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The Influence of Followers on the Leadership Effectiveness of Clinical Research Leaders

Jo Ann Collins
Walden University

Walden University

College of Management and Technology

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Jo Ann Collins

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Review Committee
Dr. Diane Dusick, Committee Chairperson, Doctor of Business Administration Faculty

Dr. Gwendolyn Dooley, Committee Member, Doctor of Business Administration Faculty

Dr. Judith Blando, University Reviewer, Doctor of Business Administration Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
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Abstract

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MS, Central Michigan University, 2000

BS, University of Maryland University College, 1994

Doctoral Study Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Business Administration

Walden University

7 March 2021

Abstract

Lack of competent followers in the leadership process may result in a disengaged workforce and diminished organizational growth. In the contemporary business environment, some leaders fail to recognize and engage competent followers in the leadership process. Grounded in the situational leadership and followership theories, the purpose of this quantitative correlational study was to examine the relationship among follower active engagement (AE), follower independent, critical thinking (ICT), and the dimensions of leadership effectiveness (LE) to engage competent followers. The participants (N = 52) completed 2 online questionnaires: Leader Behavior Analysis II Other Questionnaire and Kelley's Follower Questionnaire. The linear regression analysis results indicated the full model, containing 2 predictor variables (Follower AE; Follower ICT), was not significant in predicting the outcome variable, LE, to engage competent followers, $F(2, 49) = .036$, $p = .964$, $R^2 = .001$. Leaders must analyze work environments and understand which followers present barriers to achieve organizational goals and fail to provide the leader with critical information. The implications for positive social change include the potential for clinical research leaders to self-assess their leadership and evaluate followers' impact in delivering clinical research to local communities.

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Dedication

I dedicate my study to my mother, Mrs. Linnis Pillars Collins, who is a wonderful inspiration to me. My mother is a leader by example because she constantly inspires me to be resilient and persistent in accomplishing my life's goals as well as being a good neighbor to others. I also want to dedicate my study to my brother, Mr. Jerry Lane Pillars, Sr., who passed on September 20, 2015. He was encouraging for me to advance my academic studies and my professional development. I miss him dearly and am grateful for the positive memories I have of him.

Acknowledgments

I wish to acknowledge my two sons, James LeTonio Collins and Derek Antoine Collins, for their loving patience while I returned to school to work on my academic development. I also thank the Walden University (WU) Review Committee: Dr. Diane M. Dusick, Dr. Gwendolyn Dooley, and Dr. Judith Blando. Other WU faculty members who were helpful during my academic studies include Dr. Freda Turner, Dr. Reggie Taylor, Dr. Basil Considine, Dr. Rocky Dwyer, Dr. Yvette Ghormley, and Dr. James Savard.

Next, I extend my deep gratitude to Dr. Turner for making sure WU continues to succeed in having social change agents in the doctoral program. I thank the scholars in the situational leadership and followership fields. Dr. Drea Zagrami (situational leadership theory), Dr. Gene Dixon and Mr. Ira Chaleff (courageous followership theory), and Dr. Robert Kelley (exemplary followership theory) for contributions to the literature, as well as Dr. Dennis Winters, who introduced me to the followership typology and inspired me to conduct this doctoral study.

Last, I want to extend my gratitude to the WU staff members who support the students. Likewise, as a result of their due diligence, the faculty ensure we learners have the relevant resources to support our doctoral coursework. In closing, I wish Dr. Cassie Diebler and Dr. Greg Banks success in their new roles as social change agents.

Table of Contents

List of Tables

List of Figures

Section 1: Foundation of the Study

Some individuals may engage in leadership or followership roles in different organizations in the same industry or within the same company for a given time throughout their careers (Everett, 2016; Gobble, 2017). LE is optimal when individuals discuss and remediate complex problems to obtain organizational growth (Cismas, Dona, & Andreiasu, 2016; Omilion-Hodges & Wieland, 2016). Despite the high rate of competent followers in the United States, leaders who fail to engage in efficient and productive followership are less effective in supporting organizational growth (Epitropaki, Kark, Mainemelis, & Lord, 2017). Some researchers measure LE by identifying how followers demonstrate willingness to perform under specific leadership, including how followers evaluate leaders' ability to lead (Madanchian, Hussein, Noordin, & Taherdoost, 2017). The objective of this study was to investigate how follower AE and follower ICT influence the LE of CRLs.

Background of the Problem

A gap exists in the literature regarding the LE of CRLs in an organizational workforce with followers who perform with a high level of competency. Individuals may engage in leadership or followership roles throughout a career and may experience dual roles in different organizations in the same industry or within the same company at different times (Bufalino, 2018; Everett, 2016; Gobble, 2017). The leadership process involves interactions among individuals who may lead or follow others to produce favorable leadership outcomes (Bufalino, 2018; Carsten, Uhl-Bien, & Huang, 2018).

Leaders may learn alternative strategies to allow competent followers to lead in situations where the leaders lack the expertise to lead.

Some CRLs experience challenges to manage research. Clinical trial management may be challenging for some leaders, which may require the engagement of competent followers to achieve organizational success (MacQueen & Auerbach, 2018). CRLs need adequate staff with sufficient research knowledge to maintain efficient and constant productivity (Manning & Robertson, 2016a; Morin, 2018). Leaders experience difficulty performing in a leadership role and managing work requirements without competent followers in the leadership process.

Leaders may acquire a better understanding of being effective leaders when they engage followers in leadership. Organizational leaders in pharmaceutical and biotechnology industries desire to partner with savvy research professionals to manage clinical trials (Koski, Kennedy, Tobin, & Whalen, 2018; Yang, Yan, Fan, & Luo, 2017). Some leaders need to adjust their thinking to develop business practices to attain business growth and meet the clients' growing expectations in challenging work situations (Gordon, Rees, Ker, & Gleland, 2015; Mannion, McKimm, & O'Sullivan, 2015; McKimm & Till, 2015). CRLs may involve actively engaged, ICT followers to support the leaders to facilitate effectiveness in leadership.

Problem Statement

Individuals engage in leadership and followership roles throughout their careers (Bufalino, 2018; Everett, 2016; Gobble, 2017). The follower-leader transition may affect how leaders generate business growth. The leadership process involves interacting with

individuals, either leading, or following others, to produce favorable organizational outcomes (Bufalino, 2018). CRLs experience burdens and limited success in managing site operations and clinical research without the support of competent followers (Ciurea et al., 2017; Dublin 2019). Followers contribute 75% to 90% of organizational growth and enhance effective leadership (Antes, Mart, & DuBois, 2016). The general business problem was that some CRLs fail to identify and use competent followers, which may lead to the decreased AE of followers and an inability to achieve organizational objectives. The specific business problem was that some CRLs do not understand the relationship between follower AE, follower ICT, and the dimensions of LE to engage competent followers.

