

**THE INFLUENCE OF LMX ON INFORMATION TECHNOLOGY WORKERS:  
A QUANTITATIVE STUDY**

by

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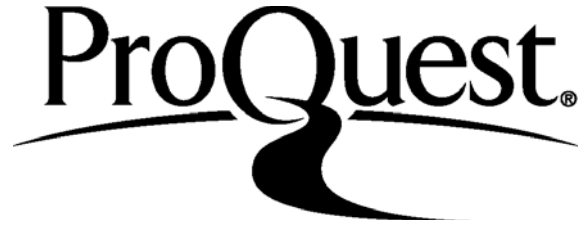
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## Abstract

It is important for organizations to retain their IT workers, and can be very costly to lose these valuable employees. Can the quality of an information technology (IT) worker's relationship with their supervisor influence their organizational commitment, job satisfaction, and turnover intentions? Examining how an IT worker's relationship with their supervisor influences the IT workers organizational commitment, job satisfaction, and turnover intentions has not been specifically studied to date. Leader-member exchange (LMX) theory was used to measure the quality (high-quality or low-quality) of the relationship the IT worker reports having with their supervisor. This study employed a quantitative non-experimental survey methodology to explore if significant relationships exist between LMX, organizational commitment, job satisfaction, and turnover intentions. The population consisted of IT workers, over the age of 22 years old, that work in the U.S., and have been with their organization for more than two years. Survey participants were selected randomly through Qualtrics Panels. The survey used four previously validated measures combined into one comprehensive survey that was administered online. The measures used examined LMX quality, organizational commitment, job satisfaction, turnover intentions, and additional demographic questions. The data obtained from the survey was processed through SPSS providing statistical analysis of the sample. The regression analysis results confirmed significant relationships between LMX and organizational commitment, job satisfaction, and turnover intentions. Study findings concluded that LMX is a good indicator of organizational commitment, job satisfaction and turnover intentions.

## **Dedication**

I dedicate this work to my husband and children. To Lon, Luke, Madalyn, and Nicholas.... you kept me going.

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## CHAPTER 1. INTRODUCTION

Retention of Information Technology (IT) workers is a challenge that organizations face. Employee retention has become a substantial concern for organizations as turnover rates rise (Ballinger, Craig, Cross, & Gray, 2011), and turnover can be costly for organizations (Ratna & Chawla, 2012). A 2014 study of turnover intentions of IT professionals in Turkey by Erturk and Vurgun analyzed at how leader-member exchange (LMX) influenced the turnover intentions of IT workers and reported that LMX had a partial mediating effect on turnover intentions (Erturk & Vurgun, 2014). Limited research was located that addressed how IT workers' relationships with their supervisors influenced their organizational commitment, and nothing could be found that addressed how an information technology workers' relationship with their supervisor influenced their job satisfaction. Windler and Riemenschneider (2013) researched LMX and its relationship with mentoring and organizational commitment of IT workers and documented a need for understanding what factors influence the organizational commitment of IT workers. Enabling information technology organizations to better understand if the relationship and employee has with their supervisor influences their turnover intentions would be beneficial to organizations as well as to employees.

This dissertation research focuses on examining whether there is a link between leader-member exchange (LMX) quality and an information technology (IT) worker's organizational commitment, job satisfaction, and turnover intentions. Leader-member exchange (LMX) measures the quality of the relationship between a supervisor and his subordinate (Agarwal, Datta, Blake-Beard & Bhargava, 2012). The leader-member exchange (LMX) theory of



leadership (Dansereau, Graen, & Haga, 1975) suggests that the quality of the relationship an employee shares with their supervisor influences their position within the organization (Graen, 1976; Graen & Scandura, 1987). LMX theory suggests that supervisor and subordinate relationships can be either high-quality or low-quality. High-quality LMX refers to a positive relationship between the subordinate and their supervisor. Conversely, low-quality LMX refers to a negative relationship between the subordinate and their supervisor. This survey research will measure the LMX quality of IT workers' relationships with their supervisor and look to see if that LMX quality impacts the IT workers' organizational commitment, job satisfaction, or turnover intentions.

In summary, this survey research will accomplish two goals. First, it will fill an existing gap in leader-member exchange theory by examining the insufficiently researched profession of IT workers and how their LMX quality influences their organizational commitment, job satisfaction, and turnover intentions. Second, this survey research will examine the independent variable of LMX quality as it influences the dependent variables of organizational commitment, job satisfaction, and turnover intentions. To date, no other research has been located that combines these variables and applies the outcome to the leader-member exchange theory framework.

### **Background of the Problem**

The leader-member exchange (LMX) theory of leadership (Dansereau et al., 1975) suggests that employees' positions are influenced directly by the quality of the relationship they share with their leader (Graen, 1976; Graen & Scandura, 1987). Supervisor and subordinate relationships have been found to be related to organizational commitment (Ariani, 2012; Casimir, Ng, Wang & Ooi, 2014; Garg & Dhar, 2014; Kark, Van Dijk & Esformes, 2011; Luo,

Song, Marnburg, & Ogaard, 2014; Windler & Riemenschneider, 2013), job satisfaction (Ariani, 2012; Rockstuhl, Dulebohn, Ang, & Shore, 2012; Schyns, Torka, & Gossling, 2007), and turnover (Agarwal et al., 2012; Harris, Li & Kirkman, 2014; Vidyarthi, Erdogan, Anand, Liden, & Chaudhry, 2014). LMX quality has been found to influence both organizational commitment and turnover intentions (Gumbo, 2015; Islam, ur Rehman Khan, Norulkamar Ungku Bt. Ahman, & Ahmed, 2013) and, separately, job satisfaction (Ariani, 2012).

In a 2013 study investigating relationships among organizational learning cultures, LMX quality, organizational commitment, and turnover intentions, Islam, et al., (2013) note that there has been little study on the relationship between LMX and organizational commitment. Windler and Riemenschneider (2013) conducted survey research to determine how various forms of mentoring and LMX contribute to organizational commitment for IT workers and state that there is a need to understand drivers of organizational commitment for IT workers. An examination of leadership style and employee turnover intentions completed by Liu, Cai, Li, Shi, and Fang (2013) acknowledges that LMX influences an employee's turnover intentions; however, no existing research is noted as contributing to this assumption.

The proposed research study will add to existing literature by enabling organizational leaders to better understand how LMX quality influences organizational commitment, job satisfaction, and turnover intentions. By examining how LMX quality influences an IT worker's organizational commitment, job satisfaction, and turnover intentions, organizational leaders could have the opportunity to modify turnover behaviors (Leip & Stinchcomb, 2013), or increase organizational commitment and job satisfaction by surveying LMX quality in the workplace and making adjustments in situations of low or negative LMX quality, including training programs, or increasing instances where the LMX relationship can be increased.

## **Statement of the Problem**

Examining the way an IT worker's relationship with his supervisor influences the IT worker's organizational commitment, job satisfaction, and turnover intentions has not been specifically studied to date. The research literature on the influence of LMX quality indicates an acknowledgement that LMX influences job satisfaction (Abii, Ogula & Rose, 2013), and it is understood that leadership influences an employee's organizational commitment and turnover intentions (Ali, Jan, Ali, & Tariq, 2014); but we do not yet know how LMX quality influences organizational commitment, job satisfaction, and turnover intentions. In a 2013 study investigating the relationship between organizational learning cultures, LMX quality, organizational commitment and turnover intentions, Islam, ur Rehman Khan, Norulkamar Ungku Bt. Ahman, and Ahmed (2013), noted that little research on the relationship between LMX and organizational commitment existed. Additionally, Joo (2010) observed the difficulty in finding studies that have organizational learning culture and LMX quality as antecedents of organizational commitment and turnover intentions.

## **Purpose of the Study**

The purpose of this survey research was to test Leader-member exchange (LMX) theory that measures the quality of relationships between supervisors and their subordinates against organizational commitment, job satisfaction, and turnover intentions, controlling for information technology employees, who are over the age of 22 years of age, and have worked for the organization a minimum of at least two years. The independent variable is LMX and is defined as the quality of the relationship between the IT worker and his supervisor as measured by the LMX 7 scale developed by Graen and Uhl-Bien (1995).

The first dependent variable is organizational commitment. Wagner and Hollenbeck (2005) define organizational commitment as three parts: the willingness of an employee to put forth substantial effort on the organization's behalf, the degree to which an employee identifies with the organization they work for, and the desire to remain with the organization for the long term. The second dependent variable is job satisfaction, which is defined as the attitude an employee has toward his job and is comprised of the employee's experiences in that job (Kalleberg, 1977; Locke, 1969; Mottaz, 1987; Neubert & Halbesleben, 2015). The third dependent variable is turnover intention, which for the purpose of this research is defined as the intent or likelihood that an individual will leave the organization voluntarily (Konovsky & Cropanzano, 1991; Tett & Meyer, 1993). The control variables are that the participants are IT workers, who are over the age of 22 years old, and have worked for the organization for a minimum of at least two years.

### **Significance of the Study**

The retention of IT employees and the factors that influence their organizational commitment, job satisfaction, and turnover intentions are a topic of interest in both business and academic communities. In researching this topic, multiple studies have been found on employee retention strategies (Erturk & Vurgun, 2014; James & Mathew 2012), organizational commitment (Bozlagan, Dogan, & Daoudov, 2010), job satisfaction (Ariani, 2012; Leip & Stinchcomb, 2013; Rockstuhl et al., 2012), turnover intentions (Sachdeva & Kumar, 2011), mentoring and LMX (Craig, Allen, Reid, Riemenschneider, & Armstrong, 2013), building employee commitment (Shahid & Azhar, 2013), and building a high-commitment organization (Whittington & Galpin, 2010).

The significance of this survey research is in the examination of how the quality of the IT worker's relationship with their supervisor affects their organizational commitment, job satisfaction, and turnover intentions. Studies found on mentoring focus primarily on issues of salary and/or promotion, but not on the relationship between an employee and their supervisor. The employee/supervisor relationship does not automatically imply a mentor mentee relationship.

### **Research Questions**

Highly skilled IT workers are in significant demand. According to survey research by Ghazzawi (2011), continuous technological advancements make IT workers the most desired talent in the workforce. Loss of talent is costly to organizations (Abii et al., 2013; Aguinis, Gottfredson & Joo, 2012; Bryant & Allen, 2013; Scott, McMullen, & Royal, 2012). Organizations have been concerned over the cost of employee turnover for several years (Ballinger et al., 2011; McKeown, 2010).

The turnover intentions of IT professionals were studied by Abii, Ogula, and Rose (2013) and the observation was made that organizations cannot successfully keep their employees until they understand the factors that encourage employees to remain. By surveying how LMX influences organizational commitment, job satisfaction, and turnover intentions, organizations will be able to further comprehend an employee's motivations to stay with the organization. With the current absence of research studies showing a relationship between LMX and organizational commitment, job satisfaction, and turnover intentions, this survey research will fill the existing gap by answering three research questions. The research questions and their coordinating hypotheses are listed below.

### **Research Question One**

To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his organizational commitment?

H<sub>a0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Three Component Model (TCM).

H<sub>a1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Three Component Model (TCM).

### **Research Question Two**

To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his turnover intentions?

H<sub>b0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his job satisfaction as measured by Spector's (1994) Job Satisfaction Survey (JSS).

H<sub>b1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his job satisfaction as measured by Spector's (1994) Job Satisfaction Survey (JSS).

### **Research Question Three**

To what extent is there a significant relationship between the quality of an employee's relationship with their supervisor and their job satisfaction?

H<sub>c0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Staying or Leaving Index (SLI).

H<sub>c1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Staying or Leaving Index (SLI).

## Definition of Terms

Leader-member exchange theory (LMX) measures the quality of the relationship between a supervisor and his subordinate (Agarwal et al., 2012). Supervisor- subordinate relationships have been found to be related to organizational commitment (Ariani, 2012; Casimir et al., 2014; Garg & Dhar, 2014; Kark et al., 2011; Luo et al., 2014; Windler & Riemenschneider, 2013) and turnover (Agarwal et al., 2012; Harris et al., 2014). LMX has been found to influence both organizational commitment and turnover intentions (Gumbo, 2015; Islam et al., 2013).

*Job Satisfaction.* The second dependent variable examined in this survey research is that of job satisfaction. How does an IT worker's high or low LMX quality influence his job satisfaction? The Job Satisfaction Survey (JSS) created by Dr. Paul Spector (1985) was used to measure an IT worker's job satisfaction level. For the purpose of this research, job satisfaction is defined as the feelings or beliefs an IT worker has about his job (George & Jones, 2008; Ghazzawi, 2011).

*LMX quality.* The primary construct examined in this survey research is that of LMX quality. This research study will examine the leader-member exchange (LMX) theory, which focuses on the relationships between leaders and followers. This research will specifically examine how LMX quality influences an employee's organizational commitment, job satisfaction, and turnover intentions. As the independent variable, LMX quality was measured with the LMX 7 by Graen and Uhl-Bien (1995), scored, and then compared against the three dependent variables of organizational commitment, job satisfaction, and turnover intentions. For the purpose of this research, LMX quality is defined as the measurement of the positive (high) or negative (low) relationship of the relationship between a supervisor and subordinate (Graen & Uhl-Bien, 1995; Joo, 2010).

*Organizational Commitment.* The first dependent variable examined in this survey research is that of organizational commitment. How does an IT worker's high or low LMX quality influence their organizational commitment? The Meyer and Allen's (2004) Three Component Model (TCM) Employee Commitment Survey for Academic Users was used to measure an IT worker's organizational commitment. For the purpose of this research, organizational commitment is defined as both the psychological bond an employee has with the organization as well as how the employee feels about the organization (Joo, 2010; Mowday, Steers, & Porter, 1982).

*Turnover Intentions.* The third dependent variable examined in this survey research is that of turnover intentions. How does an IT worker's high or low LMX quality influence his turnover intentions? Bluedorn's (1982) Staying or Leaving Index (SLI) was used to measure an IT worker's turnover intentions. For the purpose of this research, turnover intentions are defined as a conscious and deliberate willingness to leave an organization (Bluedorn, 1982).

### **Research Design**

This quantitative, non-experimental survey study will use a correlational research design. Furthermore, linear regression analysis is used to evaluate the LMX quality and how that quality affects the worker's organizational commitment, job satisfaction, and turnover intentions. Creswell (2013) states that a quantitative research approach is appropriate when examining measurable variables to test for theories. The research design consists of an online survey that was administered through a third-party survey site. Linear regression analysis was selected to discover possible relationships between the independent variable of LMX quality and the dependent variables of organizational commitment, job satisfaction, and turnover intentions; as



well as select demographics such as gender, age, time with organization, size of organization, and level of education.

In selecting a suitable method, the work of Price (2012) was consulted, which states that a non-experimental correlational research design is best used when two or more variables will be measured with no attempt to control extraneous variables. Furthermore, as explained by Creswell (2009), survey research provides the researcher with a numeric description of attitudes or opinions, and allows a substantial amount of information to be gleaned from a relatively small sample of population. Random sampling was performed and the data collected from the online survey was analyzed using linear regression analysis. Based on the data collected through the user's responses, data was analyzed looking for relationships between the variables. The online survey will use cross-sectional techniques to collect data from IT workers.

Validated measures already exist for the four instruments that were used in this survey research and no changes were made to any of the questions or responses. First, the LMX 7 short form recommended by Graen and Uhl-Bien (1995) was used to measure the quality of the supervisor and subordinate relationship. Second, Meyer and Allen's (2004) Three Component Model (TCM) Employee Commitment Survey for Academic Users was used to measure organizational commitment. Third, Spector's (1985) Job Satisfaction Survey (JSS) was used to assess both employee attitudes about aspects of the job, as well as employee feelings about the job itself. Finally, Bluedorn's (1982) Staying or Leaving Index (SLI) was used to measure turnover intentions.

A single survey was created using the Qualtrics survey application tool incorporating the four surveys selected for this research study. Field testing and pilot studies were not required as these are already validated measures. The final survey was administered through the Qualtrics

website. Data was compiled and put into SPSS 24.0 software to perform testing for accuracy and precision.

Numerous journal articles were researched and reviewed while attempting to determine the best methodology and research design to fit this research question. Notably, survey research done by Craig et al. (2013) examined the relationships among career, mentoring, affective organizational commitment, job involvement, and turnover intentions. Craig et al. stated in their results that the employees who exhibited higher levels of affective organizational commitment were those who had also experienced positive mentoring events at work. This finding was based on survey research using 109 responses conducted online and using validated measures from Likert-type questions; analysis was performed using hierarchical linear regression testing. This research noted a need to replicate this study focusing on additional environmental constraints in both public and private organizations. This is consistent with the methodology, research design, and data collection that was used in this study. To date, no other studies have been located that examine the independent variable of LMX quality as it influences the dependent variables of organizational commitment, job satisfaction, and turnover intentions.

