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AN EXAMINATION OF THE EFFECTS OF TRANSFORMATIONAL AND  
TRANSACTIONAL LEADERSHIP STYLES ON BRANCH LEVEL  
SUCCESS OF INDUSTRIAL DISTRIBUTION COMPANIES

by

Rod L. Flanigan

A dissertation submitted in partial fulfillment  
of the requirements for the degree

of

DOCTOR OF PHILOSOPHY

in

Education

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Logan, Utah

2012

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## ABSTRACT

An Examination of the Effects of Transformational and Transactional Leadership  
Styles on Branch-Level Success of Industrial Distribution Companies

by

Rod L. Flanigan, Doctor of Philosophy

Utah State University, 2012

Major Professor: Dr. Gary Stewardson  
Department: Engineering and Technology Education

Leadership—it is a difficult phenomenon to precisely define, and perhaps even more importantly, it is difficult to identify the effects thereof. In business, it is believed that leadership is important, that it really matters. There have been countless books written on the subject. There have been numerous researchers who have tried to debunk all the myths and rumors, using qualitative, quantitative, and mixed methods research strategies. Over time, leadership theories have changed. Theories that include trait-centered leadership, situational leadership, servant leadership, democratic leadership, Laissez-faire leadership, Theory X, Theory Y, and others have been well documented and researched. Transactional leadership and transformational leadership theories are fairly new concepts on the leadership landscape. Both have provided revolutionary ideas into the way leadership is viewed today.

Industrial distribution is an integral component to the manufacturing industry. For many companies, in many different market segments, industrial distributors provide a

channel to the market for their products. Therefore, the health and success of industrial distribution companies are critical for the overall strength of the U.S. economy. There has been little research conducted on the effect of leadership at industrial distributors, specifically at the branch level.

So, does leadership really matter? This research attempts to quantitatively examine the benefits, or effects of, transformational and transactional leadership style on the success of industrial distributors, at the branch level. Using the Multilevel Leadership Questionnaire (MLQ), leadership data were gathered from both leaders and followers at the branch level of industrial distributors engaged in the sale of construction-related goods and services.

Moderated multiple regression techniques were used to analyze the data collected on independent variables (transformational and transactional leadership), moderating variables (age, duration, education, and experience), and the dependent variables (sales and margin). The results of the analysis indicate that transformational leadership style has a statistically significant, positive relationship to year-over-year sales and margin.

(169 pages)

## PUBLIC ABSTRACT

An Examination of the Effects of Transformational and Transactional Leadership  
Styles on Branch Level Success of Industrial Distribution Companies

by

Rod L. Flanigan

Wholesale distribution represents an estimated 7% of our country's GDP. The industrial distribution segment of this market is nearly \$400 billion, annually. The rapid change of technology, foreign imports, and societal change continues to have significant impact on the industrial distribution market. Combined with the imminent leadership gap in the industry over the next several years, and the impact of developing and understanding effective leadership at the branch levels of industrial distributors, this becomes critically important for the long-term success of the entire organization.

This study attempts to understand the impact of leadership style on the success of industrial distributors at the branch level. The research was guided by the following questions: (a) what is the relationship between transformational and transactional leadership styles and branch-level success at WinWholesale branch operations, and (b) what is the relationship between transformational and transactional leadership styles, interactive effects and branch-level success for WinWholesale distributors?

The research was funded, in part, by the Industrial Distribution program at the University of Nebraska at Kearney. Data were provided by the WinWholesale Company, and by participating WinWholesale distributors throughout the western United States.

## DEDICATION

I want to thank my ever-patient wife, Michele, for your tolerance through the process. Michele, your kindness, perseverance, and patience are not only amazing, but sincerely appreciated! I love you more now than I ever have.

I am grateful for my wonderful children, Sydney and Trenden. Thank you both for being the best children a father could ever ask for. I am thankful for your understanding, prodding, and encouragement as I kept going back to school. I am so proud of you both—for your kindness, your goodness, and for always seeking the higher purpose. You are what kept me going during some rough times in life. You are my purpose.

To my parents, Lester Glen and Shirley Mae Flanigan, thank you so much for all you have done for me over the years. Your examples of dedication, hard work, perseverance, and commitment to family values have been an incredible source of strength to everyone in our family, especially me. I sincerely appreciate your tireless support, your understanding, and the love you have shown me and my family. I love you both.

I could not have done this without your help—all of you.

## ACKNOWLEDGMENTS

I want to acknowledge the help and assistance of my doctoral committee chair, Dr. Gary Stewardson. Without your help, patience, and kindness, Gary, I am not sure I could have pressed on and finished this thing. To Dr. Jeff Dew, thank you *so much* for all of your time and patience in helping me work through all of the statistical methods and analysis. Your help and countless hours of “tutoring” are genuinely appreciated. To the rest of my committee, Drs. Ed Reeve, Dan Holland, and Brad Winn, thank you for your help and kind words as I have worked through the process.

I would like to express my gratitude to the WinWholesale Company, who supported this research. From the local branch-level participants, to WinWholesale Corporate offices, your support was instrumental in making this research a reality.

I want to also thank my good friend, Dr. Kent Stevens. Kent, you have been a true friend for many years, and more importantly an inspiration to me, my children, my family, and those you serve. It has been an honor to call you my friend over the past 30+ years.

I also recognize the help and friendship of Raymond Boyles. Ray, your humor, persuasion, candor, determination, and lengthy phone calls have been a good diversion to an otherwise crazy process.

Rod L. Flanigan



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## CHAPTER I

### PROPOSAL

#### **Introduction**

There are as many ideas, opinions and theories about leadership as there are people trying to define it. Countless articles, papers, and books have been written using both qualitative and quantitative research methods to explain, position, and articulate what leadership is and the benefits thereof. Despite the plethora of literature available on the topic, leadership continues to be a misunderstood and somewhat controversial topic in organizational behavior, management, and leadership circles (e.g., Chemers, 2000; Hogan, Curphy, & Hogan, 1994; Judge & Piccolo, 2004; Meindl, 1990), as demonstrated by Pulitzer Prize winning author J. M. Burns' (1978) statement that "leadership is one of the most observed and least understood phenomena on earth" (p. 2).

Skeptics who attempt to marginalize the exhaustive body of knowledge in leadership literature question whether leadership has distinct, discernible effects on organizational success and/or outcomes (e.g., Hannan & Freeman, 1984; Pfeffer, 1977). Despite the skepticism, empirical data collected by numerous scholars clearly shows that leaders do, in fact, have a significant influence on the overall performance of an organization (Bass, Avolio, Jung, & Berson, 2003; Bertrand & Schoar, 2003; Judge, Piccolo, & Ilies, 2004; Koene, Vogelaar, & Soeters, 2002). It is well documented that the leadership of chief executive officer's (CEO's) in large organizations is a key ingredient in the revitalization of companies (Tichy & Devanna, 1986), as well as in the management and operational success of these larger organizations (Collins, 2001; Katz &

Kahn, 1978).

While this aforementioned research on corporate CEOs is clear evidence that strong leadership plays an instrumental role in the success of larger organizations, there is little empirical data to support the idea that leadership plays a similarly vital role in small business. This dearth of research in small business leadership is surprising considering the important role of small business in the United States. Small business drives the United States' economic engine. According to the United States Small Business Administration (United States SBA, 2007) statistical data, small businesses in the United States make up the following economic demographics:

- Represent 99.7 percent of all employer firms.
- Employ just over half of all private sector employees.
- Pay 44 percent of total U.S. private payroll.
- Have generated 64 percent of net new jobs over the past 15 years.
- Create more than half of the nonfarm private gross domestic product (GDP).
- Hire 40 percent of high tech workers (such as scientists, engineers, and computer programmers).
- Made up 97.3 percent of all identified exporters and produced 30.2 percent of the known export value in FY 2007. (para. 1)

Small businesses throughout the United States represent thousands of different industries. The industrial distribution industry is one such market segment dominated by small business. Similar to other industries, the industrial distribution industry is difficult to precisely define. The North American Industry Classification System (NAICS, 2007) attempts to generally define industrial distribution with their classification code 423840—"Industrial supplies merchant wholesalers—this industry comprises establishments primarily engaged in the merchant wholesale distribution of supplies for machinery and equipment generally used in manufacturing, oil well, and warehousing activities" (para. 1).



This NAICS code index also provides detailed classification information about specific manufacturing industries such as aerospace, agriculture, automotive, construction, electric power, food and beverage, healthcare, manufacturing, mining, oil and gas, transportation, and others. Industrial distribution is none of these, yet could be all of these. The NAICS 423840 code may describe a small segment of the industrial distribution industry, but it is clearly not a thorough description of the industry. It is difficult to confine industrial distribution to one industry, one market segment, or one specialty. Industrial distribution is an industry that facilitates the transfer of product from the original manufacturer of said product to either the end user, or to the original equipment manufacturer (OEM). It is a business model that provides both manufacturers and their customers a cost effective path to sales, marketing, and service within specific geographic territories and within specific industries. The products represented by industrial distributors are wide and varied. These products may include fluid power components (hydraulic and pneumatic), electrical components, power transmission/motion control components, water related products, building material products, medical related products, HVAC/plumbing supplies, safety supplies, chemicals and/or plastic products and supplies, and many others.

Many of the larger industrial distributors in the United States are publically traded companies, including companies such as Motion Industries (a division of Genuine Parts Co.), Kaman Industrial Technologies, and Applied Industrial Technologies. There are also large privately held industrial distributors in North America, such as WinWholesale. While these are large companies, their business models usually consists of having smaller, more local branch operations strategically located throughout the United States

and other parts of the world. These branch locations will typically have between 3-15 personnel working at the branch. The branch location will include positions such as outside sales, inside sales, administration, and possibly shipping/receiving/warehouse-type positions. These small branch locations will generally be led and managed by someone who has a title of branch manager or company president, depending on organizational structure. For purposes of this study, the leader of the branch office will be referred to as the branch leader, or company president.

As the world continues to flatten (Friedman, 2007), it has had a profound effect on many industries, including the industrial distribution industry. To remain competitive in an increasingly global and ever-changing economy, companies must continue to develop the talent of their own workforce (Avolio, 2004), or look elsewhere to “get the right people on the bus” (Collins, 2001, p. 41). Intuitively, many organizational leaders understand the need for continual investment in leadership development, but because it is often difficult to measure the return on investment (ROI) for leadership training, as compared to other capital investments, it often gets discounted, or delayed. As the industrial distribution industry becomes even more interdependent on domestic suppliers, off-shore suppliers, a more diverse employee and customer base, and increasingly more technical products, the need for developing highly effective leadership skills at the local level has never been greater (Cascio, 1995).

### **Background of the Study**

This research study focuses on leadership at the branch level of industrial distributors, and the importance of this local leadership to the overall success of the

branch. The research will present and discuss definitions of leadership, consider the value of specific leadership paradigms, and assess the role that these leadership styles play in organizational success.

Because over 50% of the U.S. gross domestic product (GDP) is generated by small business (Kobe, 2007), it is incumbent upon researchers and practitioners to understand what drives successful leadership in small business. Some have posited that the most effective characteristics of small business leadership include an innovative spirit, with an eye to the morale, satisfaction, and professional development of employees (Chemers, 1997; Menefee & Parnell, 2007). The reason small business leaders play such an instrumental role in the success of their organization is that the hierarchical structure is generally very flat, which allows the leader to have direct and frequent contact with all of the employees (Minnick, 2010). At the branch level of the industrial distributor, the branch leader not only has frequent, direct contact with all the employees, but will also generally have an intimate knowledge of the specific duties of each and every employee.

Industrial distributors serve many industries, including construction, power transmission, safety, medical, electrical, fluid power, and others. The range in company size varies from large, publicly traded companies to small, family owned, one-store companies. This research is designed to look at those companies who have multiple branch locations. While many of these multiple-location industrial distributors are publicly traded companies, this is not always the case. The common thread among all of these major distributors with multiple branch locations is that there is usually a branch leader who acts as the local leader and manager of that particular branch.

A key component to the current study is understanding that the small branch

locations of these aforementioned multiple-location industrial distributors look like, act like, and operate like small independent businesses. Key characteristics of small businesses include having a sense of pride and ownership in the business, having a personal relationship with the customers, knowing and having direct contact with the personnel within the branch on both a personal and professional basis, having an intimate understanding of their immediate market and the needs thereof, as well as many other tangible and intangible contributors. The key component of this small business organizational structure is that the employees work together alongside the branch leader to achieve the goals of the branch.

This research study will provide an in-depth look at the effect of leadership style on the organizational success of these small business operations. In this study, the research focused solely on the branch-level operations of WinWholesale, a major industrial distributor with multiple locations throughout the United States.

### **Statement of the Problem**

There have been numerous attempts by the industrial distribution industry to create a sort of “best practices” model for the industry. These best practice models often include in-depth analysis of inventory control, supply chain, product mix, eliminating process duplication, and other measurable variables that consider ways to reduce the cost of doing business. However, rarely have these studies included an in-depth look at the effect leadership has on the profitability and success at the branch level.

Certainly, there are many reasons why a business fails. According to the U. S. SBA (2007), only 44% of new small businesses survive at least four years. A Dun and

Bradstreet (2011) report includes overexpansion, overspending, lack of reserve funds, failure to change with the times, inadequate business plan, and other leadership related characteristics as reasons for business failure (para. 2-10). All too often, this poor leadership is a result of little training in the management of operations and people. Strong, effective leadership is essential for an organization to be successful (Hernez-Broome & Hughes, 2004). Although the branch locations of industrial distributors may be part of a larger organization, they operate like a small business. As such, it is important to understand the leadership styles that are most effective in these very unique small business environments.

While corporate executives of large industrial distributors may intuitively believe that leadership is important at the branch level, their understanding is likely anecdotal. There is a dearth of quantitative, or qualitative, research in the literature on the impact of leadership in small business operations, and even less research on leadership in the industrial distribution industry.

It is precisely for this reason this study analyzes the leadership of industrial distributors on the local level. There may be strong leadership at the corporate office, but that leadership may not necessarily translate down to the local level. This study evaluated the effect local leadership has on the success of these smaller, branch-level operations.

### **Purpose of the Study, Research Questions, and Hypotheses**

The purpose of this study was to: (a) evaluate the transformational leadership style of WinWholesale distributor branch leaders and examine the effect it has on organizational success, (b) evaluate the transactional leadership style of WinWholesale

distributor branch leaders and examine the effect it has on organizational success, and (c) examine the relationship between moderating effects (such as age, level of education, duration as leader, and experience in the industry), and leadership style (independent variables) to determine if leadership style influences organizational success (dependent variables) as measured by year-over-year change in annual sales and gross margin.

This study was guided by the following research questions to meet the purpose and objectives of the research.

1. What is the relationship between transformational and transactional leadership styles and branch-level success at WinWholesale branch operations?

2. What is the relationship between transformational and transactional leadership styles, interactive effects (moderating variables) and branch-level success for WinWholesale distributors?

The associated null hypotheses for each objective are as follows.

*H1(a)<sub>0</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year sales at WinWholesale distributors.

*H1(b)<sub>0</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year gross margin at WinWholesale distributors.

*H2(a)<sub>0</sub>*: Age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(b)<sub>0</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(c)<sub>0</sub>*: The leaders' duration as branch leader does not moderate the relationship

between transformational or transactional leadership and branch-level year-over-year sales.

*H2(d)<sub>o</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(e)<sub>o</sub>*: The age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(f)<sub>o</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(g)<sub>o</sub>*: The leaders' duration as branch leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(h)<sub>o</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

### **Significance of the Problem**

In today's highly competitive, dynamic, global, free-market system wherein there is constant price vs. performance pressure, decreasing returns, and even destruction and/or erosion of core competencies, scholars and practitioners, alike, suggest that effective leadership is crucial for organizational success (McGrath & MacMillan, 2000;

Santora, Seaton, & Sarros, 1999; Teece, Pisano, & Shuen, 1997). Zhu, Chew, and Spangler (2005) suggested that one of the key components in addressing some of these aforementioned market and organizational issues, as well as improving an organization's performance is through effective leadership.

To further complicate, even exacerbate, the leadership issues that many companies face, there is reason to believe that there is a significant leadership drought for U.S. businesses. Countless articles have articulated the leadership gap we face in this country, and some of the financial implications of such a shortage. Following is a snapshot of a few of such articles.

- An alarming gap in the supply of leadership talent is confronting the US-based organizations. It's estimated that 1 in 5 top management positions and 1 in 4 middle management positions could be vacant within the next few years. Within the next decade, organizations in every business sector will begin to feel the impact of baby-boomers exiting the workforce...the future will bring an increasing demand, and smaller supply, of leadership talent. No organization will escape these factors, and no industry segment will be unaffected. (Horne, 2002, para. 5)
- Much has been said about the impending impact of the aging baby boom generation—whose 78 million members worldwide are beginning to reach retirement age (with only half that number of potential workers lined up behind them to take their place). And there's one particularly acute but generally unnoticed aspect of this impending exodus—the prospect of a severe shortage of leadership. That's because baby boomers are even better represented in the executive and management ranks of corporations and institutions around the world than they are in the general population. These are leaders adept at making decisions, experienced in handling change and tested in leading both members of their own generation and younger workers through volatile market expansions and contractions. (Markovits, 2011, para. 1-2)
- Within the next decade organizations in nearly every business sector will begin to feel the impact of a phenomenon that is both troubling and inevitable. Baby Boomers, the generation that hatched many of today's current leaders, will exit the workforce, leaving the less populous younger generation to fill



the ranks. In fact, one in five top management positions and nearly one in four middle management positions could be vacant by 2005. At one major U.S. government agency, for example, 60 to 70 percent of executives will be eligible for retirement by 2010. Unfortunately, the lack of preparedness of tomorrow's leaders compounds the issue. Some 40 percent of organizations rated their approach to leadership development low or very low. In short, there are too few leaders, and those coming through the pipeline won't be prepared when the time comes for them to step up to the plate. (Wellins & Byham, 2001, p. 1)

- Competition for top talent is intensifying with few winners: the hardest-hit companies are either hemorrhaging talent to the competition or paying the price in bidding wars...demographic changes are expected to intensify shortages as the number of 35- to 45-year-olds in industrialized countries decreases over the next decade. At the same time baby boomers are retiring earlier than their parents did. It's a one-two punch to the system: the current generation of leaders is leaving earlier and fewer young people are available to take their place.... Just when the talent supplies are falling short, demand is on the rise. Demand for leadership talent is growing more intense by the day. Companies not only need more leaders, they need a different type of leader. (Antonucci, 2005, p. 1)

Over the course of the next two decades, there will be a mass exodus of leadership in the industrial distribution industry. As these leaders leave the workplace, many years' of experience and volumes of knowledge leave with them. How, and by whom, these positions are filled will be critical for the success of the industry.

There are many reasons to believe there is a strong relationship between leadership and organizational performance (Jing & Avery, 2008). To further corroborate this notion, evidence suggests that poor leadership in a small business environment is the cause of poor organizational performance, and failure (Beaver, 2003; Perry, 2001). What is unclear, however, is the specific leadership style that can best facilitate and promote organizational success within small business entities (O'Reilly, Caldwell, Chatman, Lapid, & Self, 2010).

The branch level operations of a national industrial distributor are a microcosm of

small business in the American economy; they are the lifeblood for survival. The branch leader position is critical to the overall success of not only the branch, but the corporation as a whole; therefore, poor performance by the leader of the branch (possibly multiplied by the number of branches) can translate into a significant amount of lost revenue and untold lost opportunities. Anecdotally, it is commonly understood within the industrial distribution industry that future leadership, at all levels, is of significant concern. The results from this research study may provide upper level management of industrial distribution companies the empirical data needed to staff local level branch locations with leaders that will be effective in guiding and directing the branch to long term success and profitability.

### **Procedures**

The following procedural steps were followed in this study.

1. Reviewed leadership literature.
2. Reviewed literature on the industrial distribution industry.
3. Conducted a search for the most effective, validated leadership measurement instrument that was commercially available. The Multifactor Leadership Questionnaire (MLQ) was chosen.
4. Developed demographic questionnaire to go along with the MLQ.
5. Identified which industrial distributor met the research criteria for distribution of the MLQ survey.
6. Met with the management of WinWholesale to seek their approval for conducting research on their branch-level offices.

7. Obtained Internal Review Board (IRB) approval.
8. Obtained all the necessary email information from the corporate office of the industrial distributor.
9. Distributed MLQ survey to all potential participants.
10. Obtained dependent variable information from WinWholesale.
11. Performed statistical analysis on data received from the survey participants.
12. The results were tabulated, summarized, and reported herein.

### **Definition of Terms**

Throughout this study there will be various terms used that may be unique to the industrial distribution industry. These include the following.

*Branch manager:* For purposes of this research study, a branch manager is one who manages a branch operation. Typically, the branch manager is responsible for all functions of the branch, including; administration, engineering functions, inside sales, outside sales, shipping and receiving, profit/loss, and any other duties that may arise.

*Branch president:* Generally, a branch president has the same functional role as a branch manager; however, the branch president may have ownership in the local branch.

*Gross margin:* Generally represents a percentage of net sales minus the cost of goods sold (Stickney & Weil, 2000).

*Inside sales:* This is a term used for daily operations type personnel who are primarily responsible for answering phones, tracking orders, following up on inquiries, and perhaps even shipping and receiving duties.

*Leader/leadership:* Kouzes and Posner (1997) defined leadership as “the art of

mobilizing others to want to struggle for shared aspirations” (p. 30). Bass (1990) defined a leader as one who has the ability to motivate others (p. 10). In a business environment, a leader is one who leads the organization by setting the tone and direction of the organization. A leader will inspire, challenge, motivate, and encourage others throughout the organization to do their best (Weymes, 2003).

*Leadership styles:* Patterns of behavior can form personalities, and these personalities may have a determinant effect on followers (Shriberg, Shriberg, & Lloyd, 2002). Transformational and transactional leadership, and the behaviors demonstrated therein, are forms of leadership style (Eagly, Johannesen-Schmidt, & van Engen, 2003).

*Outside sales:* Most industrial distribution branch offices have outside sales personnel. These branch personnel have direct, face-to-face contact with customers, as well as with manufacturer’s representatives. They have responsibility for maintaining existing customers as well as developing new customers.

*Profit/profitable:* The excess of revenues over expenses for a given transaction; occasionally used synonymously with net income (Stickney & Weil, 2000).

*Small business:* There are many definitions of small business. Some use the number of employees, while others may use the annual sales figures as the determinant factor. The SBA defines a small business as one that has fewer than 500 employees (U.S. SBA, 2007).

*Success:* For purposes of this study, success is a measure of performance at the branch level of an industrial distributor. Performance criteria includes both annual sales, and gross margin.

*Transactional leadership:* This is a leadership construct whereby leaders

approach followers with the intent of exchanging one thing for another; for example exchanging a reward for compliance (Burns, 1978).

*Transformational Leadership:* This is a leadership construct whereby the leader first looks to satisfy the needs of the follower, thus allowing for a more mutually beneficial and elevated relationship between leader and follower. This interactive relationship causes the leader to be able to motivate the follower to do more than originally thought possible (Bass & Avolio, 1994).

### **Definition of Acronyms**

Throughout this research paper, there will be acronyms used that may be unique to small business, and more specifically to the industrial distribution industry. These include the following.

*GDP:* Gross domestic product. The value of all the goods and services produced by a nation.

*OEM:* Original Equipment Manufacturer. Generally refers to a manufacturer who is the original manufacturer of a piece of equipment.

*MLQ:* Multifactor Leadership Questionnaire.

*MMR:* Moderated multiple regression.

*MRO:* Maintenance, repair, and operations. These are daily and/or routine functions in industry that allow equipment or facilities to perform the required function.

*NAICS:* The North American Industry Classification System. A federal classification system used to classify business establishments for the purpose of collecting, analyzing, and publishing statistical data related to the U.S. business economy

(U.S. Census Bureau, 2010).

*ROI*: Return on Investment. A formula generally used to measure the value, or efficiency of an investment.  $ROI = (\text{gain from investment} - \text{cost of investment}) \div \text{cost of investment}$ .

*SBA*: The United States Small Business Administration. The SBA is a federal agency devoted to the protection of rights for small business in the United States.

### **Limitations of the Study**

This study includes several limitations, which help define the scope of the research. Glesne (2006) stated that all research includes biases and limitations (p. 9). Conducting research on such a complex, and often controversial subject as leadership is perhaps a study in complexity theory itself. While this study is quantitative in nature, it is not meant to disregard, or marginalize in any way the benefits that could come from a qualitative study on the same topic. Anyon (2009) stated:

While such endogenous leadership studies do not take into account, in fact may even obscure, the very complex external factors within every organization, even every person within the organization, that get mediated through the micro-interactions within the organization. Thus, those often unobservable relationships, such as the power and socio-historical and economic forces that shape each persons' life, both within and without the workplace, goes unexamined. (p. 30)

The limitations in this study were as follows.