Purpose Statement

The purpose of this quantitative, correlational study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The target population consisted of followers working in nonleadership roles in various research organizations in the United States. Follower AE and follower ICT were the two independent variables (IVs) in the study. To assess the competency level of followership, the followers completed the Kelley's Follower Questionnaire (KFQ) to determine their AE and ICT. The dependent variable (DV) in the study was LE. Followers rated the leaders' LE using the Leader Behavior Analysis (LBA) II Other Questionnaire. The followers' responses provided information about the followership in different research organizations and their views of leadership.

The study implications for social change include a potential impact on the services CRLs provide to support the health care outcomes of local communities. The success of a stable workforce attracts new clients and fulfills the growing demand for clinical research professionals. Likewise, a growing economy, such as alternative methods of clinical research services, helps individual communities.

Nature of the Study

Researchers may choose from three research methods: qualitative, quantitative, and mixed methods (Maxwell, 2016). Larson-Hall and Plonsky (2015) stated the quantitative method involves collecting numerical data using surveys or preexisting data sets. Likewise, Larson-Hall and Plonsky indicated the quantitative method involves analyzing variables using statistical analysis to test the hypotheses. I selected the quantitative method to test the hypotheses in this study and examine to what extent a relationship existed among (a) follower AE, (b) follower ICT, and (c) the dimensions of LE to engage competent followers.

Another research method is the qualitative approach. Researchers use the qualitative method to develop themes and patterns by collecting respondents' perceptions of a specific phenomenon (Jindal, Singh, & Pandya, 2015). I did not select the qualitative method because textural or recorded data from in-person interviews would not address the research problem sufficiently. The final research method is mixed methods. Researchers use this method when a single method, qualitative or quantitative, is not rigorous enough to answer the research question (Makrakis & Kostoulas-Makrakis,

2016). I did not select mixed methods because the components of a qualitative or mixed methods study were not necessary to address the research questions of this study.

The primary quantitative research designs are correlational, experimental, and quasi-experimental (Podsakoff & Podsakoff, 2019). The correlational design is suitable when examining whether a potential statistically significant relationship exists between two or more known variables for a single data collection process without manipulating the variables (Basar & Sigri, 2015). I chose the correlational design over the other designs because this study involved examining the relationship among the three variables. The focus of an experimental design is to control one variable, the mediation variable, over others to define the relationship between the IVs and the DV (Johns, Hayes, Scicchitano, & Grottini, 2017). I did not select an experimental design because manipulating data and observing and recording participants' behavior was not a requirement for the study.

Research Question

This quantitative, correlational study was guided by the following research question and associated hypotheses:

Research Question: To what extent do relationships exist among follower AE, follower ICT, and the dimensions of LE to engage competent followers?

H_0: There are no significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

H_1: There are significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

Theoretical Framework

The theoretical framework of this study consisted of two theories: situational leadership and followership. This framework formed the basis for determining to what extent relationships exist among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The DV for the study was LE. Hersey and Blanchard introduced situational leadership theory (SLT) in 1969 to measure LE in 20 work situations (Blanchard, Zigarmi, & Zigarmi, 1985). Style effectiveness is the leader's ability to adapt to different working situations to achieve organizational growth (Blanchard, Zigarmi, & Nelson, 1993).They reported that leaders who found balance using appropriate leadership styles interacting with followers in 20 work situations achieved LE. Followers in this study assessed LE using the LBA II Other Questionnaire. While several leadership theories exist, the scope of this project was grounded within SLT.

Followership theory was also used as part of the theoretical framework for this study. According to the literature, followership is a process in which followers willingly accept a follower role and allow another follower or a leader to lead them (Kim et al., 2020; Kirmizi, Saygi, & Yurdakal, 2015). Kelley (1992) identified two dimensions of followership: AE and ICT. These two dimensions were the IVs for this study. Kelley described effective followers as primary contributors in achieving organizational growth. Situational leadership and followership theories were appropriate for this study because both related to how leaders and followers functioned in work situations to achieve effectiveness.

Operational Definitions

AE: When a follower demonstrates the ability to accomplish performance goals in an environment with limited leadership support (Breevaart, Bakker, Demerouti, & van den Heuvel, 2015).

Clinical research site (CRS): A research center where authorized staff recruits qualified humans who volunteer to take part in research studies sponsored by public or private organizations (Rosas et al., 2014).

ICT: When a follower uses their cognitive ability to analyze, examine, reason using creative and systematic solutions, and make decisions about complicated situations or problems (Kirmizi et al., 2015).

Leadership process: Interactions between leaders and followers; some individuals lead, and others follow to produce favorable organizational outcomes collectively, regardless of their position within the hierarchical structure (Carsten et al., 2018).

Assumptions, Limitations, and Delimitations

A research design may have several risks and weaknesses. The researcher may experience restrictions when conducting the study and analyzing the data. In the following subsections, I discuss the assumptions, limitations, and delimitations of the study, which may impact the quality of the research.

Assumptions

An assumption is a belief that underlies the research. One assumption for quantitative research is that there is a possible linear relationship between the IVs and DV (Osborne, 2017). I assumed that all study participants understood how to complete the

questionnaires and answered the questions honestly. Another assumption was that clinical research professionals working in follower roles would participate in the study, regardless of their perceptions of organizational leaders. The third assumption was that the data would have a normal distribution.

Limitations

As with all research studies, this study had limitations. A limitation is an inherent and uncontrollable weakness in the study (Mubeen, Mäki-Turja, & Sjödin, 2015). Unexpected constraints affected how I interpreted the methodology, outcomes, and conclusions of this investigation (Sampson et al., 2014). Mediating factors were a potential limitation of the study. I may not have measured or controlled for all mediating factors, which may have influenced the associations between the IVs and the DV. To mitigate mediating factors, I performed a regression analysis. The outcome of the regression analysis allowed me to determine which mediating factors affected the strength of the IVs and the DV.

The second limitation was that confounding factors (e.g., customs, gender, age, and educational status) may have shaped the participants' perceptions. To mitigate this limitation of the study, I did not include descriptive variables about the study population, except for age as an eligibility criterion for study participation to perform statistical tests. Another limitation of the study was having only a 3-week data collection period. The last limitation was restricted access to acquire a relevant sample size sufficient to provide adequate statistical power. The Coronavirus (COVID-19) pandemic did impact study recruitment because organizations in the clinical research industry experienced a

disruption in their business continuity and had to develop and adjust to immediate strategies working remotely than on-site. I sent 2,416 study invitations to potential study participants to take part in the research study. Only 532 individuals opened the study invitations, and 102 consented to take part in the research study. A total of 52 individuals out of 102 completed both study questionnaires. The data collection period was nearly 7 months compared to 3 weeks.

Delimitations

A delimitation is a choice the researcher makes and a predictable limitation or boundary that affects how the researcher interprets findings (Sampson et al., 2014). The geographical location was a delimitation in this study. I initially included participants working at CRSs in a southwestern state of the United States. A future means to expand this research would be to conduct the study outside the United States in a similar population. The second delimitation was the exclusion of participants outside the clinical research industry. A further means to advance this research would be to study populations in different business industries. Another delimitation was the sample size, which included 52 participants rather . I used G*Power statistical software to determine a sufficient sample size to power the study.