### **Assumptions and Limitations**

#### **Assumptions**

Assumptions are the foundation of proposed research (Leedy & Ormrod, 2005). A key assumption of this survey research study is that it will help organizations to measure if the LMX quality of IT workers has an influence on their organizational commitment, job satisfaction, and turnover intentions. If it is found that LMX does not have a significant influence on organizational commitment, job satisfaction, or turnover intentions then the basis of the research would have been unfounded.

Additionally, another assumption of this dissertation research is that the survey respondents fully understood the survey questions and that the survey respondents answered honestly. Respondents were provided with the researcher's contact information in the informed consent form at the beginning of the survey. Respondents were requested to make contact with the research for any questions or concerns.

A final assumption is that the instruments used in this dissertation research were valid measures and appropriate indicators of the concepts studied. A great deal of time and analysis went into the selection of each of the previously validated instrument that was used in this dissertation research. However, it is always a risk that other research could surface reporting that one of the measures was not valid, that a measure was invalid for a specific population, or that previously reported validity or reliability had been falsified.

### **Limitations**

The first limitation of this research was identified as the sample population of IT workers. By focusing specifically on IT workers other occupations were excluded. It is possible that the results could be different if the population was not restricted by occupation.

The second limitation of this research was the size of the sample. The minimum required sample to run a successful study was 89 completed responses. Due to cost constraints, the researcher was only able to purchase 100 responses, and the Qualtrics Panels team included the additional four responses at no additional charge. While a small sample size does not limit generalizability, a larger sample may have yielded different results.

Use of an Internet survey is considered an access limitation (De Bernadardo & Curtis, 2013). Researchers are cautioned that 100% of the population is not guaranteed Internet access and therefor that limits the reach of Internet surveys. While Internet surveys are considered as

reliable as traditional pen-and-paper surveys, Internet surveys currently do not present the same access for survey populations (Weigold, Weigold, & Russell, 2013). Additionally, by using a survey that did not allow for participant input, the data obtained from the respondents may not reflect the true attitudes and feelings of the IT worker.

Furthermore, the use of Qualtrics Panels for recruitment was a limitation in that 100% of the IT population was not invited to participate in the survey research. This limitation was due to the Qualtrics audience composition. While all participants were screened for eligibility, there is still the assumption that qualified participants exist who simply do not want to be a part of the Qualtrics Panels database, whether it is for privacy concerns, or simply that they are unaware that the service exists.

The final limitation noted was the design of the survey. The survey used in this non-experimental, quantitative research attempted to leverage the validity and reliability of previously validated measures, which is recommended by Swanson and Holton, 2005. Once the data collection was complete and analysis was underway, it became apparent to the researcher that 2-3 additional questions could have greatly clarified lingering questions with the organizational commitment results. While changing the previously validated measure was not and is not the plan of this researcher, it is questionable if the inclusion of an additional measure would better clarify the normative and continuance commitment scores.

### **Organization of the Remainder of the Dissertation**

This dissertation consists of four additional chapters. Chapter 2 is a literature review of the current literature on LMX, organizational commitment, job satisfaction, and turnover intentions. Chapter 3 includes a description of the theoretical framework, research design, methodology, variables, sample, instrumentation and measures, data collection, data analysis,

validity, ethical concerns, and data protection. Chapter 4 provides the results of the data collection and analysis along with a summary of the results. Chapter 5 discusses the results of the study, and provides suggestions for further research.

## CHAPTER 2. LITERATURE REVIEW

### Introduction

The purpose of this survey research is to investigate whether LMX quality influences an IT worker's organizational commitment, job satisfaction, and turnover intentions. Presented in this chapter is a review of the literature pertinent to LMX, organizational commitment, job satisfaction and turnover intentions. In the subsequent sections, the methods used for searching are provided, followed by an explanation of the theoretical orientation of the study is reviewed, and concluded with the literature review. The literature review provides an independent review of each study variable, with a focus on management theory and the implications for IT workers if available.

### Methods of Searching

The literature for this study was accessed by searching in these databases: ABI/Inform, Dissertations & Thesis @ Capella University, Academic Search Premier, and Google Scholar. Keywords used in the literature retrieval were "LMX," "Leader Member Exchange," "organizational commitment," "job satisfaction," "turnover intentions," "IT Worker," "Information Technology," and "Information Technology Worker." Keywords were used to search each database individually, as well as in various combinations. Each search term was used to search titles first, then to look at key words, abstracts, subject terms, and finally the full text.

### Theoretical Orientation for the Study

The theoretical framework of this research was based on leader-member exchange (LMX) theory as it influences the organizational commitment, job satisfaction, and turnover intentions of an IT worker. LMX theory focuses on the interactions between supervisors and

their subordinates. LMX theory evolved from vertical dyadic linkage (VDL), and focuses on the social exchange relationships between leaders and employees (Graen & Uhl-Bien, 1995).

Specifically, the leader–member exchange (LMX) theory of leadership (Dansereau et al., 1975) suggests that an employee’s position is influenced by the quality of the relationship they share with their leader (Graen, 1976; Graen & Scandura, 1987). LMX theory suggests that supervisor and subordinate relationships can be either high quality or low quality. High-quality LMX refers to a positive relationship between the supervisor and the subordinate. Conversely, low-quality LMX refers to a negative relationship between the supervisor and the subordinate. This survey research will measure the LMX quality of an IT worker’s relationship with his supervisor and determine whether that LMX quality influences the IT worker’s organizational commitment, job satisfaction, or turnover intentions.

### **Review of the Literature**

The literature review is composed of the following four main sections: Leader-member exchange (LMX) theory, organizational commitment, job satisfaction, and turnover intentions. The purpose of this literature review is to provide explanations of the independent and dependent variables, investigate the supporting theories, and establish a solid foundation for this survey research.

#### **Leader-Member Exchange Theory**

The section on leader-member exchange (LMX) theory is divided in three segments. First, a review of vertical dyadic linkage (VDL) theory, the predecessor to LMX is reviewed. Second, social exchange theory, which examines the exchanges that form relationships, is presented. Finally, leader-member exchange theory is described along with studies selected by the researcher that support this survey research.

## **Vertical Dyadic Linkage Theory (VDL)**

Leader-member exchange (LMX) theory evolved from vertical dyadic linkage theory (VDL), which was developed by Dansereau, Graen, and Haga (1975). Kim, Lee and Carlson (2010) show dyadic relationships as developing over time and through interactions occurring between leaders and their individual subordinates. The leader may develop different types of relationships, either consciously or subconsciously, with his subordinates (Kim, Lee & Carlson 2010). Dansereau et al. (1975) summarized a high-quality dyad as similar to a “cadre” relationship, while a low-quality dyad would be similar to a “hired hand” relationship.

Graen, Dansereau, and Minami (1972a) prompted the early vertical dyad linkage theory development through their study of dysfunctional leadership styles. This drove further research by Graen, Dansereau, and Minami (1972b) to study VDL through examining leader and subordinate relationships. They discovered that leaders were not consistent with all subordinates, which went against the leadership theories of the time. Graen, Dansereau, Minami, and Cashman (1973) kept moving research further and conducted a study that investigated leader behavior as a potential indicator in the evaluation of subordinate performance.

The Graen et al., (1973) study found that subordinates were able to accurately assume what their leader’s perception of their job performance was by observing the leader’s interactional behaviors with them. Furthermore, Graen et al. (1973) suggested that future research be conducted to investigate the leader-subordinate dyad in order to better understand its development, as well as to create an instrument to measure the dyad. In 1975 Dansereau, Graen, and Haga further investigated the building blocks of VDL by focusing on the leader-subordinate role making process. It was through this work that Dansereau et al. (1975) defined “intraunit differentiation” as the process by which a supervisor delineates subordinates into out-group or



in-group roles. Subordinates recognized as in-group recognized the ability to negotiate role behaviors and received higher levels of support and attention from leadership (Dansereau et al., 1975). Subordinates that were recognized as out-group had less ability to negotiate role behaviors and received less support and attention from leadership (Dansereau et al., 1975).

In 1976, Cashman, Dansereau, Graen, and Haga, examined the role of vertical exchange in the role making processes of managers. Through this research, the concept of interunit differentiation was adopted. Interunit differentiation is the process used by the superior of a manager to delineate members of the management team into in-group and out-group roles (Cashman, Dansereau, Graen, & Haga, 1976). A key finding of this research was the observation that in-group subordinates engaged in leadership-type relations with superiors, while out-group subordinates simply engaged in supervisory-type relations with superiors (Cashman et al., 1976). The emphasis here is on the realization that leadership-type relationships supported subordinates, while supervisory-type relationships were transactional in nature and only based on the employment contract (Cashman et al., 1976).

Graen, Cashman, Ginsburg, and Schiemann (1977) delved further into interunit differentiation and found that the quality of the exchange between a supervisor and his leader directly affected the work environment of subordinates. In summary, the higher the quality of the exchanges between leaders and supervisors, the more positive work environment for subordinates; conversely, lower quality exchanges resulted in a more negative work environment for subordinates (Graen et al., 1977). Finally, a study in 1978 by Graen and Schiemann examined the distinctions of the exchange relationship in the vertical dyad from the perspective of both the leader and the subordinate. Graen and Schiemann (1978) concluded that the quality of the dyad was a product of the vertical linkage. This research is where the term “leader-

member exchange” was first used to describe the relationship between a supervisor and a subordinate.

### **Social Exchange Theory (SET).**

Social exchange theory (SET) is a conceptual paradigm for workplace behavior (Cropanzonia & Mitchell, 2005). SET is based on the idea that relationships evolve over time if the parties follow certain rules (Cropanzonia & Mitchell, 2005). The basis of this theory is the exchange rule. The exchange rule follows the idea of reciprocity, which translates, to “repayment in kind” (Cropanzonia & Mitchell, 2005). In following with the social exchange process, once high-quality LMX has been established, subordinates have been found to reciprocate by exerting effort on behalf of their leader (Walumbwa et al. 2011; Cropanzonia & Mitchell, 2005). The interconnections established under SET are referred to as social exchange relationships (Cropanzonia & Mitchell, 2005; Cropanzano, Byrne, Bobocel, & Rupp, 2001).

Social exchange relationships evolve when benefits from relationships are recognized (Cropanzonia & Mitchell, 2005). In this line of thinking, the relationship itself can be viewed as a variable (Cropanzonia & Mitchell, 2005). Fair and beneficial exchanges between strong relationships can produce positive employee attitudes and effective work behaviors (Cropanzonia & Mitchell, 2005). Blau (1964) contributed to SET theory in showing that no set price is declared in SET for benefits, and this lends to the idea of an enduring social pattern.

LMX is also viewed as an exchange relationship with the employee and supervisor facilitating the exchange (Settoon, Bennett, & Liden, 1996; Wayne, Shore, & Liden, 1997; Cropanzonia & Mitchell, 2005). Furthermore, LMX was noted by Cropanzonia and Mitchell (2005) as being a successful indicator of job satisfaction, job performance ratings, and organizational citizenship behavior that is beneficial to the supervisor (OCB-S).

## **Leader-Member Exchange Theory (LMX)**

In the earlier section on VDL, the foundation of LMX was presented from its origins as an examination of dyadic relationships that developed over time and through interactions occurring between leaders and their individual subordinates (Kim et al., 2010). In-depth examinations of the distinctions found within exchange relationships led to the adoption of the term leader-member exchange theory (LMX) (Graen & Schiemann, 1978). In this section, a review of LMX, exchange relationships, differentiation, and key research pertaining to this study is provided.

**LMX.** The overriding principle of LMX is that leaders develop different relationships with their followers and the quality of the relationship affects the leader-member outcome (Avolio, Walumbwa, & Weber, 2009). Similar to VDL theory, LMX proposes that leaders categorize their subordinates into two distinct groups (Graen & Scandura, 1984). The quality of the interactions leaders have with their subordinates results in the subordinates being considered as either in-group or out-group (Scandura & Graen, 1984; Bauer & Green, 1996; Pelletier, 2012). High-quality interactions are categorized as in-group, while low-quality interactions are categorized as out-group (Scandura & Graen, 1984; Pelletier, 2012).

**Exchange Relationships.** The exchange relationship between supervisors and subordinates evolves through three different phases: role taking, role making, and role routinization (Graen & Scandura, 1987). Graen and Scandura (1987) defined the three roles as role taking, role making, and role routinization.

The initial phase of assessment is role taking. The manager creates and defines responsibilities for the subordinate in an effort to determine the subordinate's relevant skills, as

well as to assess the subordinate's reaction to the tasks assigned (Graen and Scandura, 1987). The worker controls the work produced and how the work is completed during this phase.

The second phase of assessment is role making. The role-making phase occurs when the supervisor and the subordinate establish basic rules for their dyad. Graen and Scandura (1987) note that opportunities within the organization will drive this process more than an actual conversation between the supervisor and the subordinate.

Finally, the last phase of assessment is the role routinization phase. At this point the supervisor and the subordinate have achieved a stable dyad. Graen and Scandura (1978) note this dyad becomes clearer as the supervisor and subordinate continue to strengthen their relationship. This three-phase model demonstrates the integration of the role and social exchange through the creation of the dyad (Graen & Scandura, 1987).

Research completed by Graen and Uhl-Bien (1991) presented the leadership-making model (Graen & Uhl-Bien, 1991). This model represented the LMX development process in three stages: stranger, acquaintance, and maturity (Graen & Uhl-Bien, 1991).

The first stage of the leadership-making model is the stranger stage. The stranger stage is considered a low-quality relationship and regarded as a "cash and carry" economic exchange (Graen & Uhl-Bien, 1991). The idea here is that no rapport has been established.

The second stage of the leadership-making model is the acquaintance stage. The acquaintance stage is considered a middle-quality relationship where the supervisor and the subordinate have increased social exchanges, which may be from either work or personal life (Graen & Uhl-Bien, 1991). At this point, the supervisor and subordinate are building rapport. Graen and Uhl-Bien (1991) point out that some relationships will not progress to or even past this phase.

Finally, the third and final stage of the leadership-making model is the maturity stage. The maturity stage is considered a high-quality relationship where the supervisor and subordinate participate in exchanges that reflect mutual respect, trust, and obligation (Graen & Uhl-Bien, 1991). As noted with the acquaintance phase, not all relationships will achieve this phase.

While there are similarities between this model and the role-making model, the leadership making model was designed specifically to identify the importance of creating more high-quality relationships, as well as to provide the ability to recognize these relationships in an organization (Graen & Uhl-Bien, 1991). Graen and Uhl-Bien (1995) suggest LMX that emphasizes a reciprocating relationship between the supervisor and the subordinate. This idea ties LMX back to the exchange rule that is the basis of SET. The exchange rule follows the idea of reciprocity, which translates, to “repayment in kind” (Cropanzoni & Mitchell, 2005).

***Differentiation.*** Erdogan and Bauer (2010) note LMX differentiation as a fact of organizational life. Intraunit differentiation was defined by Dansereau et al. (1975) as the process by which a supervisor delineates members into in-group and out-group roles. Van Dijke, De Cremer and Mayer (2010) found that the influence of differentiation can create division within groups. From this division, distrust can grow due to a perceived lack of fairness, and this distrust can undermine the quality of the LMX relationship (Van Dijke et al., 2010). From the distrust, the perception of favoritism can grow and contribute to positive and negative attributions made by both the supervisor and the subordinate (Henderson, Wayne, Shore, Bommer, & Tetrick, 2008). Conflict in the workplace and within supervisor-subordinate relationships can be a struggle due to perceived gaps in LMX that exists from one employee to another.

In a study on prisoners' group behavior, Yamagishi, Mifune, Liu and Pauling (2008) found that leaders who played favorites reinforced low-quality exchanges while also reinforcing high-quality exchanges. Wang and Howell (2010) noted that leaders should try to form high-quality relationships with each employee, set high expectations, and place challenging goals, thereby laying the foundation for higher employee performance. Bezuijen, van Dam, van den Berg, and Thierry (2010) established that leaders should work to inspire all of their employees and engage them in learning activities.

Differentiation may be intentional on behalf of the leaders in that it allows them to create roles within the group (Dienesch & Liden, 1986; Erdogan and Bauer, 2010). Research conducted by Vidyarthi, Liden, Anand, Erdogan, and Ghosh (2010) indicated that subordinates will compare the relationship that they have with their supervisor to the relationships that they observe their supervisor having with their peers. As a result of observations and comparisons, LMX differentiation has the potential to influence employee attitudes, coworker interactions, and the level of group attachment (Erdogan & Bauer, 2010; Martin, Epitropaki, Thomas, & Topakas, 2010). Hooper and Martin (2008) showed that perceived differentiation in LMX was negatively related to employee job satisfaction and wellbeing (Erdogan & Bauer, 2010).

In summary, Erdogan and Bauer (2010) encapsulate LMX differentiation as the occurrence of members having unequal access to their supervisor, as well as unequal access to the benefits of high-quality exchanges. Furthermore, Erdogan and Bauer (2010) note in the findings on their study on LMX differentiation that LMX differentiation may in fact positively encourage an environment of helping behaviors in a group climate with strong organizational justice. This lends to the possibility that not all differentiation is harmful to the subordinate.