1. The research was limited to branches of WinWholesale.
2. The research was limited to examining the effects of transformational and transactional leadership styles at WinWholesale branch locations. It is understood that different leadership paradigms (e.g., classical and organic) could affect performance

differently (Jing & Avery, 2008).

3. The research was limited to leaders within the WinWholesale company.

Leaders of various durations were examined.

4. The research was limited to those branches within WinWholesale that were in the four western United States regions (as defined by WinWholesale).

5. The research was limited to using annual sales and gross margin as indicators of branch level success.

6. The research was limited to using age, duration as leader, experience in industry, and level of education as moderating variables.

### **Assumptions of the Study**

Assumptions were made for this study as they cannot be ascertained empirically. Additionally, the study identifies these assumptions to maximize validity and trustworthiness. This study assumes the following.

1. All participants of this survey answered questions truthfully, completely, and without coercion.

2. Participants completed the survey independently and without comparing with others. Participants did not share their answers with others.

3. A management position within the organization corresponds to a position of leadership.

4. The raters have actually seen the leader in action and that the items being used to assess the leadership abilities are relevant and familiar (Hunter, Bedell-Avers, & Mumford, 2007).

## Summary

Understanding the effect that leadership has on the branch level of industrial distributors will help upper management better understand the impact that effective leadership can have on success, and the need for continual investment in leadership development. This research study will examine the effect of both transformational and transactional leadership styles on local level success of industrial distributors. While the focus is on transactional and transformational models of leadership, the objective of the study is to look at the leadership styles of industrial distribution branch leaders, within the context of predetermined moderating effects, which include age, duration as leader, experience in the industry, and education level, and to determine if one leadership style is more significantly correlated to business success than another.

The results from this research study may be used to assist WinWholesale management in identifying candidates for various organizational leadership positions, and selection to leadership training programs. This data may help the industrial distributor place leaders in positions where they will be most likely to succeed and require the least amount of additional training. Matching leaders to their core competencies within appropriate situations will avoid costly and potentially difficult situations (Bass & Avolio, 2004).



## CHAPTER II

### REVIEW OF LITERATURE

The literature review of this study investigates the history of business leadership and the role leadership has played in small business. As the role of leadership in small business is developed, specific consideration will be given to the industrial distribution segment of the market. While this review of literature will consider other styles of leadership, the primary focus will be on the leadership styles evaluated by the MLQ: transactional, transformational, and laissez-faire. With consideration given to specific moderating effects, an in-depth look at each of these leadership paradigms will investigate the value of each of these styles of leadership at the branch level of the industrial distributor. The purpose of this study is to investigate the effects of transactional and transformational leadership styles of the branch leader of an industrial distributor and the impact leadership style has on the success of the branch office.

The effect of leadership on business organizations is a topic that has received significant attention, from both academicians and practitioners, throughout the past several decades. However, most of the focus has been on larger organizations. This study is primarily focused on those smaller organizations that operate within the construct, or confines, of a larger organization, specifically within the industrial distribution market.

#### **Historical Perspectives of Leadership**

As one of the world's oldest preoccupations, leadership implications cross all boundaries, including; cultures, societies, social classes, levels of education, businesses,

market segments, and languages. Historical roots of reflection and discussion on the topic of leadership date clear back to the time of Plato, Caesar, and Plutarch (Bass, 1981).

Throughout the ensuing centuries, leadership has been studied, researched, and written about in many contexts and in many situations.

The very definition of leadership seems to be contextual; it may depend on the audience, the culture, the people involved, or the organization. The term “leadership” has been defined in countless ways. Hoffman and Jones (2005) described leadership as the effect of a low-level supervisor on his/her subordinates’ attitudes and behaviors towards the CEO’s organizational goals (p. 511). Some have defined leaders by the relationships, knowledge, intuition, and experience they have (Maxwell, 2007). Kouzes and Posner (1997) defined leadership as “the art of mobilizing others to want to struggle for shared aspirations” (p. 30). Others called leadership a process, not a position (Hughes, Ginnett, & Curphy, 1993). Burns (1978) defined leadership as

...leaders inducing followers to act for certain goals that represent the values and the motivations—the wants and needs, the aspirations and expectations—of both leaders and followers. And the genius of leadership lies in the manner in which leaders see and act on their own and their followers’ values and motivations. (p. 19)

Regardless of the definition of leadership, it is clear from the literature that leadership theory has received considerable attention from both academics as well as practitioners, and the theories surrounding leadership continue to evolve as we learn more.

Chemers (1984) postulated that most of the early 20<sup>th</sup> century research on leadership focused on the idea that those who became leaders were somehow physically or psychologically different than those who were the followers (p. 98). This trait theory of leadership (Bowden, 1927) measured things such as physical traits, abilities,

personality, and others. However, Stogdill (1948) concluded after numerous trait theory studies that traits alone do not necessarily identify leadership qualities (p. 52). He believed that leadership is highly situational, meaning that each leadership situation is very different and, thus, calls for different leadership qualities. Other researchers during the same period suggested similar findings. Gibb (1947) stated that “the particular set of social circumstances existing at the moment determine which attribute of personality will confer leadership status” (p. 270).

Meanwhile, there was increasing interest in behaviorism and how this epistemological framework may affect leadership. Speaking about this period of leadership research, Bryman (1992) stated, “Researchers were particularly concerned to identify the kinds of leader behavior that enhanced the effectiveness of subordinates” (p. 4). In one of the classic leadership studies, Lewin, Lippert, and White (1939) conducted research on graduate assistants to study autocratic, democratic, and laissez-faire leadership styles (p. 275). Autocratic leadership is characterized by a very authoritative leader who demands tight control of his followers. Democratic leadership, on the other hand, sought group participation and allowed for decisions to be made by the majority. Laissez-faire style of leadership was demonstrated by a very low-level of organizational involvement by the leader. They found that for most situations a democratic style of leadership was most beneficial (Wren, 1995).

Soon, other leadership theorists would publish their work on behavior-centered leadership (Likert, 1961; McGregor, 1966). Likert’s leadership theory was developed around the idea that organizational ideas and problem solving should be a collaborative effort within the organization. Likert identified four types of management that could

accomplish this: (a) an exploratory/authoritative method, representative of an authoritative top-down style of management; (b) a benevolent/authoritative system that rewarded employees for their loyalty; (c) a consultative system wherein top management would make major decisions with lower level feedback before delivery to the group; and (d) a participative management system that allowed for employees to actively participate in setting goals for the entire organization (Owens, 2001). McGregor (1966) developed the Theory X and Theory Y leadership styles. Theory X, in viewing the leadership role from the position of the leader, focused on the management of resources and employees to accomplish the goals of the organization. Conversely, Theory Y viewed the organization from the employee's perspective (Bryman, 1986).

While advances were made in both trait-centered and behavior-centered leadership research, researchers still could not positively identify what the best style of leadership was for all situations. They found that despite all the research, they could not consistently relate one style of leadership to any sort of organizational outcome, follower satisfaction, or any other consistent measure (Chemers, 1984).

Recent leadership research has placed increasing focus on the follower, or subordinate. Hughes and colleagues (1993) demonstrated this emphasis when they state "now, more than ever before, understanding followers is central to understanding leadership" (p. 32). Several researchers have cited the importance of this leader-follower relationship and explain that this is due, in part, to our ever-changing, dynamic world (P. Block, 1993; Hollander & Offerman, 1990; Lippett, 1982). This is especially true with small businesses today. With reduced resources and increased pressure to produce positive results, the importance of the leader-follower relationship is critical to the

success of any organization.

While there is not one common definition or theory on the effectiveness of leadership in organizations, there are some complimentary ideas among leadership scholars. Bass (1985), Bass and Avolio (1988), Burns (1978), and Fischer, Rooke, and Torbert (2000) all consider leadership roles in terms of transactional and transformational methods. Both transactional and transformational leadership research attempts to understand the importance of the leader-follower relationship. Transactional leadership occurs when a leader and subordinate make some sort of exchange that could be economical, political, or psychological in nature but benefits both parties. Transformational leaders seek to appeal to the follower's values and sense of some sort of higher purpose for accomplishing the task (Hughes et al., 1993). This appeal to the follower's values, combined with other transformational leadership characteristics, contribute to the effectiveness and efficiency of this style of leadership. In fact, research studies have shown that transformational leadership is one of the most effective ways of leading people (Burns, 1978; Bass & Avolio, 2004; Tichy & Devanna, 1986).

### **Small Business**

Small business in the U.S. has evolved from the very early arrangements by the British to promote export trade with the newly established American colonies. From that time and through the early 1800s, small business was the only form of business enterprise found in the U.S. The individual sole proprietors and leaders of these small businesses were often journeymen skilled in a trade, such as shoemakers, gunsmiths, bakers, weavers, tailors, tanners, powder makers, and others (Bruchey, 1980). As the country

continued to develop with new and improved transportation and communication systems, some of these formerly small businesses grew into large corporations. The metal, rubber, and textile industries are a few examples of the industries that grew into large corporations (Blackford, 2003).

During the latter part of the 19<sup>th</sup> century and into the early 20<sup>th</sup> century, agriculture continued to be a significant piece of the U.S. economy. Small family farms made up a large percentage of the small businesses in America. In fact, from 1870-1900 approximately 75% of all exports came from agriculture. During this time and into the early 1900s, service industries began to emerge. Banks, small general stores, and insurance agencies were all sole proprietorships during the time (Bruchey, 1980). The industrial revolution introduced mass production, and these large corporations would find it necessary to not only manufacture the products, but also to sell and distribute their products (Blackford, 2003).

As the U.S. economy and culture continued to evolve, small business owners found that they, too, must change to keep up with the rapid technological and economic changes taking place. Blackford (2003) stated that “as America’s nationwide wealth matured, small businesses found their position was diminishing relative to the business of larger corporations” (p. 87). Small business has survived through the years by maintaining a strong will and an entrepreneurial spirit that allows the leaders to guide and direct their companies to combat the changes brought on by these technological innovations and societal evolution. The modern industrial distributor has had to make similar changes as the business landscape continues to evolve. This sort of dynamic culture requires strong, effective leadership for long-term success. Without this strong,

visionary leadership, it would be difficult for an industrial distributor to survive. Understanding the role that this strong leadership plays in the success of a small business, specifically in the role of the branch level industrial distributor, is key to understanding why some distributors are successful and why others fail.

The U. S. Small Business Administration (SBA) identifies small business as those entities with fewer than 500 employees (U.S. SBA, 2007). These small businesses represent 98% of all for-profit employment in the United States. It is surprising, then, that there is a dearth of scholarly research on the effect of leadership on small business success. While there is significant literature on larger corporations, it is unclear whether that data transfers to the small business environment.

In a small business environment, the original owner is the leader who establishes the tone, vision, and mission of the organization. As the business grows, or evolves, it is incumbent upon the owner to pass this vision onto others within the organization (George, Sleeth, & Siders, 1999). Often, in order for “the business to prosper beyond the start-up phase, the founder-leader needs to communicate the vision for the business and develop followers with the capacity to implement the vision” (Gray, Densten, & Sarros, 2003, p. 38). Gray and colleagues stated that within entrepreneurship literature, it is understood that leadership is “critical for small business performance, growth, and success” (p. 39).

Bennis (1989) described leadership as an understanding of what it takes to be a leader, and understanding yourself well enough to do the right thing in the right situation; he states “leadership is first being, then doing; everything the leader does reflects what he or she is” (p. 141). Subordinates must be able to trust leaders for there to be an effective

and efficient relationship between the two. Bennis maintained that consistency, congruity, reliability, and integrity are the key ingredients needed to earn and sustain the trust of subordinates (p. 160).

Several leadership theorists have suggested that one of the primary roles of a leader is to encourage, motivate, and enable subordinates by showing them how their personal performance can help the entire organization to reach predetermined goals and therein affects the subordinates' own ability to achieve personal goals (Bass, 1985, 1997; Chemers, 1997; House & Mitchell, 1986; Moss, 2009; Northouse, 2007). Of the small business leadership literature available, most focuses on the role and characteristics of the founder. For example, some of the research measured the value, or importance of the owner's performance in the success of the organization (Carland, Hoy, & Carland, 1988; Greenberger & Sexton, 1988). One of the more in-depth small business leadership studies, by Eggers, Leahy, and Churchill (1996), looked at 112 small companies in the U.S. and examined the entrepreneurial leaders' task focus, personal impact, formal communication, and other leadership related areas and found that those companies with higher ROI, sales, and profit had leaders with high levels of frequency and quality of leadership behaviors. The common theme in most, if not all, small business leadership research is that the focus is on the original entrepreneur/leader who started the business and who was instrumental in its success. This study is interested in the leader of a small branch office of an industrial distribution company. These branch offices are part of a much larger organization that may or may not be publicly traded and have multiple branch locations throughout the United States. This study is unique in that it examines the effect of the leader who most likely had no involvement in the establishment of the



company, yet, nevertheless, is responsible for the profitability and success of the branch level of the organization.

### **Industrial Distribution**

To understand the industrial distribution industry, it is necessary to have some historical perspective of the industry, its culture, behaviors, evolution, and environment. The culture, both past and present, along with the behaviors and environment of the industry plays an instrumental role in how the branch level distributors operate, and will continue to impact the way this industry operates for years to come. Perhaps even more importantly, it plays a key role in the leadership of these organizations.

During World War II, many countries within the European region were devastated. Their ability to rebuild was compromised by the destruction of manufacturing plants. Europe's ability to rebuild and their economic recovery was highly dependent upon a good trading relationship with the United States. Within the U.S., wartime production facilities quickly converted to post-war consumer driven production, driven in large part by European markets (Higgs, 1999). The European market included a high demand for industrial products. This change in market economy, driven primarily by European demand, would mark the emergence of industrial distribution as a distinct field within industry, and in later years a distinct discipline within academia.

While distribution of products was happening pre-World War II, it was the incredible growth that took place during post-World War II that allowed industrial distribution to formalize and to be recognized as a distinct field. Professionals within the industrial distribution industry helped to streamline, or improve post-World War II

production and distribution of products. This was done by helping to reduce inventories, improve marketing strategies, and radically changed how logistics and transportation were being handled for industrial products (Alexander, Cross, & Hill, 1967). Today, as evidence of the progress the industry has made, there are several universities throughout the U. S. that offer a bachelor's degree specifically in industrial distribution (e.g., Texas A & M University, Purdue University, East Carolina University, and University of Nebraska at Kearney).

Despite little scholarly research on the industry, the wholesale distribution industry represents a significant force in the U.S. economy. Fein (2005) estimated that the wholesale distribution segment of the U.S. market is over \$4.2 trillion, represents approximately 7% of the private U.S. gross domestic product (GDP), and employs nearly one out of every 20 workers in the U.S. (p. 1). The top 10 wholesale distribution industries are represented in Table 1 (taken from Fein, 2005).

Table 1

*U.S. Wholesale Distribution Industry Revenue*

Major industry sector	2007 revenue <sup>a</sup>
Grocery and foodservice wholesale distributors	\$510.30
Oil and gas products wholesale distributors	\$509.80
Pharmaceutical wholesalers	\$362.80
Industrial distributors	\$338.30
Motor vehicles and motor vehicle parts wholesale distributors	\$324.10
Electrical and electronics wholesalers	\$323.30
Miscellaneous durable goods wholesale distributors	\$238.40
Other consumer products wholesale distributors	\$222.90
Computer equipment and software wholesale distributors	\$182.80
Agriculture products wholesale distributors	\$179.90

<sup>a</sup> In billions.

Of the 250,000 wholesale distribution companies in America, a large percentage of them qualify as small business by the SBA guidelines. Within this mix of smaller sized wholesale distributors, there are also large companies that have multiple branches throughout a particular region, or across the entire nation. As shown in Table 1, the fourth largest of all wholesale distribution industries in America is the industrial distribution industry segment. With estimated annual revenues of nearly \$340 billion, this market segment represents a major force in the economy.

Industrial distribution, like other wholesale distribution markets, is simply a channel through which manufacturers of industrial products can take their products to market. IBISWorld (2010) defined industrial supplies wholesaling as:

Firms in this industry wholesale supplies for manufacturing machinery and equipment. Industrial supplies sold in this industry include bearings, industrial containers, crown and closures, printing ink, power transmission supplies, mechanical rubber goods, seals, shipping containers, industrial towels, abrasives, ropes, valves, and welding supplies. (para. 1)

While this is a vague description of the industry, it demonstrates how difficult it is to strictly define the industrial distribution industry.

Corey, Cespedes, and Rangan (1989) succinctly stated the importance of industrial distributors; “if farms and factories are the heart of industrial America, distribution networks are its circulatory system” (p. xxvii). Clearly, the industrial distribution market segment is an important cog in the North American economic wheel.

There are more than 80,000 industrial distribution companies in the U.S. and Canada. These companies range from very small, local businesses to very large enterprises operating globally. The companies may serve many industrial customers over a broad geographic area and offer thousands of products or they may have a limited number of major customers, serve a limited geographic area or be the expert supplier of a product line. Industrial distribution companies help manufacturers get their products into the hands of industrial customers who

always are working to keep their businesses productive and profitable. These customers look to industrial distribution companies to solve production issues and to make their systems more efficient. (Industrialcareerspathway, p. 1)

By most accounts, the industrial distribution industry is a very mature and seasoned market with products that rarely change. This industry is closely tied to the manufacturing and housing industries; so as manufacturing and housing goes, so goes the industrial distributor. The typical market for an industrial distributor could include both original equipment manufacturers (OEM's) and the end user market. Figure 1 illustrates the complex nature of an industrial distributor's business model.

Depending on the market area, an industrial distributor may have customers that include mining operations, construction supplies, factory maintenance, repair, and operations (MRO) requirements, the food and beverage industry, agricultural-type

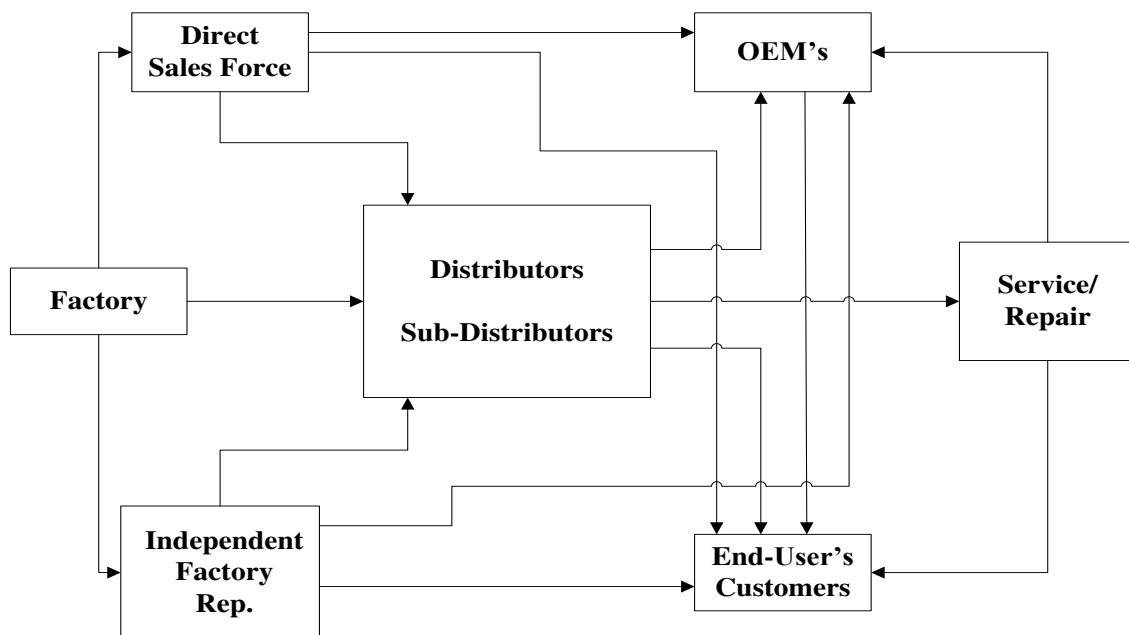


Figure 1. Distribution systems: Functions and components (Corey et al., 1989).

products, construction equipment products, factory automation, and many, many more applications. The products that an industrial distributor markets, sells, and services are wide and varied. They may include bearings, HVAC supplies, electrical supplies, construction related products, gearing, plumbing supplies, chains, belting, couplings, clutches, various industrial cleaning supplies, hydraulic and pneumatic components, and hundreds of other related items. Because industrial activity is so volatile, and because the success and/or failure of the local industrial distribution branch office is so closely tied to a local market, leadership at the branch level seems to be a key ingredient to success.

The wholesale distribution market, and specifically the industrial distribution segment of said market, continues to grow and expand with the growing economy. However, the nature of the industrial market continues to change and evolve at record pace. The volatile, dynamic, and highly specialized world of industrial distribution requires leaders who are not only knowledgeable about the industry, but must also understand the local market, have a very good understanding about the products that are sold, have a solid business acumen, and have good interpersonal skills. Research has shown that effective leadership is a key factor in producing quality performance and efficiency in an organization (Vance & Larson, 2002). This organizational leadership can, and does, influence employee performance and efficiency (Bass, 1985; Block, 2003; Chemers, 1997).

The branch leader of a small industrial distributor often wears many hats. It is not uncommon for a branch leader to be responsible for all the administrative functions of the branch, as well as outside sales, inside sales, service, and engineering. Add to these many responsibilities the requirement to provide near-constant interaction with manufacturers

and intermediaries, combat local market competition, and contend with the increasing competitive pricing pressures from overseas imports, and the idea of effective leadership at the local level takes on a critical level of importance.

### **Leadership Styles**

Some of the earliest research on leadership focused on trait theory, which considered the physical characteristics of leaders. With the introduction of behaviorism, leadership research then turned its focus to the behaviors of leaders, including autocratic, democratic, and laissez-faire styles of leadership. However, the prediction of the effects of leadership on organizational success would not come until the development of what is known as contingency theory. The first of these contingency theory models was developed by Fiedler (1967), known as the contingency model. Fiedler tried to demonstrate that the most important element of a situation was the degree of certainty, predictability, and the amount of control the leader had in a given situation. Fiedler also conducted research on the effects of training for leaders. While shown to be somewhat contextual, leadership training “has not been found to be a consistent positive factor in leadership effectiveness” (Wren, 1995). Other models of contingency-oriented leadership models would also emerge. Some of these include; the normative decision theory of leadership by Vroom and Yetton (1973), and the path goal theory of leadership by House and Mitchell (1986).

Stating that effective leadership is “inseparable from followers’ needs and goals,” Burns’ (1978) seminal work on the leadership of political figures was instrumental in promoting further research of both transactional and transformational leadership styles (p.

19). Burns believed that “purpose” is a defining variable in leadership. He posited that while others had defined leadership as “the ability to make followers do what they would not otherwise do, or as leaders making followers do what the leaders want them to do” he believed that a true leader was able to understand the needs of the follower and then create a way for both the leader and the follower to reach certain goals that met the needs of both (p. 19). The transactional leader may take the initiative to make contact with another person for the purpose of making some sort of exchange. The leader recognizes the followers’ desires, and tries to accommodate in satisfying a mutually satisfying goal. However, there may not be any binding or lasting relationship. A transformational leader, however, will engage another person in such a way that both the leader and the follower rise to higher levels of morality and motivation (Burns, 1978).

The value of leadership and the effect of leadership style on organizational performance has been a topic of significant interest among both research academics and business professionals for many years (Cannella & Rowe, 1995; Giambatista, 2004.). Rowe, Cannella, Rankin, and Gorman (2005) suggested that one of the primary reasons for this widespread interest in leadership research is the commonly held belief that leadership can, and does, affect the overall performance of most organizations (p. 198). Many researchers believe that the style of leadership a leader practices, or adopts, is a key component in whether or not the leader can evoke the kind of commitment and performance among subordinates necessary to achieve organizational success (e.g., Awamleh & Gardner, 1999; Barling, Weber, & Kelloway, 1996; Berson, Shamir, Avolio, & Popper, 2001; Conger, 1999; Dubinsky, Yammarino, Jolson, & Spangler, 1995; Yammarino, Spangler, & Bass, 1993; Zacharatos, Barling, & Kelloway, 2000). Further, it

is a commonly held belief among leadership scholars that organizational leadership can, and does, form a critical link between employee's performance and an organization's effectiveness (e.g., Avolio, 1999; Bass, 1998; Judge, Bono, Ilies, & Gerhardt, 2002; Keller, 2006; McGrath & MacMillan, 2000; Yukl, 2002).

This study is primarily concerned with the transformational and transactional styles of leadership and the effect that each leadership style has on organizational performance of an industrial distributor. While occasionally viewed as opposite styles of leadership, transactional and transformational leadership styles have been studied in depth over the past several years.