The last delimitation was the exclusion of the leaders' style flexibility scores in the scope of the study. The data analysis for this study required the LE results and not the leaders' style flexibility scores. The followers rated the leaders' style flexibility in 20 work situations using the LBA II Other Questionnaire. I did calculate the style flexibility scores to obtain the LE results, which was within the scope of this research study.

Significance of the Study

The study is of value for business leaders to engage competent followers capable of assuming responsibilities, as a leader, in the leadership process. The use of modern technology and the rising competition among service partners in the clinical research industry are forcing leaders to develop an experienced and proficient workforce to deliver services to clients and consumers (Ostrom, Parasuraman, Bowen, Patrício, & Voss, 2015). Leaders need to learn how to influence and engage competent followers to invest in the organization to make contributions to increase organizational growth (Phillips, 2017). Business owners may find some value in the study results to maximize the role of followers and to keep followers engaged in the work environment (see McKimm & Mannion, 2015). Leaders may delegate responsibilities to the appropriate followers depending on work circumstances and the followers' ability to exercise the appropriate level of AE and ICT abilities to contribute to the success of the business.

Contribution to Business Practice

CRLs may determine the study findings are useful in creating effective business practices for engaging followers and understanding the impact of followers on LE. The study findings may contribute to business practice through helping leaders identify problems affecting LE and make changes in the organizations with the support of competent followers. The feedback from the participants may present insight for senior administrators to develop effective business practices for providing quality services to the research community.

Implications for Social Change

The results of this study may enhance the leader-follower relationship in clinical research and pharmaceutical organizations. Business leaders may gain an understanding of the importance of engaging followers in decision-making and contributing to ongoing organizational growth. Leaders' recognition of followers in the leadership process may create a conducive working environment in which the leaders will support follower development, which, in turn, creates a work culture of effective followership. Organizational leaders with the engagement of effective, ICT followers will attract new clients, which increases business growth and employment in the community to build a sustainable workforce. The inclusion of highly engaged, ICT followers to contribute toward the mission of the organization is beneficial to promote a healthy workforce and working relationship between the leader and the followers.

A Review of the Professional and Academic Literature

Most leaders are successful with the support of followers. Leadership is not a functional process without followers (Metwally, Khedr, & Messallam, 2018). The inability of leaders to accomplish organizational goals is a result of deficient leadership, which is one reason to focus on leadership effectiveness. Followers who are actively engaged and progressive thinkers, may support effective leaders to meet specific demands of leadership to achieve organizational goals (Ivanoska, Markovic, & Sardzoska, 2019). The intent of this quantitative, correlational study was to examine if and to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

The general business problem was that some CRLs fail to identify and use competent followers, which may lead to the decreased AE of followers and an inability to achieve organizational objectives. The specific business problem was that some CRLs do not understand the relationship among the follower AE, follower ICT, and the dimensions of LE to engage competent followers. This study was guided by the following research question and corresponding hypotheses:

Research Question: To what extent does a relationship exist among follower AE, follower ICT, and the dimensions of LE to engage competent followers?

H_0: There are no significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers,

H_1: There are significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

The IVs in the study were follower AE and follower ICT. To assess the competency level of followership, the followers were given KFQ to determine their AE and ICT. The DV in the study was LE. Followers rated their leaders' LE using the LBA II Other Questionnaire. The followers' responses provided information about their followership in various research organizations and their views of the leadership.

The literature review consists of a chronological synopsis of eight components: (a) contingency and situational leadership theories, (b) followership typologies, (c) leaders and LE, (d) leader recognition of effectiveness followers, (e) situational leadership and followers, (f) followers' influence on LE, (g) follower AE and ICT, and (h) leaders and followers in clinical research. I conducted a literature search using various

academic and business management databases and retrieved 900 publications to review the relevant body of knowledge for this study. The search for relevant publications to include in the literature review was extensive and included the following keywords: (a) *contingency leadership*, (b) *followership*, (c) *follower AE*, (d) *follower ICT*, (e) *follower influence*, (f) *LE*, (g) *organizational performance*, (h) *situational factors*, (i) *the situational theory of leadership*, and (j) *work engagement*.

I used the WU online library to access the following databases: (a) ABI/INFORM Complete, (b) Business Source Complete, (c) Dissertations and Theses at WU, (d) EBSCO Host, (e) Emerald Management Journal, (f) Google Scholar, (g) ProQuest Central, (h) ProQuest Dissertation and Theses Global, (i) PsycINFO, (j) Sage Journal, (k) Sage Research Methods Online, (l) Science Direct, and (m) Thoreau Database. I accessed peer reviewed journals published between 1965 and 2020. The literature review included 105 publications, of which: (a) three (2.857%) were dissertations; (b) 87 (82.85%) were peer-reviewed, scholarly journals; and (c) five (4.76%) were seminal works. I used *Ulrich's Periodicals Directory* to confirm 87 of the publications were peer-reviewed journals.

Hersey et al.'s (1993) SLT is a leadership theory with a focus on follower development. In SLT, leaders shift their leadership style, and at some point, shift from leading followers to following the followers (Boothe, Yoder-Wise, & Gilder, 2019). Situation Leadership includes the engagement of followers in the leadership process as well as the development of followers, which, in turn, strengthens leadership (Ghias, Hassan, & Masood (2018). According to Kelley (1992), followers willingly accept

functioning in a follower role as well as assuming leadership responsibilities and functioning as leaders; like leaders, followers are situational in the working environment. Kelley's followership typology involves describing how followers shift to leader centric from follower centric and shifting in appropriate follower and leader roles.

Despite the copious literature on leadership compared to the sparse literature about followership, the study of followers of the leadership process is expanding globally. Hersey and Blanchard developed the LBA II Other Questionnaire in 1989 to examine leaders' adaptability of style and effectiveness in 20 work situations involving interactions with followers (Blanchard et al., 1993). Similarly, Kelley (1992) developed the follower questionnaire to examine how followers interact with leaders in 20 work situations. Followers represent nearly 80% of an organization's workforce, and this research study may contribute toward learning how leaders engage followers in the leadership process and how followers influence LE to create solutions for organizational growth (Bastardoz & van Vugt, 2019; Leung et al., 2018). Researchers continue to examine both situational leadership and followership theories, because the roles of followers and leaders are constantly changing how organizations function globally.

Followers and leaders adopt different characteristics and roles to achieve LE. Wright (2017) recommended incorporating relational leading as a potential predictor of situational leadership. Wright suggested leaders to create transparency in communication with followers to acquire a mutual understanding in their leader-follower interactions. Wright noted leaders should create a dialogic environment to engage followers in discussions and information sharing, which, in turn, may increase follower performance.

Farhan (2018) recognized that the literature contains sparse research about leaders' adaptability to focus beyond behavior and style and incorporate learning tools to achieve LE. Metwally et al. (2018) noted that the reciprocal process of leading and following among leaders and followers requires a mutual exchange of information and resources to be effective. Both followers and leaders need to be adaptable in work situations, using different skills and tools to achieve leadership effectiveness.

