsic	Extrinsic
EIA overall	Pearson correlation	1	.766**	.872**	.906**	.875**	.179	.242*	.076
	Sig. (1- tailed)		.000	.000	.000	.000	.100	.040	.294
	N	53	53	53	53	53	53	53	53

**Correlation is significant at the 0.01 level (1-tailed).

*Correlation is significant at the 0.05 level (1-tailed).

Research Question Three

The third research question was designed to determine the extent to which the level of engineers' emotional intelligence, as measured by EIA, relates to the perceived

level of servant leadership principles implemented in the organization. This question was addressed by analyzing the data, using the Pearson correlation coefficient, from the overall EIA score and the overall servant leadership score from the OLA survey. As shown in Table 8, there was no significant relationship between overall EI and overall servant leadership.

Hypotheses

While there are a variety of studies that examine servant leadership and the correlation between servant leadership and job satisfaction, to date, these studies have been conducted in the service industries, and few studies (e.g., Braye, 2000; Horsman, 2001) have examined servant leadership in the for-profit sector. Based on previous research (Ledbetter, 2003; Miers, 2004; Muhammad, 2005), there may be a strong positive correlation between servant leadership in an organization, emotional intelligence, and job satisfaction. The present study was designed to investigate the extent to which a relationship exists between each variable. Therefore, the data were analyzed to test the following hypotheses:

H1o: There is no relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H1a: There is a positive relationship between servant leadership and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2o: There is no relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H2a: There is a positive relationship between the level of EI and job satisfaction among engineers employed by a large for-profit business in the aerospace industry located in the southwestern United States.

H3o: There is no relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

H3a: There is a positive relationship between the perception of servant leadership and the level of engineers' EI in the aerospace industry.

When testing the null hypotheses, a linear regression was used to measure the predictive relationship between variables. Linear regression investigates the relationship between two continuous variables. For the first null hypothesis, the values for the test were determined using an overall OLA score and an overall OLA job satisfaction score. The result from the simple linear regression model for these two variables was $r=.816$, $r^2=.665$, $F(6,46)=15.234$, $p<.001$. The significance value of .000 was derived from the model, indicating significance. Based on this analysis, the first null hypothesis was rejected.

The data analysis of emotional intelligence and job satisfaction revealed no significant predictive relationship. The data yield results of $r=.181$, $r^2=.003$, $F(4,48)=.046$, $p=>.001$; therefore, the conclusion is to fail to reject second null hypothesis.

The third null hypothesis was designed to explore the predictive relationship between overall servant leadership and overall emotional intelligence. The data analysis revealed no significant predictive relationship between the two variables. The data yielded a result of $r = .360$, $r^2 = .130$, $F(6,46) = 1.142$, $p = > .001$. Based on the results of the data, the decision is made to fail to reject the third null hypothesis.

Summary

This chapter presented the data collected during the present study. The data were collected using three survey instruments to explore three variables: (a) servant leadership, (b) emotional intelligence, and (c) job satisfaction. Primarily, the results of the data collected by OLA (Laub, 1999) revealed that the organization represented in this study was at level 3 (i.e., paternalistic). This level is referred to as Limited Health. In addition, the data suggested a positive correlation between the level of servant leadership in the organization and an employee's job satisfaction, but it did not reveal any significant correlation between servant leadership principles and emotional intelligence. The data did not reveal any significant relationship between the participants' level of emotional intelligence and level of job satisfaction, as measured by the EIA-ME and MCMJSS instruments. In regard to OLA, which measures servant leadership and job satisfaction, there was a strong positive correlation between job satisfaction and two servant leadership constructs: (a) values people and (b) provides leadership. Chapter 5 presents a summary of the findings and recommendations.