### **Transactional Leadership**

A common form of strategic leadership is transactional by nature (Pawar & Eastman, 1997). A transactional leader is one who operates within an existing organizational structure or system, rather than trying to change the systems in place. The leader may do this by:

1. Attempting to satisfy the needs of the employees by focusing on exchanges, recognition, and contingent reward behavior. With the help of the leader, individuals may receive rewards for achieving identified organizational performance goals.
2. Paying close attention to mistakes, deviations, and irregularities and taking the necessary corrective action (Bass, 1985; Burns, 1978; Shriberg et al., 2002).

Bass (1985) characterized transactional leaders as those who prefer to avoid risk taking, and were very conscious of time and efficiency. These types of leaders prefer to



use past performance as predictors of future success. By doing some of these more mundane, day-to-day activities that make up the majority of a transactional leaders' day, it often helps to foster better organizational performance (Tosi, 1982). The leader provides tangible and intangible benefits to the individual follower, and in return the follower makes an effort to provide higher performance and achievement in pursuit of the organizations goals (Shriberg et al., 2002). Burns (1978), speaking on leadership, stated:

The relations of most leaders and followers is transactional—leaders approach followers with an eye to exchanging one thing for another: jobs for votes, or subsidies for campaign contributions. Such transactions comprise the bulk of the relationships among leaders and followers, especially in groups, legislatures, and parties. (p. 4)

To test his leadership theories, Bass (1995) conducted different sets of experiments that ultimately resulted in two separate factors of transactional leadership; management by exception, and contingency reward. Management by exception was generally demonstrated by an employee's desire to perform tasks in a normal, or traditional manner. Contingency reward was illustrated by employee's performing a job based upon gaining some type of reward. Bass noted "contingent reward is ordinarily more highly correlated with outcomes than is management by exception, particularly passive managing by exception" (p. 475).

While different elements of leadership have been studied over the last half century, transactional leadership research has been a common theme when studying the effects of leadership on small business organizations. The transactional leader ensures that employees have all the necessary resources and knowledge available to them to achieve the organizational goals. When these employees succeed, they are rewarded for their accomplishments. As Tarabishy, Solomon, Fernald, and Sashkin (2005) explained,

it is this relationship between the transactional leader and the employee that supports the meaning of exchange between the leader and the individual (p. 22).

The leadership framework shown in Figure 2, derived from Hollander's (1978) transactional approach to leadership, demonstrates the close interrelationship between leaders, followers, and the situation that they are in. This Venn diagram illustrates that to gain a better understanding of the leadership process, it is necessary to understand the interdependence and interconnection of all three elements of this diagram, and how they affect one another. For example, at the branch level of an industrial distributor, as we try to gain a better understanding of the leadership role, while it would be tempting to isolate the role of the leader and his/her situation at the branch separately, it will be far more insightful to understanding the leadership process by looking at the specific conditions involved and how those conditions can either facilitate or restrict the leaders' actions, and how the leader will respond to a situation (Hughes et al., 1993). The work of Hollander

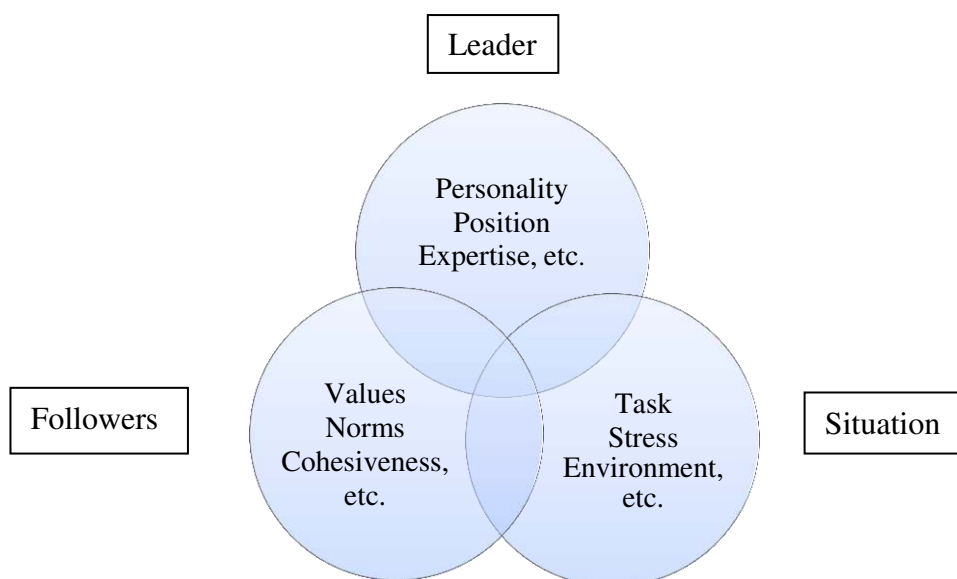


Figure 2. The leadership framework (Hollander, 1978).

and Julian (1970) also illustrated that social exchange is a critical component of leadership. Members of organizations, large and small, will exchange their loyalty, competence, and hard work for both tangible, including income or protection, and intangible rewards, which may include honor, status, or influence (Chemers, 1984).

While recent meta-analytic data suggests that transactional leadership does offer some performance stimulating potential (Lowe & Kroeck, 1996), it is difficult to generalize these findings to those we might find within branch level leadership in industrial distribution companies. This is due, in part, to the idea that the effect of leadership at higher management levels may be substantially different than at lower levels of management (Day & Lord, 1988; Katz & Kahn, 1978).

### **Transformational Leadership**

While transformational leadership was originally distinguished from the transactional style of leadership by Downton (1973), it was Burns' (1978) work on political leadership that really put these leadership styles on the forefront of leadership research (Bass & Avolio, 2004). Transformational leadership began to emerge in the 1990s after Bass (1985) further developed the transformational leadership construct. The research involved consideration of both leaders and followers, and how they worked together to raise the level of motivation towards the pursuit of an organizational goal. These transformational leaders attempted to engage and motivate followers by understanding and addressing the needs of the follower. In defining transformational leadership, Burns addressed this issue by stating:

Transforming leadership, while more complex, is more potent [than transactional leadership]. The transforming leader recognizes and exploits an existing need or

demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. (p. 4)

Such leadership occurs when one or more persons engage with others in such a way that leaders and followers raise one another to higher levels of motivation and morality. (p. 20)

While Burns believed that transactional and transformational styles of leadership were polar opposites in how the leader engages the follower and motivates them to achieve higher performance, Bass (1985) viewed the two leadership constructs as complimentary. Bass (1985) defined a transformational leader as “one who motivates us to do more than we originally expected to do” (p. 20). Bass and Avolio (2004) described these leaders as those who:

- Raise associates’ level of awareness of the importance of achieving valued outcomes and the strategies for reaching them.
- Encourage associates to transcend their self-interest for the sake of the team, organization, or larger policy.
- Develop associates’ needs to higher levels in such areas as achievement, autonomy, and affiliation, which can be both work related and not work related. (p. 16)

Researchers recognized that both styles of leadership could be utilized, depending on the situation, and, in fact, may be required to achieve success (Bass, Avolio, & Goodheim, 1987). The primary difference, then, between transactional and transformational leadership is “the process by which the leader motivates subordinates and in the types of goals set” (Lowe & Kroeck, 1996, p. 3). For example, a transformational leader not only recognizes the needs of a follower, but will attempt to develop and satisfy those needs from lower to higher levels of maturity. The

transformational leader attempts to engage the follower in such a manner as to develop the follower into a leader (Bass & Avolio, 2004).

There are four dimensions of transformational leadership that are often discussed in literature; charisma, or sometimes referred to as idealized influence, individualized consideration, inspirational motivation, and intellectual stimulation (Judge & Piccolo, 2004). Charismatic, or idealized influence, is the manner in which the leader behaves in admirable ways that causes followers to want to identify with the leader. The charismatic leader will often see talent and potential in a follower that the follower may not recognize in themselves. The charismatic leader will continually find new and novel ways to help the follower build self-esteem, and will always lead by example. According to Conger (1999), charismatic leaders have complete confidence in their followers' abilities:

[S]ubordinates [of charismatic leaders] could experience a sense of fulfilling their own potential as they meet their leaders' high expectations... the leaders' expression of high expectations sets standards of performance and approval while a continual sense of urgency and the capacity to make subordinates feel unique further heighten motivation. Taken together, these actions promote a sense of obligation in followers to continually live up to their leader's expectations. As the relationship deepens, this sense of obligation grows. (p. 165)

In contrast to the transactional method of leadership, transformational leaders will inspire and motivate followers with their vision. Charismatic transforming leaders motivate followers intrinsically. House and Shamir (1993) succinctly described this:

...through articulation of an ideological vision, behaviorally role modeling the values implied in the vision...expressing high performance expectations of followers and expressing a high degree of confidence in followers' ability to meet such expectations, followers' self-concepts will become strongly engaged. Hence charismatic leaders are visionary. These types of leaders link goals to values in a framework that is underpinned by the company's mission statement. Overall, transformational leaders enable followers to be motivated and involved in the vision they create. (p. 90)

Another important component to effective transformational leadership is the ability of a leader to articulate an inspired vision that is both appealing and inspiring to the followers, known as inspirational motivation. Those leaders who are skillful at inspirational motivation are able to challenge their followers with higher goals and standards, provide sound meaning for the task at hand, and are able to communicate optimism about achieving organizational goals. The individualized consideration dimension of transformational leadership relates to how the leader can attend to, or relate to the followers' needs, and acts as a mentor for the follower by listening to his/her concerns. The intellectual stimulation component of transformational leadership is the "degree to which the leader challenges assumptions, takes risks, and solicits followers' ideas. Leaders with this trait stimulate and encourage creativity in their followers" (Judge & Piccolo, 2004).

Despite some beliefs that transformational leadership is only effective at the upper levels of management, researchers have found, through meta-analytical study, that transformational leadership is actually more prevalent at lower levels within an organization (Den Hartog, 1997; Lowe & Kroeck, 1996). Koene and colleagues (2002) opined that these findings may be due to the fact that many subordinates experience more direct communication and influence from their lower-level leaders than from higher-level leaders. Some have argued that the overall leadership effectiveness of these higher-level leaders is somewhat marginalized by the other organizational factors including corporate rules and regulations, other managerial duties, and the actual visibility of these higher-level leaders within the organization (De Vries, 1997; Kerr & Jermier, 1978; Podsakoff, MacKenzie, & Bommer, 1996). In following this line of logic, it may be possible, then,

that the effect of the branch leaders' leadership style on branch performance is independent of the leadership and/or direction of corporate executives, and other leaders who may be hierarchically above the branch leader. To develop a transforming team, acknowledgement of ideas and ownership is important to ensure these ideas are communicated openly within the team and by the leader (Glaser, 1994).

One of the first meta-analyses of leadership literature found that transformational leadership style has one of the most positive impacts on performance, despite whether outcomes were measured objectively or subjectively (Lowe & Kroeck, 1996). Likewise, other research has found that there is organizational benefit to transformational leadership (Judge & Piccolo, 2004). Many of the aforementioned transformational leadership behaviors have been shown to improve not only follower performance, but also overall organizational success (McColl-Kennedy & Anderson, 2002; Waldman, Javidan, & Varella, 2004).

Bass and Avolio (2004) demonstrated how leadership is a process of exchange; wherein a transactional leader meets the needs of an individual if certain performance measures are met. But they define the transformational relationship between a leader and a follower as a "higher-order of change," and stated:

Transformational leadership can be thought of as a higher-order exchange process: not a simple transaction, but rather a fundamental shift in orientation, with both long and short term implications for development and performance. The shift is generally toward the longer-term implications and the impact on both process and outcomes. (p. 19)

### **Laissez-Faire Leadership**

Laissez-faire style of leadership is generally characterized by leaders who are not

organized, less efficient, may not participate in important decision making, and often frustrate subordinates (Goleman, 2000). These types of leaders often fail to take responsibility to lead the organization toward the goals, objectives and vision of the company or organization (Eagly et al., 2003). This lack of responsibility can lead to employees getting little or no training, employees who act according to their own will, and poor organizational results (Bass, 1990). Most employees need some form of guidance to be effective and productive. Because laissez-faire leadership provides little guidance, it is detrimental to both the individual and the organization (Bass, 1990).

In measuring a broad range of leadership behaviors, via the Multifactor Leadership Questionnaire, from laissez-faire to transformational leadership, Bass and Avolio (2004) have shown that laissez-faire style of leadership, marked by avoidance of responsibility and action consistently ranks at the ineffective end of the leadership effectiveness scale (p. 4).

### **The Relationship Between Transactional and Transformational Leadership**

In contrasting, or identifying the differences between transactional and transformational styles of leadership, it does not necessarily imply that the two models are unrelated (Den Hartog, Van Muijen, & Koopman, 1997). Although Burns (1978) thought the two styles of leadership were completely opposite, Bass (1985) concluded that the best leaders are those who demonstrate both transactional and transformational styles of leadership, and believed that to be an effective transformational leader requires a sort of mature moral development, which in turn helps to further develop the



transactional leadership skills. The mere presence of transformational leadership does not necessarily preclude the presence of transactional leadership; in fact, it may augment it by achieving the goals of the leader, follower, and the organization (Howell & Avolio, 1993; Waldman, Bass, & Yammarino, 1990). Bass and Avolio (1994) clarified this relationship:

The transformational leader may provide a new strategy or vision to structure the way to tackle a problem. The transactional leader may clarify the “right” way of doing things. Likewise, consideration for a subordinate’s current needs and self-interests is likely to be transactional, while consideration for a subordinate’s long-term personal development in alignment with organizational needs is transformational leadership. (p. 10)

Some researchers believe that not only can these two leadership models co-exist, but also that most effective managers do implement both styles of leadership if only in an attempt to deal with both subordinate staff and senior management (Dixon, 1998). When transactional leadership is augmented by transformational leadership to achieve higher goals, it often differs in the processes in which the leader seeks to motivate the followers (Lowe & Kroeck, 1996). Many times, subordinates forget, or do not realize that managers have to be able to communicate at all levels within the company, including upward, downward, and laterally throughout the organization (Kaye, 1994).

The two constructs of leadership differ in the process by which the leader relates to and motivates followers, and on the type of goals that are set (Hater & Bass, 1988). However, both transformational and transactional leadership styles build trust, respect, and a desire to work collaboratively and collectively for a common goal (Bass & Avolio, 2004). These two styles of leadership offer a foundation for organizational success by developing each individual within the organization based upon the leader’s knowledge and ability (McGuire & Kennerly, 2006).

### **Need for Local Leadership**

Burns (1978) stated, “The crisis of leadership today is the mediocrity or irresponsibility of so many of the men and women in power” (p. 1). In April, 1999, the Distribution Research and Education Foundation published a report entitled *Addressing the Leadership Challenges in Wholesale Distribution* (Russell-Reynolds Associates, 1999). The authors of this publication surveyed top executives in the wholesale distribution industry to identify key human resource needs and challenges. The Russell Reynolds report stated that “the human resources requirements of today’s wholesale distribution companies are more exacting than ever and must be fulfilled in an environment in which there is heightened competition for top talent” (p. 3).

Gardner (1990) stated:

Most leaders today accomplish their purposes through (or in spite of) large-scale organized systems...and that such systems simply cannot function effectively unless leaders are dispersed throughout all segments and down through all levels...individuals in all segments and at all levels must be prepared to exercise leaderlike initiative and responsibility, using their local knowledge to solve problems at their level. Vitality at middle and lower levels of leadership can produce greater vitality in the higher levels of leadership. (p. xvii)

The message is clear. For an organization to be successful, it must have not just one effective leader at the top, but there must be effective leadership throughout the organization. This idea is corroborated by O’Reilly and colleagues (2010) when they stated that from a macro perspective, the ability of senior leaders to incorporate strategic policy is highly dependent on the alignment of leaders across the organization at all hierarchical levels (p. 106). For industrial distribution companies with multiple branches dispersed throughout the country, this is profoundly important. Russell-Reynolds (1999)

found in their survey that the wholesale distribution industry has trouble finding good leaders:

The industry is plagued by difficulty in finding its next generation of leaders. Six in 10 executives report difficulty in identifying candidates with the skills now needed in the wholesale distribution industry. That few executives mention compensation as a barrier to hiring suggests that more needs to be done to broaden the pool of managers considering a wholesale distribution career...given the industry's difficulty in attracting candidates, most companies favor looking internally for talent. (p. 5)

Koene and colleagues (2002) were able to positively demonstrate that leadership does make a difference for organizational effectiveness, and for smaller stores, good leadership has a "substantial positive financial consequence" (p. 198).

At the branch level of an industrial distributor, there are many factors involved in achieving success. According to IBISWorld (2010) the key factors to success in the "Industrial Supplies Wholesaling" industry include:

- Having a loyal customer base where customers become repeat purchasers of the goods and services that a firm provides is an important key success factor.
- Having links with a diverse range of suppliers is a key success factor because it provides firms with the ability to provide a wider range of products. This also provides for a greater target market.
- It is important within this industry for sales people to have a good working knowledge of the products sold by the firm. This knowledge is sometimes developed from training and development and/or work in a related field.
- Provision of after sale services is a key success factor within this industry. For example, firms within this industry regularly engage in providing customer gifts and setting up trade promotions.
- There is a high degree of trust and interdependence between manufacturers and wholesalers. For example, wholesalers expect that the manufacturers are reliable and committed to delivering high quality goods.
- To share and invest in information between manufacturers and wholesalers, and to be able to customize information systems for better customer and supplier service is a key success factor in this industry.
- Within the industrial machinery and equipment market, most of the manufacturing companies have strong brand name recognition. Some brand

names sell better than others. (para.2 under ‘Competitive Landscape’)

Each of these factors for success is directly related to the leadership in an industrial distribution branch office. The branch leader must be able to manage not only the personnel, but also suppliers, technology, sales, marketing, and many other often confounding aspects of the business. As Collins (2001) stated, it is critical to get the right people in the right positions for success, and the leadership of a small industrial distributor is one of these positions where it is vital to get the right person for the job (p. 41).

### **Test Instrument**

Over the past several decades, a number of leadership measurement instruments have been developed (e.g., Leadership Practices Inventory [LPI], Perceived Leader Integrity Scale [PLIS], Leadership Evaluation Measurement [LEM], Leader Behavior Description Questionnaire [LBDQ], etc.). According to Bass and Avolio (2004), many of these leadership instruments “have fallen short in explaining a full range of leadership styles, ranging from the charismatic and inspirational leaders to avoidant laissez-faire leaders” (p. 1).

Bass was one of the early researchers who developed the idea of transformational and transactional leadership. He believed that the inherent nature of each of these leadership styles strongly influences the effectiveness of not only the leader, but also the organization (Bass, 1985). He developed an instrument, known as the Multifactor Leadership Questionnaire (MLQ), to investigate the nature of the relationship between transactional, transformational, and laissez-faire styles of leadership, and their effect on

organizational effectiveness and worker satisfaction (Lowe & Kroeke, 1996). The MLQ was further developed and refined by Bass and Avolio (2004) in the early 1990s. Today, this leadership test instrument is a widely used, empirically validated mechanism to compare and contrast the complementary aspects of transformational and transactional leadership with specific scales and subscales that differentiate leader behavior.

The MLQ measures a wide range of leadership behaviors, while at the same time differentiating between ineffective and effective leaders. It does this by focusing on individual behaviors as observed by the leaders' associates of different organizational levels (Bass & Avolio, 2004). The original MLQ tested 142 items that were derived from both an open-ended survey to 70 top executives and a review of literature. The current version of the MLQ, the MLQ (5X), is a refined version of the original consisting of 45 questions, or items. A factor analysis provides nine scales for the MLQ survey with acceptable reliabilities. The 45 items in the MLQ (5X) survey have been factor analyzed multiple times since the original, with similar results (Hater & Bass, 1988). The 45 items in the current MLQ (5X) survey identify and measure key leadership and effectiveness behaviors of organizational leaders, which in prior research showed strong connection to both individual and organizational success (Bass & Avolio, 2004).

Of the nine scales used in the current MLQ (5X) survey, five of them have been identified with, or characteristic of, transformational leadership (Bass & Avolio, 2004).

- Idealized Attributes: Instills pride in others; goes beyond self-interest for the good of the group; acts in ways that build others' respect for the leader; displays a sense of power and confidence.
- Idealized Behaviors: Communicates beliefs to followers; considers the moral and ethical consequences of decisions; emphasizes the importance of a collective sense of mission.

- Inspirational Motivation: Talks in ways that motivate others by being optimistic about the future and being enthusiastic about what needs to be accomplished; articulates a compelling vision of the future; confidence that goals will be achieved.
- Intellectual Stimulation: Invites followers to be innovative and creative in solving problems; allows followers to question the status quo; seeks different perspectives on problems.
- Individualized Consideration: The leader delegates projects to stimulate learning experiences, provides coaching and teaching, and treats each follower as a respected individual. (pp. 95-96)

The next two scales were identified with, or characteristic of, transactional leadership (Bass & Avolio, 2004).

- Contingent Reward: The leader provides rewards for achieving a performance task; makes clear what can be expected when goals are reached; shows satisfaction when goals are achieved.
- Management-by-Exception (active): The leader focuses attention on mistakes, irregularities, and deviation from standards; keeps track of all mistakes. (p. 96)

The final two scales measure laissez-faire leadership (Bass & Avolio, 2004).

- Management-by-Exception (passive): The leader fails to interfere until problems become serious; waits for things to go wrong before taking action.
- Laissez-Faire: This leader avoids getting involved in important issues; absent when needed, and avoids making decisions. (p. 97)

Because the MLQ measures a full range of leadership effectiveness, ranging from ineffective to very effective, it is most suitable for administration in a study measuring the effect of leadership at the branch level of industrial distributors. As a full-range leadership instrument, it has shown to be very effective at linking leadership style to organizational performance (Bass & Avolio, 2004). The MLQ survey has been used in hundreds of leadership studies, and has been cited in countless dissertations, journals, books, and conference papers (Lowe & Kroeke, 1996). The survey has been used to study leaders in both public and private organizations, from large to small organizations, and all

levels of management, from lower level supervisors to senior level CEOs.

In numerous correlations among factor analysis criteria by Bass and Avolio (2004), laissez-faire style of leadership consistently ranked at the ineffective end of the leadership scale (p. 4). The emphasis of this study is on transactional and transformational leadership.

### **Similar Studies**

Leadership research has clearly shown evidence of the benefits, both for the follower (e.g., McColl-Kennedy & Anderson, 2002), and the organization (e.g., Cannella & Rowe, 1995; Giambatista, 2004; Rowe et al., 2005; Waldman et al., 2004) of transformational leadership (Judge & Piccolo, 2004). The style of leadership used by a leader is considered, by many researchers (e.g., Conger, 1999; Dubinsky et al., 1995; Yammarino et al., 1993) to be of primary importance in achieving organizational success (Barling et al., 1996; Zacharatos et al., 2000).

While the value of transformational leadership is well documented, the contextual influences that effect said leadership, and the success thereof, are less clear (Osborn, Hunt, & Jauch, 2002; Porter & McLaughlin, 2006). For example, some leadership theorists argue that organizational structure, alone, can shape the transformational leadership process, which may suggest that this form of leadership is more effective in organic structures than larger, more rigid mechanistic organizational structures (Kark & Van-Dijk, 2007; Pawar & Eastman, 1997).

There have been leadership theorists who have hypothesized the impact of moderating effects on leadership (Koene et al., 2002). Some of these include the task

structure and/or the position of power on the need for leadership and its effectiveness (De Vries, 1997; House & Mitchell, 1986); the needs of specific leadership at various levels throughout the organization (Hunt, 1991), the role of organizational structure (Walter & Bruch, 2010), and the effects substitution has on organizational design when existing leadership is ineffective (Howell, Bowen, Dorfman, Kerr, & Podsakoff, 1990; Kerr & Jermier, 1978). There is surprisingly little empirical research data on the moderating role of context as it relates to overall leadership effectiveness (Yukl, 1999). Further, to continue to progress the body of knowledge in leadership literature, additional empirical research should be conducted on the role of both internal and external organizational contexts (Conger, 1999).

Moderating effects such as goal clarity, availability of resources, culture of the organization, and conflict within the organization have all shown to have an effect on the ability of both the transactional and transformational leader to predict either individual or organizational performance (Hendel, Fish, & Galon, 2005).