Burke (2009) examined situational leadership and followership in the pharmaceutical industry and reported both a significant relationship between leaders and followers and suitable performance among different followers. Followers working in the clinical and pharmaceutical industries may effectively support leaders to manage complex research studies (Cinefra et al., 2017). When leaders adapt to the working environment and give attention to the needs of followers to achieve organizational growth, both leaders and followers impact leadership effectiveness (Băesu, 2018). The expansion of research using situational leadership and followership theories was suitable to use in this study of the clinical research industry to examine to what extent a relationship existed among follower AE, follower ICT, and the dimensions of leadership effectiveness to engage competent followers.

Situational Leadership and Rival Leadership Theories

Situational leadership theory (SLT). Hersey and Blanchard introduced SLT in 1972 and revised the theory in 1985 to measure leadership effectiveness using two constructs: style flexibility and style effectiveness (Blanchard et al., 1985; Blanchard et al., 1993). The principle of STL is that leaders are effective when they balance multiple

leadership styles in work situations and according to the followers' development level (Blanchard et al., 1993). In SLT, followers influence leaders' behavior and leadership effectiveness, even as leaders apply different approaches to engage in multiple work situations involving interactions with various followers in the leadership process. Leaders who balance the appropriate leadership in various challenging work situations using SLT demonstrate the ability to achieve leadership effectiveness (Thompson & Glaso, 2018). Followers engage in the leadership process according to their ability to think critically, and followers demonstrate work performance in varying leader-follower interactions. The followers' work competency impacts the leaders' effectiveness.

Leaders experience challenges when working with different followers and in complex work situations. Leaders use directing style for interactions with followers who retain inadequate job skills yet remain highly committed to performing their work (Salehzadeh, 2017; Thompson & Glaso, 2018; Zigarmi & Roberts, 2017). Leaders use coaching style with followers who are minimally competent and remain committed to supporting the leaders while receiving sufficient guidance (Salehzadeh, 2017; Thompson & Glaso, 2018; Zigarmi & Roberts, 2017). Leaders use supportive style to accommodate followers with a reasonable competency level who are unreliable in supporting leaders with consistency (Salehzadeh, 2017; Thompson & Glaso, 2018; Zigarmi & Roberts, 2017). When followers' competency and commitment levels are consistent and reliable, leaders use delegating style because developed followers require less guidance and support (Salehzadeh, 2017; Thompson & Glaso, 2018; Zigarmi & Roberts, 2017). Leaders may adapt different behaviors when unskilled followers display an eagerness to

support the leaders or when responsible followers demonstrate a willingness to do so (Salehzadeh, 2017; Thompson & Glaso, 2018; Zigarmi & Roberts, 2017). As leaders experience many challenges in the work environment, some are using modern technology to identify appropriate followers to engage in the leadership process.

Some leaders use technology to achieve LE to meet the demands of the organization. Bosse, Duell, Memon, Treur, and van der Wal (2017) reported that leaders applied computer-based technology based on using SLT to analyze followers' development levels to select the proper leadership approach within a given circumstance. LE is a key element of SLT in which the leaders adapt to different working situations to achieve organizational growth (Blanchard et al., 1993). For example, followers may use certain characteristics of education to influence leaders' leadership behavior, which may determine whether the leaders are effective (Salehzadeh, 2017; Zigarmi & Roberts, 2017). SLT was suitable to use in this study examining LE among CRLs across organizations in the research industry because CRLs depend on followers to assist leaders in facilitating business requirements to achieve organizational growth. Despite technological innovations, leaders need a proper understanding of when to adapt to changing demands impacting the organization to remain effective and engage competent followers in the leadership process.

Followers influence leaders' choice of leadership, thereby affecting LE. Salehzadeh (2017) applied a data-mining technique using SLT in an Iranian academic environment and discovered that leaders chose coaching style as suitable for followers in different demographic categories. Some organizational leaders pursued different

advantages for engaging followers in leadership to manage challenging work environments (Bosse et al., 2017; Salehzadeh, 2017; Zigarmi & Roberts, 2017). Followers are the primary complement in the leadership process, and they influence LE and the leaders' success.

In SLT, the level of follower engagement is critical to the leadership process. Organizational leaders who apply SLT may determine one style is not superior to other approaches (Zigarmi & Roberts, 2017). The leaders' ability to assess followers' competency levels and engagement determines the leadership process (Thompson & Glaso, 2018). For example, the followers' level of engagement and aptitude to demonstrate critical-thinking abilities are essential to the leader's effectiveness (Kellerman, 2008; Kelley, 1992). Without the engagement of followers, senior administrators encounter challenges in recognizing contextual factors involving followers and LE (Salehzadeh, 2017). I used the STL as part of the theoretical framework for this study because followers influence LE, which involves followers' behavior and development levels.

Rival theories of situational leadership. Rival theories of situational leadership include Fielder's contingency theory (FCT), leader-member exchange theory (LMX), and path goal theory (PGT). In FCT, leaders desire a position of authority to build leader-follower relationships in which the leader maintains control of the situation and the relationship with followers to achieve LE (Oc, 2018). LMX theory involves a dyadic relationship between leaders and followers on an individual level (Kim et al., 2020; Tse, Troth, Ashkanasy, & Collins, 2018). LMX theory does not include the relationship

between followers and leaders. In PGT, the leaders decide the condition of the work environment and set the direction for followers to perform job tasks to achieve organizational goals (Domingues, Vieira, & Agnihotri, 2017). I did not choose PGT for this study because effective followers do not rely on leaders. The objective of this research study was to examine the extent which a relationship existed among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

Synthesis of leadership theories. For this study, the lens of situational leadership was paramount. While many studies on leadership exist, the purpose of this study to examine the relationship between followership and LE. For this study, I assessed leadership as situational because followers and the work environment vary unpredictably, which impact the leaders' effectiveness and the growth of the organization. Business leaders may consider followers a situational factor influencing LE (Hersey & Blanchard, 1969). Researchers use leaders, followers, leader behavior, and contextual situations as common elements to examine LE (Zigarmi & Roberts, 2017). Leaders and followers do not function in isolation; together, they are the backbone of an organization, and both contribute to business growth.

A major shift in leadership research occurred with the situational leadership model. Organizational leaders may consider followers a situational factor influencing LE (Fiedler, 1967; Hersey & Blanchard, 1969). SLT is relevant when researchers examine leadership and leaders' behavior pattern throughout different organizations (Zigarmi & Roberts, 2017). This study of leadership was contingent because followers and situations vary, impacting the leaders' effectiveness.

Some organizational leaders may discern which leadership style is appropriate to use in the workplace, according to the work situations and the types of followers in the work environment. Leaders attain LE by controlling work situations with the appropriate leadership style (Domingues et al., 2017). In LMX theory, a leader chooses certain direct reports to build quality working relationships to achieve the desired performance outcome (Bowler, Paul, & Halbesleben, 2017). Leaders who apply PGT provide constant guidance and motivation to followers to ensure followers' job satisfaction and remove work related problems, which may hinder the followers' job performance (Farhan, 2018). In SLT, leaders adapt their leadership styles according to followers' development levels and involve effective followers in achieving organizational goals to support LE (Salehzadeh, 2017). Leaders may adapt behaviors and leadership styles according to situational factors and interactions with followers at different development levels. Followers' development levels are key situational factors, which can alter how leaders maximize effectiveness in the workplace. Leaders and followers must function in unity to establish a successful organization.