CHAPTER 5: SUMMARY AND RECOMMENDATIONS

The study discussed in this dissertation was conducted to examine the relationship among servant leadership, emotional intelligence, and job satisfaction among high-tech

employees who work full time for a nonservice-related aerospace organization. It was hypothesized that servant leadership and emotional intelligence relates to the level of job satisfaction among high-tech employees working in a large aerospace organization. There are several studies (e.g., Ledbetter, 2003; Miers, 2004; Strama, 2003; White, 2003) that examined servant leadership and the correlation between servant leadership principles and the level of job satisfaction, but most of these studies were conducted in service industries. There is limited research that examined servant leadership and job satisfaction in nonservice-related industries.

Although job satisfaction is recognized as an important component in successful organizations, researchers (Carmeli & Freund, 2004; Hull, 2004; Judges & Ilies, 2002) continue to explore and identify all factors that affect employees' job satisfaction. Although few studies (e.g., Abraham, 2000; Busso, 2003; Clanton, 2005) have addressed the relationship between emotional intelligence and job satisfaction, emotional intelligence may still be a factor because of the relationship to other factors which contributes to job satisfaction as well as the abilities driven by emotional intelligence, such as social skills necessary for teamwork, contributes to a satisfying professional life (Zeider, Matthews, & Roberts, 2004). Winston and Hartsfield (2004), however, examined emotional intelligence and servant leadership, and these researchers found a strong relationship between servant leadership and some emotional intelligence factors.

The present study examined the relationship among servant leadership, emotional intelligence, and job satisfaction in an aerospace organization that is nonservice related and composed of engineers, a population historically believed to have a lower level of emotional intelligence than other professionals (Goleman, 1998). This chapter contains a

discussion about and interpretation of the data presented in chapter 4. The limitations of the current study as well as recommendations are discussed.

Research Question One

The first research question that guided the present study was designed to explore the extent to which the servant leadership principles in the organization relate to the level of job satisfaction among engineers, as measured by OLA. Similar to other studies using OLA, the data indicated a positive correlation does exist between the principles of servant leadership and the level of job satisfaction.

Servant leadership principles consist of six constructs: (a) values people, (b) build community, (c) display authenticity, (d) develop people, (e) provide leadership, and (f) share leadership. The present study found that the strongest correlation exists between the values people and provide leadership constructs and job satisfaction; however, after additional analysis of the data, it was concluded that there are other factors that may relate to job satisfaction.

The for-profit, nonservice-oriented aerospace organization used as the setting in the present study had an overall lower OLA score compared to other studies that used OLA, which were mostly conducted in service-oriented, nonprofit, and/or religion-based organizations (see Figure 4). This finding appears to support the idea that servant leadership is correlated to the type of industry, specifically, service-related industries (e.g., Ledbetter, 2003; Mears, 2004; Strama, 2003; White, 2003), and service-related organizations may be predisposed to implement servant leadership principles.

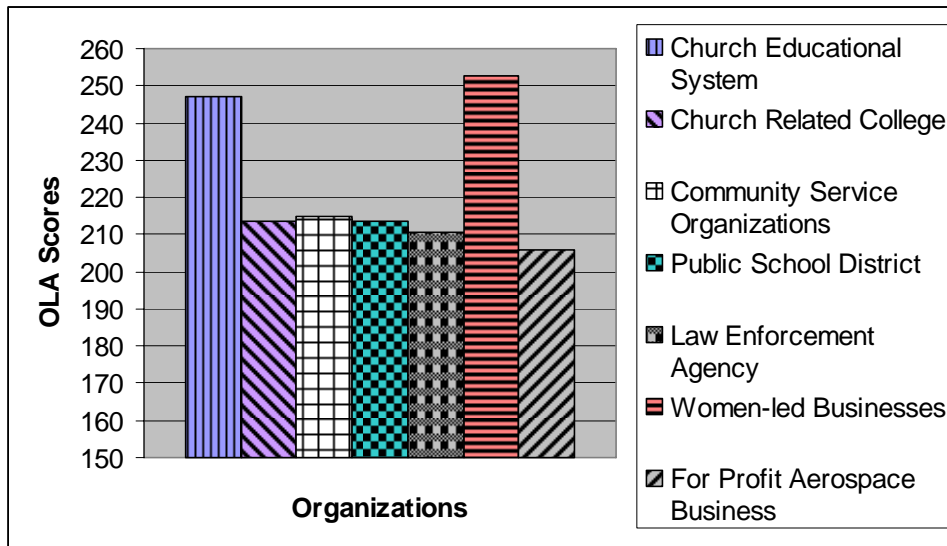


Figure 4. Comparison of the OLA scores of different organizations.