The size of the parent organization is a moderating effect that plays a key role in the proliferation and promotion of formal structure, policy, and systems within an organization (Koene et al., 2002). In their study, Koene and colleagues examined the effect leadership style has on both the financial performance and organizational climate in 50 supermarket stores of varying sizes. What they found is that leadership has a significant effect on organizational success, specifically on financial performance. They stated:

Store personnel of charismatic or considerate store managers experience better organizational efficiency, more general communication, and a larger readiness to innovate. The results seem to show that charismatic and considerate leaders reach



better performance via two roads. First, they seem to be able to make people more aware and responsible in their jobs countering waste. This awareness shows in the impact of charismatic and considerate leadership on reducing the level of controllable costs. Furthermore, charismatic and considerate leaders see to enhance the quality of work resulting in a strong impact on the net results of the stores. (pp. 9-10)

Despite the research available demonstrating the positive relationships between employee perceptions of leadership effectiveness and organizational success, very few studies have linked transformational leadership to financial performance. Avolio, Waldman, and Einstein (1988), Howell and Avolio (1993), and Steyrer and Mende (1994) are some who have tied leadership style to financial performance.

Early research demonstrated that smaller organizations—those with fewer people, fewer levels of hierarchy, and less subdivisions of specific work details—often have a more streamlined organization and a more integrated social system (Koene et al., 2002; Melcher, 1976). As organizations grow in size, they often become far more formalized by creating new divisions within the organization that allow for more specialization, which also promotes less centralization (Osborn, Hunt, & Jauch, 1980). As the leaders in the industrial distribution branches evaluated in this study are all part of larger organizations, these aforementioned organizational implications may have some effect on the leadership styles at the branch level. Further development of the concept of transformational leadership has allowed for even greater understanding of the impact that effective leadership has on an organization's performance (Koene et al., 2002).

In spite of research literature that demonstrates a connection between leadership style and organizational performance, there continues to be debate and critique on how to measure performance and the selection of performance measures (De Hoogh et al., 2004).

Biased ratings on many of the follower self-reports critique results based on the followers' commitment to the organization, their satisfaction with the leader, and the perceived leader effectiveness (De Hoogh et al., 2004). Some studies have used other organizational outcomes, such as net profit margin, sales, and percentage of goals met as measures of success (Barling et al., 1996; Howell & Avolio, 1993; Koene et al., 2002). Because measures of organizational performance are often dependent on other environmental constraints, the leader may have little control on some of these outside forces, thus suffering the possibility of criterion contamination (De Hoogh et al., 2004; Heneman, 1986).

### **Similar Studies with the MLQ Instrument**

Since the development of the MLQ in the 1980s, there have been hundreds of research studies completed using the MLQ as the measurement instrument (e.g., Avolio, Yammarino, & Bass, 1991; Bass, 1985; Block, 2003; Chen, 2004; Hater & Bass, 1988; Howell & Avolio, 1993; Jones & Rudd, 2008; Judge & Piccolo, 2004; Waldman et al., 1990). The type of organizations that have been examined using the MLQ leadership survey include military groups, financial institutions, manufacturing companies, religious organizations, hospitals, universities, sports groups, K-12 schools, nonprofit organizations, and many others. While there has been some research conducted on small business using the MLQ instrument (e.g., Valdiserri, 2009), it has been very limited.

Both size and scope of MLQ studies have varied widely. The leader *N* size has varied from 9 up to over 300, and the rater *N* size up to nearly 1,000. The hierarchical

level of the leaders examined has ranged from low-level supervisors to senior level management.

The results of the studies using the MLQ have generally found a statistically significant relationship between the effectiveness of the leader and the transformational leadership scales used in the MLQ: charisma, individualized consideration, and intellectual stimulation. The contingent reward scale of transactional leadership has also shown some association with effectiveness (Lowe & Kroeck, 1996). In many of these previous MLQ studies, they demonstrate some consistency both in direction and significance of the MLQ scale associations. From previous MLQ studies, following are some of the correlations found for each of the MLQ scales.

- Charisma; correlation of  $r = .91$  with group effectiveness in a military study (Atwater & Yammarino, 1989). In the same measure of group effectiveness for a Fortune 500 company, a correlation of  $r = .36$  was found (Hater & Bass, 1988).
- Individualized consideration; a correlation of  $r = .77$  between individualized consideration and effectiveness was found in a sample of MBA students working full-time (Bass & Avolio, 1989). In a Naval survey, individualized consideration had a correlation of  $r = .21$  when effectiveness was considered as supervisory skills in the success or contribution to a mission (Bass & Yammarino, 1991).
- Intellectual stimulation; studies have shown a correlation of  $r = .74$  when examining the effectiveness of resident hall directors (Komives, 1991), and a

correlation of  $r = .25$  when studying the effectiveness of a board audit committee members (Spangler & Braiotta, 1990).

- Contingent reward; comparing contingent reward and effectiveness, a study of New Zealand executives found a correlation of  $r = .71$  (Singer, 1985), and a correlation of  $r = 0$  was found in a sample of U.S. managers (Waldman, Bass, & Einstein, 1987).
- Management by exception; in an educational setting, comparing the management by exception scale to effectiveness, a correlation of  $r = .17$  (Kirby, King, & Paradise, 1991) and a correlation of  $r = -0.34$  (Bass, 1985) were found in separate studies.

For nearly 30 years, the MLQ has been one of the primary sources for evaluating and differentiating between highly effective and ineffective leaders. As Bass and Avolio (2004) stated, “the organizational effectiveness of transformational leadership is not in question” (p. 32). Consistent evidence over many years and from many studies has shown how effective transformational leadership can be to producing positive organizational performance.

### **Summary**

As the world continues to “flatten” (Friedman, 2007), and as markets globalize, the diversity of workforces will continue to increase, the time available for critical functions will decrease, and the need for developing transformational leadership skills will become increasingly important (Cascio, 1995). Stressing the importance of

developing transformational leadership skills within an organization, Cascio concluded that “more often, today’s networked, interdependent, culturally diverse organization requires transformational leadership” (p. 930).

Although the industrial distribution industry operates within a very mature market segment, it must continue to change and adapt to a global and ever-changing industrial market. To remain competitive in this sort of dynamic market, industrial distributors, like all other companies, must learn to find and develop strong leadership (Avolio, 2004; Cascio, 1995). Research has shown that there are good reasons to believe that there is a relationship between leadership style and organizational performance.

If leadership is one of the key components in the improvement of a company’s performance, then it stands to reason that we should try to better understand leadership practices (Zhu et al., 2005). Strong, effective leadership at the branch level is one of the best ways an industrial distributor can hedge against the constant creative destruction of organizational mediocrity and to provide a sustainable competitive advantage for organizational improvement and success (Avolio, 1999; Lado, Boyd, & Wright, 1992; Rowe, 2001). Results from an MLQ survey could help a company identify strong candidates for training programs, and for promotion or transfer to leadership and supervisory positions. MLQ scores can be used to identify leaders who may be well suited to a particular situation, project, or department.

### CHAPTER III

### METHODOLOGY

The purpose of this research was to quantitatively examine the relationship between leadership style and organizational success at the branch level of an industrial distributor. While all of the industrial distribution branches surveyed in this study belong to a larger organization, they often function as independent small businesses. These “small businesses” often operate with significant autonomy which highlights the critical nature of effective leadership for these industrial distributors. This study is designed to measure the impact and importance of specific leadership styles in the successful operation of industrial distributors.

The industrial distribution branches surveyed in this study all belong to the Win Group of Companies. The different distribution locations operate under the names of Winnelson, Winair, Winlectric, Windustrial, Wintronic, Winwater, and Winsupply. Collectively, this group of industrial distribution companies operates under the name WinWholesale. What makes WinWholesale unique among the industrial distribution industry is that many of the leaders at the local level are part owners in the branch and hold the title of president. Because the parent organization also retains a majority of ownership in each branch, the branches receive consulting and operational services to improve wholesaling operations. These services may include accounting, payroll, insurance administration, data processing services, group buying, and distribution center services.

As a company, WinWholesale has not only been actively engaged in the

promotion of industrial distribution education for many years, they have also been on the leading edge of operational strategy that promotes organizational success. As evidence of this, WinWholesale is one of the charter members of, and continues to be an active partner in the Industrial Distribution program at the University of Nebraska at Kearney. Data for this study were collected in cooperation with the corporate offices of WinWholesale, their regional leadership, and the respective leadership of each branch. The regional offices of WinWholesale solicited participation in this survey from branch offices within each respective region. By limiting this study to only one corporation, with multiple locations, other mitigating factors were controlled. For example, all locations had the same amount of consulting services available from corporate offices, all branches were in the industrial distribution market segment, the formal organizational structure of both corporate and branch level was congruent, and training of employees was often similar. Recognizing the importance of remaining highly competitive in a difficult economy and in a highly competitive market, the management of WinWholesale embraced the opportunity to participate in this research study (see WinWholesale Letter of Support in Appendix A).

### **Research Design**

This research analyzed data using descriptive statistics, correlations, and multiple regression analyses using both main effects and interaction effects of the independent variables. Through a process of multiple regression research methods, the relationship between leadership style, moderating variables (including length of time as branch leader, age, educational level, and years of experience in the industry), and organizational

success of the industrial distribution branches was evaluated. The research questions outlined on the design instrument allow for the gathering of data on the leadership styles of the branch leaders of participating WinWholesale distribution branches. One of the most common methods of demonstrating a relationship between variables is by using the correlational method (Rumrill, 2004). Creswell (2004) defined correlational research methods as a “statistical technique describing and measuring the degree of association or relationship between two or more variables of sets of scores” (p. 361). This type of research is useful for determining trends, and explaining relationships between dependent and independent variables (Creswell, 2004; Levine, Berenson, & Stephen, 1999).

The data were also tested at the organizational level using a multiple regression analysis. Cohen, Cohen, West, and Aiken (2003) posited that multiple regression “may be used whenever a quantitative variable, the dependent variable, is to be studied as a function of, or in relationship to, any factors of interest, such as the independent variables” (p. 1). In this study, the dependent variable was operational success. In consultation with WinWholesale management, the dependent variables used were based upon their history of determinants of success at the branch level. For purposes of this study, the dependent variables included the following measures of quantifiable data: year-over-year change in annual net sales, and year-over-year change in annual gross margin. To ensure that leadership data at each branch was closely tied to a specific leader, this information was provided for each year that the participating leader was at the branch being measured, up to five years. These data were provided by the corporate offices of WinWholesale.

When the relationship between the independent and dependent variables is



affected by a third variable, this third variable is known as a moderator (Cohen et al., 2003). Moderating effects have played a key role in numerous management, as well as social and behavioral science related studies over the years (e.g., Bedeian & Mossholder, 1994; Sackett & Wilk, 1994; Snell & Dean, 1994). Hall and Rosenthal (1991) suggested that these studies, and others, support the idea that moderating effects are “at the very heart of the scientific enterprise” (p. 447). In this study, moderating variables were considered on leadership effectiveness. The moderators used in this study were age of the leader, experience of the leader in the industry, duration of the leader with WinWholesale (at that particular location), and education level of the leader.

This study was guided by the following research questions to meet the purpose and objectives of the research.

1. What is the relationship between leadership style and branch-level success at WinWholesale branch operations?
2. What is the relationship between leadership style, interactive effects (moderating variables), and branch-level success for WinWholesale distributors?

To answer the aforementioned research questions, the following null hypotheses were examined.

*H1(a)<sub>0</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year sales at WinWholesale distributors.

*H1(b)<sub>0</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year gross margin at WinWholesale distributors.

*H2(a)<sub>0</sub>*: Age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(b)<sub>o</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(c)<sub>o</sub>*: The leaders' duration with the company does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(d)<sub>o</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(e)<sub>o</sub>*: The age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(f)<sub>o</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(g)<sub>o</sub>*: The leaders' duration with the company does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(h)<sub>o</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

The current study took place at branch locations of WinWholesale, a privately held industrial distributor. Each participating branch location in the study varied in size,

location, personnel, and market. A common thread among them was that each branch has a branch leader, or company president. The president may, or may not, have an operation's manager reporting to him. A typical organizational chart for the WinWholesale branches that participated in this study is shown in Figure 3.

### Population and Selection Criteria

Howell (2010) described a population as “the entire collection of events...in which you are interested” (p. 2). Neuman (2003) posited that the target population of a study is the specific pool of individuals to be studied (p. 216). The target population for this study included all branch level locations in the four western regions of the United

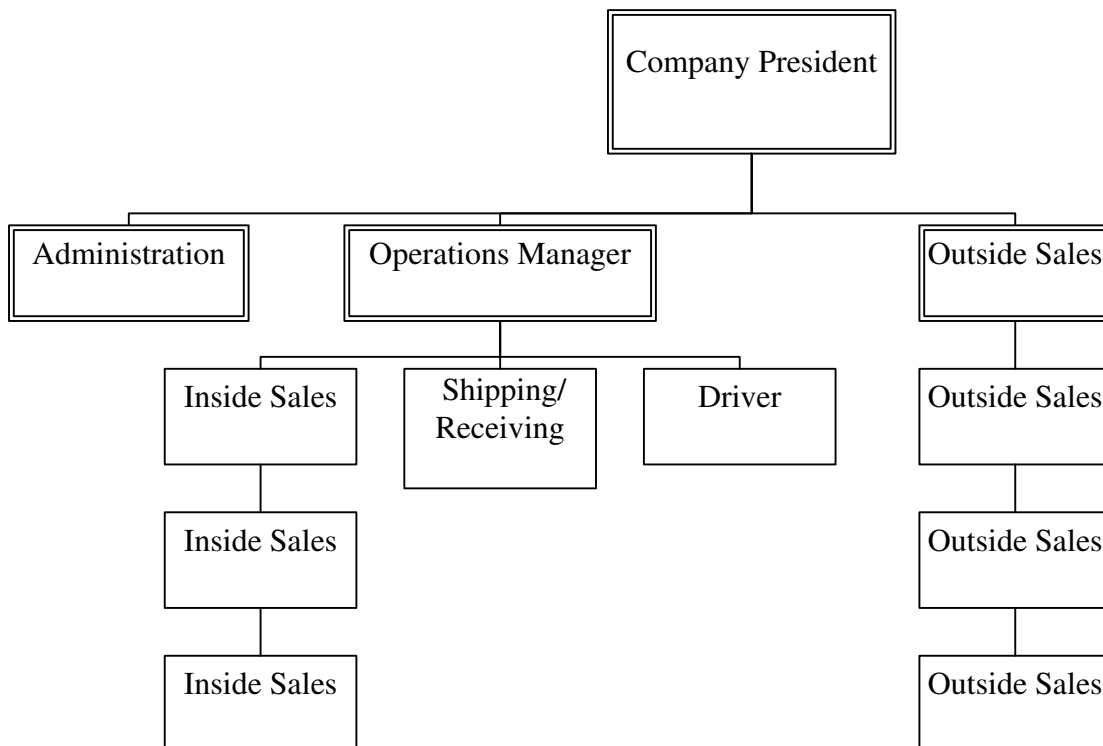


Figure 3. Typical WinWholesale branch-level organizational chart.

States within the WinWholesale group of companies. As shown in Figure 3, each branch had varying numbers of employees, depending on many factors, including age of the branch, market size, products offered, as well as other factors that will contribute to branch size.

Leadership style data was collected via the MLQ survey instrument from voluntary participants within WinWholesale branch offices. WinWholesale corporate offices provided a list of 220 branch presidents from their four western regions. These regions represent most of the branches west of the Mississippi River. These 220 branches represented nearly half of all WinWholesale branch locations in the United States. Due to the limited scope of this study, only leaders and their respective followers were surveyed. The MLQ instrument allows for gathering information from the leaders' superiors, as well as peers, but gathering that type of data was outside the scope of this study.

Prior to the MLQ survey being sent out to all leaders, an email was sent out by the four respective regional managers in support of the research and encouraging all company leaders to participate in the research (see Appendix B).

### **Informed Consent**

Because this study used human participants, the recommended Utah State University IRB protocol was followed. Appendix C shows the Certificate of Exemption—Category #2 from the Utah State University IRB. WinWholesale regional managers, as well as corporate administration, were first advised of the nature of the study. Attached to the MLQ survey was a copy of the Letter of Information (see Appendix D) that also introduced the participant to the study and the purpose thereof.

Within said Letter of Information, participants were advised that participation in the study was completely voluntary, and in no way was it a condition of employment. Further, employees were assured that all data collected would be held strictly confidential.

All surveys were administered by Mind Garden, host of the MLQ instrument. As such, when the participant completed the survey it was returned directly to Mind Garden, via email, who then compiled the data and delivered the raw data to the author for coding and analysis.

### **Confidentiality**

Attempts were made to make the data completely anonymous. However, when it was necessary to specifically identify a participant, it was held in strict confidence. No personal information was provided to third party interests. All WinWholesale branch locations were coded with numbers so that precise locations could not be identified. The statistical results derived from survey data were only presented in aggregate form, with no mention of names, places, or positions. In an attempt to protect the identity of the participants, only the author of this study had access to the files. All files and/or data will be stored in secured and locked file cabinets and all data will be destroyed after three years.

### **Instrumentation**

The MLQ, designed by Bass and Avolio (2004), was used in this research as the instrument to measure leadership style. The MLQ was chosen as the measurement

instrument for this study because it is a widely accepted tool, and is an effective data collection method. The MLQ is a survey developed to assess the broad range of leadership behaviors, while also differentiating effective leaders from those who are ineffective (Bass & Avolio, 2004). The questionnaire focuses on the behaviors and tendencies of the leader, as assessed by employees (or subordinates) and the leaders within an organization. The MLQ instrument used to collect the data uses two primary surveys: the MLQ 5X leader form, and the MLQ 5X rater form (sample of survey shown in Appendix E). The leader form is completed by the leader being evaluated, and the rater forms are completed by subordinates. Each survey uses a 5-point Likert scale system (0 = not at all; 1 = once in a while; 2 = sometimes; 3 = fairly often; 4 = frequently, if not always) to describe and/or scale the importance of each of the 45 questions. Both leader and subordinate forms should be able to be completed by each participant within 10-15 minutes. After all the data was collected, the MLQ Scoring Key Form 5X was used to score the data (sample of the scoring key is shown in Appendix E).

According to Zenger and Folkman (2009), leadership has a significant impact on organizational performance:

Leadership affects every measurable dimension of organization performance... Poor leaders have a substantial influence on an organization's success. They consistently achieve less effective results, create greater turnover, discourage employees, and frustrate customers. Good leaders will achieve good results. A good leader will have lower turnover, higher profitability, and more employee commitment (p. 37).

The original MLQ form 5X survey was developed in 1991 and has since incorporated numerous refinements and changes (Bass & Avolio, 2004). The MLQ has been examined by, and critiqued in, many research studies with a wide range of sample

sizes and organizational structures (Lowe & Kroeck, 1996). Historical reliability coefficients for the MLQ5X for each leadership factor scale ranged from .74 to .94 (Bass & Avolio, 2004). Over the past several years, literally hundreds of leadership studies have been conducted using the MLQ leadership questionnaire, which helps to validate the data. According to Bass and Avolio, the results from many years' of experience and refinement of the MLQ have allowed for the continued validation of the instrument by

measuring a wider and more detailed range of leadership factors, we likely increase our chances of tapping into the actual range of leadership styles that are exhibited across different cultures and organizational settings, particularly ones that may be more universal to different cultures. Second, to the extent this range of leadership styles holds up in future research, we may have moved closer to developing a basis for a more effective and comprehensive means for leadership assessment, training, and development. (p. 65)

Cresswell (2004) stated, "A survey design provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population" (p. 153). A survey is an effective way to gather generalizations from the sample and apply it to the population to allow for inferential conclusions.

To support the reliability and validity of the MLQ instrument several research studies have been cited. Lowe and Kroeck (1996) provided the first significant meta-analysis of both published and unpublished studies that used the MLQ. For the three transformational leadership dimensions they analyzed, overall validities ranged from .71 for charisma, to .60 for intellectual stimulation. Casimir, Waldman, Bartram, and Yang (2006) had sample groups from Australia and China and found a significant positive correlation between transformational leadership, trust, and performance (p. 77). Chen (2004) used the MLQ survey to help study employee behaviors that are associated with transformational and transactional leadership and how each leadership style can both

moderate and mediate effects of organizational culture and commitment. Using the MLQ survey, Chen (2004) found a significant positive correlation between transformational leadership and organizational commitment and culture (p. 435). Jones and Rudd (2008) used the MLQ instrument to test the leadership styles of program leaders in colleges of agriculture at land-grant universities. They found that most academic program leaders use transformational leadership ( $\mu = 3.28$ ;  $SD = .36$ ) more than transactional ( $\mu = 2.24$ ;  $SD = .46$ ), or laissez-faire ( $\mu = .88$ ;  $SD = .37$ ) leadership styles (p. 93). While these data provide good historical reference, and are good validation of the MLQ instrument, it is important to note that in the final analysis of this study only numbers calculated from the data gathered in this study will be provided. Table 2 identifies the full range of leadership characteristics identified by Bass and Avolio (2004) for transformational, transactional, and laissez-faire styles of leadership.

### **Data Acquisition**

The administration of the MLQ survey was performed by Mind Garden, Inc., the host of the MLQ instrument. With the permission of WinWholesale corporate administration, the leaders and employees from branch locations within WinWholesale were asked to participate in the study. Email addresses were provided by WinWholesale corporate offices for participants. The introductory letter (see Appendix B) from the four WinWholesale western regional managers, was sent via email to the leader of each branch location stating the purpose of the research, how it would be of value to their particular branch, and assuring the confidentiality of all data. Due to the size and scope of this study, it was impractical to visit each participating branch location to administer the



Table 2

*Full Range Leadership Model: Transformational, Transactional, and Laissez-Faire Leadership Scales in the MLQ 5X Survey*

Leadership style	Brief description
Transformational	
Idealized attributes (IA)	Instills pride in others; goes beyond self-interest for the good of the group; acts in ways that build others' respect for the leader; displays a sense of power and confidence.
Idealized behaviors (IB)	Communicates beliefs to followers; considers the moral and ethical consequences of decisions; emphasizes the importance of a collective sense of mission.
Inspirational motivation (IM)	Talks in ways that motivate others by being optimistic about the future and being enthusiastic about what needs to be accomplished; articulates a compelling vision of the future; confidence that goals will be achieved.
Intellectual stimulation (IS)	Invites followers to be innovative and creative in solving problems; allows followers to question the status quo; seeks different perspectives on problems.
Individual consideration (IC)	Spends time teaching and coaching followers; focuses on follower needs for achievement and growth; helps others to develop their strengths.
Transactional	
Contingent reward (CR)	Provides rewards for achieving a performance task; makes clear what can be expected when goals are reached; shows satisfaction when goals are achieved.
Management-by-exception (active)	Focuses attention on mistakes, irregularities, and deviation from standards; keeps track of all mistakes.
Laissez-faire	
Management-by-exception (passive)	Fails to interfere until problems become serious; waits for things to go wrong before taking action.
Laissez-faire	Avoids getting involved in important issues; absent when needed; avoids making decisions.

*Note.* Taken from Bass and Avolio (2004, p. 95).

survey. Thus, the MLQ survey was emailed by Mind Garden to all participants, and prospective participants. In the information emailed to both leaders and followers, there was a date by which the survey was to be completed.

After Mind Garden sent out the request for participation to all 220 WinWholesale leaders (representing the four western regions), a follow-up email was sent by the author to provide additional contact information in the event there were survey instrument questions. One week after the initial survey was sent to all leaders another email was sent to those leaders who had not yet participated. Over the course of 4 weeks, three follow-up emails were sent to all leaders encouraging participation. After four weeks, phone calls were made to every leader who had not yet participated, encouraging them to participate in the survey. Several follow-up emails were also sent to those followers whose name and email address had been provided, but had failed to participate in the MLQ survey. The net result was that there were 280 overall participants in the research. Of these 280 participants, there were 100 leaders and 180 followers represented. All but two leaders provided moderator data: number of years as branch leader (duration), age, experience in industry, and education. Dependent variable data, sales and margin year-over-year performance for the past 5 years, were provided by corporate WinWholesale for all 100 participating branches. Once all surveys had been completed and returned, or enough time had elapsed to be relatively certain no more surveys would be returned, the statistical analysis began.

All participants in the survey were asked to complete the survey independently and without comparing with others. Participants were advised that they were expected to be truthful and forthright in all their answers. Further, they were advised that there was no right or wrong answers, and that this was simply a survey measuring leadership styles.

## **Data Analysis**

After all MLQ survey data were returned to the researcher, it was inspected for completeness. Participants in the survey included branch leaders, outside salespersons, inside salespersons, shipping/receiving personnel, and administrative personnel. Although follower data was received, coded, and analyzed, the emphasis of this study was on the self-perception of the branch leaders who completed the MLQ survey. The literature review revealed that most leadership studies using the MLQ survey instrument used only leader self-reported data for analysis (Greiman, 2009). If there were any questions on the completed MLQ survey that were unanswered, that particular question was not counted in the analysis.