Followership and Followership Typologies

Followership in the leadership process involves how followers interact with the leaders. Followership consists of examining the role of followers and how followers willingly adapt certain behaviors to engage with leaders to support leadership outcomes (Bastardoz & van Vugt, 2019). Followership as a process involves how followers assume different work behaviors to interact with other followers and to influence leaders to obtain LE (Deale, Lee, & Schoffstall, 2018). The relationship between followers and

leaders and between followers and other followers might be more a followership process than a leadership process because of the increased collaboration with follower engagement in the workplace (Bastardoz & van Vugt, 2019). Followers decide whether to follow and support the leader to achieve organizational goals (Ligon, Stoltz, & Rowell, 2019). Followership consists of typologies, and the different styles of followers and the alterative and willingness of following create the building blocks of followership theory.

Zaleznik's subordinacy typology. Zaleznik's (1965) subordinacy typology was an early attempt in the literature to describe followers or followership. Zaleznik used subordinates to describe followers as submissive and inferior to supervisors. The subordinacy typology includes two dimensions: (a) submission and dominance and (b) activity and passivity, which involves the psychological and behavioral patterns of subordinates (Alvesson & Blom, 2018; Chiu, Balkundi, & Weinberg, 2017). The submission and dominance dimension involves psychological patterns, which include the subordinates' inner struggles and conflict to control or to be controlled by superiors (Zaleznik, 1965). The activity and passivity dimension involves the behavior patterns of the subordinates and the subordinate supervisor interactions. Zaleznik used subordinates, subordinacy, and followers interchangeably to describe work interactions with supervisors and leaders.

The submission and dominance dimension involves subordinates with impulsive and compulsive psychological patterns. Impulsive subordinates oppose individuals in authority, and compulsive subordinates have difficulty balancing control over situations (Zaleznik, 1965). It is not uncommon for subordinates and supervisors to experience

stressful interactions in the workplace (Ming, Bai, & Lin, 2020). Chamberlain, Stochl, Redden, and Grant (2018) reported a moderate correlation between impulsivity and compulsivity factors among 576 adults in two cities, in the United States, making decisions on adjusting their behaviors. Chamberlain et al.'s results corresponded with Zaleznik's (1965) study, in which subordinates experienced internal conflict when interacting with superiors and in situations requiring decision making. Some subordinates use psychological methods like submission and dominance to control conflict situations in working relationships.

The activity and passivity dimension involves masochistic and withdrawn behavioral patterns. Masochistic subordinates engage in an adolescent parental relationship with their supervisors and lack motivation. Withdrawn subordinates may cognitively disengage from commitment to support organizational growth (Dang, Umphress, & Mitchell, 2017; Zaleznik, 1965). Hill (2016) assessed the activity and passivity of priesthood styles and discovered many circumstances involved the maturity level of individuals and administrative issues within an organization. Hill noted the individuals' development levels changed over time. Followers may become independent in supporting the leader or remaining dependent on the leaders for guidance (Hill, 2016). Hill's assessment of priesthood styles connects with Zaleznik's (1965) activity and passivity dimension because the individuals' behaviors in work situations may involve some level of controlling others or being controlled. Subordinates who choose masochistic and withdrawal behaviors may experience active or passive interactions with supervisors in the work environment.

In summary, the relationship between subordinates and supervisors is an approach to describing followership. The subordinacy typology consists of two dimensions: (a) dominance and submission and (b) activity and passivity. Zaleznik (1965) used the two dimensions to define the subordinates' psychological and behavioral patterns and conflict between subordinates and leaders. The subordinate supervisor relationship involves work conflicts and the desire of subordinates to control others, which may impact work situations and organizational success. I did not measure subordinacy typology in this study because subordinacy dimensions are different than followership dimensions. The objective of this research study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

Kelley's followership typology. Followership is the antithesis of subordinacy. Kelley's (1992) followership typology described the role of followers, not subordinates. Kelley defined followership along two dimensions: (a) AE and (b) ICT. The AE dimension is the degree of commitment with which followers are actively engaged or passively disengaged from organizations (Ivanoska et al., 2019; Tabak & Lebron, 2017). The ICT dimension is the degree of knowledge to which followers apply ICT skills to reason logically and to analyze complex problems (Ivanoska et al., 2019; Tabak & Lebron, 2017). Kelley's followership typology is an initial approach to identify to what extent, if any, follower AE and follower ICT influenced LE for this research study. In turn, SLT addresses leaders' LE in which followers used an instrument to assess LE.

Organizational leaders may assess which followers support or obstruct corporate growth. Kelley (1992) developed five followership styles: (a) alienated, (b) effective or

exemplary, (c) conformist, (d) pragmatist, and (e) passive, to assess followers' degree of AE and ICT. Alienated followers have elevated levels of ICT and low levels of AE, conformists rank the opposite, and passive followers rank low on both ICT and AE dimensions (Hinić, Grubor, & Brulić., 2017; Leung et al., 2018; Thomas, Gentzler, & Salvatorelli, 2017). Alienated and passive followers complete work tasks inconsistently. Conformists and passive followers fail to question the leader's decisions, whether in agreement or not, which may result in decreased organizational growth (Hinić et al., 2017; Leung et al., 2018; Thomas et al., 2017). Leaders must understand which followers present barriers to reach organizational goals and fail to give critical information the leaders need to make effective decisions.

Followers support leaders to achieve organizational success. Greene and Saint (2016) examined followers' safety management practices in the health care industry and found that exemplary followers consistently made decisions that minimized infection in patients and increased performance. Both pragmatist and exemplary followers demonstrated consistent levels of AE and ICT in the leadership process, and exemplary followers performed at higher levels than pragmatists (Hinić et al., 2017; Leung et al., 2018; Thomas et al., 2017). Exemplary followers consistently made decisions in applying infection practices to ensure patient safety and organizational outcomes. An assessment of followers' AE and ICT is helpful to determine which followers assist in facilitating organizational success.

Followers may demonstrate the appropriate skills to support leaders to achieve organizational growth. For example, pragmatist followers show some degree of AE and

ICT and many leaders are unaware that pragmatists engage in the leadership process for self-survival and not to help the leaders (Thomas et al., 2017). Some leaders fail to recognize that passive followers are ineffective and often require guidance, while other leaders prefer directing the work of passive followers to delegating responsibilities to effective ones (Hinić et al., 2017; Leung et al., 2018; Thomas et al., 2017). Effective followers assume leadership responsibilities for making decisions about complex work problems (Thomas et al., 2017). Khan, Abdullah, and Busari (2019) examined follower AE and ICT and in the leadership process along with trust in the leader follower relationship among 506 participants working in the Pakistan telecommunication industry. Khan et al. reported follower AE and follower ICF influenced leadership behavior.