Research Question Two

The second research question was designed to determine the extent to which the level of engineers' emotional intelligence, as measured by EIA, relates to their level of job satisfaction, as measured by OLA and MCMJSS. The overall EIA scores and the intrinsic job satisfaction score from MCMJSS did reveal a significant, although not very strong, correlation between emotional intelligence and job satisfaction. The data did not, however, reveal any significant correlation between other factors associated with emotional intelligence and job satisfaction. Additional research may be required to examine the relationship between emotional intelligence and the level of job satisfaction. However, given there is no previous evidence to support any relationship between emotional intelligence and job satisfaction and this present study supports that there is no significant relationship between the two variables, one may conclude that there is nothing of value to explore regarding the relationship of these variable and no further research is warranted.

Several theoretical frameworks have been developed to explain job satisfaction, but there does not appear to be a model that fully explains this complex concept. The present study sought to add to the body of knowledge about the complex construct of job satisfaction. Given the importance of job satisfaction, especially in retaining employees, more research is needed to identify its components and the factors that influence it.

Research Question Three

The third research question was designed to determine the extent to which the level of engineers' emotional intelligence, as measured by EIA, relates to the perceived level of servant leadership principles implemented in the organization. The data did not reveal a significant correlation between the level of participants' emotional intelligence and their perceived level of servant leadership principles operating in the organization.

More than 50% (54.72%) of the participants' scores were above or much higher than average. The scores of the EIA-ME come from a 'normed' sample. The individual scores are based on a comparison with the global population. One assumption of this current study was High-tech employees will have a low level of EI. However, the results did not indicate that the participants' scores were out of normal statistical variation on the emotional intelligence assessment. Further research should be conducted to test the historical view that high-tech employees have low EI (Goleman, 1998).

Winston and Hartsfield (2004) found a strong correlation between servant leadership and three emotional intelligence factors; therefore, it was expected that the level of servant leadership in the organization and participants' level of emotional intelligence would be low. Although the overall OLA scores for the organization are

lower than scores from other organizations (see Figure 4), the present study did not reveal any statistical data to support the idea that emotional intelligence is the mediating factor.

Although previous researchers found a relationship between servant leadership principles and a few constructs of emotional intelligence, it is not possible from the results of the present study to draw any conclusions about how emotional intelligence relates to the perception that servant leadership principles operate in an organization. Further research is needed to determine if emotional intelligence is a predictor of perceived level of servant leadership principles.

Research Process

In the present study, online survey was chosen as the method for collecting data for two reasons: (a) the geographically dispersed nature of the organization and (b) convenience of collecting responses. A response rate of 45% was attained from individuals completing the OLA. The study, however, used three surveys, and the response rate decreased for the MCMJSS and EIA instruments. Although the website was designed to direct participants to the next survey without exiting the site, many participants did not complete all three surveys. The rate of response may have been affected by the need to use a password/access code to access two of the three instruments.

The response rate could have been affected by the competitive nature of the organization. Engineers in the organization are held accountable for their yield target and any overhead activity, such as completing these surveys that is not funded work or priority program work is highly discouraged. Although each survey only took an average of 15 minutes to complete, many participants were concerned about how they would account for their time. This information was obtained by calls and emails received from

the participants asking if there was a charge number or permission to charge this activity as overhead.