***LMX research studies.*** While drafting the plan for this survey research, the following three LMX studies were located and contributed to the constructing of the foundation for this research study.

McClane, Mento, and Burbridge, 1991. In a 1991 quantitative study on LMX dyads, McClane, Mento, and Burbridge tested to determine if a positive relationship existed between LMX quality and the variables of subordinate intentions to remain with the organization, job satisfaction, organizational commitment, working relationship with their manager, and job performance, satisfaction, performance, commitment, and collaboration. The study was performed on a research-based organization and incorporated 83 employees as participants (McClane et al., 1991). The research findings noted that subordinates who were granted negotiating liberty by leaders had a positive view of their collaborative relationship with leadership, showed higher levels of job satisfaction, and exhibited increased organizational commitment. The research study did not determine a significant correlation between subordinate commitment and job performance (McClane et al., 1991).

Erturk and Vurgun, 2015. In a 2011 study on the retention of IT professionals, Erturk and Vurgun (2015) explored the roles of psychological empowerment, LMX, perceived organizational support (POS), and organizational trust. Erturk and Vurgun administered a web-based survey to 20 randomly selected IT companies in Turkey and obtained a sample of 172 responses. The LMX-7 scale (Scandura & Graen, 1984) was used to measure the quality of the LMX relationship; reliability was noted to be 0.92 (Erturk & Vurgun, 2015). In total, 44 questions composed the survey for all measures. In accordance with prior research (Allen, Shore, & Griffeth, 2003; Lee, 2004; Pare & Tremblay, 2000; Reid, Allen, Riemenschneider, & Armstrong, 2008; Rhoades & Eisenberger, 2002), Erturk and Vurgun found that POS could

predict turnover intentions of IT personnel. Additionally, Erturk and Vurgun determined that this study shows that high-quality LMX can diminish turnover intentions of IT professionals. This finding supports previous research completed by Gerstner and Day, 1997; Harris, Kacmar, and Witt, 2005; Lee, 2005; Reid et al., 2008; Wayne et al., 1997.

Garg and Dhar, 2014. Survey research completed by Garg and Dhar (2014) investigated factors affecting the commitment level of hotel employees. Organizational commitment, LMX, job stress, and POS were measured. Garg and Dhar tested four hypotheses, and the one pertinent to this research is whether LMX positively influences organizational commitment. One idea noted in support of this hypothesis is from previous research in which employees recognized the support from their organization, acknowledged an obligation to their organization, and acknowledged this treatment with their job commitment (Eisenberger, Fasolo, & Davis-LaMastro, 1990; Garg & Dhar, 2014; Rhoades & Eisenberger, 2002).

The Garg and Dhar (2014) study used previously validated scales and scored with a Likert scale. This study was unique in that it assessed both the employees and their customers of small to medium sized hotels in Delhi-NCR, India. While the hypothesis was supported to show that LMX positively influences organizational commitment, Garg and Dhar note that the employees' actions from the organizational commitment rely on the quality of their LMX (2014).

### **Summary on Leader-Member Exchange Theory (LMX)**

In summary, LMX theory focuses on the exchange between leaders and followers. The managerial pattern is different across subordinates and changes according to the quality of the manager and employee relationship (Tzinerr & Barsheshet-Picke 2014). Managers have been linked to employee behavior and commitment at levels far above senior management (Lawler, 2009). Walumbwa, Mayer, Wang, Wang, Workman, and Christensen (2011), in a study on



LMX, leadership, and performance, note that immediate supervisors play a critical role in enhancing the LMX relationship due to their proximity to employees. Davies, Wong, and Laschinger (2011) support the formative nature of the employee-supervisor bond, and note that the health of this bond has direct implications on knowledge sharing. The relationship facilitated by the manager not only affects the direct subordinate, but also has an impact on the sharing of organizational knowledge. The type of relationship formed between the employee and supervisor is unique in its characteristics as well as its description.

### **Organizational Commitment**

Numerous definitions exist for organizational commitment. Buchanan (1974) viewed organizational commitment as an affective attachment between the organization and the employee. Organizational commitment was defined as a shared view of organizational goals and values, being completely immersed in your work, and having a perception of loyalty or attachment to the organization (Buchanan, 1974). Years employed with an organization, social interaction with peers and superiors, job achievement, and advancement all had the greatest impact on a managers' organizational commitment (Buchanan, 1974).

In later years, organizational commitment has been defined as a multidimensional discernment of an employee's degree of responsibility to an organization (Meyer & Allen, 1984; Meyer & Allen, 1991; Randeree & Chaudhry, 2012), as well as the psychological connection of an individual to his work (Buchanan, 1974; Porter, Steers, Mowday, & Boulian, 1974; Allen & Meyer, 1990). Regardless of the definition in literature, Islam et al. (2013) noted that a critical element in retaining a knowledge-based workforce is maintaining high levels of organizational commitment.

Early research observed the concept of organizational commitment as a part of employee job satisfaction (Hulin, 1966). As research focus shifted to examining how to lower turnover, job satisfaction was examined more closely and organizational commitment was identified as a separate concept through this research (Hulin, 1966).

Organizational commitment has been studied extensively over the past forty years owing to the idea that employee commitment will result in greater employee productivity and organizational effectiveness (Fiorito, Bozeman, Young, & Meurs, 2007; Meyer & Allen, 1997; Patrick, 2008). Additionally, Loa, Ramayah, Min, and Songan (2010) noted much higher levels of organizational commitment in employees whose leaders provided support and attention to their individual needs. Porter et al. (1974) further states that in certain cases, levels of organizational commitment could be more effective than job satisfaction at predicting employee turnover than job satisfaction.

Organizational commitment began as what was thought to be a one-dimensional concept, however, Allen and Meyer (1990), and Meyer and Allen (1991) theorized that organizational commitment was in fact multi-dimensional. Meyer and Allen (1991) presented the three-component model (TCM) of organizational commitment which included individual dimensions for affective, normative, and continuance commitment. Since its creation, it has been noted that the TCM has been the most studied multi-dimensional model of organizational commitment (Herscovitch & Meyer, 2002; Landry, Panaccio, & Vandenberghe, 2010; Meyer & Allen, 1991; Ng & Feldman, 2011).

Sheldon (1971) found that commitment to an organization is based on an employee's attitude. Strong or positive organizational commitment occurs when an employee closely identifies with the organization and its goals (Sheldon, 1971). Reichers (1985), in research on

organizational commitment, acknowledged that previous scholars used attribution theory and goal congruence processes in an attempt to explain organizational commitment before Porter established affective dependence theory in 1974. The TCM follows affective dependence theory (Meyer & Allen, 1991). The TCM model of organizational commitment proposed that the level of an employee's organizational commitment is characterized by the employee's 'relationship with their organization (Meyer & Allen, 1991). Furthermore, an employee's organizational commitment can indicate his decision to remain with an organization (Meyer & Allen, 1991).

The three components of the TCM model of organizational commitment are affective commitment (AC), normative commitment (NC), and continuance commitment (CC). Affective commitment measures how an employee identifies with their organizations, the level of emotional attachment an employee has to their organization, as well as the level of involvement an employee has with their organization (Akdogan & Cingoz, 2009; Meyer & Allen, 1991). Normative commitment measures if an employee believes that they are morally obligated to continue to work with their organizations (Akdogan & Cingoz, 2009; Meyer & Allen, 1991). Continuance commitment measures the perceived costs associated with an employee leaving their organization (Meyer & Allen, 1991).

The TCM has two separate versions. The full version includes Likert-type responses to eight questions for each of the three commitment components for a total of 24 questions (Meyer & Allen, 1991). The short version includes six questions for each commitment component for a total of 18 questions and has been shown to maintain reliability and validity (Meyer et al., 1993). Additionally, it is worth noting that Meyer and Allen (1991) consider affective, continuance, and normative commitment as individual components and not as types of commitment.

In a 2012 study on workplace commitment, Klein, Molloy, and Brinsfield (2012) reported that organizational commitment operates in the same manner at all levels of the organization. This finding resulted in the ability for researchers to be able to study organizational commitment at top levels of the organization and be able to apply the findings to any other level in the workplace (Klein et al., 2012).

### **Williams, McManus, Gordon, and McDaniel, 1999**

Williams, McManus, Gordon, and McDaniel (1999) conducted a study on pay satisfaction and suggested that the effects of “benefits” on employee attitudes and behavior are different from those of pay or other forms of compensation. Williams et al. went on to note that an employee’s perception about benefits relates directly to the employee’s level of job satisfaction and organizational commitment (1999). In a subsequent study, Sinclair, Leo, and Wright (2005) identified a four-attribute benefit system that is influenced by employee attitude and behavior. Employee participation, system quality, communication quality, and benefit importance compose the attributes of the benefit system. Sinclair et al. hypothesized that employees who were aware of the benefits and used them would exhibit higher levels of retention.

### **Patrick, 2008**

Patrick’s (2008) study examines employees’ commitment and their relationship with their employer. Patrick (2008) suggests that unwritten or subconscious contracts exist between the employee and the organization. These unwritten contracts are in keeping with the same idea as the exchange rule from SET and follow the idea of reciprocity which translates to “repayment in kind” (Cropanzonia & Mitchell, 2005). The Patrick study is an exploratory study and was

conducted using 202 participants from 15 Internet companies. The participants were from various hierarchical levels of the organizations.

Patrick (2008) based the study on two hypotheses involving correlating relationships and employee commitment using the Psychological Contract Questionnaire (PCQ) with a 7-point Likert scale for the responses. The PCQ is a 52-item questionnaire adapted from the Psychological Contract Scale (Millard & Hopkins, 1998) and the Psychological Contract Inventory (Rousseau, 1995).

The research findings supported that a relational contract was dominant in the IT companies that participated in the study. Furthermore, findings suggest that employees feel a greater commitment toward employers than the employers feel toward the employees (Patrick, 2008). A noted limitation of this study was that it focused only on the IT industry in India (Patrick, 2008). The author further notes that it is possible that another industry may produce different results (Patrick, 2008). In summary, Patrick's (2008) study suggests that employer-employee commitment relationships are evolving and that current organizational leaders differ from those of previous generations.

### **Craig, Allen, Reid, Riemenschneider, and Armstrong, 2013**

Survey research done by Craig et al. (2013) on IT personnel examined the relationships among career, mentoring, affective organizational commitment, job involvement and turnover intentions. The survey research was composed of 145 Likert-type questions and used previously validated measures. Of 297 invitations, 109 responses were completed. Analysis was performed using hierarchical linear regression testing. Their research found that mentoring had a significant impact on the participant's affective organizational commitment (AOC) and turnover intentions (Craig et al. 2013). Craig et al. stated in their results that the employees who exhibited higher

levels of affective organizational commitment were those that had also experienced positive mentoring events at work (2013). Furthermore, the employees with the higher levels of AOC exhibited reduced turnover intentions (Craig et al. 2013). This research noted a need to replicate this study focusing on additional environmental constraints in both public and private organizations (Craig et al. 2013).

### **Job Satisfaction**

At a high level, job satisfaction is viewed as the relationship that an employee has with his job. In 1985, Dr. P. Spector created the Job Satisfaction Survey (JSS) measurement tool. At this time, Spector (1985) defined job satisfaction as an attitudinal response to one's job, based on one's individual frame of reference and affect. In later work, Spector (1997) went on to note that there was an industry interest in job satisfaction due to the perception that employers who provide for their employees well-being see greater productivity, are viewed as good employers, and experience less turnover (Spector, 1997). Spector (1997) went on to note that previous job satisfaction studies have explored key aspects of employment including the organizational context of the work, employment rewards, and other employees (Spector, 1997). Simply put, Terranova and Henning (2011) summarized that employees with high job satisfaction are less likely to leave their jobs and employees with low job satisfaction are more likely to leave their jobs.

Job satisfaction has a diverse theoretical background. In reviewing job satisfaction literature, expectancy theory (Mitchell, 1974), discrepancy theory (Locke, 1975), and equity theory (Huseman, Hatfield, & Miles, 1987), are all represented in job satisfaction research. Expectancy theory is that idea that an employees' behavior motivation is driven by their expectations of the results that behavior will yield (Nebeker & Mitchell, 1974; Mitchell, 1974).

Discrepancy theory is the concept that job satisfaction is related to an employee's needs or wants that are fulfilled within the workplace (Locke, 1975). Equity theory is the conception that an employee's job satisfaction is influenced by social contrast and the assessment of job rewards (Huseman et al., 1987).

### **Brewer, Kovner, Green, Tukov-Shuser, and Djukic, 2012**

Brewer, Kovner, Green, Tukov-Shuser, and Djukic (2012) studied predictors of turnover in 1,653 nurses newly licensed in the United States. Brewer et al. (2012) reported findings that indicated a strong relationship between job satisfaction, organizational commitment, and turnover. The predictors studied included overtime hours, working multiple jobs, physical injuries, and verbal abuse. Brewer et al., (2012) found that multiple factors affected an employee's turnover intentions and job satisfaction. A key element of this research was the recommendation by Brewer et al. (2012) to recognize and identify indicators of turnover intentions before the employee had tangible thoughts of leaving. Brewer et al., (2012) formed a guideline of 51 interventions for employers to implement in an effort to improve job satisfaction and lower turnover. Producing strategies to increase job satisfaction is fundamental to improving employee retention (Brewer et al., 2012).

### **Kanwar, Singh, and Kodwani, 2009**

Kanwar, Singh, and Kodwani, (2009) note that the IT-IT Enables Services (ITES) industry is prone to high employee turnover. This survey research examined work-life balance and burnout as a predictor of job satisfaction for IT and ITES workers (Kanwar et al., 2009). A comprehensive questionnaire was created to measure job satisfaction (Brayfield & Rothe, 1951), burnout (Surana & Singh, 2007), and work-life balance as developed within the framework of this study by the authors. Participants were selected from the IT and ITES industries in New

Delhi, India. A total of 313 participants responded to the study; the breakdown was 218 male and 95 female participants.

Study results showed job satisfaction was reported higher in the male group of respondents than in the female group (Kanwar et al., 2009). The authors reported a positive association between work-life balance and job satisfaction (Kanwar et al., 2009). The authors felt that this positive association implied that when an employee is able to pay equal attention to their personal and professional life they are more apt to feel greater job satisfaction (Kanwar et al., 2009). The authors found that work-life balance and burnout effect the job satisfaction of IT and ITES workers (Kanwar et al., 2009). A limitation of the study was noted as the location; all participants were located in New Delhi, India or neighboring areas. Conducting the research in alternate locations may produce varied results (Kanwar et al., 2009).

### **Turnover Intentions**

Multiple perspectives, theories, and models exist on turnover intentions. Tan and Tan (2000) define turnover intention as a readiness to walk away from an organization. In theoretical literature, voluntary turnover is identified by numerous names: intentional turnover, employee turnover, organizational turnover, and voluntary departure (Hulin, 1991; Lee, Mitchel, Wise, & Fireman, 1996; Williams & Livingstone, 1994).

Turnover has been studied regularly over the past 40 years and multiple theories have been established regarding the genesis of turnover. March and Simon's theory (1958) linked job satisfaction to turnover. This theory also evaluated worker input of skills, time, training, and lost opportunities against the outcome of pay, benefits, status, and intrinsic motivation (March & Simon, 1958). The Thibaut and Kelly model (1959) focused on the causes of turnover within the organization (Hulin, 1991). The Cornell Model is an update to the March and Simon (1958)



model that combined it with information from the Thibaut and Kelly model (Hulin, 1991). In the new Cornell model, outcomes are evaluated against inputs that are influenced by personal frames of reference (Hulin, 1991). Hulin, Roznowski, and Hachiya's (1985) model combines the inputs and outcomes influenced by personal frames of reference with the effects of the environment (Hulin, 1991). The Meyer, Srinivas, Lal, and Topolnytsky (2007) model maintains that the strategic implementation of tactical plans will help employers forecast behaviors such as turnover intention and job dissatisfaction (Meyer, Srinivas, Lal, & Topolnytsky, 2007).

Turnover is an issue for business, but not all loss of staff is negative if low producers are the ones who depart. According to Lucas (1999), the loss of underperformers is not a concern for organizational leaders as long as the high-producing employees remain. Turnover can impede client relationships and potentially reduce organizational success (Cooke, 1997). Furthermore, if an IT worker leaves the company in the middle of a project, the project could be at an increased risk for failure (Westlund & Hannon, 2008).

Research indicates that turnover factors among IT professionals tend to differ (Mears & Sargent, 1999). IT workers are viewed to have additional opportunities to leave their organizations compared to other professionals (Mobley, 1977), as the demand for skilled IT workers is not specifically linked to job market strength (Spreitzer & Mishra, 2002).

Relationships have been shown between turnover intention and job satisfaction (McMurtrey, Grover, Teng, & Lightner, 2002; Sumner & Niederman, 2004; Thatcher, Stepina, & Boyle, 2003). Thatcher et al. (2003) express the theory that a negative relationship exists between job satisfaction and turnover intention in the IT workforce. Job satisfaction is a popular element in employee retention and is mentioned in nearly all turnover theories (Naumann, 1993).