Prior to statistically analyzing the MLQ data using SPSS software v. 19<sup>®</sup>, all the data was sorted and coded by inputting the data into a Microsoft Excel 2007<sup>®</sup> spreadsheet. Both the MLQ 5X leader form and the MLQ 5X rater form consisted of 45 questions (reference Appendix E). Each question was purposeful by design and related to one of the leadership characteristics as shown in Table 2. The MLQ coding is represented in Tables 3 and 4, from the MLQ manual and sampler set (Bass & Avolio, 2004). Table 3 shows the leadership characteristic with each associated question for that specific scale. Table 4 denotes the outcomes, or results of each shown leadership behavior.

## **Descriptive Statistics**

After the coding was completed, the descriptive statistics (Howell, 2010) were analyzed using the SPSS software. The descriptive statistics were analyzed to determine

Table 3

*MLQ Survey Coding by Leadership Characteristic*

Characteristic	Scale name	Scale abbreviation	Items
Transformational	Idealized attributes	IA	10, 18, 21, 25
Transformational	Idealized behaviors	IB	6, 14, 23, 34
Transformational	Inspirational motivation	IM	9, 13, 26, 36
Transformational	Intellectual stimulation	IS	2, 8, 30, 32
Transformational	Individual consideration	IC	15, 19, 29, 31
Transactional	Contingent reward	CR	1, 11, 16, 35
Transactional	Management-by-exception (active)	MBEA	4, 22, 24, 27
Passive avoidant	Management-by-exception (passive)	MBEP	3, 12, 17, 20
Passive avoidant	Laissez-faire	LF	5, 7, 28, 33

*Note.* Taken from Bass and Avolio (2004, p. 110).

Table 4

*MLQ Outcomes of Leadership/Results of Leadership Behavior*

Characteristic	Scale name	Scale abbreviation	Items
Outcomes	Extra effort (subordinate)	EE	39, 42, 44
Outcomes	Effectiveness (leader)	EFF	37, 40, 43, 45
Outcomes	Satisfaction (subordinate)	SAT	38, 41

*Note.* Taken from Bass and Avolio (2004, p. 110).

measures of central tendency, variability and dispersion, reliability, and outliers that might have affected the data in some fashion. Histograms, with normal distribution curves overlaid, were generated for each of the variables by SPSS software to allow for a visual examination of the data distribution.

### **Moderator Variable Data**

Appendix F shows detailed frequency data for each of the moderator variables.

Noted from the duration frequency table is that 33.7% of all participating leaders had three years or less of leadership experience at their respective branch office. The age and experience of leaders was evenly distributed across all participants. Only 59.2% of respondents had a high school education or less. The descriptive statistics for said moderator data is represented in Table 5.

It should be noted that the scale for duration was different than that of the other moderators. Duration was measured in raw number of years of service, while the other moderators were scaled. For example, the scale for age was: 0 = less than or equal to 24, 1 = 25-30, 2 = 31-35, 3 = 36-40, 4 = 41-45, 5 = 46-50, 6 = 51-55, 7 = 56-60, 8 = 61-65, and 9 = 65+. The scale for education was: 0 = high school, 1 = trade school or associate degree, 2 = bachelor's degree, 3 = master's degree and 4 = other. There were six leaders who entered data as a 4 (other), and then commented on what "other" meant. In an attempt to keep the education data more uniform, the author assigned a 0, 1, or 2 to each of these participants, depending on the leaders' response to other.

The moderator "duration" was a measure, in number of years, of how long the leader had been leader of his/her particular branch. This was particularly important

Table 5

*Moderator Data Descriptive Statistics*

Moderator	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>
Duration	94	1.00	38.00	10.5957	9.11376
Age (scaled)	94	1.00	8.00	4.8191	2.04762
Experience (scaled)	94	.00	6.00	3.8617	1.82339
Education (scaled)	94	.00	2.00	.6809	.88248

because it would be matched with the financial data provided by WinWholesale. If a leader had only been in that branch location for two years, for example, then only the last two years of sales and margin data were factored into the analysis.

### **Dependent Variable Data**

Dependent variable data, year-over-year change in branch sales and margin, were provided by corporate WinWholesale. The data were coded so that dependent variable data were only used for the time the respondent had been a leader at that particular branch. For example, if the leader had only been leader of that specific branch for 3 years, then only the most recent 3 years of financial data were used. Table 6 provides descriptive statistics of the original dependent variable data for all leaders.

As the data were examined more closely, it was determined that the data did not meet the normally accepted assumptions for regression analysis, with a sales skewness of 4.816, and a margin skewness of 6.559. A multiple regression analysis assumes that the data is normally distributed, or closely normally distributed. The dependent variables, sales and margin, were highly skewed. Because of this, the dependent variable data was transformed to allow for a more normally distributed data set. There are different

Table 6

#### *Original Dependent Variable Descriptive Statistics*

Variable	N statistic	Min statistic	Max statistic	Mean statistic	SD statistic	Skewness		Kurtosis	
						Statistic	Std. error	statistic	Std. error
Sales	98	-.3705	4.6075	.158374	.6961621	4.816	.244	25.026	.483
Margin	98	-.2412	8.9569	.223867	1.092551	6.559	.244	47.299	.483

methods of transforming data, but it was determined that it would be most effective to use the log base 10 of each variable as the transformation scale. To do this, negative numbers could not be used. Therefore, a constant was added to each variable. For sales, a constant of 1.3705 was added to each variable, and for margin, a constant of 1.2412 was added to each variable. Then each variable was transformed using Log base 10. After transforming the data in the aforementioned manner, it was clear there were outliers affecting the data set. After removing the top four outliers from the data, the skewness and kurtosis drew closer to acceptable levels. Skewness for sales went down to 2.076, and for margin it was 2.391. Kurtosis for sales was 6.820, and for margin it was 6.598. Appendix G shows the normal distribution curves for both sales and margin, as well as the descriptive statistics, including skewness and kurtosis, after the dependent variables were completely transformed, and the four outliers removed.

### **Independent Variable Data**

Transformational and transactional leadership styles measured by the MLQ were a composite score derived from each of the nine leadership factors. For example, the transformational leadership score was derived from the mean of all scores from idealized influence—attributes (IIa), idealized influence—behaviors (IIb), inspirational motivation (IM), intellectual stimulation (IS), and individual consideration (IC). Transactional leadership scores were derived from the mean of contingent reward (CR), and management by exception—active (MBEA). The last two factors, management by exception—passive, and laissez-faire were measurements of laissez-faire style of leadership and were not used in this analysis.

Table 7 represents descriptive statistics for the nine factors of leadership style as defined by the MLQ. After each leadership factor was calculated for both leaders and followers, the variable was mean centered. Then transformational leadership for leaders was calculated using the five centered transformational leadership factors. The same was done for transformational leadership as rated by followers, transactional leadership by leaders, and transactional leadership as rated by followers.

Table 7

*Nine-Factor Characteristic Descriptive Statistics*

Characteristic	<i>N</i>	Min	Max	Mean	<i>SD</i>
Idealized influence (attributes)					
Leader	94	1.25	4.00	3.0230	.61022
Follower	70	1.13	4.00	2.9852	.65966
Idealized influence (behavior)					
Leader	94	.75	4.00	2.9699	.65808
Follower	70	1.00	4.00	2.6889	.64696
Inspirational motivation					
Leader	94	1.00	4.00	3.0027	.71325
Follower	70	.50	4.00	2.9622	.72353
Intellectual stimulation					
Leader	94	1.25	4.00	2.8342	.61669
Follower	70	1.56	4.00	2.6901	.60044
Individual consideration					
Leader	94	1.67	4.00	3.1099	.56522
Follower	70	1.00	4.00	2.8082	.65224
Contingent reward					
Leader	94	1.25	4.00	2.8706	.60866
Follower	70	.63	4.00	2.7607	.75476
Management by exception (active)					
Leader	94	.00	4.00	1.8511	.87817
Follower	70	.00	4.00	2.0855	.69779
Management by exception (passive)					
Leader	94	.00	3.50	1.0213	.75649
Follower	70	.00	2.75	.8879	.62090
Laissez-faire					
Leader	94	.00	3.75	.5053	.61781
Follower	70	.00	2.13	.4862	.50010



Figure 4 represents a graphic illustration of each MLQ leadership factor from this study, as compared to the normative scores from a sample of 27,285 individual scores obtained from Bass and Avolio (2004). A review of Figure 4 shows that the leader results from this survey track evenly, or higher than the MLQ norm, for transformational leadership. Conversely, follower data was lower than the norm for all except one factor, Individual Consideration (IC). For transactional leadership, both leaders and followers were lower than the MLQ norm in Contingent Reward (CR), yet both were higher than the MLQ norm for Management by Exception—Active (MBEA). The comparison does not show any major data anomalies. The aforementioned differences in data may be due to types of populations surveyed; leaders and followers from one company in the industrial distribution industry vs. a wide array of leaders and followers from many different organizations in the MLQ normative sample.

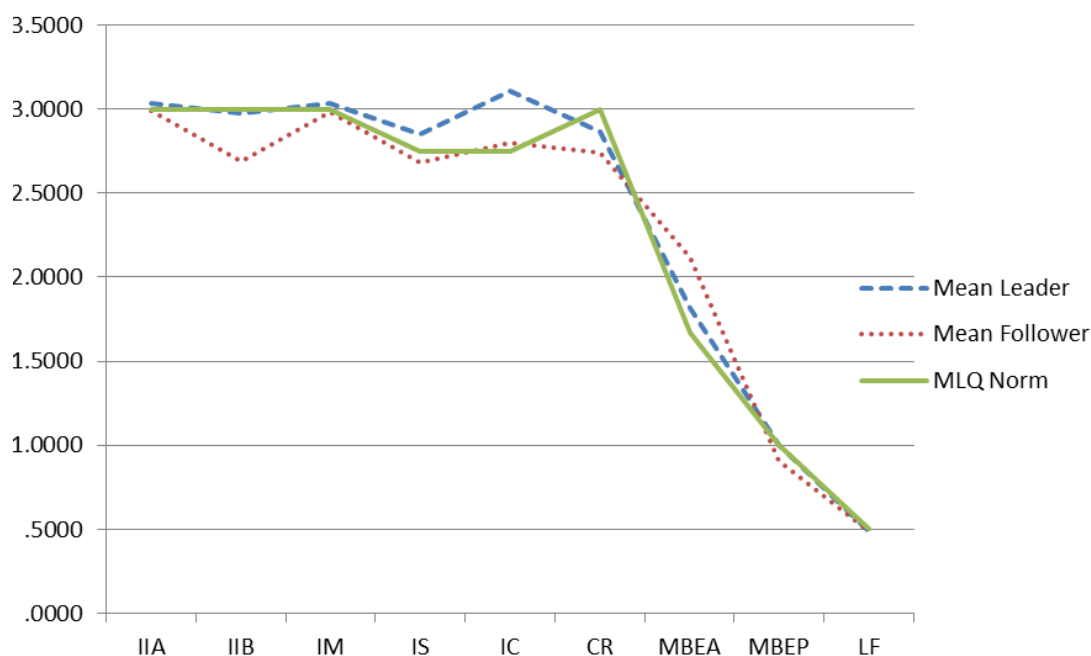


Figure 4. Leadership factor measurements vs. MLQ normative data.

Table 8 is a summary of the descriptive statistics for transformational and transactional leadership styles. This data clearly demonstrates that both leaders and followers rate leaders' transactional leadership style lower than the same leaders' transformational style of leadership.

The statistical histograms, displaying the normal distribution curves for both transformational and transactional leadership styles are shown in Appendix H. This centered data diagram demonstrates that the independent variables of both transformational and transactional leadership are normally distributed for both leaders and follower data.

### **Reliability**

The greater reliability with which a measure is constructed, the greater the likelihood of significant findings in a regression. Therefore, because transformational leadership uses five of the nine factors (and 20 questions out of the 45 questions on the survey), compared to transactional leadership which derives its totals from only two factors (or 8 questions), it is likely that it has a higher statistical reliability and, thus, it is

Table 8

#### *Leadership Style Descriptive Statistics*

Leadership style	<i>N</i>	Minimum	Maximum	Mean	<i>SD</i>
Leader: Transformational	94	1.2833	4.0000	2.987943	.5401967
Follower: Transformational	70	1.1500	3.8000	2.836127	.5713900
Leader: Transactional	94	1.2500	4.0000	2.360816	.6126636
Follower: Transactional	70	.9896	4.0000	2.423105	.5642343

more likely that significant results will be found with transformational leadership. With this in mind, the Cronbach's alpha was run for each of the leadership variables. Table 9 shows the Cronbach's alpha for both transformational and transactional leadership. The table shows a Cronbach's alpha of .902 for transformational leadership. This indicates that all leadership items measured in transformational leadership have high internal consistency. While lower, the .731 Cronbach's alpha for transactional leadership is well within the acceptable limits for reliability.

### Correlational Data

After all variables were mean centered, including all moderating variables, bivariate correlations were run as a diagnostic test to get a preliminary indication on significant findings. The correlation tables should expose those variables that are significant and warrant further examination. Further correlational data is discussed in Chapter IV.

Table 9

#### *Cronbach's Alpha for Transformational and Transactional Leadership*

Reliability statistics for transformational leadership		Reliability statistics for transactional leadership	
Cronbach's alpha	Number of items	Cronbach's alpha	Number of items
0.910	20	0.731	8

## Regression Analysis

Multiple regression is a statistical measure that examines the relationship of multiple independent variables with dependent variables. In establishing the relationship of two or more variables, it is then possible to predict the value of a dependent variable with a given independent variable. These predicted values can be determined by the following regression equation (Creswell, 2004):

$$Y(\text{predicted}) = b_1 (X1) + b_2 (X2) + a$$

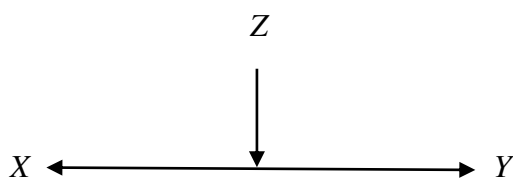
where:

$Y$  = the predicted score

$b_1$  = a constant for the slope of  $X1$  (and  $b_2$  for  $X2$ )

$a$  = the intercept

According to Cohen and colleagues (2003), a moderator is a variable that modifies a relationship among the other variables (p. 458). As shown in Figure 5, moderator  $Z$  demonstrates that it can have a causal effect on both variables  $X$  and  $Y$ . The original intent of this study was to simply examine the relationship between leadership style and branch level success, without applying moderator variables. However, it was soon realized that the relationship between branch success and leadership style may be closely associated with other leadership variables such as age, years of education,



*Figure 5.* Modifying effect of variable  $Z$  on variables  $X$  and  $Y$ .

duration as leader, and experience in the industry. These interactive effects, referred to as moderators, became an important component of the regression analysis.

To include the aforementioned moderators in the analysis, a moderated multiple regression analysis was utilized. According to Villa, Howell, Dorfman, and Daniel (2003) a moderated multiple regression (MMR) “is the preferred statistical method for identifying moderator effects (interaction effects) when the predictor and the moderator are continuous variables or when the predictor is continuous and the moderator is categorical” (p. 4). Several independent studies over the past 5 decades have indicated that MMR is an appropriate mechanism for detecting the effects of moderator variables (e.g., Friedrich, 1982; Stone & Hollenbeck, 1989; Zedeck, 1971). Using SPSS software, the moderating variables were regressed onto the independent variables to examine the effect on the dependent variables.

Further regression analysis and data is discussed in Chapter IV.

### **Summary**

The purpose of this study was to examine the effects of transformational and transactional leadership styles on the organizational performance at the branch level of an industrial distributor. The data collected in this study allowed for the complete statistical analysis described above.

Eagly and colleagues (2003) stated that the most effective and successful leaders use transformational leadership behaviors more than transactional or laissez-faire styles of leadership. The goal of this study was to measure the transformational and transactional leadership styles of branch level leaders, and to then examine the

relationship between this leadership style and the organizational success, while also accounting for established moderating effects. The MLQ is one of the most widely known, and used, research instruments to measure transformational leadership, and was, therefore, chosen as the test instrument for this study. WinWholesale was gracious enough to allow the survey of many of their industrial distribution branches and employees. The leader of each participating branch completed the MLQ 5X leader survey, and the participating employees of each branch completed the MLQ 5X follower survey. In addition to this MLQ data, from each branch leader other demographic information was gathered such as age, education, duration as leader, and experience in the industry. These moderating effects allowed for a more robust regression analysis. WinWholesale provided the necessary dependent variable metrics that included year-over-year annual net sales, and year-over-year gross margin.

Using the SPSS statistical software, the data were examined for normalcy and to discover possible anomalies. Then all data were subjected to a moderated multiple regression analysis using the SPSS software to further evaluate the effect of the moderating variables on leadership. All of these data are reviewed and analyzed in the following chapters.

## CHAPTER IV

### ANALYSIS OF DATA

The purpose of this research was to quantitatively examine the effect of leadership style on organizational success of WinWholesale branch offices. An integral component of this study included the examination of the impact that moderating effects have on leadership style. Chapter III provided a detailed methodology used in this study. Included in Chapter III are all descriptive statistics associated with the data collected. Chapter IV provides a review of research data collected, along with a complete analysis of said data.

The primary objective of this research was to determine if leadership style effects branch level success at an industrial distributor, and how moderating variables may impact this effect. To answer this broader question, the main focus of the research was on multiple regression analysis. However, before the regression analysis began, correlational data was considered for initial observation.

#### **Descriptive Statistics**

The descriptive statistical data was reviewed in Chapter III. As a point of reference, all independent variable, moderating variable, and dependent variable descriptive statistics are shown in Table 10.

#### **Correlations**

After the variables were mean centered, including all moderating variables, bivariate correlations were run as a data diagnostic to get a preliminary indication if there

Table 10

*Descriptive Statistics: All Variables*

Variable	N Stat	Min Stat	Max Stat	Mean Stat	SD Stat	Skewness		Kurtosis	
						Stat	Std. Error	Stat	Std. Error
Duration	94	1.00	38.00	10.595	9.113	.944	.249	.098	.493
Age	94	1.00	8.00	4.819	2.047	-.334	.249	-.949	.493
Experience	94	.00	6.00	3.861	1.823	-.323	.249	-1.01	.493
Education	94	.00	2.00	.680	.882	.678	.249	-1.38	.493
Transformational: Leader	94	1.283	4.000	2.987	.540	-.544	.249	.283	.493
Transformational: Follower	70	1.150	3.800	2.836	.571	-.636	.285	.268	.563
Transactional: Leader	94	1.250	4.000	2.360	.612	.370	.249	.213	.493
Transactional: Follower	70	.9896	4.000	2.423	.564	-.092	.287	.808	.566
Sales—outliers	94	.000	.386	.142	.056	2.07	.249	6.820	.493
Margin—outliers	94	.000	.355	.103	.062	2.39	.249	6.598	.493

were any significant findings. The correlational tables should expose those variables that are linearly related. From Table 11, it is clear that a number of variables are significantly correlated. Those variables highlighted in Table 11 are those that are statistically significant.

The data reveal that duration is negatively correlated to the followers' assessment of transactional leadership;  $r(70) = -.288$   $p < .05$ , and not significant with other leadership categories. This finding would later be corroborated through the regression analysis. Further, the correlational data shows that the leaders' assessment of their own transformational leadership style is positively correlated to their followers' assessment of transformational leadership style, as well as the leaders' assessment of their own transactional style of leadership, and the followers' assessment of the leaders'



Table 11

*Independent Variable and Moderating Variable Correlations*

Variable		Duration	Age	Experience	Education	Transformational: Leader	Transformational: Follower	Transactional: Leader	Transactional: Follower
Duration	Pearson correlation	1	.569	.651	.000	-.044	-.218	-.166	-.288
	Sig. (2-tailed)		.000	.000	.999	.670	.070	.111	.016
	<i>N</i>	94	94	94	94	94	70	94	70
Age	Pearson correlation	.569	1	.751	.062	-.181	-.105	-.115	-.097
	Sig. (2-tailed)	.000		.000	.554	.081	.389	.272	.426
	<i>N</i>	94	94	94	94	94	70	94	70
Experience	Pearson correlation	.651	.751	1	-.018	-.143	.026	-.068	-.039
	Sig. (2-tailed)	.000	.000		.861	.168	.832	.513	.749
	<i>N</i>	94	94	94	94	94	70	94	70
Education	Pearson correlation	.000	.062	-.018	1	.011	.149	-.127	.017
	Sig. (2-tailed)	.999	.554	.861		.913	.219	.223	.889
	<i>N</i>	94	94	94	94	94	70	94	70
Transformational: Leader	Pearson correlation	-.044	-.181	-.143	.011	1	.308	.636	.320
	Sig. (2-tailed)	.670	.081	.168	.913		.009	.000	.007
	<i>N</i>	94	94	94	94	94	70	94	70
Transformational: Follower	Pearson correlation	-.218	-.105	.026	.149	.308	1	.327	.736
	Sig. (2-tailed)	.070	.389	.832	.219	.009		.006	.000
	<i>N</i>	70	70	70	70	70	70	70	70
Transactional: Leader	Pearson correlation	-.166	-.115	-.068	-.127	.636	.327	1	.378
	Sig. (2-tailed)	.111	.272	.513	.223	.000	.006		.001
	<i>N</i>	94	94	94	94	94	70	94	70
Transactional: Follower	Pearson correlation	-.288	-.097	-.039	.017	.320	.736	.378	1
	Sig. (2-tailed)	.016	.426	.749	.889	.007	.000	.001	
	<i>N</i>	70	70	70	70	70	70	70	70

transactional style of leadership:  $r(94) = .308, p < .01$ ,  $r(94) = .636, p < .01$ , and  $r(94) = .320, p < .01$ , respectively. This initial correlational analysis indicates that the data is set up correctly. The correlation also provides an insight into the relationship between the leadership styles.

To get an idea of how the independent variables correlated to the dependent variables without regard to the moderating variables, another correlation was run to expose any significant correlations. Those variables highlighted in Table 12 are those that are statistically significant. Table 12 illustrates there is a significant correlation between leaders' assessment of their own transformational leadership skills and year-over-year sales performance, as well as year-over-year margin performance:  $r(94) = .349, p < .01$ ,  $r(94) = .312, p < .01$ , respectively. Again, this data analysis helps support the idea that the data is constructed properly, thus allowing for a more accurate and robust regression analysis.

### **Regression Analysis**

A main-effects multiple regression analysis was conducted using both sales and margin as the dependent variable. The regression examined the relationship between the independent variables, transformational and transactional leadership, and the dependent variables, sales and margin growth, factoring in the moderating variables. The multiple regression analysis examined each of these relationships for statistical significance and strength of the relationship. The results (for sales) are shown in Table 13.

The data reveal there is a positive relationship between the independent variables, the moderating variables, and sales. It shows that 19.3% ( $R^2$ ) of the variance in sales is

Table 12

*Independent and Dependent Variable Correlations*

Variable		Transformational: Leader	Transformational: Follower	Transactional: Leader	Transactional: Follower	Sales - outliers	Margin- outliers
Transformational: Leader	Pearson correlation	1	.308	.636	.320	.349	.312
	Sig. (2-tailed)		.009	.000	.007	.001	.002
	<i>N</i>	94	70	94	70	94	94
Transformational: Follower	Pearson correlation	.308	1	.327	.736	.022	-.021
	Sig. (2-tailed)	.009		.006	.000	.855	.864
	<i>N</i>	70	70	70	70	70	70
Transactional: Leader	Pearson correlation	.636	.327	1	.378	.160	.155
	Sig. (2-tailed)	.000	.006		.001	.124	.136
	<i>N</i>	94	70	94	70	94	94
Transactional: Follower	Pearson correlation	.320	.736	.378	1	-.105	-.122
	Sig. (2-tailed)	.007	.000	.001		.385	.316
	<i>N</i>	70	70	70	70	70	70
Sales - outliers	Pearson correlation	.349	.022	.160	-.105	1	.930
	Sig. (2-tailed)	.001	.855	.124	.385		.000
	<i>N</i>	94	70	94	70	94	94
Margin - outliers	Pearson correlation	.312	-.021	.155	-.122	.930	1
	Sig. (2-tailed)	.002	.864	.136	.316	.000	
	<i>N</i>	94	70	94	70	94	94

explained by the variables used in the regression. The regression also illustrates that predicting sales from these specific moderating variables and the leadership variables is statistically significant:  $F(6,87) = 3.466, p < .01$ .

From the regression analysis in Table 13, it reveals that transformational leadership is positively related to year-over-year sales performance. The results show that for every one unit increase in transformational leadership, there is a predicted increase in sales of .043. Another interesting result in the regression is the significant finding for the intercept (or constant). Generally, this is not a part of the regression analysis; however, since it was significant, a mention of the meaning is warranted. What the constant reveals is that the value of Y is known when X is 0. However, because all the data in this analysis was centered, it means that  $Y = .144$  when all X variables are at their mean levels. So when duration, age, experience, education, transformational leaders, and transactional leaders are all at their mean, sales will be .144.