Most of the employees (86.8%) in the organization used as the setting for the present study are male, and most of them (76.5%) are mature workers who are over the age of 40. These demographics may have influenced the results of the present study and limited the generalization of the findings. There may be differences in organizations where the demographics are not predominately male and the workforce is not made up of a large population of experienced workers. Job satisfaction and emotional intelligence may vary in men and women as well as with less experienced workers in a high tech environment.

Implications

The data from the present study revealed a strong positive correlation between servant leadership constructs and job satisfaction. This is an important finding because organizations can implement leadership development that uses servant leadership attributes as a foundation to potentially produce more effective, successful leaders who could increase employees' job satisfaction, individual performance, and organizational commitment. Leaders of the organization in the present study should examine the level of servant leadership throughout the organization and start to practice servant leadership principles in order to enhance the overall health of the organization.

As a result of increasing globalization, changing workforce dynamics and the need to develop and maintain a competitive edge, leaders of today's organizations must find an effective way to connect to their people, their most valuable asset. Servant leadership principles may be an important factor which relates to job satisfaction. If

practical application of servant leadership principles can lead to producing more satisfied employees, the benefit this type of employee is one who is more productive, less likely to leave the company, and in general, a star performer. The empirical data collected during the present study, like previous studies, support the idea that the practice of servant leadership principles can increase the health of an organization.

Recommendations

The results of the present study are consistent with the findings of previous studies that found strong correlations between servant leadership and job satisfaction, as measured by OLA. Leaders of the organization used as the setting for this study should take notice of the benefits of implementing servant leadership principles because this type of leadership strongly relates to the increase of the overall health of the organization, retention of valued employees, and possibly, leadership effectiveness.

This organization is categorized as a level 3, which is described as Limited Health (i.e., paternalistic), and the job satisfaction level is average. Leadership in this organization should develop and execute an organizational action plan to increase the organization's health level. The leaders of this organization should be exposed to the principles of servant leadership and made aware of the benefits of this type of leadership to employees, the organization, and its leaders. If practical application of servant leadership principles can lead to producing more satisfied employees, the benefit this type of employee is one who is more productive, less likely to leave the company, and in general, a star performer.

Additional research that examines the emotional intelligence of high-tech employees and how it relates to the job satisfaction level of employees is also

recommended. There is still much to uncover about these two variables. A study focused on subcategories of emotional intelligence and the intrinsic and extrinsic job satisfaction level would add to the body of knowledge about these phenomena.

It also recommended that this study be replicated using a larger sample size, and research should be conducted that examines another nonservice-related for-profit industry that does not employ high-tech employees. Results from this type of study could be compared to the results of the present study to determine if there is a significant difference between high-tech employees and non high-tech employees in a nonservice-related for-profit industry.

Conclusion

The empirical data collected during the present study could be used to develop leadership training programs based on servant leadership principles, establish the importance of servant leadership, and remove the barriers that impede the practice of servant leadership. Although servant leadership theory is correlated to living basic Christian principles, and many service-related and religious organizations use servant leadership principles, the fact remains that servant leadership principles are strongly correlated to job satisfaction, regardless of the industry type. Therefore, all types of organizations could benefit from practicing servant leadership.

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APPENDIX A: Informed Consent Form

Dear Participants,

I am a student at the University of Phoenix working on a doctorate degree in Management/Organizational Leadership. I am conducting a research study entitled an exploratory study of servant leadership, emotional intelligence, and job satisfaction among high tech employees. The purpose of the research study is to determine if and to what degree a relationship exists among servant leadership, emotional intelligence, and the job satisfaction of high-tech employees in the U.S. aerospace industry.

Your participation will involve completing a composite of three surveys along with answering a few demographic questions. The questionnaires will take approximately 35 minutes. Your participation in this study is voluntary. If you choose not to participate or to withdraw from the study at any time, you can do so without penalty or loss of benefit to yourself. The results of the research study may be published but your name will not be used and your results will be maintained in confidence.