Porter et al. (1974) stated that organizational commitment could be more effective at predicting turnover than job satisfaction.

In a 2003 meta-analysis of 19 studies, Joseph and Ang examined organizational commitment and turnover predictors of IT professionals. The analysis supported that organizational commitment had moderately significant negative relationship with turnover intentions in IT workers (Joseph & Ang, 2003).

### **Abii, Ogula, and Rose, 2013.**

In a 2013 study on the turnover intentions of IT professionals, researchers Abii, Ogula, and Rose studied a sample of 144 IT workers from the Washington D.C. metropolitan area. The survey research used the Minnesota satisfaction questionnaire (MSQ) to measure job satisfaction and added an additional five open-ended questions to measure why employees left their previous jobs. While the MSQ is a previously validated instrument, the additional five questions regarding previous employment have not been validated and have no basis for reliability or validity.

The research findings supported the hypothesis that job satisfaction influenced IT worker's turnover intentions (Abii et al., 2013). It was further noted that not all factors of job satisfaction had the same influence on an IT worker's decision to leave an organization (Abii et al., 2013). Abii et al. found that dissatisfaction with workplace relationships contributed to turnover intentions; furthermore, Abii et al., agreed with research completed by Chandler (2004), which state that IT workers want to work with good people.

### **Findings**

The literature reviewed in this chapter finds that that there is significant reason to anticipate that LMX will have an impact on the organizational commitment, job satisfaction and

turnover intentions of IT workers. While the literature review offers clues as to the anticipated findings of this research study, the ultimate question of whether or not the LMX quality of IT workers influences their organizational commitment, job satisfaction, and turnover intentions has not yet been fully answered.

### **Critique of Previous Research Methods**

However, a gap in the research exists due to the fact that IT workers in the United States of America have seldom been surveyed in the works reviewed. IT workers from India and Turkey were the most often represented (Dhar & Shar, 2010; Erturk & Vurgun, 2015; James & Mathew, 2012; Kanwar, Singh, & Kodwani, 2009; Patrick, 2008). The Craig et al. (2013) survey research was composed of IT workers in the U.S., but did not measure the same variables or use the same measure that this survey research examined.

### **Summary**

This chapter presents both seminal and current literature that supports this research study. The foundation of each variable was reviewed. Information was presented on LMX, its beginnings in vertical dyadic linkage (VDL) theory, and LMX's relationship with social exchange theory (SET). A review of the concept of exchange relationships and differentiation was provided, followed by a review of selected LMX-based research studies. The variables of organizational commitment, job satisfaction, and turnover intentions were examined from their definitions to basis in theory. Finally, a review of selected research studies was conducted. Chapter 3 will present the methodology for the current study.

## CHAPTER 3. METHODOLOGY

This chapter explains and supports the use of the quantitative, non-experimental, correlational research method to answer the research question of whether LMX quality influences an IT worker's organizational commitment, job satisfaction, and turnover intentions. The research design used survey data collected online from a sample frame of IT workers over the age of 22 years old, who are currently employed in the U.S., and who have worked at their organizations for a minimum of two years. Four existing and validated measures were combined to create one comprehensive survey to test the research questions and hypotheses. The online survey was administered via Qualtrics.com and the participant responses were purchased from Qualtrics. The survey data was analyzed and synthesized with correlational analysis using SPSS v24.0. This chapter includes a description of the research design, data, population, sampling, setting, instrumentation, and data collection procedures and concludes with a discussion of the ethical considerations employed for this study.

### **Purpose of the Study**

The purpose of this survey research was to test leader-member exchange (LMX) theory that measures the quality of relationships between IT workers and their supervisors against their organizational commitment, job satisfaction, and turnover intentions; controlling for information technology employees, who are over the age of 22 years old, working in the U.S., and have worked for the organization at least two years. The independent variable is LMX and is defined as the quality of the relationship between the IT worker and his supervisor as measured by the LMX 7 scale developed by Graen and Uhl-Bien (1995). The first dependent variable is

organizational commitment, which is defined by Wagner and Hollenbeck (2005) as the willingness of an employee to put forth substantial effort on the organization's behalf, as well as the degree to which an employee identifies with the organization that employs them, and a desire to remain with the organization for the long term. The second dependent variable is job satisfaction, which is defined as the attitude an employee has towards his job and is comprised of the employee's experiences in that job (Kalleberg, 1977; Locke, 1969; Mottaz, 1987; Neubert & Halbesleben, 2015). The third dependent variable is turnover intentions, which for this research study are the intent or likelihood that an individual will leave the organization voluntarily (Konovsky & Cropanzano, 1991; Tett & Meyer, 1993). The control variables are that the participants are IT employees that are over the age of 22 years old, have worked for the organization for at least two years, and work in the U.S.

### **Research Questions and Hypotheses**

The following three research questions and their hypotheses guided this research study:

RQ1: To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his organizational commitment?

Ha<sub>0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX-7 and his organizational commitment as measured by the Three Component Model (TCM).

Ha<sub>1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX-7 and his organizational commitment as measured by the Three Component Model (TCM).

RQ2: To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his turnover intentions?

Hb<sub>0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his job satisfaction as measured by Spector's (1994) Job Satisfaction Survey (JSS).

Hb<sub>1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his job satisfaction as measured by Spector's (1994) Job Satisfaction Survey (JSS).

RQ3: To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his job satisfaction?

Hc<sub>0</sub>: There is no significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Staying or Leaving Index (SLI).

Hc<sub>1</sub>: There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX 7 and his organizational commitment as measured by the Staying or Leaving Index (SLI).

### **Research Design**

This non-experimental survey research study will use a quantitative methodology for data collection and to statistically examine the relationships between the IT workers' LMX quality and their organizational commitment, job satisfaction, and turnover intentions. Creswell (2013) states that a quantitative research approach is appropriate when examining measurable variables to test for theories. The research design consists of an online survey that was administered through a third-party survey site.

Qualtrics was the provider used to administer the online survey. The researcher purchased 100 completed survey responses from Qualtrics Panels that met the sample criteria of

being an IT worker in the United States, who are over the age of 22 years old, and who have worked in the IT field for more than two years.

Once the survey data was complete, the data collected from the online survey was analyzed using linear regression analysis. Based on the data collected through the user's responses, data was analyzed looking for relationships between the variables.

In considering the underlying research philosophy of this quantitative survey research, the following four assumptions have been made. First, quantitative research follows an objectivist epistemology. An objectivist epistemology is summarized by Yilmaz (2013) as quantitative research that seeks to cultivate theories in social behaviors by statistically measuring what is presumed to be a current reality. Furthermore, in following with the epistemological underpinnings of quantitative research, in this survey research the investigator and the survey study are independent of each other (Yilmaz, 2013). By using an online survey that was administered by an impartial third party, there should not be any personal influence inflicted on the survey results.

Second, in keeping with the principle of ontology, this survey research will give future researchers a look at the 2016 workplace reality of IT workers. Over time, this survey will be valuable in analyzing how LMX, organizational commitment, job satisfaction, and turnover intentions evolve within organizations and within IT workers as a culture. Third, the axiological assumption of this survey research study is that personal values will not be included in the research process to ensure that the findings are free from the personal influence of the researcher (Yilmaz, 2013). Finally, the methodological assumption of this survey research is that by using an online survey to gather results, in using a quantitative methodology with random sampling

and by testing for results by using regression analysis, the variables can be accurately and independently measured knowing that there was no personal interpretation of the survey results.

### **Target Population and Sample**

While LMX, organizational commitment, job satisfaction, and turnover intentions have all been studied numerous times with many different combinations of the variables; this study is made unique by its target population. IT workers have been studied in regards to satisfaction with compensation (Levina & Xia, 2007), causes of turnover (Carayon, Schoepke, Hoonakker, Haims, & Brunette, 2006), work stress (Fernandez, 2014; Ohta, Higuchi, Kumashiro, Yamato, & Sugimura, 2015), job satisfaction (Fernandez, 2014; McKnight, 2009), intrinsic motivation (Thatcher, Liu, Stepina, Goodman, & Treadway, 2006), and organizational commitment (McKnight, 2009), but no singular study has been found that assesses an IT worker's LMX and, in turn, views how that positive or negative LMX score relates to the IT worker's organizational commitment, job satisfaction and turnover intentions. The population, sample, and power analysis are reviewed in the following sections.

### **Population**

The population of this survey research will consist of IT workers in the U.S. who are over the age of 22 years old, and who have worked for a minimum of two years in the IT field.

An IT worker is considered by Ghazzawi (2011, 2008) to be defined as: ...any employed person who is involved in technical service and support, IT management, IT networks, system integration and development, application development, web design, project management, IT procurement, technical end-user support, IT solutions implementation, IT infrastructure, Internet Protocol, or IT solutions sales and support. (pg. 32)

The control variables of location (U.S.), age (over the age of 22 years old), and that they have been employed with their organization for a minimum of two years were included for the following reasons.



**Location.** The IT workers for this study were restricted to the United States of America for multiple reasons. The foremost was language. The survey is only available in English and the researcher did not possess the capability to translate the survey into multiple languages. Additionally, when setting the audience parameters with Qualtrics Panels, the Qualtrics Panels team had an existing pool of IT workers based in the U.S. Finally, the measures used in this survey research were created based on research done in the United States of America and the researcher was fearful of cultural bias influencing the results if other countries were included. No one specific region, state or location was selected to provide greater generalizability.

**Age.** All of the IT workers included in this study responded that they were over the age of 22 years old. The selection of the age parameter was done in an attempt to target a population with IT work experience to draw on for their responses and to craft a richer response pool. Additionally, the researcher did not want to target a specific age group for the research. However, the possibility of focusing on one select group at a later time is an option if the results for any one age range show to be outside of standard results.

**Minimum of two years in the IT field.** The control of having participants with a minimum of two years IT Work experience is to confirm the participant as an established IT worker and not a temporary worker.

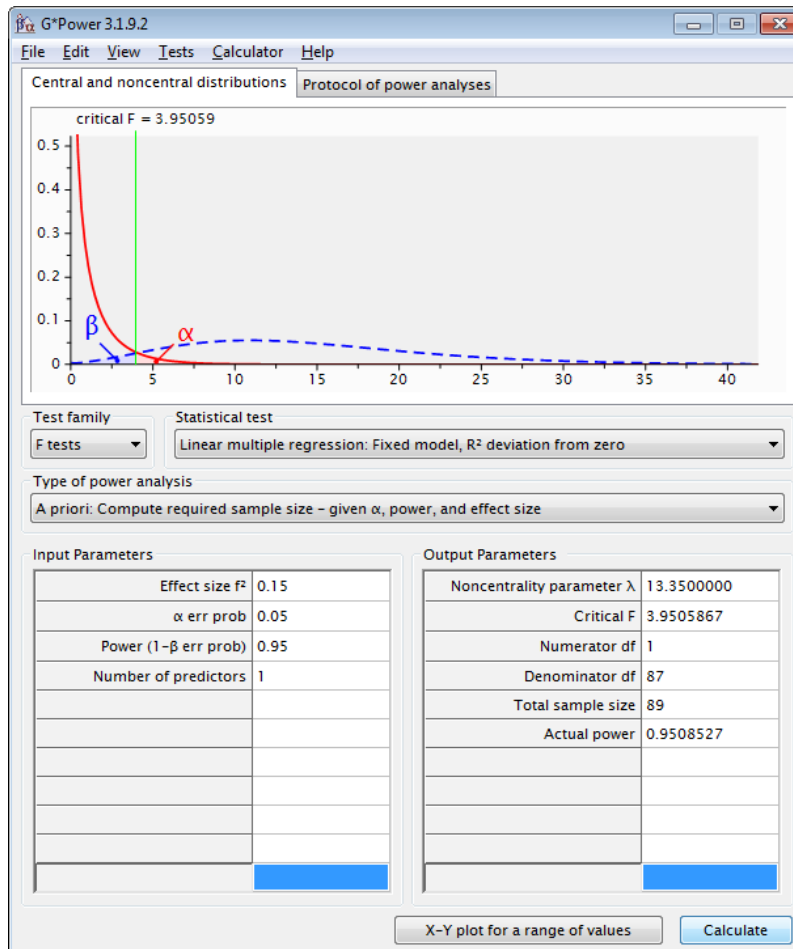
## **Sample**

Probability sampling was used and participants were selected using random sampling. One hundred survey responses were purchased from Qualtrics Panels. Participants were selected by Qualtrics Panels that met the criteria of being an IT worker in the United States, who are over the age of 22 years old, and who has worked in the IT field for more than two years.

Qualtrics Panels invited pre-screened participants to complete the survey by sending the potential participants an email invitation that explained the purpose of the survey and provided a link to the survey. Once the survey link is selected, the prospective participant viewed the informed consent form. At this time the prospective participant independently decided to either accept and continue, or decline and exit the online survey. Once the prospective participant provided the electronic consent, he or she was directed to the online survey.

### **Power Analysis**

To determine the ideal sample size, G\*Power version 3.1.9.2 Statistical Power Analysis program by Faul, Erdfelder, Lang, and Buchner (2007) was downloaded and installed. The test family = F tests, the statistical test = Linear regression: Fixed model, R<sup>2</sup> deviation from zero, and the type of power analysis = A priori: compute required sample size - given alpha, power, and effect size. The input parameters were configured as follows: calculating for a medium effect size of 0.15; alpha err probability of 0.05; power of 0.95; and the number of predictors (independent variable of LMX quality) of 1. The calculate button was selected and the required minimum sample size for this particular statistical test was determined to be 89 participants.



**Figure 1- G\*Power Analysis for Sample Size**

## Procedures

All of the data gathered for this survey research was ordinal data. Ordinal data is defined by Hildebrand, Laing, and Rosenthal (1977) as having a set of mutually exclusive states. Details of participant selection, protection of the participants, data collection, and data analysis procedures are presented in the following sections.

### Participant Selection

The researcher purchased a random sample of 100 survey responses from pre-screened participants that met the sample criteria from Qualtrics Panels. Qualtrics is a privately owned

research software company based in Provo, Utah. (<http://Qualtrics.com/about>, 2016). The survey was administered online.

The survey was sent to a random sample of pre-screened prospective participants obtained from Qualtrics Panels who were identified as IT professionals, who are over the age of 22 years old, who live and work in the United States, and who must have worked at their current company for a minimum of two years.

Once a prospective participant received the survey email from Qualtrics and read the message explaining the purpose of the survey research, they might decide to take the survey. The email from Qualtrics contained a hyperlink to the survey for the prospective participant to select. The hyperlink led the prospective participant to a cover letter that explained the intent of the survey. Additionally, three screening questions were included to reaffirm that the prospective participants were in fact IT workers, over the age of 22 years old, currently working in the U.S., and employed by their organization for a minimum of two years. If the prospective participant responded negatively to any of the three questions they would not be allowed to participate in the survey. If the prospective participant answered yes to the three questions, they would be allowed to move on to the Informed Consent form. The Informed Consent form explained the purpose of the survey research and clearly stated that the participant may quit the survey at any time. The Informed Consent form is presented in its entirety to the prospective participant and includes both a contact email address and cell phone number for the researcher. At the end of the Informed Consent form prospective participants indicated their electronic consent by selecting the option to “Agree” to participate in the survey and selecting the “Next” button.

## **Protection of Participants**

The use of Qualtrics Panels for data collection allowed for practical targeting of IT workers, and removed some supervisor bias that could be present if a single organization was used for responses. Qualtrics provides a web-based program and service designed to target specific audiences to participate in surveys. Qualtrics has thousands of participants specifically recruited to take surveys on behalf of Qualtrics' customers who purchase responses. This service, coupled with written and verbal communication about the purpose of the study, along with specifics on Capella's requirements for personal data protection policies, provided a solid basis for the study's sample (Nardi, 2015; Swanson & Holton, 2005).

## **Data Collection**

This study uses four validated instruments: the LMX 7 to measure leader-member exchange quality, TCM to measure organizational commitment, JSS to measure job satisfaction, and SLI to measure turnover intentions. One comprehensive survey was created that contains the instruments in their original forms as published by their authors and validated through other researchers. Additional demographic information was appended to the end of the survey.

Since all four of the instruments have been previously validated and used by other researchers, will not be altered in this study, and have been used for similar types of research, neither field testing nor a pilot study was completed for this survey research study.

The survey for this research was created using the Qualtrics survey research tool. The Qualtrics team collected 104 responses from pre-screened participants who identified as IT workers, were over the age of 22 years old, working in the U.S., and must have worked for their current company for a minimum of two years.

The researcher included a cover letter at the beginning of the survey that explained the purpose of the research, included three additional screening questions to verify that participants indeed met the screening criteria, and also linked the participant to the Informed Consent form. The participants were required to indicate their electronic consent on the Informed Consent form before they were allowed to take the survey. Both the researcher's contact email address and cell phone number were provided in the Informed Consent for participants to ask questions or receive clarification. No participants contacted the researcher.