When comparing trust as a mediator, there was a partial response between follower AE, follower ICT, and leadership. Gobble (2017) and Khan et al. (2019) acknowledged that leaders are receptive to followers to share their opinions to support decision-making in business practices. The involvement of followers complements leaders' LE and builds a reciprocal leader follower relationship of influence and trust in the leadership process.

Active critical thinking followers who engage in the leadership process may have a positive influence on LE. Exemplary followers have higher levels of ICT and AE than pragmatic followers, who show moderate levels of ICT and AE (Kelley, 1992). Behery (2016) examined the relationship between leaders' behavior, organizational identification, and followers' active passive behavior among 847 participants across six business industries. Behery observed a significant relationship between follower

engagement and leadership behaviors and organizational identification and a moderate significant relationship with follower ICT. Conformist followers actively engaged in the leadership process and lacked critical thinking, and passive followers disengaged from the organization and deferred the critical thinking to the leaders (Hinić et al., 2017; Ivanoska et al., 2019; Leung et al., 2018; Thomas et al., 2017). Leaders may recognize when followers do not balance ICT and AE skills because leaders need followers to present alternative solutions than conforming to the leaders' decisions to implement inadequate strategies. Followers may balance AE and ICT skills to support the leaders to facilitate LE.

The proliferation of followership from subordinacy gave rise to the importance of followers' influence on LE. Organizational followers have different followership styles and demonstrate various degrees of AE and ICT. Followers shift followership styles like leaders adapt leadership styles according to the work situations. Unlike subordinates, followers may exist at various levels within the organizational structure and report to persons working in different hierarchal status.

Chaleff's courageous followership. Leaders need to engage critically thinking followers who display moral acts of courage in the workplace. Chaleff's (1995) courageous followership typology is a refinement of follower courage, by which Kelley (1992) noted effective followers display acts of moral courage. Chaleff defined courageous followership using two dimensions based on five styles with which followers either challenge or support leaders in the pursuit of meeting organizational objectives: (a) assume responsibility, (b) serve, (c) challenge, (d) participate, and (e) take moral action

(Ghias et al., 2018). Fadden and Mercer (2019) assessed the value of followership in a trauma health care environment in the United Kingdom. The authors reported that followers engaged in the trauma care without the guidance from the trauma team leaders. Fadden and Mercer stated followers were aware of patient care delivery and challenged authority to minimize adverse events occurring in the delivery of medical care to injured patients. In this trauma care setting, courageous followership existed, and followers in a critical medical setting may be situational based on team competence to perform in a complex medical care environment. Many followers analyze situations to enhance work practices and strengthen the effectiveness of the leaders.

Unlike subordinates, actively engaged, and ICT followers display courage. Unlike subordinates, actively engaged, and ICT followers display courage. Boothe et al. (2019) examined follower AE and follower ICT among 60 registered nurses employed at an acute care facility in the southwestern region of the United States. Of the 60 respondents, 47 (78.3%) self-rated high on AE and ICT with scores higher on follower ICT than follower AE. Boothe et al. noted the lower score on follower AE was associated with a lack of leader mentorship and education to the nursing staff. Followers with high level of engagement may courageously challenge the leaders about safety issues in patient health care. Effective followers courageously voice opinions and offer recommendations to support and challenge the leaders to maintain LE in the leadership process (Gobble, 2017). Courageous followers prevent potential problems from occurring in the workplace (Ghias et al., 2018). Courageous followers are proactive associates in the leadership process, unlike subordinates, who lack the aptitude to demonstrate acts of courage.

Leaders are followers at some point, and nearly 80% of followers rank at various levels throughout the organizational hierarchy (Ghias et al., 2018; Gobble, 2017; Leung et al., 2018). Unlike subordinates who lack the aptitude to demonstrate courageous acts, courageous followers are proactive in the leadership process, unlike subordinates, who lack the aptitude to demonstrate acts of courage.

Actively engaged and ICT followers show courageous actions to influence LE. Leaders may overlook certain followers' abilities, which may impact the leaders' influence over followers (Carsten et al., 2018). Effective leaders understand that making decisions may result in favorable and unfavorable results. Leaders may appear ineffective among followers when making decisions that contribute to lesser profits and insufficient organizational outcomes (Madanchian et al., 2017). Leaders may overcome various challenges in the workplace by engaging followers in decision making to determine effective solutions to problems that impact the work environment (Wright, 2017). Organizational followers exhibit critical thinking abilities to support the leaders' desired goals for the organization. Followers actively engage in the leadership process to facilitate leaders to lead the organization and followers effectively.

Courageous followers must perform using moral actions and collaborate with leaders to make sure the organization is successful. Courageous followers create alternative work processes to achieve organizational goals and challenge leaders when decisions are unclear for directing the organization. Followers who demonstrate courageous actions within the business environment may experience resistance from leaders and other followers. Nevertheless, courageous followers are unafraid to question

leaders' authority with respect and remain actively engaged in supporting LE as well as working toward organizational success. The presence of followership permeates the organizational structure. Follower courage is not a dimension to measure in this study because AE and ICT followers demonstrate the courage to determine actions necessary for supporting or opposing leaders.

Kellerman's followership typology. Kellerman is another theorist who explored followership. Kellerman (2008) used followership typology to describe followers' level of engagement and their effect on productivity and achievement of organizational goals. Kellerman's followership typology includes a single dimension, level of engagement. Kellerman offered five followership styles to describe how followers behave in work situations: (a) the isolate, (b) the bystander, (c) the participant, (d) the activist, and (e) the diehard. To understand each style is to know how followers engage in the leadership process. Kellerman wrote that *isolates* choose to alienate from the leaders and fail to assume responsibility for decision making. Isolates resemble disengaged or detached followers, known as *bystanders* (Carsten et al., 2018; Fadden & Mercer, 2019; Gobble, 2017). The development level of isolates and bystanders differs. Isolates become completely disengaged from the leaders, and bystanders become partially disengaged with an awareness of the leaders' actions.

Effective leaders encounter challenges when working with *bystanders* who avoid engaging in the leadership process. Bystanders fail to inform the leaders about matters that affect an organization's success, and these followers rely on others to support the leader (Fadden & Mercer, 2019; Gobble, 2017). Effective leaders encounter participant

followers who sit on the fence and invest in organizational decisions. Participants are capable of engaging and willing to engage in leadership activities (Fadden & Mercer, 2019; Gobble, 2017). Followers may control their level of engagement and voluntariness in support of their leaders (Blom & Lundgren, 2020). Leaders need to recognize followers who participate in organized activities, known as *activists*, because activists contribute to effective leadership by supporting the leaders in meeting organizational goals.