In this research, there are no foreseeable risks to you.

Although there may be no direct benefit to you, the possible benefit of your participation is that there could be more awareness about the impact leadership can have on job satisfaction among high tech employees.

If you have any questions concerning the research study, please contact me at 602-578-2063.

Your continuation to begin the survey will be your consent to participate.

Sincerely,

Lolita Johnson

By clicking on the acknowledge button below, I acknowledge that I understand the nature of the study, the potential risks to me as a participant, and the means by which my identity will be kept confidential. My acknowledgement also indicates that I am 18 years old or older and that I give my permission to voluntarily serve as a participant in the study described.

APPENDIX B: PERMISSION TO USE PREMISES, NAME, AND/OR SUBJECTS

UNIVERSITY OF PHOENIX

**INFORMED CONSENT: PERMISSION TO USE PREMISES, NAME,
AND/OR SUBJECTS**

(Facility, Organization, University, Institution, or Association)

Honeywell International

Name of Facility, Organization, University, Institution, or Association

I hereby authorize Lolita Regina Johnson, student of University of Phoenix, to use the premises, name and/or subjects requested to conduct a study entitled (An exploratory study of servant leadership, emotional intelligence, and job satisfaction among high tech employees.).


Signature

5/22/07
1/1
Date

VP, Human Resources
Title

Honeywell Aerospace
Name of Facility

APPENDIX C: PERMISSION TO USE EXISTING SURVEY (OLA)

UNIVERSITY OF PHOENIX
PERMISSION TO USE AN EXISTING SURVEY

Date 04/10/07

Mr. /Ms Mrs. L. Regina Johnson
 Address 8141 W Globe Ave
 Phoenix, AZ 85043


Thank you for your request for permission to use OLA in your research study. We are willing to allow you to reproduce the instrument as outlined in your letter at no charge with the following understanding:

- You will use this survey only for your research study and will not sell or use it with any compensated management/curriculum development activities.
- You will include the copyright statement on all copies of the instrument.
- You will send your research study and one copy of reports, articles, and the like that make use of this survey data promptly to our attention.

If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and returning it to us.

Best wishes with your study.

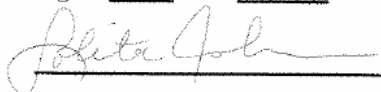
Sincerely,



 Signature

I understand these conditions and agree to abide by these terms and conditions.

Signed _____ Date 11

 5-22-07

Expected date of completion 11

9/25/07

APPENDIX D: PERMISSION TO USE EXISTING SURVEY (EIA-ME)

PERMISSION TO USE AN EXISTING SURVEY

Date: 5/31/2007

Mr./Ms Mrs. Lolita Regina Johnson
 Address: 8141 W Globe Ave
 Phoenix, AZ 85043

Thank you for your request for permission to use Emotional Intelligence Appraisal™ Mc edition (EIA-ME) in your research study. We are willing to allow you to use the instrument as outlined in your request at a discounted rate (\$17.48 per assessment) with the following understanding:

You will use this survey only for your research study and will not sell or use it with any compensated management/curriculum development activities.

You will include the copyright statement on all copies of the instrument.

You will send your research study and one copy of reports, articles, and the like that make use of this study data promptly to our attention.

If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and returning it to us.

Best wishes with your study.

Sincerely,


 Signature

I understand these conditions and agree to abide by these terms and conditions.

Signed  Date: 6-1-07

Expected date of completion: 9/25/07

APPENDIX E: PERMISSION TO USE EXISTING SURVEY (MCMJSS)

UNIVERSITY OF PHOENIX
PERMISSION TO USE AN EXISTING SURVEY

Date 04/10/07

Mr. /Ms Mrs. L. Regina Johnson
Address 8141 W Globe Ave
Phoenix, AZ 85043

Thank you for your request for permission to use MCMJSS in your research study. We are willing to allow you to reproduce the instrument as outlined in your letter at no charge with the following understanding:

- You will use this survey only for your research study and will not sell or use it with any compensated management/curriculum development activities.
- You will include the copyright statement on all copies of the instrument.
- You will send your research study and one copy of reports, articles, and the like that make use of this survey data promptly to our attention.