Once the data collection was completed, the data was retrieved from Qualtrics.com for analysis. The raw data was downloaded into SPSS format and analyzed using the IBM Statistical Package for Social Sciences (SPSS) software version 24.0. Multiple copies of the data were saved. A primary working copy was used for analysis. Two backup copies were encrypted and stored at secure locations.

Both the Qualtrics team and the researcher performed a review of the data to look for incomplete surveys or duplicate surveys. Then the independent and dependent variables were formatted for analysis. The individual measures were scored independently.

### **Data Analysis**

All of the data gathered for this survey research was ordinal data. Procedures were followed to ensure data security and confidentiality of raw participant data. No personally identifiable information from the survey respondents was obtained. Data was downloaded from the Qualtrics site onto the researcher's personal laptop in SPSS format. A master copy has been kept on a separate flash drive inside a locked safe.

The dataset was reviewed for completeness. No incomplete or inconsistent survey data was included in the results obtained from Qualtrics. All survey data was compliant with the

screening questions of is the participant an IT worker, is the responded over the age of 22, has the respondent been working for their organization for more than two years.

This survey study will use SSL and data encryption to accommodate the need for participant privacy and confidentiality of participant data (Fink, 2013; Nardi, 2015). The results were downloaded onto the researcher's personal laptop, which is protected by a password and is exclusively used by the researcher. Data will be stored for five years to comply with APA guidelines at which point it will be deleted using a virtual shredder program such as File Shredder, which deletes files using an algorithm and overwrites the content of the files so that the data is unrecoverable. Backup data was stored electronically on a portable flash drive during analysis and the summary of research findings. Once the research findings are complete, the flash drive will be destroyed.

### **Instruments**

Validated measures already exist for the four instruments that were used in this survey research and no changes were made to any of the questions or responses. Each of the four instruments are reviewed in the following sections.

#### **LMX 7 Questionnaire.**

The LMX 7 was created by Graen and Uhl-Bien (1995) to measure the quality of leader-member relationships. The LMX 7 is composed of seven questions, each with a five-point Likert scale response that is specific to that question. The questionnaire was designed to determine a subordinate's perceived quality of their leader-member exchange. The LMX 7 scale is scored by summing up the question responses. Scores between 20 and 35 points indicate a high-quality range, and scores between 7 and 19 points indicate a low-quality range (Graen & Uhl-Bien,

1995). The LMX 7 has a Cronbach's alpha score of .89 (Gerstner & Day, 1997). Dr. Mary Uhl-Bien has approved the use of the LMX 7 for this research.

**Validity.** The LMX-7 has been validated in many research settings and in multiple languages (Furunes, Mykletun, Einarsen, & Glaso, 2015). Author DeVellis (2012) wrote about scale development and defined validity as the extent to which a scale measures what it is intended to measure. Authors Liu, Cai, Li, Shi, and Fang (2012) completed a study on leadership style and turnover intentions that measured LMX to test member's perceptions of their leaders and reported that the instrument had good face validity.

**Reliability.** In their 2015 study on the impact of previous LMX on current LMX, authors Song, Wang, Zhong, Meng, and Shi, refer to the LMX 7 as being adopted by the literature, and as being mature with high reliability. Furthermore, authors Luo, Song, Marnburg, and Ogaard (2014) specifically selected the LMX-7 for their survey research on LMX and relational identity due to its use by other researchers and its reliability. In making the determination to include the LMX 7, numerous studies were reviewed and no challenges to the LMX 7's reliability were located (Erturk & Vurgun, 2014; Song et al., 2015; Casimir, et al., 2014; Dulebohn, Bommer, Liden, Brouer, & Ferris, 2012; Liden, Erdogan, Wayne, & Sparrowe, 2006; Luo et al., 2014; Boies & Howell, 2006; Michael, Guo, Wiedenbeck, & Ray, 2006).

### **Three Component Model (TCM)**

The TCM was developed by Meyer and Allen (2004) to measure organizational commitment of employees. The TCM is composed of 24 questions with a 7-point response scale. A participant is measured on three scales: affective commitment, continuance commitment, and normative commitment. To calculate results, each scale is averaged to provide a score for each of the commitment scales. Score will then be interpreted according to guidelines created by



Allen and Meyer (2004). Use of this measure is available via a student license agreement downloadable at [www.flintbox.com](http://www.flintbox.com).

**Validity.** Allen and Meyer (2004) express that when using the scales in unaltered form there is established evidence for reliability and validity accumulated through years of research (Allen & Meyer, 1996, 2000, 2004). Smyth, Healy, and Lydon (2015) conducted survey research on stress, burnout, and work commitment, and noted that the validity of the TCM has been demonstrated in previous research. In a 2004 study focused on the validation of the TCM, authors Tayyeb and Riaz noted that the TCM scales possess satisfactory validity for research purposes.

**Reliability.** Clercq and Rius (2007) examined organizational commitment as it pertained to the organization's work status, organizational climate, and entrepreneurial orientation. In the study, Clercq and Rius (2007) used Cronbach's Alpha to conclude that affective commitment had a reliability of ( $\rho=.077$  and  $\rho=0.68$ ), normative commitment ( $\rho=.086$  and  $\rho=0.72$ ), and continuance commitment ( $\rho=.076$  and  $\rho=0.72$ ). Furthermore, the three combined sections of the TCM are determined to have a reliability of ( $\rho=.081$ ) (Clercq & Rius, 2007). In making the determination to include this measure, numerous studies were reviewed and no challenges to the TCM's reliability were located (Clercq & Rius, 2007; Smyth, Healy, & Lydon, 2015; Tayyed & Riaz, 2004).

### **The Job Satisfaction Survey (JSS).**

The Job Satisfaction Survey (JSS) was created by Dr. Paul Spector (1985) and is a thirty-six item, nine-facet scale used to assess employees' attitudes about the job and aspects of the job.

In a 2003 review of Job Satisfaction Measurement Instruments, van Saane, Sluiter, Verbeek, and Frings-Dresen calculated the JSS internal consistency ratio at 0.91 for a population

of social service workers (van Saane, Sluiter, Verbeek, & Frings-Dresen, 2003). Dr. Paul Spector has approved the use of the Job Satisfaction Survey for this research.

**Validity.** The JSS scale has been demonstrated to have a high degree of validity when compared to other scales (Spector, 1997). Additionally, a 2011 study by Terranova and Henning on job satisfaction and intent to leave showed the JSS scale to have face and content validity. The JSS scale was also used by Emami, Moradi, Idrus, and Almutairi (2012) in their study of organizational learning culture, job satisfaction, and turnover intentions. Emami et al., found the JSS scale to meet both face and content validity for their research.

**Reliability.** The JSS scale has been demonstrated to have a coefficient alpha ranging of .91 for the entire scale, correlating to a high level of reliability (Spector, 1997). Kalkhoff and Collins (2012) studied job satisfaction and noted that the JSS demonstrated overall reliability and validity. In making the determination to include this measure, numerous studies were reviewed and no challenges to the JSS's reliability were located (Emami, Moradi, Idrus, Almutairi, 2012; Balas-Timar, 2014; Miles, Gordon, Storlie, 2013; Kamran & Sultan, 2014; Srivastava & Srivastava, 2010; Terranova & Henning, 2011).

#### **Staying or Leaving Index (SLI).**

Bluedorn's (1982) Staying or Leaving Index (SLI) was used to measure turnover intentions. The SLI is presented in two sections with the first section of four questions having participants rate their likelihood of staying with their current organization. The second set of four questions has the participants rate their likelihood of leaving their current organization (Bluedorn, 1982). Participants respond using a 7-point Likert type scale. Dr. Allen Bluedorn has approved the use of the Staying or Leaving Index for this research.

**Validity.** Bluedorn (1982b) used a series of five different populations when he created the SLI to assess internal consistency, reliability, and validity. The five sample groups were composed of state college faculty, university clerical staff, food service managers, insurance company clerical personnel, and dieticians. Based on these five samples, Bluedorn found that the index has an internal consistency ratio of 0.87 to 0.95 with a median of 0.91 for five samples of employees (total  $n = 741$ ), index SD ranged from 7.1 to 12.27, and the index mean ranged from 14.7 to 22.4 (Bluedorn, 1982b). In a 2009 study on retention, authors De Vos and Meganck reported that the scores on the SLI were significantly related to actual turnover experience and the validity of this measure was definitively supported (De Vos & Meganck, 2009). In making the determination to include this measure, numerous studies were reviewed and no challenges to the SLI's validity were located.

**Reliability.** The SLI possesses the ability to be temporarily anchored (Bluedorn, 1982b). This allows respondents to focus on a specified time period for predicting future behavior. Moreover, researchers are able to utilize a shortened form of the entire eight items with minimal decline in reliability (Bluedorn, 1982b). In a 2009 study investigating psychological ownership and its effect on human performance in organizations, Avery, Avolio, Crossely, and Luthans applied the SLI as part of the study. Avery et al. (2009) reported an internal reliability for the scale of .93, and a positive relationship between intentions to stay and psychological ownership ( $r = .50$ ,  $p < .01$ ). In making the determination to include this measure, numerous studies were reviewed and no challenges to the SLI's reliability were located (Avery et al., 2009; Emami, Moradi, Idrus, Almutairi, 2012).

## **Ethical Considerations**

There are several ethical concerns in conducting quantitative non-experimental survey research. Ethical considerations regarding respect for persons, beneficence, and justice for study participants were key considerations in conducting the survey research. To ensure that all necessary precautions are in place, the Capella University Internal Review Board (IRB) approved the research process prior to the beginning of the study.

The first ethical consideration is that this survey research will involve human participants. Survey participants were treated respectfully and had autonomy in that they took the survey online and independently from any undue influence that could have been inflicted by being in the presence of the researcher. In addition to autonomy, it is the priority of the researcher to ensure beneficence for all survey participants. All potential risks were minimized or eliminated prior to the start of the survey as to minimize risk to the survey participants. All participants will view the Informed Consent form prior to being allowed to complete the survey. Finally, the survey research was designed to use existing qualified measures. This helps to maintain justice for survey research participants in that the survey questions were all formatted in a way to promote fairness among the participants.

An additional ethical consideration is to ensure that the sample size is representative of the population being studied. G\*Power analysis was performed to determine the minimum sample size for this survey research to be a minimum of 89 qualified participants who meet the criteria and complete the survey. A further ethical consideration is that the proposed research strategy is implemented effectively and correctly without deviation. It was the responsibility of this researcher to verify that the research plan is followed accurately and that no short cuts are taken.

The data collected during this study was maintained on the researcher's personal laptop and backed up on an encrypted USB drive. The encrypted USB drive has been stored in a fire proof safe and all data will be electronically deleted and physically destroyed by breaking and burning the USB drive at the end of the seven year hold period.

### **Summary**

This chapter explained and supported the use of the quantitative, non-experimental, correlational research method to determine if LMX quality influences an IT worker's organizational commitment, job satisfaction, and turnover intentions. The research design used survey data collected online from a sample frame of IT workers over the age of 22, who are currently employed in the U.S., and who have been with their organization for a minimum of two years. Four existing and validated measures were combined to create one comprehensive survey to test the research questions and hypotheses. The online survey was administered via Qualtrics.com with a total of 91 questions. The 91 questions included three screening questions, two speed checking questions, and the one acceptance question that the participant selects to launch the survey. Participant responses were purchased from Qualtrics Panels. The Informed Consent was a required portion of the survey that educated participants of the potential risks and benefits they might encounter as a result of their participation in the survey, as well as the steps taken by the researcher to protect participant confidentiality and rights. The tools and techniques used to analyze the data were also reviewed. Results of the data analysis are reported in Chapter 4.

## CHAPTER 4. RESULTS

Chapter 4 presents a detailed analysis of the research data obtained for this study. The purpose of this non-experimental research study was to determine if the quality of an IT worker's LMX impacts his organizational commitment, job satisfaction, and turnover intentions. This survey research will examine the independent variable of LMX quality as it influences the dependent variables of organizational commitment, job satisfaction, and turnover intentions. The data for this survey research study was obtained from participant responses purchased from Qualtrics Panels through the use of the Qualtrics survey research tool. In the following sections, the background of the study is reviewed, as well as a description of the sample, details on the hypothesis testing, and finally a summary of the results is provided.

### Background

The leader–member exchange (LMX) theory of leadership (Dansereau et al., 1975) suggests that an employee's position is influenced directly by the quality of the relationship he or she shares with his or her leader (Graen, 1976; Graen & Scandura, 1987). Supervisor-subordinate relationships have been found to be related to organizational commitment (Ariani, 2012; Casimir et al., 2014; Garg & Dhar, 2014; Kark et al., 2011; Luo et al., 2014; Windler & Riemenschneider, 2013), job satisfaction (Ariani, 2012; Rockstuhl et al., 2012; Schyns et al., 2007), and turnover (Agarwal et al., 2012; Harris et al., 2014; Vidyarthi et al., 2014). LMX quality has been found to influence both organizational commitment and turnover intentions (Gumbo, 2015; Islam et al., 2013) and, separately, job satisfaction (Ariani, 2012).

In a 2013 study investigating relationships among organizational learning culture, LMX quality, organizational commitment and turnover intentions, Islam, et al., (2013) note that there has been little study on the relationship between LMX and organizational commitment. Windler and Riemenschneider (2013) conducted survey research to determine how various forms of mentoring and LMX contribute to organizational commitment for IT workers and state that there is a need to understand drivers of organizational commitment for IT workers. An examination of leadership style and employee turnover intentions completed by Liu, Cai, Li, Shi, and Fang (2013) acknowledges that LMX influences an employee's turnover intentions; however, no existing research is noted as contributing to this assumption.

The proposed research study will add to existing literature by enabling organizational leaders to better understand how LMX quality influences organizational commitment, job satisfaction, and turnover intentions. By examining how LMX quality influences an IT worker's organizational commitment, job satisfaction, and turnover intentions, organizational leaders could have the opportunity to modify turnover behaviors (Leip & Stinchcomb, 2013), or increase organizational commitment and job satisfaction by surveying LMX quality in the workplace and making adjustments in situations of low or negative LMX quality. These adjustments could be adding in positive training programs or other methods to increase the LMX quality of supervisor and employee relationships.

### **Description of the Sample**

In the following sections, the reliability of the sample is established to prove the internal consistency of the survey. Following this, the reliability of the sample is presented. Next, the sample demographics are discussed and reviewed. Finally, LMX analysis is provided to both

establish the LMX score needed to analyze the hypotheses used in this dissertation research, as well as to validate LMX quality as a good predictor value for the basis of this research.

### **Reliability Statistics**

The IBM Statistical Package for the Social Sciences (SPSS) v.24.0 was used in this research study to calculate the statistics for the survey results. The SPSS summaries include mean, median, and standard deviation values. Reliability analysis of the survey instrument was conducted on the 77 survey questions using SPSS v.24.0.

The survey instrument used in this survey research collected the following information: LMX quality using Graen and Uhl-Bien's (1995) LMX-7 survey; organizational commitment, to include affective, continuance and normative commitment using Meyer and Allen's (2004) TCM Employee Commitment Survey; job satisfaction utilizing Spector's (1997) JSS; and turnover intentions using Bluedorn's (1982) Staying or Leaving Index (SLI). The goal was to determine the internal consistency of the survey instrument. Table 1 shows the results of the reliability analysis. A Cronbach alpha of .952 was reported which indicates a very high level of internal consistency for the survey.

Table 1 - Reliability Statistics

Cronbach's Alpha	N of Items
.952	77

### **Sample Reliability**

Survey responses were obtained from Qualtrics Panels. In total, 104 participants successfully completed the survey. In working with Qualtrics Panels, the survey was soft-launched until 10% of the 100 purchased surveys were completed. During the soft-launch phase of the data collection, the median completion time was established. The Qualtrics Panels team



then added in a “speed check” that automatically disregarded all surveys that were completed in less than 1/3 of the average completion time for the remainder of the data collection. The median speed recorded during the soft launch was nine minutes, which established a speed check time of three minutes. Consequently, any survey that was completed in three minutes or less was not included in the results.

It was observed during the soft-launch that even with the required 76 survey questions, additional three screening questions, the Informed Consent form, and the electronic acceptance question, some participants were still completing the survey in less than four minutes. During the survey creation phase of the research, the researcher estimated a fast response time of eight minutes, and an average response time of 18 minutes. Seeing surveys completed in less than eight minutes was a concern for the researcher. As a result of this concern, the Qualtrics Panels team added in two “attention check” questions to the survey.

These attention tests served as a pass/fail for the participants. If the participant responded incorrectly to either one of the two attention check questions their survey would end immediately, they would not be allowed to complete the remainder of the survey, and their partial submission was not included in the final result set. After the two attention checks were added the average response time increased to over 15 minutes, which was much more in keeping with the researcher’s anticipated results.

### **Sample Demographics**

Research participants were required to respond to five demographics questions as part of their survey participation. These demographics were necessary to gain an understanding of how the sample for this research was composed. To enable categorization of the demographic data, a statistical code ranging from 1-7 was assigned to each response. Please see Table A1 in

Appendix A for the list of responses and corresponding statistical codes. Table 2 provided below summarizes the descriptive statistics of the survey responses.