Comparing the regression results to the correlational data confirmed that the data was set up properly and there were no suppressor effects in the regression. Because the tolerance-level statistics for both transformational and transactional leadership are both near .60 (.541 and .536, respectively), it indicates that there is not a problem with collinearity between the two variables. To be certain, another regression was run using only transactional leadership in the model. It confirmed that transactional leadership was still non-significant, even after taking transformational leadership out of the regression.

Next, a regression was run using margin as the dependent variable. Similar to when sales was the dependent variable, the data reveals that there is a significant relationship between the independent variables, the moderating variables, and margin. It

Table 13

*Regression Analysis: Main Effects on Sales*

Model 1	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. error of estimate	ANOVA <sup>b</sup>					Coefficients <sup>b</sup>				
					Sum of squares	df	Mean square	F	Sig.	Unstandardized coefficients	Std. Error	Beta	t	Sig.
Summary	.439 <sup>a</sup>	.193	.137	.0524235										
Regression					.057	6	.010	3.466	.044 <sup>a</sup>					
Residual					.239	87	.003							
Total					.296	93								
(Constant)										.144	.005		26.430	.000
Duration										-.001	.001	-.117	-.875	.384
Age										-.005	.004	-.164	-1.095	.277
Experience										.000	.005	.014	.086	.932
Education										-.004	.005	-.089	-.905	.368
Transformational: Leader										.043	.014	.414	3.162	.002
Transactional: Leader										-.014	.012	-.152	-1.157	.251

<sup>a</sup> Predictors: (Constant), transactional leader, experience, education, transformational leader, duration, age.

<sup>b</sup> Dependent variable: Sales outliers.

shows that 19.1% ( $R^2$ ) of the variance in margin is explained by the variables used in the regression. The regression also shows that predicting margin from these specific moderating variables and the leadership variables is statistically significant,  $F(6,87) = 3.419, p < .01$ . From the regression table shown in Table 14, it is revealed that transformational leadership is significant and positively related to margin performance. Therefore, for every one unit of increase in transformational leadership, there is a predicted increase in margin of .045. Again, the intercept (Constant) is positively related to margin.

### **Interaction Effects**

An interaction effect combines the effects of different independent variables on the dependent variable. When significant, the interaction of one variable relies upon the other variable in the interaction. Significant findings using interaction effects would suggest that using only individual variables, as in the main effects model, may be either misleading, incomplete, or both.

After analyzing main effects in the regression model, the interaction effects of the independent variables were tested. The interaction of each moderating variable with both transformational leadership and transactional leadership were run in the regression and analyzed for significance. Table 15 shows the regression for interaction effects on sales.

The interaction effects model shows that 30.2% ( $R^2$ ) of the variance in sales is explained by the variables used in the interaction regression. The regression also shows that predicting sales from these specific interaction variables is statistically significant,  $F(14, 79) = 2.438, p < .01$ . From the regression table shown in Table 15, it is revealed

Table 14

*Regression Analysis: Main Effects on Margin*

Model 1	R	R <sup>2</sup>	Adjusted R <sup>2</sup>	Std. error of estimate	ANOVA <sup>b</sup>					Coefficients <sup>b</sup>				
					Sum of squares	df	Mean square	F	Sig.	Unstandardized coefficients		Standardized coefficients		
										B	Std. Error	Beta	t	Sig.
Summary	.437 <sup>a</sup>	.191	.135	.0577091										
Regression					.068	6	.011	3.419	.004 <sup>a</sup>					
Residual					.290	87	.003							
Total					.358	93								
(Constant)										.105	.006		17.560	.000
Duration										-.002	.001	-.242	-1.804	.075
Age										-.005	.005	-.156	-1.040	.301
Experience										.003	.006	.102	.625	.533
Education										-.006	.005	-.111	-1.128	.262
Transformational: Leader										.045	.015	.389	2.966	.004
Transactional: Leader										-.016	.013	-.157	-1.195	.235

<sup>a</sup> Predictors: (Constant), transactional leader, experience, education, transformational leader, duration, age.

<sup>b</sup> Dependent variable: Margin outliers.

Table 15

*Regression Analysis, Interaction Effects on Sales*

Model 1	Coefficients <sup>b</sup>															
	ANOVA <sup>b</sup>										Unstandardized coefficients		Standardized coefficients		Collinearity statistics	
	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of estimate	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.	<i>B</i>	Std. Error	Beta	<i>t</i>	Sig.	Tolerance	VIF
Summary	.549 <sup>a</sup>	.302	.178	.0511740												
Regression					.089	14	.006	2.438	.007 <sup>a</sup>							
Residual					.207	79	.003									
Total					.296	93										
(Constant)									.142	.006		24.394	.000			
Duration									-.001	.001	-.105	-.790	.432	.498	2.007	
Age									-.003	.004	-.102	-.675	.501	.388	2.579	
Experience									.001	.005	.044	.272	.787	.330	3.029	
Education									-.006	.005	-.130	-1.317	.192	.911	1.098	
Transformational leader									.054	.015	.516	3.595	.001	.429	2.330	
Transactional leader									-.018	.013	-.196	-1.433	.156	.474	2.110	
Interaction: Duration/transformational leader									-.004	.002	-.318	-1.641	.105	.235	4.247	
Interaction: Duration/transactional leader									.001	.002	.079	.420	.676	.253	3.958	
Interaction: Age/transformational leader									.000	.011	.009	.041	.968	.192	5.203	
Interaction: Age/transactional leader									9.070E-005	.010	.002	.009	.993	.236	4.231	
Interaction: Experience/transformational leader									-.007	.014	-.106	-.486	.628	.186	5.373	
Interaction: Experience/transactional leader									.002	.011	.042	.219	.827	.240	4.162	
Interaction: Education/transformational leader									.003	.012	.034	.278	.782	.604	1.655	
Interaction: Education/transactional leader									-.010	.012	-.105	-.814	.418	.537	1.863	

<sup>a</sup> Predictors: (Constant), interaction: education/ transactional leader, age, interaction: duration/ transactional leader, education, transformational leader, interaction: age/ transformational leader, duration, interaction: education/ transformational leader, transactional leader, interaction: experience/ transactional leader, interaction: age/ transactional leader, experience, interaction: duration/ transformational leader, interaction: experience/ transformational leader.

<sup>b</sup> Dependent variable: Sales outliers.



that only transformational leadership, as assessed by the leaders, is significant. The regression shows that for every one unit of increase in transformational leadership, there is a predicted increase in sales of .054. Once again, the intercept (Constant) was significant. This indicates that  $Y = .142$  when all X variables are at their mean levels. So when all variables in the regression are at their mean, sales will be .142.

Note from Table 15 is that the collinearity statistics were included to get a gauge on the tolerance levels of each variable. It is noted that several variables display rather low tolerance. As a result, another regression was run removing those variables with low tolerance. This new regression did not reveal any new significant results.

Table 16 represents the data for the regression analysis using the interaction effects on the dependent variable margin. The interaction effects model shows that 29.1% ( $R^2$ ) of the variance in margin is explained by the variables used in the interaction regression. The regression also shows that predicting margin from these specific interaction variables is statistically significant,  $F(14, 79) = 2.313, p < .05$ . From the regression table shown in Table 16, it can be seen that once again transformational leadership is significant and positively related to margin. For every one unit increase in transformational leadership, there is a predicted increase in margin of .052. Also, the intercept (Constant) is significant, meaning that  $Y = .102$  when all X variables are at their mean levels. So when all variables in the regression are at their mean, margin will be .142.

### **Regression on Follower Data**

It is recognized that all of the previous data analysis uses only leader self-

Table 16

*Regression Analysis: Interaction Effects on Margin*

Model 1	Coefficients <sup>b</sup>															
	ANOVA <sup>b</sup>										Unstandardized coefficients		Standardized coefficients		Collinearity statistics	
	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of estimate	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.	B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance	VIF
Summary	.539 <sup>a</sup>	.291	.165	.0567004												
Regression					.104	14	.007	2.313	.010 <sup>a</sup>							
Residual					.254	79	.003									
Total					.358	93										
(Constant)									.102	.006		15.75	.000			
Duration									-.001	.001	-.217	-1.617	.110	.498	2.007	
Age									-.004	.005	-.120	-.786	.434	.388	2.579	
Experience									.004	.006	.127	.767	.445	.330	3.029	
Education									-.007	.005	-.131	-1.319	.191	.911	1.098	
Transformational leader									.052	.017	.457	3.159	.002	.429	2.330	
Transactional leader									-.017	.014	-.168	-1.219	.226	.474	2.110	
Interaction: Duration/transformational leader									.001	.013	.008	.069	.946	.604	1.655	
Interaction: Duration/transactional leader									-.014	.014	-.131	-1.011	.315	.537	1.863	
Interaction: Age/transformational leader									-.003	.002	-.202	-1.034	.304	.235	4.247	
Interaction: Age/transactional leader									.000	.002	-.028	-.150	.881	.253	3.958	
Interaction: Experience/transformational leader									-.013	.013	-.216	-1.000	.321	.192	5.203	
Interaction: Experience/transactional leader									.001	.011	.013	.066	.947	.236	4.231	
Interaction: Education/transformational leader									.006	.016	.081	.369	.713	.186	5.373	
Interaction: Education/transactional leader									.004	.012	.069	.358	.721	.240	4.162	

<sup>a</sup> Predictors: (Constant), interaction: experience/transactional leader, experience, education, interaction: education/transformational leader, transactional leader, interaction: duration/transformational leader, interaction education/transactional leader, interaction: age/transformational leader, duration, transformational leader, age, interaction: age/transactional leader, interaction: duration/transactional leader, interaction: experience/transformational leader.

<sup>b</sup> Dependent variable: Margin outliers.

assessment data. While it is beyond the scope of this study to analyze all of the additional follower data, a look at the main effects regression analysis for sales, including both leader and follower data, provides some rather interesting results. Table 17 provides the regression analysis that includes all follower data.

From this analysis it can be seen that there are still significant findings:  $F(8, 61) = 3.046, p < .01$ . As found when analyzing only leader data, transformational leader data were significant, while the follower data is not significant for transformational leadership. Transactional leadership data, as assessed by the leader, were also not significant. However, follower data for transactional leadership were significant.

Another regression was run using margin as the dependent variable, including both leaders' and followers' assessment data, as shown in Table 18. Very similar results were found. The results are significant;  $F(8,61) = 2.782, p < .05$ , with 26.7% of the variable in the regression explaining 'margin'. One noticeable difference is that in addition to transformational leaders and transactional followers both being significant, in this regression the leaders duration as the branch leader had a significant effect on margin. Collinearity statistics were included on Table 18 to illustrate that the tolerance was at acceptable levels for all variables.

### **Summary**

The data for this research were collected from the four western regions of WinWholesale branch-level organizations. Of the original 220 leaders provided by corporate offices of WinWholesale, 100 leaders participated in the research. Independent variable data were collected via the MLQ leadership survey instrument. Moderator data

Table 17

*Regression Analysis: Main Effects of Leaders and Followers on Sales*

Model 1	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of estimate	ANOVA <sup>b</sup>					Coefficients <sup>b</sup>				
					Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.	Unstandardized coefficients		Standardized coefficients		
										<i>B</i>	Std. Error	<i>Beta</i>	<i>t</i>	Sig.
Summary	.534 <sup>a</sup>	.285	.192	.0487215										
Regression					.058	8	.007	3.046	.006 <sup>a</sup>					
Residual					.145	61	.002							
Total					.203	69								
(Constant)										.142	.006		24.065	.000
Duration										-.001	.001	-.218	-1.399	.167
Age										-.003	.004	-.095	-.598	.552
Experience										.002	.006	.080	.426	.672
Education										-.004	.005	-.084	-.730	.468
Transformational: Leader										.044	.014	.453	3.081	.003
Transformational: Follower										.014	.016	.149	.881	.382
Transactional: Leader										.002	.014	.017	.117	.907
Transactional: Follower										-.042	.016	-.434	-2.577	.012

<sup>a</sup> Predictors: (Constant), transactional follower, education, experience, transformational leader, transactional leader, duration, age, transformational follower.

<sup>b</sup> Dependent variable: Sales outliers.

Table 18

*Regression Analysis: Main Effects of Leaders and Followers on Margin*

Model 1	ANOVA <sup>b</sup>										Coefficients <sup>b</sup>					
	<i>R</i>	<i>R</i> <sup>2</sup>	Adjusted <i>R</i> <sup>2</sup>	Std. error of estimate	Sum of squares	<i>df</i>	Mean square	<i>F</i>	Sig.	Unstandardized coefficients		Standardized coefficients		Collinearity statistics		
										B	Std. Error	Beta	<i>t</i>	Sig.	Tolerance	VIF
Summary	.517 <sup>a</sup>	.267	.171	.0529486												
Regression					.062	8	.008	2.782	.011 <sup>a</sup>							
Residual					.171	61	.003									
Total					.233	69										
(Constant)										.102	.006		15.903	.000		
Duration										-.003	.001	-.374	-2.368	.021	.482	2.073
Age										-.002	.005	-.072	-.450	.655	.462	2.164
Experience										.006	.006	.177	.923	.360	.328	3.046
Education										-.005	.005	-.110	-.949	.347	.887	1.128
Transformational Leader										.045	.016	.425	2.856	.006	.542	1.843
Transformational Follower										.009	.017	.086	.503	.617	.409	2.448
Transactional Leader										-.002	.015	-.025	-.165	.869	.541	1.849
Transactional Follower										-.043	.018	-.418	-2.450	.017	.413	2.421

<sup>a</sup> Predictors: (Constant), transactional follower, education, experience, transformational leader, transactional leader, duration, age, transformational follower.

<sup>b</sup> Dependent variable: Margin outliers.

were collected as part of the customized MLQ survey. Dependent variable data, year-over-year sales and margin, were provided by WinWholesale corporate offices.

The regression analysis revealed, and correlational data confirmed, that the perceptions of the leaders was that transformational style of leadership has a significant, positive relationship with both sales and margin in an industrial distributor. This relationship, however, did not seem to be affected by the interaction of the moderator variables with the independent variables. In the interaction effect regression, there were no new significant results than were found when only using the main effects.

## CHAPTER V

### CONCLUSIONS AND RECOMMENDATIONS

Chapter I of this study introduced the idea of leadership and its importance to such small businesses as industrial distributors. While many industrial distribution businesses are small, typically ranging in size from 3-15 employees, they are often part of larger organizations that offer various levels of organizational support. As the world continues to flatten (Friedman, 2007), it will have a profound effect on the success of local industrial distribution companies. Leadership will play an instrumental role in the success of small industrial distributors over the next decade(s) as they maneuver through all the challenges of the ever-changing business climate. While corporate executives in the industrial distribution industry may believe that strong leadership is important at the branch level, their understanding is likely anecdotal. Very little research has been conducted on leadership in the industrial distribution industry. Therefore, the purpose of this research was to: (a) evaluate the transformational leadership style of WinWholesale distributor branch leaders and examine the effect it has on organizational success, (b) evaluate the transactional leadership style of WinWholesale distributor branch leaders and examine the effect it has on organizational success, and (c) examine the relationship between moderating effects (such as age, level of education, duration as leader, and experience in the industry), and leadership style (independent variables) to determine if leadership style influences organizational success (dependent variables) as measured by year-over-year change in annual sales and gross margin.

Chapter II provided an in-depth review of leadership research history. More

specifically, the revolutionary principles of transformational and transactional leadership, and the benefits thereof, were carefully critiqued. Transactional leadership occurs when a leader and subordinate make some sort of exchange that could be economical, political, or psychological in nature but benefits both parties. Transformational leaders seek to appeal to the follower's values and sense of some sort of higher purpose for accomplishing the task (Hughes et al., 1993). Research has shown that transformational style of leadership is one of the most effective ways of leading people (Burns, 1978; Bass & Avolio, 2004; Tichy & Devanna, 1986). The MLQ is one of the most widely used, empirically validated instruments available to measure transformational and transactional leadership tendencies in leaders of organizations of any size.

Chapter III detailed the methodology used in the research, along with some of the research descriptive statistics. Chapter III described how all independent variable data, moderator variable data, and dependent variable data was collected. Descriptive statistical data was also provided. The research methodology, using multiple regression analysis was also discussed in Chapter III.

Chapter IV provided the statistical analysis of the collected data. This study was guided by the following research questions to meet the purpose and objectives of the research. These research questions were: (a) What is the relationship between leadership style and branch-level success at WinWholesale branch operations?, (b) What is the relationship between leadership style, interactive effects (moderating variables) and branch-level success for WinWholesale distributors?

To answer the aforementioned research questions, the following null hypotheses were examined.



*H1(a)<sub>o</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year sales at WinWholesale distributors.

*H1(b)<sub>o</sub>*: There is no relationship between transformational or transactional leadership and branch-level year-over-year gross margin at WinWholesale distributors.

*H2(a)<sub>o</sub>*: Age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(b)<sub>o</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(c)<sub>o</sub>*: The leaders' duration with the company does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(d)<sub>o</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.

*H2(e)<sub>o</sub>*: The age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(f)<sub>o</sub>*: The level of education the leader has achieved does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

*H2(g)<sub>o</sub>*: The leaders' duration with the company does not moderate the relationship between transformational or transactional leadership and branch-level year-

over-year gross margin.

*H2(h)<sub>0</sub>*: The years of experience the leader has in the industry does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year gross margin.

The MLQ Leader Form, MLQ Rater Form, and the MLQ Scoring Key (5x) Short were used to collect and code all independent and moderator variable data. All dependent variable data was provided by WinWholesale corporate offices. Each null hypothesis was evaluated using data collected.

## Results

As shown in Table 13, the main effects regression on sales demonstrates that leadership style is significant;  $F(6,87) = 3.466, p < .01$ . Further, it shows that 19.3% ( $R^2$ ) of the dependent variable is explained by the independent variables contained in the regression. From the coefficient table, it is revealed that the only variable that is significant is transformational leader. Because there are no other significant findings in the regression, it places even greater importance on the 19.3%, or  $R^2$ . It suggests that the variable transformational leader may carry a greater weight in this regression, as compared to the other variables. This regression also reveals that the perceptions of those leaders participating in the survey regarding transactional leadership style were not significant on the sales performance of their particular branch.

Likewise, similar results were found in the main effects regression on margin:  $F(6,87) = 3.419, p < .01$ . Very similar to sales, 19.1% ( $R^2$ ) of the independent variables explained the dependent variable of margin, as shown in Table 14. Note that while

duration was much closer to being significant in this regression, it had a negative relationship, albeit not significant, with margin performance at the branch level. Again, the only significant finding in this regression was the variable transformational leader. The variable transactional leader was not a significant component in predicting margin performance at these industrial distributors. Because all other variables were nonsignificant, the variable transformational leader carried a greater weight in the 19.1% of  $R^2$ . As a result of these findings, both  $H1(a)_0$  and  $H1(b)_0$  null hypotheses were rejected.

When looking at the regression analyses that include both leader and follower data, Tables 17 and 18, the results are similar. Table 17, representing dependent variable sales, was significant at  $F(8,61) = 3.046, p < .01$ . Table 18, representing margin, was significant at  $F(8,61) = 2.782, p < .05$ . These regression tables reveal that the leaders' perceptions of transformational style of leadership is positively correlated to sales and margin at the branch level of WinWholesale distributors. Conversely, the leaders' perceptions of transactional style of leadership were not predictive of sales and margin performance at the same distributors.

Tables 17 and 18 reveal interesting statistics regarding the followers. These tables suggest that the perceptions of followers regarding the transformational leadership style of their leaders were, in fact, quite different than what the leaders believed their own leadership style to be. The followers' perceptions of their leaders' transformational leadership was not predictive of either sales or margin. This may have been due to the followers not fully understanding the responsibilities of the leaders. It is also possible that the response rate of followers impacted the data. For example, Table 17 reveals that the

total degrees of freedom (*df*) was only 69 when using follower data, as compared to a *df* of 93 when only considering leader data. However, when the same followers perceived their leaders were using transactional style of leadership, there was a significant association with lower sales (-.042) and lower margin (-.043). This data suggests that the perceptions of followers really does have an effect on the success of an organization.

These seemingly conflicting results may be explained in a number of ways. Burns (1978) posited that transactional leadership and transformational leadership were polar opposites in how the leader engages the follower and motivates him/her to achieve higher performance. Interestingly, this is exactly what the data demonstrates. Leaders who perceived themselves to be more transformational in leadership style had a coefficient (B) of +.044, while followers who perceived their leaders to be more transactional in leadership style had a coefficient (B) of -.042.

It is also noted from the regression analysis (reference Tables 13 and 17) that when the follower data was included in the regression, the  $R^2$  rose considerably, from 19.3% when only including the leader data (Table 13) to 28.5% when including both leader and follower data (Table 17). Because both regressions are significant, it strengthens the argument that the perceptions of followers have a significant role in the success of any branch.

Many of the null hypotheses were based upon the moderating variables having a significant effect on the dependent variable. For example, null hypothesis  $H2(a)_0$  states that “the age of the leader does not moderate the relationship between transformational or transactional leadership and branch-level year-over-year sales.”  $H2(e)_0$  stated the same null, except using the dependent variable of margin. In either case there was no

significant finding, either in a main effect or an interaction effect, when age was factored into the regression; therefore, the null hypotheses were not rejected.

Moderating variable experience often exhibited lower multicollinearity levels than the other variables. This was of some concern because a low tolerance level may indicate that the variable is measuring the same factors as other variables in the equation and affecting the results. However, after removing experience from the regression and examining the results, it was determined that it did not impact the final regression results enough to permanently remove that variable altogether. The null hypotheses  $H2(d)_0$ , and  $H2(h)_0$  were not rejected.

The moderating variable education was nonsignificant on every regression, thus causing the author to fail to reject the null hypotheses  $H2(b)_0$  and  $H2(f)_0$ . However, there may have been other factors that affected this result. The scale for the variable education was originally set up to be: 0 = high school education; 1 = associates degree, or technical school degree; 2 = bachelor's degree; 3 = master's degree; 4 = other. Of all 98 leaders who provided moderator information, there were no 3s, and there were only four leaders who listed 4. When a leader listed 4, it was then explained what other meant. Based on the provided information, the author inserted those leaders into either category 1 or 2. That meant the scale for education was only 0, 1, or 2. It did not provide a wide range of data. The descriptive statistics shown in Appendix F reveal that 58% of the leaders who responded had a high school education.

Moderating variable duration was a measure, in number of years of how long the leader had been in that leadership role, at that particular branch office. The range was wide: from less than 1 year, to 38 years. Tables 15 and 16 illustrate that duration was not

a significant factor in determining sales or margin. Therefore, null hypotheses  $H2(c)_0$  and  $H2(g)_0$  were not rejected.

The data is evidence that those moderating variables originally thought to be important, were not a factor in determining the success of the WinWholesale industrial distribution branch.

### **Conclusions**

This moderated multiple regression study was designed to help industrial distributors understand the relationship between leadership style and success at the branch level. Specifically, transformational and transactional leadership styles were examined using the MLQ instrument. The hypotheses were developed to thoroughly examine the effects of moderating variables in the role of leadership at the industrial distributor.

Transactional leadership had a null finding in all but one regression, and although it cannot be said that transactional leadership does not matter, it appears that it is less meaningful than transformational style of leadership. Based on the Cronbach's alpha for both transformational and transactional leadership (shown in Table 9), it appears that both sets of measurements are reliable, and therefore the findings should be meaningful. Cronbach's alpha shows that there is more reliability when measuring transformational leadership than transactional leadership, however both leadership styles are measuring reliability reasonably high enough to assume the results are accurate.

As shown by the data, when those leaders within WinWholesale who participated in the research believe they practice transformational leadership, it has a positive

significant effect on sales and margin. In addition, the perceptions of those participating followers regarding transformational style of leadership were not predictive of sales or margin. The importance of this finding may be of value to those interested in leadership positions at industrial distributors. To be a successful leader in an industrial distribution setting, the results suggest that transformational leadership is more effective than transactional leadership. These results seem to confirm what Burns (1978) found when he stated:

Transforming leadership, while more complex, is more potent [than transactional leadership]. The transforming leader recognizes and exploits an existing need or demand of a potential follower. But, beyond that, the transforming leader looks for potential motives in followers, seeks to satisfy higher needs, and engages the full person of the follower. The result of transforming leadership is a relationship of mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents. (p. 4)

An integral component of this research included the use of moderating variables in the regression models. Based upon the authors experience in the industry, combined with that of prior leadership research, the moderators selected to be used in this research were age, educational level, experience in the industry, and the duration of the leader at their branch. This information was provided by the leaders as part of a modified MLQ. The moderating variables had surprising little impact on the results of this study. In only one regression, which included both leader and follower data, was there a significant finding; duration had an impact on margins (reference Table 18). There are several possible reasons for this overall lack of impact by the moderators. For example, the data reveals, and it is commonly accepted in the industry, that most branch managers have little more than a high school education. This, alone, may indicate that those leaders had little training in leadership practices. Further, while someone may have many years of

experience in the industry, this experience may not necessarily translate into effective leadership style.