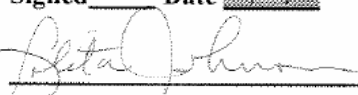
If these are acceptable terms and conditions, please indicate so by signing one copy of this letter and returning it to us.

Best wishes with your study.

Sincerely,

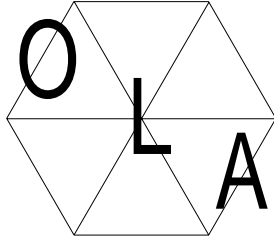
 5-30-07
Signature

I understand these conditions and agree to abide by these terms and conditions.

Signed _____ Date 5/1/07
 6-1-07

Expected date of completion 9/25/07

APPENDIX F: OLA INSTRUMENT



12253 Lacewood Lane
Wellington, FL 33414
jlaub@worldservant.org
(561) 642-9959

4243 North Sherry Drive
Marion, IN 46952
jlaub@indwes.edu
(765) 677-2520

Organizational Leadership Assessment

General I

The purpose of this assessment is to allow organizations to discover how their leadership functions in different ways people function within the organization. This assessment is to be taken by people at all levels of the organization including those in leadership. As you respond to the different statements, please answer as to what you believe is generally true about your organization or work unit. Please respond with your own personal feelings and beliefs and not those of others, or those that others would want you to have. Respond as to how things *are* ... not as they could be, or should be.

Feel free to use the full spectrum of answers (from Strongly Disagree to Strongly Agree). You will find that some of the statements will be easy to respond to while others may require more thought. If you are uncertain, you may want to answer with your first, intuitive response. Please be honest and candid. The response we seek is the one that most closely represents your feelings or beliefs about the statement that is being considered. There are three different sections to this instrument. Carefully read the brief instructions that are given prior to each section. Your involvement in this assessment is anonymous and confidential.

Before completing the assessment it is important to fill in the name of the organization or organizational unit being assessed. If you are assessing an organizational unit (department, team or work unit) rather than the entire organization you will respond to all of the statements in light of that work unit.

IMPORTANT please complete the following

Write in the name of the organization or organizational unit (department, team or work unit) you are assessing with this instrument.

Organization (or Organizational Unit) **Name:**

Indicate **your present role/position** in the organization or work unit. Please **circle one**.

1 = Top Leadership (top level of leadership)

2 = Management (supervisor, manager)

3 = Workforce (staff, member, worker)

Please provide your response to each statement by placing an **X** in one of the five boxes

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Section 1

In this section, please respond to each statement as you believe it applies to **the entire organization** (or organizational unit) including workers, managers/supervisors and top leadership.

In general, people within this organization

	1	2	3	4	5
1 Trust each other					
2 Are clear on the key goals of the organization					
3 Are non-judgmental – they keep an open mind					
4 Respect each other					
5 Know where this organization is headed in the future					
6 Maintain high ethical standards					

7	Work well together in teams					
8	Value differences in culture, race & ethnicity					
9	Are caring & compassionate towards each other					
10	Demonstrate high integrity & honesty					
11	Are trustworthy					
12	Relate well to each other					
13	Attempt to work with others more than working on their own					
14	Are held accountable for reaching work goals					
15	Are aware of the needs of others					
16	Allow for individuality of style and expression					
17	Are encouraged by supervisors to share in making <i>important</i> decisions					
18	Work to maintain positive working relationships					
19	Accept people as they are					
20	View conflict as an opportunity to learn & grow					
21	Know how to get along with people					

Please provide your response to each statement by placing an **X** in one of the five boxes

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Section 2

In this next section, please respond to each statement as you believe it applies to the **leadership** of the organization (or organizational unit) including managers/supervisors and top leadership