Table 2 - Descriptive Statistics

Demographic	Number	Minimum	Maximum	Mean	Std Deviation
Gender	104	1	2	1.43	0.498
Age	104	1	5	1.93	0.884
Years with Current Organization	104	2	5	2.68	0.862
Size of Organization	104	1	7	2.97	1.610
Education Level	104	1	6	3.56	1.139

In total, 104 qualified respondents completed the survey. Qualified respondents were those participants that were identified by Qualtrics Panels as IT workers, over the age of 22 years old, who are currently working in the United States of America, and have been working at their current organization for two years or more. All 104 completed surveys were included in the analysis. Table 3, on the next page, provides an overview of the participant demographics.

Table 3 - Participant Demographics

Variables	Type	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	59	56.7	56.7	56.7
	Female	45	43.3	43.3	100.0
	Total	104	100.0	100.0	
Age	23-29	36	34.6	34.6	34.6
	30-39	46	44.2	44.2	78.8
	40-49	16	15.4	15.4	94.2
	50-59	5	4.8	4.8	99.0
	60 or older	1	1.0	1.0	100.0
	Total	104	100.0	100.0	
Years with Current Organization	Fewer than 2 Years	0.0	0.0	0.0	0.0
	2-5 Years	53	51.0	51.0	51.0
	6-10 Years	38	36.5	36.5	87.5
	11-15 Years	6	5.8	5.8	93.3
	More than 15 Years	7	6.7	6.7	100.0
	Total	104	100.0	100.0	
Size of Organization	0-300	20	19.2	19.2	19.2
	301-1000	29	27.9	27.9	47.1
	1001-3000	21	20.2	20.2	67.3
	3001-10,000	15	14.4	14.4	81.7
	10,001-20,001	7	6.7	6.7	88.5
	More than 20,000	11	10.6	10.6	99.0
	Do not know	1	1.0	1.0	100.0
	Total	104	100.0	100.0	
Level of Education	High School/GED	6	5.8	5.8	5.8
	Some College	16	15.4	15.4	21.2
	Associates	15	14.4	14.4	35.6
	Bachelors	49	47.1	47.1	82.7
	Masters	17	16.3	16.3	99.0
	PhD	1	1.0	1.0	100.0
	Total	104	100.0	100.0	

The distribution by gender showed a fairly balanced male/female response. The male population accounted for 56.7% and the female population accounted for 43.3% of the responses. The majority of the respondents fell within the mean age range of 30-39 years old (44.2%) followed by the 23-29 years old respondents (43.6%) totaling 78.8% of the respondents.

The majority of the respondents have worked for their current organization for 2-5 years (51.0%) and 6-10 years (36.5%); totaling 87.5% of the respondents. Most of the respondents worked for an organization that employed between 301 and 1,000 employees (27.9%). The majority of the respondents held a bachelor's degree (47.1%), with a total of 63.4% of the respondents holding a bachelor's degree or higher.

### LMX Analysis

LMX quality was determined by evaluating the LMX-7 results as explained by Graen and Uhl-Bien (1995). The LMX-7 measures the perceived quality of an employee's relationship with their supervisor. Participants respond to the LMX-7 using five point Likert-type questions. The LMX questions were the first section of the survey.

The LMX-7 is individually scored using the following guideline: very high = 30–35, high = 25–29, moderate = 20–24, low = 15–19, and very low = 7-14 (Graen & Uhl-Bien, 1995). High scores note high-quality LMX. Low scores indicate low-quality LMX. Overall, this study reported a mean LMX quality of 27.12 for the 104 responses. This is in the range of high-quality LMX. The lowest score was a 10, and the highest score was a 35. The LMX quality statistics are listed in Table 4.

Table 4 - LMX Quality Statistics

Variable: LMX		
N	Valid	104
	Missing	0
	Mean	27.12
	Median	28.00
	Mode	26 <sup>a</sup>
	Std. Deviation	5.739
	Minimum	10
	Maximum	35

a. Multiple modes exist. The smallest value is shown.

The demographics on LMX quality present a slightly higher mean in women (27.18) than men (27.07). Age analysis shows the highest level of LMX quality is reported in the 50-59 age group (28.60), with the next highest group reporting as the 40-49 age group (27.88). The highest level of LMX quality for time with the organization was 11-15 years (32.00), followed by 6-10 years (27.16). Organization size indicates the highest LMX quality with one IT worker who does not know their organization size. Admittedly, this is an outlier and the next highest LMX quality is found in IT workers that work in companies with 301-1,000 employees (27.69), while the lowest LMX quality was reported at organizations with 10,000-20,000 employees (25.86). Finally, IT workers who had a master's degree reported the highest overall LMX quality (28.53), followed by the second highest score of IT workers with some college (27.75).

In evaluating if LMX quality makes a good predictor variable for this study, the first step was to look for possible skewness of the data, which is shown in Table 5.

Table 5 - Skewness Evaluation

		LMX Score	AC Score	CC Score	NC Score	JSS Score	SLI Score
N	Valid	104	104	104	104	104	104
	Missing	0	0	0	0	0	0
Skewness		-.696	-.310	-.415	-.075	-.044	-.187
Std. Error of Skewness		.237	.237	.237	.237	.237	.237

LMX quality did display skewness towards high scores. A Pearson Correlation as well as a Spearman Correlation was completed for further analysis. As a result of the correlation analysis, it can be seen that the non-normality of the LMX distribution is not impacting the results. The parametric and nonparametric results are consistent. Furthermore, a significant result is apparent between LMX quality and affective commitment (AC), job satisfaction (JSS), and turnover intentions (SLI).

It is also important to this research to determine that none of the demographic variables influenced the LMX quality to the point of impacting the research study. An additional Spearman's correlation analysis was run to assess if LMX quality was independent of the demographic variables (Please see Table A4 in Appendix A). The Spearman's Correlation supports the use of LMX quality and confirms that LMX quality is stable across all of the demographic categories. Finally, an independent t-test was completed on the male and female participants.

Table 6 - T-Test for Male vs. Female LMX Quality Results (Group Statistics)

	Gender	N	Mean	Std. Deviation	Std. Error Mean
LMX Score	Male	59	27.07	5.561	.724
	Female	45	27.18	6.028	.899

Table 7 - T-Test for Male vs. Female LMX Quality Results (Independent Samples Test)

		Levene's Test for Equality of Variances		t-test for Equality of Means				95% Confidence Interval of the Difference		
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	Lower	Upper
LMX Score	Equal variances assumed	.850	.359	-	102	.923	-.110	1.141	-2.374	2.154
	Equal variances not assumed			-	90.683	.924	-.110	1.154	-2.402	2.182

The Independent Samples T-Test showed virtually no difference in the LMX quality of men vs. women. This relationship is summarized:  $T = (102) = -.096, P = .923$ . This also proves that gender is not significant for LMX quality.

### **Hypothesis Testing**

Hypotheses were evaluated using regression analysis. The following results were obtained:

**Ha Results:** There is a significant relationship between the quality of an employee's relationship with his supervisor as measured by LMX-7 and his organizational commitment as measured by the Three Component Model (TCM). Three tests were conducted on the organizational commitment results to determine the affective commitment (AC), normative commitment (NC), and continuance commitment (CC). The AC relationship is summarized by:  $F(1,102) = 8.438, P = .005$  which shows significance. The CC relationship is summarized by:  $F(1,102) = .002, P = .960$  which does not show significance. The NC relationship is summarized by:  $F(1,102) = 1.963, P = .164$  which shows significance. Evidence was found to reject  $H_{a0}$ . Thus,  $H_{a1}$  was supported.

**Hb Results:** There is a significant relationship between the quality of an employee's relationship with their supervisor as measured by LMX-7 and his job satisfaction as measured by Spector's (1994) Job Satisfaction Survey (JSS). This relationship is summarized by:  $F(1,102) = 47.466, P = .000$ . Evidence was found to reject  $H_{b0}$ . Thus,  $H_{b1}$  was supported.

**Hc Results:** There is a significant relationship between the quality of an employee's relationship with their supervisor as measured by LMX-7 and his turnover intentions as measured by the Staying or Leaving Index (SLI). Evidence was found to reject  $H_{c0}$ . Thus,  $H_{c1}$  was supported.

## Details of the Analysis

**Hypothesis One.** Hypothesis one was answered by evaluating the LMX-7 results as explained by Graen and Uhl-Bien (1995), and Meyer and Allen's (2004) TCM Employee Commitment Survey. Organizational commitment results were evaluated using Meyer and Allen's (2004) Three-Component Model (TCM) Employee Commitment Survey. Each of the organizational constructs used to answer the first research question were answered using the full TCM survey with all 24 interval level Likert-type survey questions. The TCM is unique in that it measures employee organizational commitment using three individual components. In this research study, section one is affective commitment (AC), which is an employee's desire-based commitment, section two is normative commitment (NC), which is an employee's obligation-based commitment, and section three is continuance commitment (CC), which is an employee's cost-based commitment. The scales are well validated (Meyer & Allen, 2004).

Meyer and Allen (2004), note that employees with a high AC score stay with their organization because they want to; employees with a high NC score stay with their organization because they feel they should; and employees with a high CC score stay because they have to. The ideal employee commitment profile would include a high (above midpoint) AC score, and a low (below midpoint) CC score (Meyer & Allen, 1991, 2004; Meyer & Herscovitch, 2001).

Following the instructions set forth by Meyer and Allen (2004), affective, continuance, and normative commitment used the following response scale: 1 – Strongly Disagree, 2 – Disagree, 3 – Slightly Disagree, 4 – Undecided, 5 – Slightly Agree, 6 – Agree, and 7 – Strongly Agree. The TCM required reverse scoring of the questions listed in Table 8.



Table 8 - Organizational Commitment Questions to be Reverse Scored

AC	CC	NC
4, 5, 6, 8	1, 4	2, 3, 8

Once reverse scoring was completed, the responses for each construct were averaged into a single score for that construct. This was repeated for each of the 104 completed surveys.

TCM does not include printed scoring guidelines within the research. Meyer and Allen (2004) include instructions that scores for the components should be individually averaged for each component. As a result, each component score should range from 1-7. Meyer and Allen (2004) note that stronger commitment is indicated by higher scores. This researcher has defined the organizational mid-point as being 3.5. All organizational commitment scores over 3.6 are considered as in the high range, and scores under 3.4 are considered in the low range. Overall, this study reported a mean AC score of 4.77 (high), a mean CC score of 4.65 (high), and a mean NC score of 4.32 (high) for the 104 responses.

**Affective Commitment.** The affective commitment (AC) results are reviewed first with Table 9 listing a summary of the AC results overall.

Table 9 - Affective Commitment Scale Results

Variable: Affective Commitment Score		
N	Valid	104
	Missing	0
	Mean	4.7787
	Median	4.8800
	Mode	3.88 <sup>a</sup>
	Std. Deviation	1.25149
	Minimum	1.38
	Maximum	7.00

a. Multiple modes exist. The smallest value is shown.

The results of the affective commitment analysis indicate above the mid-point levels of organizational commitment in IT workers. This shows that for this sample the average IT worker stays at his organization because he wants to.

The demographics also present a higher mean level of AC in men (5.21) than women (4.20). Additionally, the highest level of AC was in the 60 or older age group (5.63), and the next highest level of AC was found in the 40-49 age group (4.87). The highest level of AC for time with the organization was 11-15 years (5.33), followed by 6-10 years (4.84). Organization size indicates that IT workers in smaller organizations of 301-1,001 workers have higher AC (5.02), while the lowest AC was reported at organizations with more than 20,000 employees (4.49). Finally, IT workers with some college had the highest mean AC (5.03), followed by the second-highest score of IT workers with an associate's degree (4.95).

Regression analysis shows a significant relationship between LMX quality and affective commitment (AC).

Table 10 – Affective Commitment Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.276 <sup>a</sup>	.076	.067	1.20861

a. Predictors: (Constant), LMX Score

Table 11 - Regression Analysis ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	12.326	1	12.326	8.438	.005 <sup>b</sup>
	Residual	148.996	102	1.461		
	Total	161.322	103			

a. Dependent Variable: AC Score  
b. Predictors: (Constant), LMX Score

The adjusted R square equals 6.7% total variability in the model between LMX quality and affective commitment. The value for R also matches the result from the Pearson Correlation.

The R square and Adjusted R square are close in range and do not display a large gap.

The ANOVA results support this model having explanatory power. This relationship is summarized by:  $F(1,102) = 8.438, P = .005$ .

**Continuance Commitment.** The continuance commitment (CC) results are reviewed next with Table 12 listing a summary of the CC results overall.

Table 12 - Continuance Commitment Scale Results

Variable: Continuance Commitment Score		
N	Valid	104
	Missing	0
	Mean	4.6592
	Median	4.7500
	Mode	4.88
	Std. Deviation	1.01005
	Minimum	2.13
	Maximum	7.00

The results of the continuance commitment analysis indicate above the mid-point (4.65) levels of organizational commitment in IT workers. This shows that for this sample the average IT worker stays at their organization because they feel as though they have to.

The demographics for continuance commitment (CC) also present a higher mean level of CC in men (4.70) than women (4.50). Additionally, the highest level of CC was in the 60 or older age group (5.75), and the next highest level of CC was found in the 23-29 age group (4.86). The highest level of CC for time with the organization was more than 15 years (5.21), followed by 2-5 years (4.66). Organization size indicates that IT workers in smaller organizations of 301-1,001 have higher CC (4.97), while the lowest CC was reported by IT workers that did not know

the size of their organization (4.00). In reviewing education levels, IT workers with some college had the highest mean CC (5.01), followed by the second highest score of IT workers with their associates degrees (4.97).

Regression analysis does not show a significant relationship between LMX quality and continuance commitment (CC). Continuance commitment occurs when an employee stays with an organization because they feel as though they have to remain there (Meyer & Allen, 2004).

Table 13 - Continuance Commitment Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.005 <sup>a</sup>	.000	-.010	1.01498

a. Predictors: (Constant), LMX Score

Table 14 - Continuance Commitment Regression Analysis ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.003	1	.003	.002	.960 <sup>b</sup>
	Residual	105.078	102	1.030		
	Total	105.081	103			

a. Dependent Variable: CC Score  
b. Predictors: (Constant), LMX Score

The adjusted R square equals -1% total variability in the model between LMX quality and affective commitment (AC). The value for R also matches the result from the Pearson Correlation.

The ANOVA results do not support this model having explanatory power. This relationship is summarized by:  $F(1,102) = .002, P = .960$ .

**Normative Commitment.** The normative commitment (NC) results are reviewed last with Table 15 listing a summary of the NC results overall.

Table 15 - Normative Commitment Scale Results

Variable: Normative Commitment Score		
N	Valid	104
	Missing	0
	Mean	4.3210
	Median	4.3800
	Mode	4.25
	Std. Deviation	1.08100
	Minimum	2.13
	Maximum	7.00

The results of the normative commitment analysis indicate above the mid-point (4.32) levels of organizational commitment in IT workers. For this sample the average IT worker stays at their organization because they feel as though they should.

The demographics for normative commitment (NC) also present a higher mean level of CC in men (4.82) than women (3.66). Additionally, the highest level of NC was in the 60 or older age group (4.88), and the next highest level of NC was found in the 50-59 age group (4.55). The highest level of NC for time with the organization was in the 11-15 years group (4.77), followed by 6-10 years (4.41). Organization size indicates that IT workers in smaller organizations of 301-1,001 have higher NC (4.49), while the lowest NC was reported by IT workers that work at organizations with 10,001-20,000 employees (4.01). IT workers with associate's degrees report the highest NC (4.75), the lowest NC was reported by one participant with a PhD (3.38).

Regression analysis shows a significant relationship between LMX quality and normative commitment (NC).

Table 16 - Normative Commitment Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.137 <sup>a</sup>	.019	.009	1.07598

a. Predictors: (Constant), LMX Score

Table 17 - Normative Commitment Regression Analysis ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.272	1	2.272	1.963	.164 <sup>b</sup>
	Residual	118.089	102	1.158		
	Total	120.361	103			

a. Dependent Variable: NC Score  
b. Predictors: (Constant), LMX Score

The adjusted R square equals 2% total variability in the model between LMX quality and normative commitment. The value for R also matches the result from the Pearson Correlation.

The R square and Adjusted R square are close in range and do not display a large gap.

The ANOVA results support this model having explanatory power. This relationship is summarized by:  $F(1,102) = 1.963$ ,  $P = .164$ .

In summary, organizations want to see high commitment numbers (over 3.5) on an employee's affective commitment (AC), which is his desire to remain at an organization because he wants to be there (Meyer & Allen, 2004). Organizations also want to see high numbers on an employee's normative commitment (NC), which occurs when an employee stays with an organization because he feels like he should stay (Meyer & Allen, 2004). Organizations generally want to see low (under 3.5) numbers on an employee's continuance commitment (CC), which is their cost-based decision to remain with the organization (Meyer & Allen, 2004).