Followers can be disengaged or actively work to support organizational goals, or in other cases actively work to thwart goal attainment. On the negative side, activists may avoid meeting organizational goals and supporting leaders because activists' interests differ from those of leaders (Fadden & Mercer, 2019; Gobble, 2017). Effective and ineffective leaders can depend on *diehard* followers who commit to the leaders and complete work projects to achieve organizational goals and support the leaders to facilitate LE (Fadden & Mercer, 2019; Gobble, 2017). Followers may increase the performance of the organization through their level of engagement or rank in position to manage complex situations in facilitating LE (Xu, Zhano, Meng, & Zhao, 2018). When leaders fail to recognize follower commitment, followers may become disengaged and withdraw from supporting the leaders. Leaders cannot lead without active followership. Follower AE and follower ICT have positive influences on leadership effectiveness and organizational success.

Not all followers rely on the full support of their leaders to succeed. Some followers assume leadership responsibilities to guide other followers as well as leaders

(Penny, 2017). Milhem, Muda, and Ahmed (2019) reported a statistically significant relationship between leaders' business acumen on leadership style and follower work engagement among 338 followers in the Palestinian information and communication technology industry. Leaders should recognize which situational factors affect follower engagement and hinder the follower's ability to apply critical thinking to enhance work performance (Reza, Rofiaty, & Djazuli, 2018). As the followers' level of engagement advances in the leadership process, followers may experience more confidence and job responsibility in a dual role to achieve organizational success (Hinić et al., 2017). Followers engaged in work situations at different hierarchical levels to influence LE. Effective followers are self-reliant and adaptable in the workplace, which is not uncommon to conclude that followers are situational.

Synthesis of followership typologies. The study of followers has changed the focus on subordinates to describe AE and ICT followers in leadership. Followership is part of the leadership development curriculum at universities and leadership conferences to educate business practitioners on the value of followers (Hurwitz & Koonce, 2017). Current and future scholars may create novel approaches to examine followers in different roles in the leadership process and how followers influence on LE (Bastardoz & van Vugt, 2019; Gobble, 2017; Hurwitz & Koonce, 2017). The study of leadership may equally balance how leaders and followers impact LE. Leadership does not exist without followers, and effective followers assist leaders to succeed.

Contemporary leadership studies may include a focus on followership and the engagement of followers. The followership typologies of Zaleznik (1965), Kelley (1992),

Chaleff (1995), and Kellerman (2008) are more similar than different. The role of leading and following in the business context may differ according to the time period in which situations impact the organization. Reconsidering the value of followers requires additional examination because followers in the leadership process are situational on leaders adapting leadership styles appropriate to work situations and interacting with other followers in the hierarchy of the organization (Bastardoz & van Vugt, 2019; Gobble, 2017). The reciprocal process includes both parties working together, making decisions, and solving problems, which enhances the leader follower relationship. The relationship resembles a dance, with one leading while others follow, and all collectively dance in the same direction to achieve a shared goal (Boothe et al., 2019). Followers account for many contributions to organizational success. Business leaders need to acknowledge the effectiveness of followers as well as leaders because the leader follower relationship is a reciprocal process of effective leadership.

Followers adapt followership styles while engaging at various levels in the organization, demonstrating critical thinking abilities and actively participating in the leadership process. The complexity of the follower role may be situational, and followers demonstrate different skills while working with leaders involved in multiple work situations (Greene & Saint, 2016). Courage is an extension of effective followers' courageous actions when applying AE and ICT skills (Chaleff, 1995; Kelley, 1992). Leadership and followership are situational processes.

The influx of leaders and followers in the leadership process has individuals adopting role playing to address various work situations (Gobble, 2017). Kelley (1992)

portrayed effective followers as exemplary, while Hinić et al. (2017), discovered that pragmatic followers and exemplary followers effectively apply critical thinking skills and actively engage in the leadership process. Effective followers are the strongest and most challenging supporters of leaders. In Kelley's followership model (see Figure 1), optimal LE occurs when leaders actively allow followers to engage in critical thinking. At the other end of the spectrum is leadership ineffectiveness. Leaders prove effective when they engage with followers who have low to moderate critical thinking and only remain passively engaged (Kelley, 1992). Kelley's followership typology approach to describe followership follows.

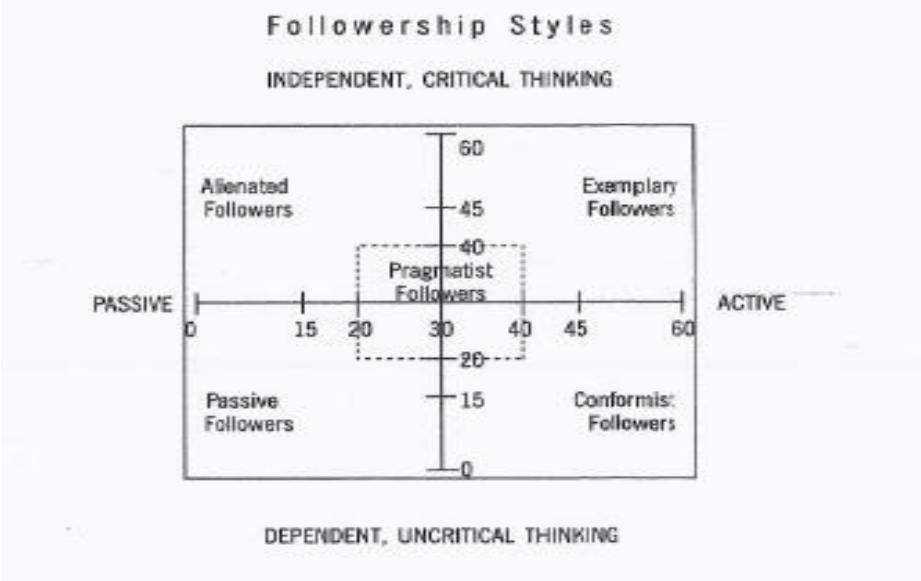

Figure 1. Graph of Kelley's Followership Typology. Reprinted from *The Power of Followership* (p. 97), by R. E. New York, NY: Doubleday. Copyright 1992 by the Currency and Doubleday. Reprinted with permission.

Leaders and Leadership Effectiveness

Leadership effectiveness involves the leader's ability to apply leadership styles and to influence followers to achieve organizational goals. Henkel and Bourdeau (2018)

used situational leadership and examined 620 military leaders use of leadership styles to influence over followers to achieve organizational success within the United States and abroad. Henkel and Bourdeau reported military leaders were supportive of followers while being directive to ensure LE. Ivanoska et al. (2019) noted leaders need to be familiar with situations and understand which type of leadership is applicable to guide and engage different types of followers in the leadership process to achieve LE. Ivanoska et al. noted one type of leadership style is not suitable for all situations because leaders may apply leadership style most effective for specific circumstances. Oyefeso (2017) reported an association of LE and leadership styles among clinical managers working in outpatient physical therapy clinics and followers' job effectiveness and follower engagement achieved organizational growth. Leadership effectiveness involves an alignment of leaders and followers collaboratively to manage complex situations to achieve organization goals. Leaders may analyze conditions affecting the work environment and engage effective followers in the leadership process.