The results of this research add to the body of knowledge that transformational leadership is a more effective style of leadership. Certainly, the results corroborate what Koene and colleagues (2002) found in that leadership does make a difference for organizational effectiveness, and for smaller stores “good” leadership has a “substantial positive financial consequence” (p. 198). As stated in Chapter II, many researchers believed that the style of leadership a leader practices, or adopts, is a key component in whether or not the leader can evoke the kind of commitment and performance among subordinates necessary to achieve organizational success (e.g., Awamleh & Gardner, 1999; Barling et al., 1996; Berson et al., 2001; Conger, 1999; Dubinsky et al., 1995; Yammarino et al., 1993; Zacharatos et al., 2000).

In virtually every regression analysis run in this analysis, the perceptions of the leaders regarding transformational leadership had a positive and significant impact on both year-over-year sales and year-over-year margin performance. The findings of this study on the effects of transformational and transactional leadership styles on the success of business supports the prior studies done by Beaver (2003), Eagly and colleagues (2003), and McGuire and Kennerly (2006).

### **Limitations**

This research was developed and carried out based on the relationship of leadership to the success of a small industrial distribution branch office. From the very beginning of the research, there were several assumptions that were made to carry out the



research. These assumptions caused certain limitations within the study.

It was assumed that those who participated in the study understood the questions on the MLQ survey, and that they answered the questions honestly, truthfully, and without coercion. “Because of time restraints and human nature, leaders often spend more time with one group of subordinates than with others” (Shriberg & Shriberg, 2011). It is assumed that those leaders who provided follower contact information did so without regard to their “in-group” or “out-group” as described by Shriberg and Shriberg (p. 75). Although the MLQ makes provisions for both peers and superiors to evaluate the leaders, this survey only collected data from the leaders and followers. Additional data from peers and superiors may have had an impact on the results of the analysis.

The very title of this dissertation “An Examination of the Effects of Transformational and Transactional Leadership Styles on Branch Level Success of Industrial Distribution Companies” suggests that this research examines leadership at all distributors. This study only examined one distributor, WinWholesale, in one market segment. It may not be possible to generalize the results of this research to other industrial distributors, in other markets.

As recognized in Chapter I, this research was limited to examining the effects of transformational and transactional leadership styles at WinWholesale branch locations. It is likely that different leadership paradigms could affect organizational performance differently (Jing & Avery, 2008).

The moderating variables used in the research were limited to age, duration as leader, experience in the industry, and level of education. In the final analysis, these moderating variables had no significance in either the main effects or interaction effects

of the regression. Other moderators may have had more impact on the results.

In industry, leaders and followers are often asked to participate in surveys. All too often, people participate, anticipating that their input may spark organizational change, and then nothing seems to change. When things do not change, or do not change fast enough, it often evokes apathetic attitudes towards surveys. Several comments were made by potential participants that they either believed the results would be held against them, or that their time would be wasted because nothing really changes anyway. This sort of apathy makes it very difficult to get high participation rates in any kind of research.

It is recognized that the economic climate may have had an impact on these findings. As the nation's economy started to falter between 2007-2009, it had an impact on all market segments. The housing market was hard hit during this time, and continues to make a recovery. One of the primary markets for many of the WinWholesale branches is the housing market segment. Because only 5-year historical data were received for the dependent variable, it was during this time of financial crisis in the country. This could have had an impact on the results of this study.

In research such as this, it is tempting to want to draw causal conclusions from the results. However, another important limitation of this study is that because this was correlational research by design, it is not possible to demonstrate causality. To do that, an experimental design would need to be used.

### **Recommendations for Industrial Distributors**

This research has particular meaning and importance to industrial distributors,

specifically those engaged in the construction related market segment. The intent of the research was to determine if leadership style had an effect on success at the branch level of an industrial distributor. Moderating variables were factored into the regression to determine if these demographic variables affected results. Through the use of a multiple regression analysis it was shown that these moderators had no effect on the performance of those distributors who participated. For the distributor, this data suggests that the style of leadership demonstrated is more important to success at the branch level of an industrial distributor than those moderators used in the regression; age, experience, length of time as a leader, or education.

The results from this research demonstrate that there is an association between leadership style and success, defined as year-over-year change in sales and margin, at an industrial distributor. While further research may be needed to clearly demonstrate causality between transformational and/or transactional leadership style and branch level success, this research provides substantive data on the perceptions of both leaders and followers of an industrial distributor on leadership style and the effect it has on the success of the organization at the branch level.

As industrial distribution companies continue to examine best practices within the industry, leadership, and the value thereof, should continue to receive high visibility. As demonstrated by this research, when the branch manager of an industrial distributor leads in a transformational manner, it has a positive and significant impact on the success of the branch, and thus will have an impact on the success of the overall organization.

### **Recommendations for Future Research**

As with most leadership research, there are opportunities to take the results of the data and improve it, add to it, and make it more meaningful. Following are recommendations for future research.

For future analysis, it would be a good idea to expand the scope of the participants. To get a more generalizable result, it is recommended that all branch locations of the WinWholesale company participate in the survey. It is recognized that within each branch of an industrial distributor, there are personalities, markets, products, and other mitigating factors that could affect the sort of data collected in this study. In addition, peers and supervisors of the branch manager could be surveyed to gain another perspective in addition to that of the leaders and followers. Increasing the sample size may help validate the existing data.

This research used the MLQ instrument as a way to gather full-range leadership characteristic data. While difficult, it may be useful to compare the results of this data to that of other full-range leadership models using the same sample. It is recognized that there are many styles of leadership, and often situational leadership is the compilation of many different styles and theories. The more complete the data gathered on one sample group, the more meaningful it would become.

It would be interesting to perform a follow-up longitudinal study on those leaders who were new with WinWholesale to see if their leadership style changes over time, and how their leadership style has affected the financial performance at the branch level.

The final recommendation would be to expand this study into other market

segments within industrial distribution. For example, would a fluid power distributor exhibit the same significant findings for transformational leadership? Would a power transmission distributor show different leadership styles? The key factor with these two types of distributors is that most fluid power distributors are smaller, privately held companies, and most of the larger power transmission companies are publically traded companies. So it calls into question the style of leadership based upon the size and ownership of the company.

### **Summary**

As with most disciplines, there is a delicate balance between theoretical academic research and practical, real-world application. Leadership and the study thereof, is no different. There have been numerous academicians who have developed new theories and strategies to attempt to quantify leadership. There have been countless books written about leadership and how one style and/or theory may be better, or more applicable than others. But in the end, it is the application of these principles that proves or disproves the notion. Transformational leadership is a relatively new theory of leadership wherein the leader tries to create a relationship with the follower where there is a sense of “mutual stimulation and elevation that converts followers into leaders and may convert leaders into moral agents” (Burns, 1978). This study set out to quantitatively examine the effect that transformational and transactional leadership has on the success of industrial distribution branch offices.

This research utilized the MLQ to collect data from both leaders and followers at branch locations of WinWholesale. As part of the MLQ, leaders provided other

demographic information to be used as moderating variables. The research included using age, level of education, years of experience in the industry, and years of leadership at the branch as moderating variables in an attempt to evaluate the effect these variables have on leadership. Together, these leadership scores and moderating variables were used in a moderated multiple regression analysis to assess the effect of the independent variables on the dependent variables, sales and margin.

The results of the research suggest that there is a significant relationship between the way a WinWholesale company president believes he/she leads, and the success of their office. There is a positive relationship between a company president leading in a transformational style, and an increase in sales and margins for that branch office. Conversely, there is a negative relationship between leadership style and success if the followers believe the leader practices transactional style of leadership. This research suggests that if a leader is aware of their followers' needs and motivation, success will follow.

In academia, leadership principles are taught in many disciplines, including business, engineering, education, and others. This fact, alone, speaks to the importance placed on leadership and its interdisciplinary impact. If the business community places such strong value on highly effective leadership, and if academia continues to promote leadership development, research such as this will help to define, and refine, not only what is taught in higher education, but also how it is taught.

The imminent leadership gap in the wholesale distribution industry is real, and something that is of grave concern to those currently leading distribution companies. By capitalizing on data such as is contained herein, companies can begin to understand what

makes an effective leader at the branch level of an industrial distributor. For example, when a branch manager takes the time to teach and coach followers, when the leader speaks enthusiastically about the vision of the branch and/or company, or when the leader goes beyond his/her self-interest for the good of the organization, these are all characteristics of one who is a transformational leader.

Continued research on other industrial distribution market segments is recommended to help generalize this data to the rest of the industrial distribution industry. It is also recommended that a more thorough analysis be completed on this same sample group measuring different attributes of leadership to perhaps gain a better understanding of leadership and probe even deeper on specific attributes of effective leaders.

The fact is, leadership matters. Current industrial distribution leaders know this anecdotally, but this research helps to confirm their belief. This research shows that through the practice of transformational leadership, industrial distribution companies are more successful. It is likely that this research could be applied to other wholesale distribution companies who have satellite branches, or companies, spread throughout a large area. Further research should be conducted to provide data that can be generalized to a wider population, including small businesses in other disciplines.

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APPENDICES

Appendix A

WinWholesale Letter of Support



June 30, 2011

Dear Rod,

WinWholesale would be happy to participate in your project relating to leadership in our Local Companies. The sample will be taken from my area, and consists of companies from the plumbing, electrical, HVAC, Industrial, and Waterworks industries. There is a mix of management ability and tenure that is representative of the rest of the organization; from new managers to experienced, to near retirement. The companies range from very, very profitable to companies that are losing money.

Once you have the questions formulated, contact me so that I can introduce your project to the companies, and notify them that you will be contacting them. At that point I will begin putting the financial information together for you.

Thank you,

*Kyle Buxton*

Kyle Buxton  
Western Region Area Leader  
WinWholesale  
[kbuxton@winwholesale.com](mailto:kbuxton@winwholesale.com)  
(801) 634-7790



Appendix B

WinWholesale Email from Regional Sales Managers

Dear Local Company President,

As many of you know, we are industry partners with the Industrial Distribution (ID) program at the University of Nebraska at Kearney (UNK). Over the years we have worked closely with UNK to recruit both full-time employees, as well as summer interns. In addition to these recruiting activities, we work closely with UNK to research and explore best practices in our industry.

Rod Flanigan, a member of the UNK Industrial Distribution faculty, is currently conducting research on leadership at the local level of industrial distributors and has invited WinWholesale to participate in this comprehensive study. The purpose of this study is to examine the effect leadership style has at the local company level. In an attempt to gather meaningful, substantive data, local Win companies from the entire West Region will be surveyed.

Soon, you will be receiving an email requesting your participation in a leadership survey. The survey will be coming from "MindGarden, Inc. [invite@mindgarden.com]". Mind Garden is the survey host, and will administer all surveys. Please note that the survey is completely confidential; all data returned to Mr. Flanigan will only be in the aggregate and not tied to any one person. When you receive this email, you will simply click on the survey link embedded in the email. As the company leader, you will then be asked to add all of your employees (that have email addresses) to the list. The survey consists of 45 Likert-scale questions (0 = never, to 4 = always) and should take no more than 10 minutes to complete.

We would sincerely appreciate your help in completing this survey when you receive it. If you have any questions with the survey, please call Rod Flanigan at (308) 865-8803, or email at [flaniganrl@unk.edu](mailto:flaniganrl@unk.edu).

Regards,

Kent Best, Western Region Area Leader  
Kyle Buxton, Western Region Area Leader  
Jim Kennaugh, Western Region Area Leader  
Roger Lewis. Western Region Area Leader

Appendix C

Utah State University IRB Certificate of Exemption



Institutional Review Board  
4480 Old Main Hill, SER 140  
Logan, UT 84322-4480  
Telephone: (435) 797-1821  
Fax: (435) 797-3789



IRB Certified Exempt: 9/12/2011  
Exempt Certification Expires: 9/11/2014

## Certificate of Exemption – Category #2

FROM: Richard D. Gordin, Acting IRB Chair  
True M. Rubal, IRB Administrator

*Richard D. Gordin*  
*True M. Rubal*

TO: Gary Stewardson  
Rod Flanigan

DATE: 9/12/2011

RE: Protocol # 3000

TITLE: An Examination of the Effects of Transformational and Transactional Leadership Styles on Branch Level Success of Industrial Distribution Companies

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) Category #2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects; and (b) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

Survey or interview research certified as exempt under this category is limited to adult participants.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email to [irb@usu.edu](mailto:irb@usu.edu).

The IRB wishes you success with your research.

Appendix D  
Letter of Information



Department of Engineering and Tech. Educ.  
6000 Old Main Hill  
Logan UT 84322-6000  
Telephone: (435) 797-1795



Page 1 of 2

## LETTER OF INFORMATION

### *An Examination of the Effects of Transformational and Transactional Leadership Styles on Branch Level Success of Industrial Distribution Companies*

**Introduction/ Purpose:** Gary Stewardson and Rod Flanigan in the Department of Engineering and Technology Education at Utah State University are conducting a research study to learn more about the impact of leadership in the industrial distribution industry. You have been asked to take part because of your affiliation with an industrial distributor. There will be approximately 3-5 participants at this site. There will be up to 900-1000 total participants in this research.

**Procedures:** If you agree to participate in this research study, you will be asked to complete the Multifactor Leadership Questionnaire (MLQ). The MLQ survey consists of 45 questions using a Likert scale from 0 – 4 (0 = not at all, to 4 = frequently, if not always), and should take no longer than 10-15 minutes to complete. The survey is an attempt to simply identify the type of leadership employed in the industrial distribution industry. You will receive an invitation to participate in this survey via email from Mind Garden (MGI), the survey host. In this email there will be a link that will take you directly to the survey. Each participant has a unique link that will look similar to:  
<http://www.mindgarden.com/rsvp/xxxx> (there will be four numbers assigned to the 'xxxx'). All surveys are returned to MGI who will code the data and provide the complete results to only Gary Stewardson and Rod Flanigan.

**Risks:** Participation in this research study may involve minimal risk. There is a remote chance of loss of confidentiality, but we will take the necessary steps to reduce that risk.

**Benefits:** The research from this study may have an indirect benefit to the participant in the future by providing valuable organizational management data for selecting leaders with strong leadership skills that may translate into organizational success.

**Explanation & offer to answer questions:** Gary Stewardson and/or Rod Flanigan will be available to explain this research study to you and answer any questions. If you have other questions or research-related problems, you may reach Gary Stewardson at (435) 797-1795, email at [gary.stewardson@usu.edu](mailto:gary.stewardson@usu.edu), or Rod Flanigan at (801) 755-2559, or email at [flaniganrl@unk.edu](mailto:flaniganrl@unk.edu).

**Voluntary nature of participation and right to withdraw without consequence:** Participation in research is entirely voluntary. You may refuse to participate or withdraw at any time without consequence. If you respond to the survey and later choose to withdraw, please notify either Gary Stewardson at [gary.stewardson@usu.edu](mailto:gary.stewardson@usu.edu), or Rod Flanigan at [flaniganrl@unk.edu](mailto:flaniganrl@unk.edu) of your decision.



Department of Engineering and Tech. Educ.  
6000 Old Main Hill  
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Page 2 of 2

### LETTER OF INFORMATION

*An Examination of the Effects of Transformational and Transactional Leadership Styles on Branch Level Success of Industrial Distribution Companies*

**Confidentiality:** All research records and data will be kept confidential, consistent with federal and state regulations. Only Gary Stewardson and Rod Flanigan will have access to the research data which will be kept secure on password protected computers. To protect your privacy, personal and identifiable information will be removed from research documents and replaced with a study identifier. While the results from the research may be reported, all results will be reported in aggregate, meaning that all names will be removed with no possibility of identifying names and/or locations. All research data will be destroyed after one year of research completion.

**IRB Approval Statement:** The Institutional Review Board for the protection of human participants at Utah State University has approved this research study. If you have any questions or concerns about your rights or a research-related injury and would like to contact someone other than the research team, you may contact the IRB Administrator at (435) 797-0567 or email at [irb@usu.edu](mailto:irb@usu.edu) to obtain information or to offer input.

**Investigator Statement:** "I certify that the research study has been explained to the individual, by me or my research staff, and that the individual understands the nature and purpose, the possible risks and benefits associated with taking part in this research study. Any questions that have been raised have been answered."

**Signature of Researcher(s)**

Gary Stewardson  
Principal Investigator  
(435)797-1795  
Email: [gary.stewardson@usu.edu](mailto:gary.stewardson@usu.edu)

Rod Flanigan  
Co-principal investigator  
(801) 755-2559  
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Appendix E

MLQ 5X Survey Instrument



## Multifactor Leadership Questionnaire Leader Form

My Name: \_\_\_\_\_ Date: \_\_\_\_\_

Organization ID #: \_\_\_\_\_ Leader ID #: \_\_\_\_\_

This questionnaire is to describe your leadership style as you perceive it. Please answer all items on this answer sheet. **If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank.**

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits you. The word "others" may mean your peers, clients, direct reports, supervisors, and/or all of these individuals.

Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4
1. I provide others with assistance in exchange for their efforts.....	0	1	2	3 4
2. I re-examine critical assumptions to question whether they are appropriate.....	0	1	2	3 4
3. I fail to interfere until problems become serious.....	0	1	2	3 4
4. I focus attention on irregularities, mistakes, exceptions, and deviations from standards.....	0	1	2	3 4
5. I avoid getting involved when important issues arise.....	0	1	2	3 4
6. I talk about my most important values and beliefs.....	0	1	2	3 4
7. I am absent when needed.....	0	1	2	3 4
8. I seek differing perspectives when solving problems.....	0	1	2	3 4
9. I talk optimistically about the future.....	0	1	2	3 4
10. I instill pride in others for being associated with me.....	0	1	2	3 4
11. I discuss in specific terms who is responsible for achieving performance targets.....	0	1	2	3 4
12. I wait for things to go wrong before taking action.....	0	1	2	3 4
13. I talk enthusiastically about what needs to be accomplished.....	0	1	2	3 4
14. I specify the importance of having a strong sense of purpose.....	0	1	2	3 4
15. I spend time teaching and coaching.....	0	1	2	3 4

Continued →

Not at all	Once in a while	Sometimes	Fairly often	Frequently, If not always	
0	1	2	3	4	
16. I make clear what one can expect to receive when performance goals are achieved.....	0	1	2	3	4
17. I show that I am a firm believer in "If it ain't broke, don't fix it.".....	0	1	2	3	4
18. I go beyond self-interest for the good of the group.....	0	1	2	3	4
19. I treat others as individuals rather than just as a member of a group.....	0	1	2	3	4
20. I demonstrate that problems must become chronic before I take action.....	0	1	2	3	4
21. I act in ways that build others' respect for me.....	0	1	2	3	4
22. I concentrate my full attention on dealing with mistakes, complaints, and failures.....	0	1	2	3	4
23. I consider the moral and ethical consequences of decisions.....	0	1	2	3	4
24. I keep track of all mistakes.....	0	1	2	3	4
25. I display a sense of power and confidence.....	0	1	2	3	4
26. I articulate a compelling vision of the future.....	0	1	2	3	4
27. I direct my attention toward failures to meet standards.....	0	1	2	3	4
28. I avoid making decisions.....	0	1	2	3	4
29. I consider an individual as having different needs, abilities, and aspirations from others.....	0	1	2	3	4
30. I get others to look at problems from many different angles.....	0	1	2	3	4
31. I help others to develop their strengths.....	0	1	2	3	4
32. I suggest new ways of looking at how to complete assignments.....	0	1	2	3	4
33. I delay responding to urgent questions.....	0	1	2	3	4
34. I emphasize the importance of having a collective sense of mission.....	0	1	2	3	4
35. I express satisfaction when others meet expectations.....	0	1	2	3	4
36. I express confidence that goals will be achieved.....	0	1	2	3	4
37. I am effective in meeting others' job-related needs.....	0	1	2	3	4
38. I use methods of leadership that are satisfying.....	0	1	2	3	4
39. I get others to do more than they expected to do.....	0	1	2	3	4
40. I am effective in representing others to higher authority.....	0	1	2	3	4
41. I work with others in a satisfactory way.....	0	1	2	3	4
42. I heighten others' desire to succeed.....	0	1	2	3	4
43. I am effective in meeting organizational requirements.....	0	1	2	3	4
44. I increase others' willingness to try harder.....	0	1	2	3	4
45. I lead a group that is effective.....	0	1	2	3	4

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## Multifactor Leadership Questionnaire Rater Form

Name of Leader: \_\_\_\_\_ Date: \_\_\_\_\_

Organization ID #: \_\_\_\_\_ Leader ID #: \_\_\_\_\_

This questionnaire is used to describe the leadership style of the above-mentioned individual as you perceive it. Answer all items on this answer sheet. If an item is irrelevant, or if you are unsure or do not know the answer, leave the answer blank. Please answer this questionnaire anonymously.

**Important** (necessary for processing): Which best describes you?

- I am at a higher organizational level than the person I am rating.
- The person I am rating is at my organizational level.
- I am at a lower organizational level than the person I am rating.
- Other than the above.

Forty-five descriptive statements are listed on the following pages. Judge how frequently each statement fits the person you are describing. Use the following rating scale:

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

*The Person I Am Rating . . .*

- |   |   |   |   |   |   |
|---|---|---|---|---|---|
| 1. Provides me with assistance in exchange for my efforts .....                                   | 0 | 1 | 2 | 3 | 4 |
| 2. Re-examines critical assumptions to question whether they are appropriate.....                 | 0 | 1 | 2 | 3 | 4 |
| 3. Fails to interfere until problems become serious .....   | 0 | 1 | 2 | 3 | 4 |
| 4. Focuses attention on irregularities, mistakes, exceptions, and deviations from standards. .... | 0 | 1 | 2 | 3 | 4 |
| 5. Avoids getting involved when important issues arise .....                                      | 0 | 1 | 2 | 3 | 4 |
| 6. Talks about his/her most important values and beliefs.....                                     | 0 | 1 | 2 | 3 | 4 |
| 7. Is absent when needed .....  | 0 | 1 | 2 | 3 | 4 |
| 8. Seeks differing perspectives when solving problems .....                                       | 0 | 1 | 2 | 3 | 4 |
| 9. Talks optimistically about the future.....   | 0 | 1 | 2 | 3 | 4 |
| 10. Instills pride in me for being associated with him/her.....                                   | 0 | 1 | 2 | 3 | 4 |
| 11. Discusses in specific terms who is responsible for achieving performance targets.....         | 0 | 1 | 2 | 3 | 4 |
| 12. Waits for things to go wrong before taking action .....                                       | 0 | 1 | 2 | 3 | 4 |
| 13. Talks enthusiastically about what needs to be accomplished.....                               | 0 | 1 | 2 | 3 | 4 |
| 14. Specifies the importance of having a strong sense of purpose.....                             | 0 | 1 | 2 | 3 | 4 |
| 15. Spends time teaching and coaching.....  | 0 | 1 | 2 | 3 | 4 |

Continued →

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always	
0	1	2	3	4	
16. Makes clear what one can expect to receive when performance goals are achieved.....	0	1	2	3	4
17. Shows that he/she is a firm believer in "If it ain't broke, don't fix it.".....	0	1	2	3	4
18. Goes beyond self-interest for the good of the group.....	0	1	2	3	4
19. Treats me as an individual rather than just as a member of a group.....	0	1	2	3	4
20. Demonstrates that problems must become chronic before taking action.....	0	1	2	3	4
21. Acts in ways that builds my respect.....	0	1	2	3	4
22. Concentrates his/her full attention on dealing with mistakes, complaints, and failures.....	0	1	2	3	4
23. Considers the moral and ethical consequences of decisions.....	0	1	2	3	4
24. Keeps track of all mistakes.....	0	1	2	3	4
25. Displays a sense of power and confidence.....	0	1	2	3	4
26. Articulates a compelling vision of the future.....	0	1	2	3	4
27. Directs my attention toward failures to meet standards.....	0	1	2	3	4
28. Avoids making decisions.....	0	1	2	3	4
29. Considers me as having different needs, abilities, and aspirations from others.....	0	1	2	3	4
30. Gets me to look at problems from many different angles.....	0	1	2	3	4
31. Helps me to develop my strengths.....	0	1	2	3	4
32. Suggests new ways of looking at how to complete assignments.....	0	1	2	3	4
33. Delays responding to urgent questions.....	0	1	2	3	4
34. Emphasizes the importance of having a collective sense of mission.....	0	1	2	3	4
35. Expresses satisfaction when I meet expectations.....	0	1	2	3	4
36. Expresses confidence that goals will be achieved.....	0	1	2	3	4
37. Is effective in meeting my job-related needs.....	0	1	2	3	4
38. Uses methods of leadership that are satisfying.....	0	1	2	3	4
39. Gets me to do more than I expected to do.....	0	1	2	3	4
40. Is effective in representing me to higher authority.....	0	1	2	3	4
41. Works with me in a satisfactory way.....	0	1	2	3	4
42. Heightens my desire to succeed.....	0	1	2	3	4
43. Is effective in meeting organizational requirements.....	0	1	2	3	4
44. Increases my willingness to try harder.....	0	1	2	3	4
45. Leads a group that is effective.....	0	1	2	3	4

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## MLQ Multifactor Leadership Questionnaire Scoring Key (5x) Short

My Name: \_\_\_\_\_ Date: \_\_\_\_\_

Organization ID #: \_\_\_\_\_ Leader ID #: \_\_\_\_\_

**Scoring:** The MLQ scale scores are average scores for the items on the scale. The score can be derived by summing the items and dividing by the number of items that make up the scale. **If an item is left blank, divide the total for that scale by the number of items answered.** All of the leadership style scales have four items, Extra Effort has three items, Effectiveness has four items, and Satisfaction has two items.

Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
0	1	2	3	4

Idealized Influence (Attributed) total/4 =

Management-by-Exception (Active) total/4 =

Idealized Influence (Behavior) total/4 =

Management-by-Exception (Passive) total/4 =

Inspirational Motivation total/4 =

Laissez-faire Leadership total/4 =

Intellectual Stimulation total/4 =

Extra Effort total/3 =

Individual Consideration total/4 =

Effectiveness total/4 =

Contingent Reward total/4 =

Satisfaction total/2 =

1.	Contingent Reward.....	01	2	3	4
2.	Intellectual Stimulation.....	0	1	2	3 4
3.	Management-by-Exception (Passive).....	01	2	3	4
4.	Management-by-Exception (Active).....	0	1	2	3 4
5.	Laissez-faire Leadership.....	0	1	2	3 4
6.	Idealized Influence (Behavior).....	0	1	2	3 4
7.	Laissez-faire Leadership.....	0	1	2	3 4
8.	Intellectual Stimulation.....	0	1	2	3 4
9.	Inspirational Motivation.....	0	1	2	3 4
10.	Idealized Influence (Attributed).....	0	1	2	3 4
11.	Contingent Reward.....	0	1	2	3 4
12.	Management-by-Exception (Passive).....	0	1	2	3 4
13.	Inspirational Motivation.....	0	1	2	3 4
14.	Idealized Influence (Behavior).....	0	1	2	3 4
15.	Individual Consideration.....	0	1	2	3 4

Continued →

	Not at all	Once in a while	Sometimes	Fairly often	Frequently, if not always
	0	1	2	3	4
16. Contingent Reward.....	0	1	2	3	4
17. Management-by-Exception (Passive).....	0	1	2	3	4
18. Idealized Influence (Attributed).....	0	1	2	3	4
19. Individual Consideration.....	0	1	2	3	4
20. Management-by-Exception (Passive).....	0	1	2	3	4
21. Idealized Influence (Attributed).....	0	1	2	3	4
22. Management-by-Exception (Active).....	0	1	2	3	4
23. Idealized Influence (Behavior).....	0	1	2	3	4
24. Management-by-Exception (Active).....	0	1	2	3	4
25. Idealized Influence (Attributed).....	0	1	2	3	4
26. Inspirational Motivation.....	0	1	2	3	4
27. Management-by-Exception (Active).....	0	1	2	3	4
28. Laissez-faire Leadership.....	0	1	2	3	4
29. Individual Consideration.....	0	1	2	3	4
30. Intellectual Stimulation.....	0	1	2	3	4
31. Individual Consideration.....	0	1	2	3	4
32. Intellectual Stimulation.....	0	1	2	3	4
33. Laissez-faire Leadership.....	0	1	2	3	4
34. Idealized Influence (Behavior).....	0	1	2	3	4
35. Contingent Reward.....	0	1	2	3	4
36. Inspirational Motivation.....	0	1	2	3	4
37. Effectiveness.....	0	1	2	3	4
38. Satisfaction.....	0	1	2	3	4
39. Extra Effort.....	0	1	2	3	4
40. Effectiveness.....	0	1	2	3	4
41. Satisfaction.....	0	1	2	3	4
42. Extra Effort.....	0	1	2	3	4
43. Effectiveness.....	0	1	2	3	4
44. Extra Effort.....	0	1	2	3	4
45. Effectiveness.....	0	1	2	3	4

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Appendix F

Moderating Variable Frequency Data

Table F1

*Moderating Variable Frequency Data: Age*

Age		Frequency	Percent	Valid percent	Cumulative percent
Valid	25-30	7	7.0	7.1	7.1
	31-35	11	11.0	11.2	18.4
	36-40	10	10.0	10.2	28.6
	41-45	11	11.0	11.2	39.8
	46-50	20	20.0	20.4	60.2
	51-55	14	14.0	14.3	74.5
	56-60	19	19.0	19.4	93.9
	61-65	6	6.0	6.1	100.0
	Total	98	98.0	100.0	
Missing		2	2.0		
Total		100	100.0		

Table F2

*Moderating Variable Frequency Data: Years' Experience in the Industry*

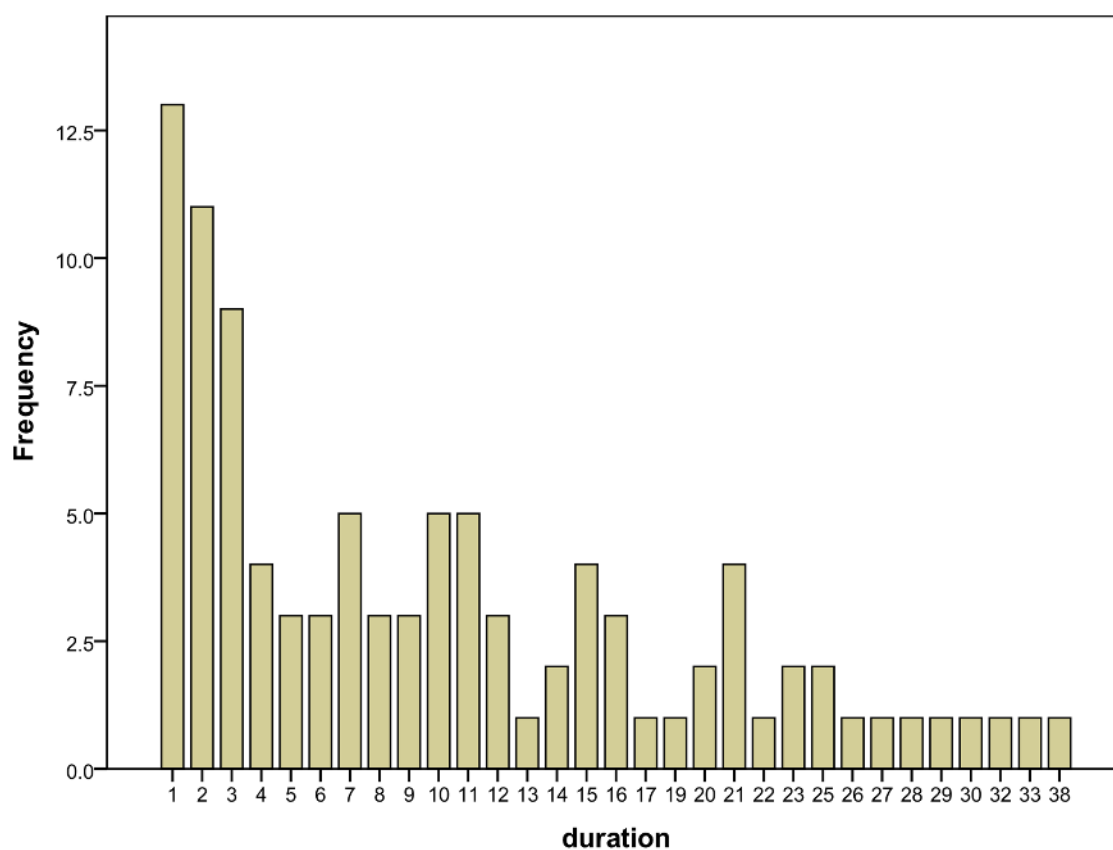
Experience (years)		Frequency	Percent	Valid percent	Cumulative percent
Valid	0-4	3	3.0	3.1	3.1
	5-9	9	9.0	9.2	12.2
	10-14	11	11.0	11.2	23.5
	15-19	19	19.0	19.4	42.9
	20-24	17	17.0	17.3	60.2
	25-29	10	10.0	10.2	70.4
	30+	29	29.0	29.6	100.0
		Total	98	98.0	100.0
Missing		2	2.0		
Total		100	100.0		



Table F2

*Moderating Variable Frequency Data: Highest Level of Education*

Education level		Frequency	Percent	Valid percent	Cumulative percent
Valid	High school	58	58.0	59.2	59.2
	Trade school/associate degree	13	13.0	13.3	72.4
	Bachelor's degree	27	27.0	27.6	100.0
	Total	98	98.0	100.0	
Missing		2	2.0		
Total		100	100.0		

*Figure F1.* How long have you been president/leader over this location (in years)?

## Appendix G

### Dependent Variable Distribution Curves and Descriptive Statistics

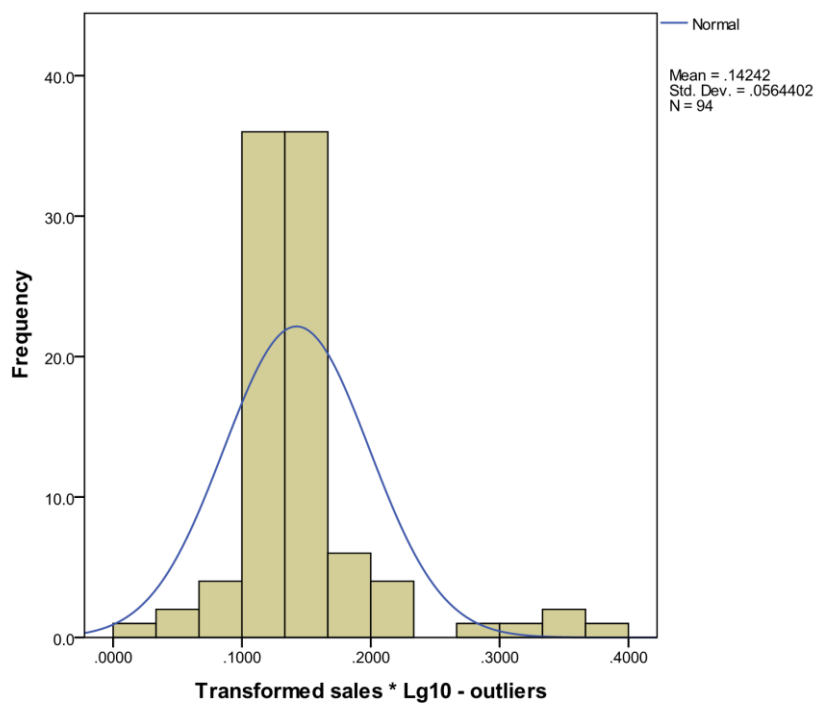


Figure G1. Normal distribution curve for dependent variable sales.

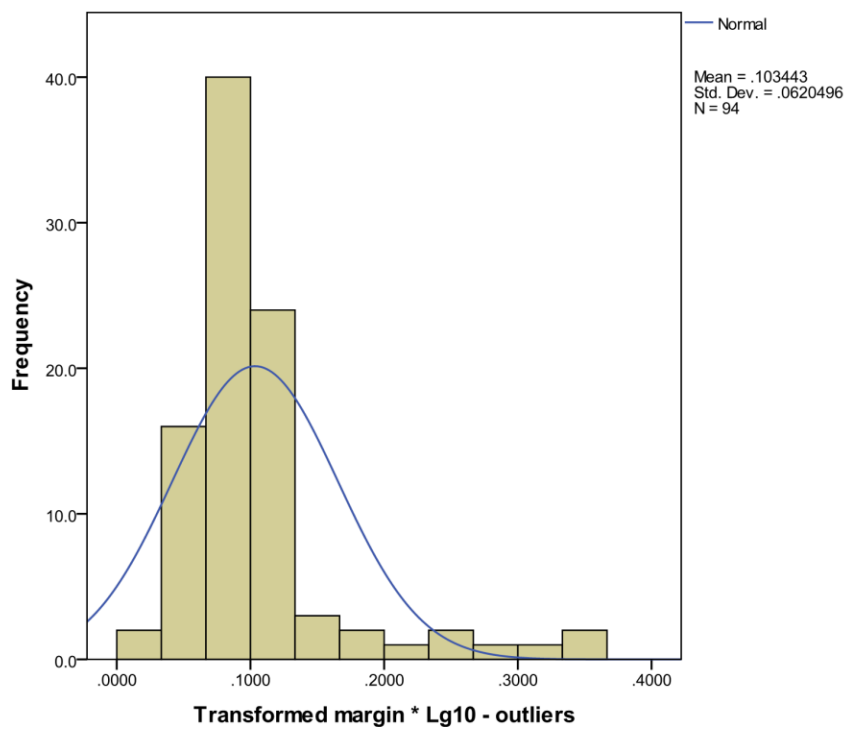


Figure G2. Normal distribution curve for dependent variable margin.



Appendix H

Leadership Style Normal Distribution Curves

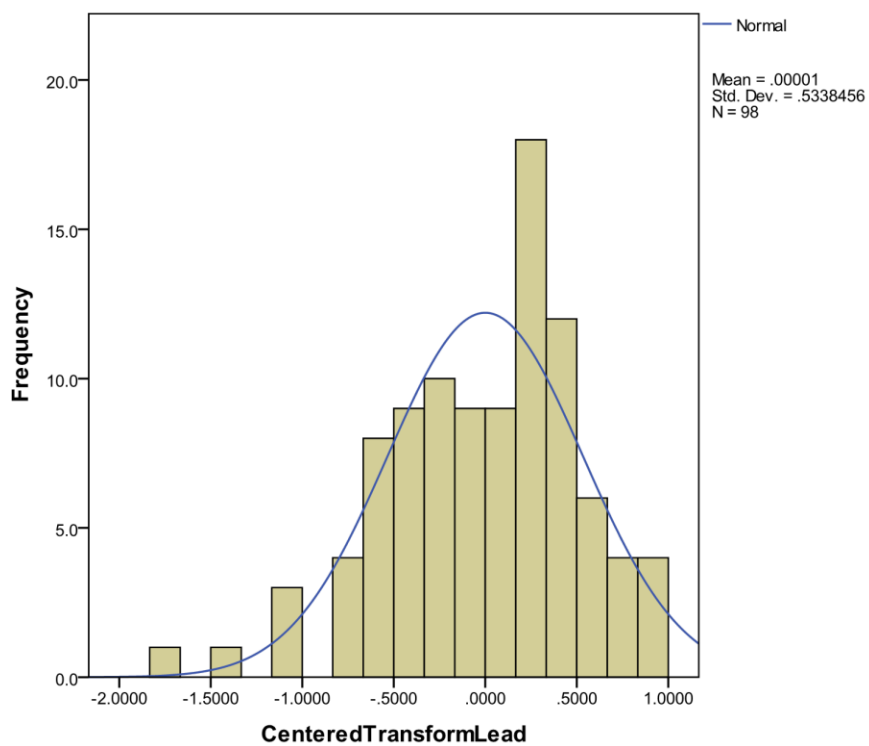


Figure H1. Normal distribution curves: Transformational—leader.

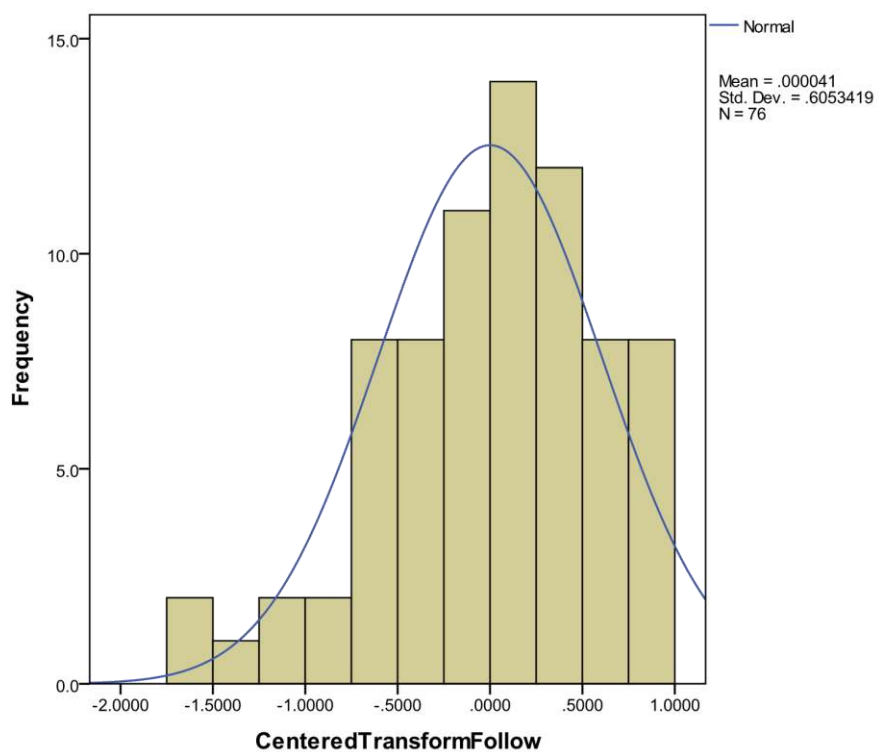


Figure H2. Normal distribution curves: Transformational—follower.

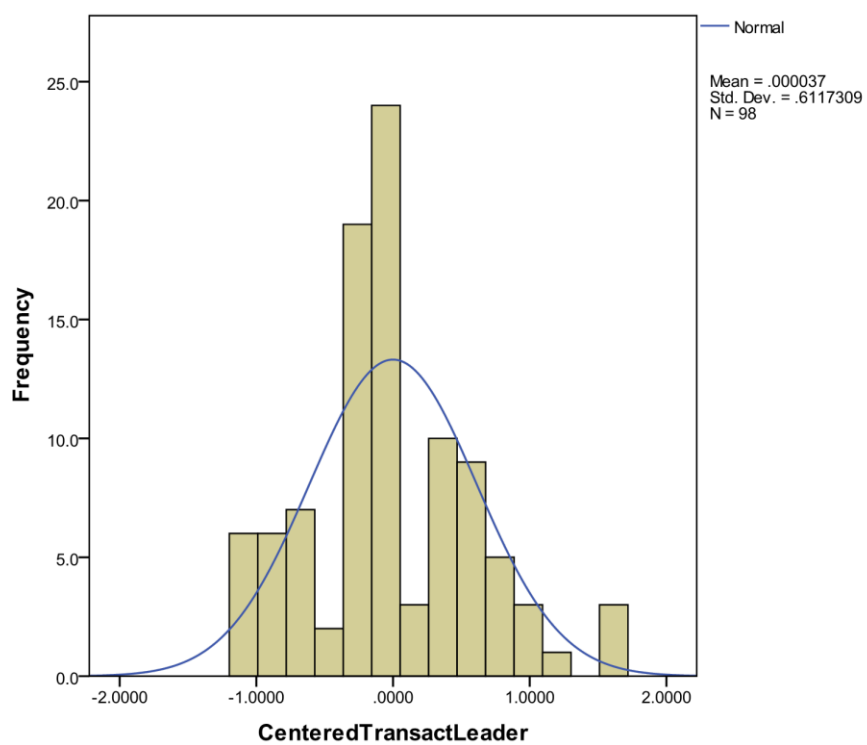


Figure H3. Normal distribution curves: Transactional—leader.

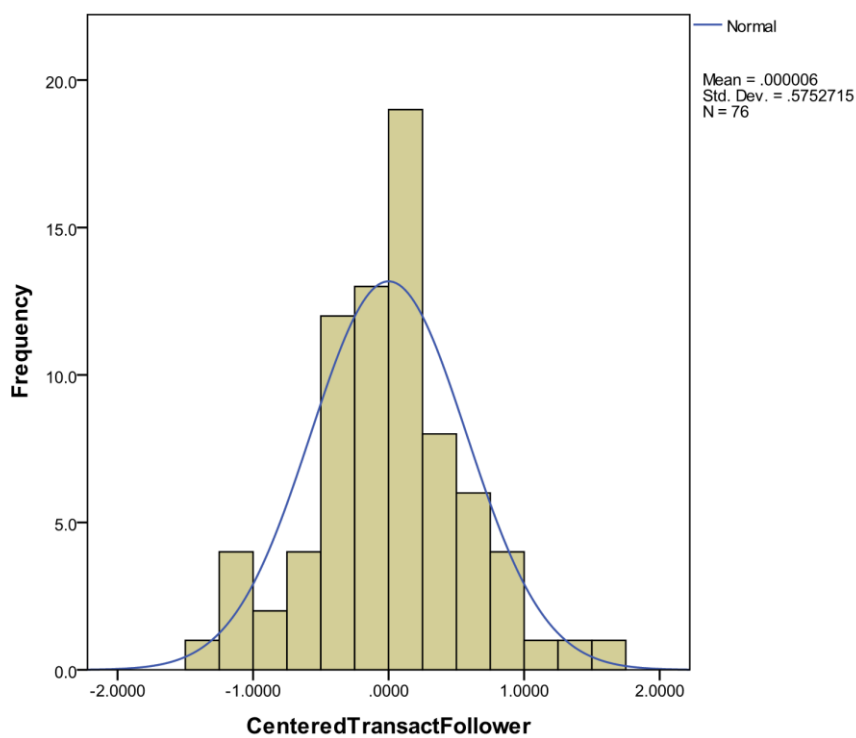


Figure H4. Normal distribution curves: Transactional—follower.

## CURRICULUM VITAE

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**Education****Utah State University, 2012**

*Ph.D. —Curriculum and Instruction, Area of Emphasis in Engineering and Technology Education.*

- Dissertation completed: March, 2012
  - Dissertation title: “An Examination of the Effects of Transformational and Transactional Leadership Styles on Branch Level Success of Industrial Distribution Companies”

**University of Utah, 2003**

*MBA—David Eccles School of Business*

**Brigham Young University, 1983**

*Bachelor of Science in Manufacturing Engineering Technology*

**Teaching/Training Experience**

University of Nebraska—Kearney, Kearney, NE. Instructor for the following courses:

- ITEC 408; Leadership in Business and Technology. This course presents information on different leadership styles and provides skills needed by managers to cope with ever-changing rate of change in the business world.
- ITEC 272; Industrial Products & Applications II. This course provides specific content knowledge and application skills needed in the power transmission and fluid power industries.
- ITEC 188; Career Decisions: Achieving Success in Today’s Global Economy. This university portal course explores global decision making research and techniques.



- ITEC 290; Communicating Through Technology. Using technology based presentation techniques, this course addresses how to communicate effectively through various communication methods.

Utah State University, Logan, UT. Instructor for the following:

- ETE 1030; Material Processing and Tooling Systems. The course is an introduction to properties, production techniques, and history of industrial materials and processes used to produce standard stock and finished products. 2009—2011.

### **Business & Industry Experience**

Syntek Engineered Sales, Bluffdale, UT. President. 2007-2011.

Rexnord Industries. Salt Lake City, UT. Regional Sales Manager. 2003-2007.

Western Fluid Power, Salt Lake City, UT. General Manager. 1997-2003.

Hydraulic Controls Company (Hyconco), Chicago, IL. Sales Engineer. 1994-1997.

Ultra Hydraulics, Inc., Rockford, IL. Regional Sales Manager. 1991-1994.

John S. Barnes Company, Rockford, IL. Applications Engineer/ Regional Sales Manager. 1988-1991.

McDonnell Douglas Helicopter Co., Mesa, AZ. Manufacturing engineer on the Apache Attack Helicopter program. 1985-1988.

Motorola Microsystems Division, Tempe, AZ. Manufacturing engineer for semiconductor business unit. 1983-1984.

### **Professional Development**

#### **Community Service**

City Councilman, Bluffdale City, UT. 2008-2011

Board Member; Camp Williams (Army) Advisory Board. 2009-2011

President, Bluffdale City Redevelopment Agency, Bluffdale City, UT. 2008-2009

Troop Committee Chairman, Boy Scouts of America, Riverton, UT. 1997-2001

Scoutmaster, Boy Scouts of America, Rockford, IL. 1992-1997

**Current and Past Affiliations**

American Society for Engineering Education (ASEE). Member

The Association of Technology, Management, and Applied Engineering (ATMAE).  
Member

Society of Manufacturing Engineers (SME). Member

SAE International. Former member

Power-Motion Technology Representatives Association (PTRA). Former member

Fluid Power Society. Former member