This study finds that in the IT worker sample surveyed, affective commitment scores were the highest (4.77), which indicates a positive relationship for those IT workers and their

organizations. Continuance commitment also reflected a high score (4.65) for the IT worker sample surveyed, which indicates many IT workers stay with their organizations due to the cost of leaving. These maybe economic costs such as loss of salary, benefits, or work from home privileges; or social costs such as friendships or networking privileges afforded by work connections. Finally, the normative commitment was reported with the lowest results of 4.32, but that is still considered to be a high number since it is above the mid-point of 3.5. This result indicates that IT workers feel an obligation to stay with their organizations and do so.

Table 18 - Organizational Commitment Totals

		Affective Commitment (AC)	Continuance Commitment (CC)	Normative Commitment (NC)
N	Valid	104	104	104
	Missing	0	0	0
Mean		4.7787	4.6592	4.3210
Median		4.8800	4.7500	4.3800
Mode		3.88 <sup>a</sup>	4.88	4.25
Std. Deviation		1.25149	1.01005	1.08100
Minimum		1.38	2.13	2.13
Maximum		7.00	7.00	7.00

a. Multiple modes exist. The smallest value is shown

Regression analysis also supports two out of the three components as having a significant relationship with LMX quality. The results of this hypothesis test find that a significant relationship exists between LMX quality and organizational commitment as measured by the TCM scale.

**Hypothesis Two.** Hypothesis two was answered by evaluating the LMX-7 results as explained by Graen and Uhl-Bien (1995), and Spector's (1994) Job Satisfaction Scale (JSS). The LMX-7 measures the perceived quality of an employee's relationship with his supervisor. The JSS is used to measure overall employee job satisfaction. The job satisfaction construct was

measured using the 36 interval level Likert-type survey questions. The JSS questions were the third section of the survey.

As was reported in research question one, the mean LMX quality score reported for this survey research was a 27.12 for the 104 survey responses. This is in the range of high-quality LMX.

Research question two will examine if LMX quality can be seen as an influencer of job satisfaction. Preliminary analysis would conclude that a high LMX score should also yield a high JSS score.

The constructs that make up the job satisfaction survey were measured as instructed by Spector's (1997) Job Satisfaction Survey: 1 – Disagree Very Much, 2 – Disagree Moderately, 3 – Disagree Slightly, 4 – Agree Slightly, 5 – Agree Moderately, and 6 – Agree Very much (Spector, 1994).

The JSS required reverse scoring of the questions listed in Table 19:

Table 19 – Job Satisfaction Scale Questions to be Reverse Scored

Negatively-worded Questions to be reverse scored:

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2, 4, 6, 8, 10, 12, 14, 16, 18, 19, 21, 23, 24, 26, 29, 31, 32, 34, 36

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Once reverse scoring was completed, the responses for each construct were averaged into a single score for that construct. This was repeated for each of the 104 completed surveys.

In reviewing the job satisfaction (JSS) results, Table 20 lists the JSS results overall.



Table 20 - Job Satisfaction Scale Results

JSS Score		
N	Valid	104
	Missing	0
Mean		147.97
Median		143.00
Mode		126 <sup>a</sup>
Std. Deviation		31.695
Minimum		70
Maximum		212

a. Multiple modes exist. The smallest value is shown

The results of the job satisfaction analysis indicate above the mid-point (147.97) levels of job satisfaction in IT workers. This shows that for this sample the average IT worker is experiencing a high level of job satisfaction.

The demographics on JSS present a higher mean in men (150) than women (145.31). Age analysis included in Table 25 shows that JSS increases with age overall with the highest JSS scores being reported for IT workers over age 50.

Table 21 - Job Satisfaction Score as Compared to Age of IT Workers

Age	Mean	N	Std. Deviation
23-29	142.97	36	29.217
30-39	149.67	46	31.999
40-49	149.19	16	39.593
50-59	160.20	5	20.945
60 or older	169.00	1	.
Total	147.97	104	31.695

Additionally, time with the organization also shows steadily increasing job satisfaction numbers with the most satisfied group being the IT workers who have been employed with their organizations for 11-15 years (169.00).

Table 22 - Job Satisfaction Score as Compared with Time with Organization

Time With Organization	Mean	N	Std. Deviation
2-5 Years	141.40	53	29.888
6-10 Years	152.11	38	35.988
11-15 Years	169.00	6	13.342
More than 15 years	157.29	7	18.300
Total	147.97	104	31.695

Organization size responses reported the highest JSS scores for organizations that had 301-1,000 employees (151.90). The lowest JSS scores were reported at organizations with more than 20,000 employees (140.36). Finally, IT workers with no higher education reported the highest mean of JSS (161.17), followed by IT workers with their masters degrees (150.65).

The JSS scale can be further broken down into nine subcategories of job satisfaction as listed in Table 23.

Table 23 - Subcategories for Job Satisfaction

Scale:	Question Numbers:
Pay (Pay)	1, 10, 19, 28
Promotion (Promo)	2, 11, 20, 33
Supervision (Super)	3, 12, 21, 30
Fringe Benefits (FB)	4, 13, 22, 29
Contingent Rewards (CR)	5, 14, 23, 32
Operating Conditions (OC)	6, 15, 24, 31
Coworkers (Cowo)	7, 16, 25, 34
Nature of work (NOW)	8, 17, 27, 35
Communication (Comm)	9, 18, 26, 36

The JSS results were sorted into the recommended groupings for each subcategory as noted in Table 23, and each category was totaled to find the individual scores for the subcategories. Once the totals were found for the subcategories, all of the subcategory totals were added together to find the total JSS score for each of the 104 responses.

Table 24 - Analysis of JSS Subcategories

	Pay	Promo	Super	FB	CR	OC	Cowo	NOW	Comm
N Valid	104	104	104	104	104	104	104	104	104
Missing	1	1	1	1	1	1	1	1	1
Mean	15.2308	15.0673	18.6154	15.7212	15.4808	14.7404	17.9615	18.5096	16.6442
Median	15.0000	15.0000	19.0000	16.0000	15.0000	14.0000	18.0000	19.0000	16.5000
Mode	14.00	15.00	24.00	14.00	13.00	14.00	20.00	15.00 <sup>a</sup>	15.00 <sup>a</sup>
Std. Deviation	4.74645	4.57147	4.58640	4.58460	4.96000	4.01211	4.00709	3.83645	4.54731
Minimum	4.00	4.00	5.00	4.00	4.00	4.00	6.00	10.00	5.00
Maximum	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00	24.00

a. Multiple modes exist. The smallest value is shown..

As shown in Table 24, supervision has the highest total (18.61), indicating that the majority of IT workers are satisfied with their supervisor. This score is closely followed by nature of work, which indicates that IT workers are pleased with their jobs.

Regression analysis shows a significant relationship between LMX quality and job satisfaction (JSS) does exist.

Table 25 - Job Satisfaction Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.564 <sup>a</sup>	.318	.311	26.311

a. Predictors: (Constant), LMX Score.

Table 26 - Job Satisfaction Regression Analysis ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	32859.214	1	32859.214	47.466	.000 <sup>b</sup>
	Residual	70611.700	102	692.272		
	Total	103470.914	103			

a. Dependent Variable: JSS Score.

b. Predictors: (Constant), LMX Score.

The adjusted R square equals 32% total variability in the model between LMX quality and job satisfaction. The value for R also matches the result from the Pearson Correlation. The R square and Adjusted R square are close in range and do not display a large gap. The ANOVA results support this model having explanatory power. This relationship is summarized by:  $F(1,102) = 47.466, P = .000$ .

This analysis does support that a significant relationship exists between LMX quality and job satisfaction, thereby proving the hypothesis.

**Hypothesis Three.** Hypothesis number three was answered by evaluating the LMX-7 results as explained by Graen and Uhl-Bien (1995), and Bluedorn's (1982b) Staying and Leaving Index (SLI). The LMX-7 measures the perceived quality of an employee's relationship with their supervisor. The SLI is used to measure intentions to stay or leave an organization in the near future (Bluedorn, 1982). The SLI is composed of two individual sets of four questions. Respondents answer on a seven point Likert scale: 1=Terrible, 2=Bad, 3=Not so good, 4=So-so, 5=Good, 6=Very good, 7=Excellent. The lowest possible score for this instrument is eight, with the highest possible score a 56. The higher the employee's score is, the more likely it is that the participant will leave the organization.

As was reported in research questions one and two, the mean LMX quality score reported for this survey research was a 27.12 for the 104 survey responses. This is in the range of high-quality LMX. Research question three will examine if LMX quality can be seen as an influencer of turnover intentions. Preliminary analysis would conclude that a high LMX score should also yield a high SLI score.

In reviewing the turnover intentions (SLI) results, table 31 lists the SLI results overall.

Table 27 - Turnover Intentions Scale Results

SLI Score		
N	Valid	104
	Missing	0
Mean		21.99
Median		23.00
Mode		32
Std. Deviation		9.982
Minimum		8
Maximum		47

The results of the turnover intentions analysis indicate below the mid-point (21.99/28) mean levels of turnover intentions in IT workers. This shows that for this sample the average IT worker does not intend to leave their organization in the near future. Furthermore, the low SLI numbers indicate that the IT workers have low intentions of leaving their organizations within the next two years.

The demographics on SLI present a slightly higher mean in men (23.03) than women (20.62). Age analysis shows the SLI score decreasing with age as documented in Table 28..

Table 28 - SLI Age Analysis

Age	Mean	N	Std. Deviation
23-29	24.42	36	10.157
30-39	21.46	46	10.182
40-49	19.75	16	9.147
50-59	19.20	5	7.396
60 or older	9.00	1	.
Total	21.99	104	9.982

Time with the organization also shows a trend of SLI scores decreasing the longer an employee is with an organization as displayed in Table 29.

Table 29 - SLI Analysis of Time with Organization

Time With Organization	Mean	N	Std. Deviation
2-5 Years	24.21	53	10.161
6-10 Years	21.13	38	9.718
11-15 Years	14.83	6	5.811
More than 15 years	16.00	7	8.000
Total	21.99	104	9.982

Organization size indicates reported the highest SLI scores are found in IT workers that work in companies with more than 20,000 employees (28.09), while the lowest SLI scores were reported by IT workers at organizations with 0-300 employees (19.75). Finally, IT workers with their associate's degrees reported the lowest SLI (16.73), and the highest overall SLI was from the group of IT workers who had their bachelor's degrees (23.14).

Regression analysis shows a significant relationship between LMX quality and turnover intentions.

Table 30 - Turnover Intentions Regression Analysis Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.383 <sup>a</sup>	.146	.138	9.267

a. Predictors: (Constant), LMX Score.

Table 31 - Turnover Intentions Regression Analysis ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1502.688	1	1502.688	17.496	.000 <sup>b</sup>
	Residual	8760.302	102	85.885		
	Total	10262.990	103			

a. Dependent Variable: SLI Score.

b. Predictors: (Constant), LMX Score.

The adjusted R square equals 14% total variability in the model between LMX quality and turnover intentions. The value for R also matches the result from the Pearson Correlation. The R square and Adjusted R square are close in range and do not display a large gap.

The ANOVA results support this model having explanatory power. This relationship is summarized by:  $F(1,102) = 17.496$ ,  $P = .000$ .

This analysis does support that a significant relationship exists between LMX quality and turnover intentions proving the hypothesis.

### **Summary**

Chapter 4 contains a presentation of the data and analysis gathered that supports Research Question One, Research Question Two, and Research Question Three. Research Question One proves that there is a significant relationship between LMX quality and organizational commitment. Three components were used to assess the results to this question and it was found that affective commitment (AC) has the most significant relationship with LMX quality, followed by normative commitment (NC). Continuance commitment (CC) presented with a negative relationship with LMX quality; however, as stated by the authors, continuance commitment should display with lower numbers when measuring employees that are content and not anticipating leaving their organizations (Meyer & Allen, 2004).

Research Question Two proves that there is a significant relationship between LMX quality and job satisfaction. Out of the nine aspects used to measure job satisfaction, the data supports that supervision (18.61) is the highest area of satisfaction with the IT workers who participated in the research. This further supports that LMX quality is a critical aspect of an employee's work environment.

Research Question Three proves that there is a significant relationship between LMX quality and turnover intentions. The overall SLI score indicates that the IT workers who participated in the research do not intend to leave their organizations in the near future.



## **CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS**

The purpose of this non-experimental survey research was to test if leader-member exchange (LMX) quality influences an IT workers organizational commitment, job satisfaction, and turnover intentions. This research would provide relevant information to supervisors and organizational leadership in an effort to retain IT workers. The study design employed a non-experimental, quantitative survey methodology to assess a sample of 104 IT workers. The IT worker responses were purchased from Qualtrics Panels and provided access to the survey once they consented to participate. The research hypothesis supported that significant relationships do exist between LMX quality and organizational commitment, job satisfaction, and turnover intentions.

Chapter 5 presents the results of the data analyzed in Chapter 4 as well as a discussion of the results. A summary of the results, discussion of the results, review of the researcher's conclusions based on the results, limitations of the research, implications for practice, recommendations for further research, and conclusions are presented.

### **Summary of the Results**

Chapter 4 consisted of a presentation of the survey results from IT workers, over the age of 22 years old, employed with their organization for more than two years, and working in the U.S. Overall, the Cronbach's Alpha scored at .952, which indicates a high level of internal consistency for the survey. Before conducting analysis on each of the three hypotheses, the first step was to evaluate the LMX quality of the IT workers who participated in the research survey.

Of the 104 IT workers that responded, the mean LMX quality reported was 27.12. As interpreted by Graen and Uhl-Bien (1995) scores from 25-29 are considered high. Skewness was evaluated and while the LMX scores did indicate a slight skew towards higher scores, Pearson and Spearman Correlations were run to verify that the non-normality of the LMX quality was not affecting the results. It was also verified that none of the demographic variables were influencing the LMX quality by running an additional Spearman's Correlation analysis to ensure independence of the LMX variable. Finally, an Independent T-test was run to verify that LMX quality was not significant based on gender. In this survey research the demographics are only used to describe the sample and not as controls. All tests confirmed that LMX quality is stable and provided strong support in the decision to use LMX quality as a predictor. The following sections will present summaries of the research results for each research question individually.

### **Research Question One**

Research Question One examined if a significant relationship existed between LMX quality and an IT worker's organizational commitment. Each of the three components of the Three Component Model (TCM) (Meyer & Allen, 2004) were examined. The results of this examination proved that a significant relationship exists between LMX quality and affective commitment (AC), which is an employee's desired, based commitment to remain with his organization. IT workers exhibited a high level of AC overall (4.77/7). Employees with high levels of affective commitment tend to perform at a higher level and stay with the organization because they want to be there (Meyer & Allen, 2004).

Continuance commitment (CC) also reported with a high mean score (4.65).

Continuance commitment is the cost based commitment scale that reflects an employee who feels like they must stay with the organization due to cost factors (Meyer and Allen, 2004).

Employees with a high level of continuance commitment typically perform to the minimum requirements of their job assignments (Meyer & Allen, 2004). A significant relationship was not recognized between LMX quality and continuance commitment (CC).

Finally, the last component of organizational commitment that was measured was normative commitment (NC). Normative commitment measures if employees stay with an organization because they feel that they should stay (Meyer & Allen, 2004). Normative commitment reported a high mean score as well (4.32) and showed a significant relationship with LMX quality. Regression analysis indicated a significant relationship between LMX quality and affective commitment (AC) and normative commitment (NC) that supported the hypothesis.

### **Research Question Two**

Research Question Two examined if LMX quality influences job satisfaction. The mean job satisfaction score reported was 147.97, which indicates that IT workers are satisfied with their jobs. The nine subscales of JSS were also reviewed and found that supervision has the highest mean total (18.61), followed by nature of work (18.50). Regression analysis indicated a significant relationship between LMX quality and job satisfaction, which supported the hypothesis.

### **Research Question Three**

Research Question Three examined if LMX quality influences turnover intentions. The mean score for an IT worker's turnover intentions as measured by Bluedorn's (1982) Staying or Leaving Index (SLI) was 21.99, which is below the median of 23.00. This indicated that IT workers have a low desire of leaving their current organization within the next two years.

Regression analysis indicated a significant relationship between LMX quality and turnover intentions which supported the hypothesis.

### **Discussion of the Results**

First, before examining each research question individually it is worth noting that the sample of IT workers who responded and completed the survey used in this dissertation research was regionally diverse. Craig, Allen, Reid, Riemenschneider, and Armstrong (2012) noted in their 2013 survey research on LMX and its relationship with mentoring, affective organizational commitment, job involvement, and turnover intentions of IT workers, that their research was limited by the data having been collected in a single state. Craig et al., recognized the threat of external validity from the small scope of the sample. This dissertation research study does not suffer from the same limitation as the Craig et al. (2012) study due to its including respondents from 35 of the 50 states, as well as one survey that was submitted from Washington, D.C. This analysis confirms that this respondent data represents a diverse group of IT workers from across the U.S. and not from any one state or region.