Managers/Supervisors and Top Leadership in this Organization	1	2	3	4	5
22 Communicate a clear vision of the future of the organization					
23 Are open to learning from those who are <i>below</i> them in the organization					
24 Allow workers to help determine where this organization is headed					
25 Work alongside the workers instead of separate from them					
26 Use persuasion to influence others instead of coercion or force					
27 Don't hesitate to provide the leadership that is needed					
28 Promote open communication and sharing of information					
29 Give workers the power to make <i>important</i> decisions					
30 Provide the support and resources needed to help workers meet their goals					
31 Create an environment that encourages learning					
32 Are open to receiving criticism & challenge from others					
33 Say what they mean, and mean what they say					
34 Encourage each person to exercise leadership					
35 Admit personal limitations & mistakes					
36 Encourage people to take risks even if they may fail					
37 Practice the same behavior they expect from others					
38 Facilitate the building of community & team					
39 Do not demand special recognition for being leaders					
40 Lead by example by modeling appropriate behavior					
41 Seek to influence others from a positive relationship rather than from the authority of their position					
42 Provide opportunities for all workers to develop to their full potential					
43 Honestly evaluate themselves before seeking to evaluate others					

44	Use their power and authority to benefit the workers					
45	Take appropriate action when it is needed					

Please provide your response to each statement by placing an **X** in one of the five boxes

1	2	3	4	5
Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree

Managers/Supervisors and Top Leadership in this Organization		1	2	3	4	5
46	Build people up through encouragement and affirmation					
47	Encourage workers to work <i>together</i> rather than competing against each other					
48	Are humble – they do not promote themselves					
49	Communicate clear plans & goals for the organization					
50	Provide mentor relationships in order to help people grow professionally					
51	Are accountable & responsible to others					
52	Are receptive listeners					
53	Do not seek after special status or the “perks” of leadership					
54	Put the needs of the workers ahead of their own					

Section 3

In this next section, please respond to each statement as you believe it is true about **you personally** and **your role** in the organization (or organizational unit).

<i>In viewing my own role ...</i>		1	2	3	4	5
55	<i>I feel appreciated by my supervisor for what I contribute</i>					
56	<i>I am working at a high level of productivity</i>					
57	<i>I am listened to by those above me in the organization</i>					
58	<i>I feel good about my contribution to the organization</i>					
59	<i>I receive encouragement and affirmation from those above me in</i>					
60	<i>My job is important to the success of this organization</i>					
61	<i>I trust the leadership of this organization</i>					
62	<i>I enjoy working in this organization</i>					

63	<i>I am respected by those above me in the organization</i>					
64	<i>I am able to be creative in my job</i>					
65	<i>In this organization, a person's work is valued more than their title</i>					
66	<i>I am able to use my best gifts and abilities in my job</i>					

APPENDIX G: MCMJSS SURVEY

Mohrman-Cooke-Mohrman Job Satisfaction Scale

Indicate your level of satisfaction with various facets of your job by circling a number on the six-point scale after each of the statements.

<u>Intrinsic Satisfaction</u>	<u>Low</u>						<u>High</u>
1. The feeling of self-esteem or self-respect you get from being in your job.	1	2	3	4	5	6	
2. The opportunity for personal growth development in your job.	1	2	3	4	5	6	
3. The feeling of worthwhile accomplishment in your job.	1	2	3	4	5	6	
4. Your present job when you consider the expectations you had when you took the job.	1	2	3	4	5	6	
<u>Extrinsic Satisfaction</u>	<u>Low</u>						<u>High</u>
5. The amount of respect and fair treatment you receive from your superiors.	1	2	3	4	5	6	
6. The feeling of being informed in your job.	1	2	3	4	5	6	
7. The amount of supervision you receive.	1	2	3	4	5	6	
8. The opportunity for participation in the determination of methods, procedures, and goals.	1	2	3	4	5	6	