#### **Research Question One**

The first research question examined is if an IT workers LMX quality influences their organizational commitment. The LMX-7 was used to determine the IT workers level of LMX quality. The TCM was used to determine affective commitment (AC), continuance commitment (CC), and normative commitment (NC). The LMX results indicated that overall IT workers report a high level of LMX-quality with their supervisors. Overall, the TCM results indicate a significant relationship between affective commitment and LMX quality, as well as a significant relationship between normative commitment and LMX quality. This translates into IT workers being committed to their organizations both because they want to be there, and they feel an

obligation to be there. Continuance commitment also reported a high score, but not a significant relationship to LMX quality. Ideally, continuance commitment should report a low mean with happy and content IT workers. The fact that continuance commitment is reporting high is a potential area for exploration in that it indicates that IT workers are staying with their organizations for a mixture of the three reasons: they want to be there (affective commitment), they feel obligated to be there (normative commitment), as well as they have cost-based reasons for staying (continuance commitment). The results of the TCM scale indicated that older IT workers have the highest commitment levels to remain with their organizations, and IT workers at smaller sized companies of 300-1,000 employees have the highest levels of organizational commitment. This study indicates that there is a significant relationship between LMX quality and organizational commitment proving the hypothesis as valid.

### **Research Question Two**

The second research question examined is if an IT worker's LMX quality influences their job satisfaction. The JSS was used to determine the job satisfaction of IT workers. The mean JSS score was 147.97, which indicates a high level of job satisfaction in IT workers. The subscales of the JSS were also examined, and the IT worker results indicated that supervision (18.61) was the most important aspect of job satisfaction for IT workers. Following supervision was nature of the work (18.50), and the lowest category was operating conditions (14.74). Pay rated seventh on the scale (15.23). This study indicates that there is a significant relationship between LMX quality and job satisfaction proving the hypothesis as valid.

### **Research Question Three**

The third research question examined is if an IT worker's LMX quality influences their turnover intentions. The Bluedorn's (1982) Staying or Leaving Index (SLI) was used to

determine the turnover intentions of IT workers. The mean SLI score was 21.99 with indicates a high level of job satisfaction in IT workers. The results of this study indicate that IT workers do not have strong intentions of leaving their organizations within the next two years. Research on IT turnover and retention by Rouse (2001) finds that IT employees who are dissatisfied with their current employer seem to change jobs faster than employees outside of IT. This study indicates that there is a significant relationship between LMX quality and turnover intentions proving the hypothesis as valid.

### **Conclusions Based on the Results**

Examining how an IT worker's relationship with his supervisor influences the IT workers organizational commitment, job satisfaction, and turnover intentions has not been specifically studied to date. The research literature on the influence of LMX quality indicates that it is acknowledged that LMX influences job satisfaction (Abii et al., 2013), and it is acknowledged that leadership impacts an employee's organizational commitment and turnover intentions (Ali et al., 2014), but we do not yet know how LMX quality influences organizational commitment, job satisfaction, and turnover intentions. In a 2013 study investigating the relationship between organizational learning culture, LMX quality, organizational commitment and turnover intentions, Islam, ur Rehman Khan, Norulkamar Ungku Bt. Ahman, and Ahmed (2013), noted that little research on the relationship between LMX and organizational commitment existed. Additionally, Joo (2010) observed that finding studies that have organizational learning culture and LMX quality as antecedents of organizational commitment and turnover intentions is difficult.

This survey research study was designed to determine if an IT worker's LMX quality influences his organizational commitment, job satisfaction, and turnover intentions. While most

of these topics have been heavily researched in the last forty years, no one study exists that compares these variables with the measures used in this survey research study. Furthermore, the sample population of IT workers, particularly IT workers in the U.S. has been studied less frequently in research.

The primary focus of the study was the influence an IT worker's LMX quality had on the organizational commitment, job satisfaction, and turnover intentions. The main research questions were: (a) to what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his organizational commitment? The outcome of this research study concluded significant results indicating that IT workers feel committed to their organizations, and are staying with the organizations out of desire, cost, and obligation factors. (b) To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his job satisfaction? The outcome of this research study concluded significant results indicating that IT workers are satisfied with their current jobs, their supervisors, and the nature of the work that they do. (c) To what extent is there a significant relationship between the quality of an employee's relationship with his supervisor and his turnover intentions? The outcome of this research study concluded significant results indicating that IT workers have a low intention of leaving their organizations. Furthermore, according to the survey results the sample of IT workers surveyed are not looking to leave their current organizations in the near future.

### **Limitations**

The first limitation of this research was identified as the sample population of IT workers. By focusing specifically on IT workers, other occupations were excluded. It is possible that the results could be different if the population was not restricted by occupation.

The second limitation of this research was the size of the sample. The minimum required sample to run a successful study was 89 completed responses. Due to cost constraints, the researcher was only able to purchase 100 responses, and the Qualtrics Panels team included the additional four responses at no additional charge. While a small sample size does not limit generalizability, a larger sample may have yielded different results.

Use of an Internet survey is considered an access limitation (De Bernadardo & Curtis, 2013). Researchers are cautioned that 100% of the population is not guaranteed Internet access and therefore that limits the reach of Internet surveys. While Internet surveys are considered to be as reliable as traditional pen-and-paper surveys, Internet surveys currently do not present the same access for survey populations (Weigold et al., 2013).

Furthermore, the use of Qualtrics Panels for recruitment was a limitation in that 100% of the IT population was not invited to participate in the survey research. This limitation was due to the Qualtrics audience composition. While all participants were screened for eligibility, there is still the assumption that qualified participants exist that simply do not want to be a part of the Qualtrics Panels database, whether it is for privacy concerns, or simply that they are unaware that the service exists.

The final limitation noted was the design of the survey. The survey used in this non-experimental, quantitative research attempted to leverage the validity and reliability of previously validated measures, which is recommended by Swanson and Holton, 2005. Once the data collection was complete and analysis was underway, it became apparent to the researcher that 2-3 additional questions could have greatly clarified lingering questions with the organizational commitment results. While changing the previously validated measure was not



and is not the plan of this researcher, it is questionable if the inclusion of an additional measure would better clarify the normative and continuance commitment scores.

### **Implications for Practice**

By proving that a significant relationship exists between LMX quality and organizational commitment, job satisfaction, and turnover intentions for IT workers, organizations will be able to implement programs and training in an effort to assess LMX quality and make improvements where possible. In keeping with the results of this survey research, IT workers with high LMX quality, should exhibit high levels of affective commitment (AC) normative commitment (NC), job satisfaction, and low intentions of turnover. By working to identify employees with low-quality LMX, organizations can work to improve the employee's LMX quality and therefore also improve organizational commitment, job satisfaction, and turnover intentions.

### **Recommendations for Further Research**

The first recommendation for further research is to use a larger sample of IT workers. Having a larger sample size will increase generalizability and validity of the study findings. Additionally, having a larger sample will assist in balancing the sensitivity of the data and allow researchers more latitude to make inferences from the study data (Kane, 2011). Future research should be conducted using a larger sample.

The second recommendation for further research would be to examine a specific subset of IT workers, such as database administrators, software developers, business analysts, or helpdesk workers for example. This study cast a wide net and any IT worker was eligible to participate. By examining a specific group, the findings would be more industry specific and of a greater significance to organizations. Furthermore, even the addition of a demographic

question to isolate the IT worker's job designation would provide additional study information and further clarification for organizational leadership.

The third recommendation for further research would be to conduct a further examination of continuance commitment (CC). A deeper examination of continuance commitment would be beneficial in understanding why the sample surveyed exhibited higher than the mid-point means for all three of the organizational commitment components when previously completed research indicated that continuance commitment should have presented with lower numbers than affective commitment (AC) and normative commitment (NC) if the IT workers did not feel compelled to stay with the organization due to cost based factors (Meyer & Allen, 2004). The high scores on affective commitment (AC) and normative commitment (NC) indicate that the IT workers want to be with their organizations, as well as they feel obligated to remain with their organizations (Meyer & Allen, 2004). It would make a more complete research study to be able to better understand how the IT workers are exhibiting a high level of LMX quality, a high level of affective and normative commitment, high levels of job satisfaction and low levels of turnover intentions, yet still report that they feel that they have to remain with their organizations out of cost-based needs and no alternatives.

The final recommendation for further research would be to conduct a similar study that also includes a demographic for salary range. The inclusion of salary data would allow researchers to examine if there is a relationship between LMX quality and salary. Additionally, the inclusion of this information would also allow researchers to examine if high or low salary influences an IT workers organizational commitment, job satisfactions, and turnover intentions.

## Conclusion

This research study attempted to extend the available research on leader-member exchange theory (LMX) by examining if the LMX quality of IT workers influences their organizational commitment, job satisfaction, and turnover intentions. Extensive research has individually been conducted on LMX, organizational commitment, job satisfaction, and turnover intentions, along with several studies that mixed combinations of the variables. No one study was located that examined the LMX quality of IT workers and whether that LMX quality could be seen to influence the IT worker's organizational commitment, job satisfaction and turnover intentions. This study is significant in showing that a positive relationship does exist between the LMX quality of IT workers and their affective commitment (AC), normative commitment (NC), job satisfaction, and turnover intentions. This study also shows that while IT workers overall are committed and satisfied with high-quality relationships with their supervisors, they also feel that they have to remain with their organizations due to the cost of leaving.

This study contributes to the literature on leader-member exchange theory, organizational commitment, job satisfaction, turnover intentions and IT workers. As the recommendations for further research show, there is still a need for additional research to continue to fill gaps on understanding what influences the organizational commitment of IT workers. This need to better understand what influences the organizational commitment of IT workers is also documented by Windler and Riemenschneider in their 2013 survey research on LMX and its relationship with mentoring and organizational commitment of IT workers (Windler & Riemenschneider, 2013). In summary, retaining IT workers is important for organizations and can be particularly difficult in the field of IT, due to rapid growth and proliferation of technology (Carelton, 2011; Muo, 2013; Pobst, 2014). Enabling organizations to better understand the influence supervisors have

over an employee's organizational commitment, job satisfaction, and turnover intentions could lead to reduced turnover by enabling organizations to retain high valued IT employees as well as to fill in a gap in management literature.

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## STATEMENT OF ORIGINAL WORK

### Academic Honesty Policy

Capella University's Academic Honesty Policy ([3.01.01](#)) holds learners accountable for the integrity of work they submit, which includes but is not limited to discussion postings, assignments, comprehensive exams, and the dissertation or capstone project.

Established in the Policy are the expectations for original work, rationale for the policy, definition of terms that pertain to academic honesty and original work, and disciplinary consequences of academic dishonesty. Also stated in the Policy is the expectation that learners will follow APA rules for citing another person's ideas or works.

The following standards for original work and definition of *plagiarism* are discussed in the Policy:

Learners are expected to be the sole authors of their work and to acknowledge the authorship of others' work through proper citation and reference. Use of another person's ideas, including another learner's, without proper reference or citation constitutes plagiarism and academic dishonesty and is prohibited conduct. (p. 1)

Plagiarism is one example of academic dishonesty. Plagiarism is presenting someone else's ideas or work as your own. Plagiarism also includes copying verbatim or rephrasing ideas without properly acknowledging the source by author, date, and publication medium. (p. 2)

Capella University's Research Misconduct Policy ([3.03.06](#)) holds learners accountable for research integrity. What constitutes research misconduct is discussed in the Policy:

Research misconduct includes but is not limited to falsification, fabrication, plagiarism, misappropriation, or other practices that seriously deviate from those that are commonly accepted within the academic community for proposing, conducting, or reviewing research, or in reporting research results. (p. 1)

Learners failing to abide by these policies are subject to consequences, including but not limited to dismissal or revocation of the degree.



### Statement of Original Work and Signature

I have read, understood, and abided by Capella University's Academic Honesty Policy ([3.01.01](#)) and Research Misconduct Policy ([3.03.06](#)), including Policy Statements, Rationale, and Definitions.

I attest that this dissertation or capstone project is my own work. Where I have used the ideas or words of others, I have paraphrased, summarized, or used direct quotes following the guidelines set forth in the APA *Publication Manual*.

Learner name

and date Jennifer M. Hammonds, 08/12/2016

## APPENDIX A. TABLES

Table 32 - Statistical Codes for Gender, Age, Service, and Size of Organization

Demographics	Statistical Code
Gender (Male)	x=1
Gender (Female)	x=2
Age (23-29)	x=1
Age (30-39)	x=2
Age (40-49)	x=3
Age (50-59)	x=4
Age (60 or older)	x=5
Service (Fewer than 2 Years)	x=1
Service (2-5 Years)	x=2
Service (6-10 Years)	x=3
Service (11-15 Years)	x=4
Service (More than 15 Years)	x=5
Organization Size (0-300)	x=1
Organization Size (301-1000)	x=2
Organization Size (1001-3000)	x=3
Organization Size (3001-10,000)	x=4
Organization Size (10,001-20,001)	x=5
Organization Size (More than 20,000)	x=6
Organization Size (Do not know)	x=7
Education (High School/GED)	x=1
Education (Some College)	x=2
Education (Associates)	x=3
Education (Bachelors)	x=4
Education (Masters)	x=5
Education (PhD)	x=6

Table 33 - Pearson Correlation (Parametric)

		LMX Score	AC Score	CC Score	NC Score	JSS score	SLI score
LMX Score	Pearson Correlation	1	.276**	.005	.137	.564**	.383**
	Sig. (2-tailed)		.005	.960	.164	.000	.000
	N	104	104	104	104	104	104
AC Score	Pearson Correlation	.276**	1	.038	.596**	.269**	.242*
	Sig. (2-tailed)	.005		.700	.000	.006	.013
	N	104	104	104	104	104	104
CC Score	Pearson Correlation	.005	.038	1	.399**	-.051	-.017
	Sig. (2-tailed)	.960	.700		.000	.607	.863
	N	104	104	104	104	104	104
NC Score	Pearson Correlation	.137	.596**	.399**	1	.167	.119
	Sig. (2-tailed)	.164	.000	.000		.090	.227
	N	104	104	104	104	104	104
JSS Score	Pearson Correlation	.564**	.269**	-.051	.167	1	.592**
	Sig. (2-tailed)	.000	.006	.607	.090		.000
	N	104	104	104	104	104	104
SLI Score	Pearson Correlation	.383**	.242*	-.077	.119	.592**	1
	Sig. (2-tailed)	.000	.013	.863	.227	.000	
	N	104	104	104	104	104	104

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

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

Table 34 - Spearman Correlation (nonparametric)

			LMX Score	AC Score	CC Score	NC Score	JSS score	SLI score
Spearman's rho	LMX Score	Correlation	1.000	.224*	-.008	.109	.528**	.347**
		Coefficient						
		Sig. (2-tailed)	.	.022	.934	.273	.000	.000
		N	104	104	104	104	104	104
	AC Score	Correlation	.224*	1.000	.027	.595**	.236*	.196*
		Coefficient						
		Sig. (2-tailed)	.022	.	.783	.000	.016	.046
		N	104	104	104	104	104	104
	CC Score	Correlation	-.008	.027	1.000	.352**	-.024	-.020
		Coefficient						
		Sig. (2-tailed)	.934	.783	.	.000	.811	.844
		N	104	104	104	104	104	104
	NC Score	Correlation	.109	.595**	.352**	1.000	.158	.081
		Coefficient						
		Sig. (2-tailed)	.273	.000	.000	.	.110	.412
		N	104	104	104	104	104	104
	JSS Score	Correlation	.528**	.236*	-.024	.158	1.000	.607**
		Coefficient						
		Sig. (2-tailed)	.000	.016	.811	.110	.	.000
		N	104	104	104	104	104	104
	SLI Score	Correlation	.347**	.554*	-.075	.523	.607**	1.000
		Coefficient						
		Sig. (2-tailed)	.000	.046	.844	.412	.000	.
		N	104	104	104	104	104	104

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

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

Table 35 - Spearman's Correlation to Evaluate LMX as a Predictor

			LMX score	Age	Time With Organization	Size Of Organization	Education Level
Spearman's rho	LMX Score	Correlation	1.000	-.034	.101	-.024	.056
		Coefficient					
		Sig. (2-tailed)	.	.731	.309	.808	.569
		N	104	104	104	104	104
	Age	Correlation	-.034	1.000	.437**	-.047	.136
		Coefficient					
		Sig. (2-tailed)	.731	.	.000	.638	.169
		N	104	104	104	104	104
	Time With Organizatou	Correlation	.101	.437**	1.000	.093	.097
		Coefficient					
		Sig. (2-tailed)	.309	.000	.	.348	.329
		N	104	104	104	104	104
	Size Of Organization	Correlation	-.024	-.047	.093	1.000	.171
		Coefficient					
		Sig. (2-tailed)	.808	.638	.348	.	.082
		N	104	104	104	104	104
	Education Level	Correlation	.056	.136	.097	.171	1.000
		Coefficient					
		Sig. (2-tailed)	.569	.169	.329	.082	.
		N	104	104	104	104	104

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