Leaders need to influence followers to engage in the leadership process to obtain desired organizational outcomes. Tortorella and Fogliatto (2017) reported leaders in an automotive facility, across hierarchical levels, least preferred leadership style was delegating responsibility to followers. The researchers concluded that leaders at the highest hierarchy desired the delegating style and consistently showed a supporting style across all job phases. Here, corporate leaders need to accept that leading all followers in every circumstance with the same behavior is not effective and accomplishing organizational goals without the support of effective followers is not proficient. Boothe et

al. (2019) mentioned leaders and followers shift roles according to the work situations and both components experience dual roles of leading and following in their profession. Hence, leaders are followers at some point, and nearly 80% of followers rank at various levels throughout the organizational hierarchy (Ghias et al., 2018; Gobble, 2017; Leung et al., 2018). Leaders might allow followers to participate in the leadership process to achieve LE, depending on changes in the work requirements.

The engagement of followers in the leadership process and leaders' readiness to adapt their leadership styles to different work situations can influence LE. Business leaders may focus on follower development in addition to self-development to acquire the confidence to delegate more complex work responsibilities to followers throughout the corporate hierarchy. Leaders need to analyze the work environments and the changing needs of followers to ensure LE is rooted in the leadership process.

Leader Recognition of Effective Followers

Leaders' recognition of followers might increase follower commitment to performing at different job levels within the organization. It is not uncommon that leaders and followers engage in combined decision making and implementation of business practices when effective leader follower relationship exists within an organization (Sudrajat, Zulfikar, & Lindayani, 2020). Clarke and Mahadi (2017) reported that leaders and followers shared the mutual recognition of respect associated with followers' work performance that leaders could value. Leaders who recognized followers' performance demonstrated appreciation of effective followership (Kipfelsberger & Kark, 2018). Organizational leaders may focus on the recognition of followers and follower influence

on LE. Leaders' support of effective followers increases leaders' ability to lead followers and enhances leaders' performance**.**

Leaders may recognize how the lack of leadership support affects the performance of followers. Park, Lee, Lim, and Sohn (2018) noted that followers in a South Korean military environment felt motivated when the leaders made efforts to include followers in the leadership process. Followers might demonstrate strong work commitment in organizations where leaders provide followers with support and recognition (Jin, McDonald, Park, & Yang, 2019). Leaders who disengaged from the organizational workforce fail to support follower development and achieve an understanding to engage followers to support LE. In turn, the followers become inactive and detached from the leaders when the followers perceived leaders devalued their contributions to achieve organizational outcomes (Zhao & Xie, 2020). Administrators who demonstrate insufficient leadership may contribute to a disengaged workforce. Business leaders may use caution when excluding followers from engaging in the leadership process and focus on identifying and using followers' potential to facilitate LE.

Some followers receive positive feedback from leaders regarding their work performance. Thompson and Glaso (2018) surveyed 168 leaders and 830 followers in Norwegian for-profit organizations and applied congruent ratings using situational leadership model. The researchers used performance as the DV to detect follower competence and follower commitment and the leaders' dominant leadership style. Thompson and Glaso partially accepted the hypothesis because the leaders and followers

had incongruent ratings. The researchers recommended including leaders' assessment of followers in future research to obtain a fair assessment of follower development. Thompson and Glaso determined that a lack of statistically significance is evident when follower's self- evaluation of follower development exceed their evaluation of leaders' effectiveness. Individuals with higher developmental levels might demonstrate competency and work commitment to achieve organizational growth (Shum, Gatling, & Shoemaker, 2018). Li, Gastano, and Li (2018) suggested including other variables or mediating factors, such as psychological resources, to examine the relationship between LE and engagement of competent followers. Leaders may recognize followers' competency levels, providing less support to highly competent followers and more support to the least engaged followers.

Leaders who recognize and value followers will engage followers in the leadership process, which may result in improved work performance. Zhao and Xie (2020) noted that engaged leaders supported follower development and followers perception of leader involvement likely enhanced the followers' commitment and willingness to increased work engagement and productivity. Thompson and Glaso (2018) reported that most leaders acknowledged followers' work performance and followers were more effective in the leadership process when leaders and followers shared similar goals of job performance. Park et al. (2018) discovered that leaders acquired fulfillment in their leadership roles when actively engaged, and that ICT followers supported the leaders to achieve organizational goals. Some leaders are becoming familiar with having followers in the leadership process.

Situational Leadership and Followers

Situational leaders must balance leadership styles across different work situations and engage with followers. Leaders may engage followers to complement their leadership styles and improve organizational productivity (Rao, 2017). Zigarmi and Roberts (2017) reported human resource practitioners' leadership styles were suitable for followers' development levels and supported leadership by encouraging follower development levels rather than coaching, delegating, and directing. Zigarmi and Roberts reported leaders provided delegating and supporting leadership styles when the followers needed supporting and participating leaders and provided guidance to followers to complete work tasks. Some leaders delegated responsibilities to followers and provided limited supervision, whereas other leaders offered adequate direction and support. Leaders created barriers when they failed to delegate work to followers and expected the followers to be productive. Epitropaki et al. (2017) noted that leaders who failed to adapt within the work environment hindered organizational success and disengaged productive followers. Leaders should cooperate with followers to apply leadership to maximize performance using followers who can complete the work to improve organizational performance.

Leaders' responses to followers and work situations may impact LE. Sudrajat et al. (2020) compared head nurses' leadership at government and private health care facilities in Indonesia. The researchers obtained followers' subjective ratings of their leaders using situational leadership model. Sudrajat et al. reported that the nursing staff at both facilities rated nurse leaders consistently in their leadership approach. The nurse

leaders predominately delegated work to and consulted with the nursing staff with moderate participation and provided minimal instruction. Sudrajat et al. reported instruction as the least applied leadership among the nurse leaders. Boothe et al. (2019) identified a gap in mentorship and education among U.S. nurse leaders at a southwestern acute care facility. According to SLT, leaders demonstrate effectiveness when applying multiple leadership approaches equally for work situations when interacting with direct reports. Leaders may implement continuous mentorship and education as feedback to the nursing staff to increase performance to achieve organizational goals (Heryyanoor et al., 2020). Zigarmi and Roberts (2017) alluded to leaders being cognizant about providing appropriate leadership according to followers' development levels. Leaders may overcome failure when they apply appropriate leadership and involve followers in various work situations.

Some organizational leaders do not apply the leadership styles corresponding to the development levels of followers. Metwally et al., (2018) examined to what extent 309 nursing followers exerted power, and how levels of social influence and emotional intelligence influenced 103 nursing leaders employed at nine Egyptian health care facilities. The researchers reported a statistically significance between follower power and social influence over the leaders and not statistically significance between follower power and level of emotional intelligence. Followers' inability to apply emotional intelligence with power and social influence may indicate a lack of follower ICT abilities to influence nursing leaders. Bufalino (2018) and Carsten et al. (2018) noted the leader follower relationship involved social interactions. Oc (2018) noted leaders desired a level

of authority in the leader follower relationship. Actively engaged followers influenced leaders' decisions over time through frequent interactions and continued work engagement (Jin & McDonald, 2017). Leaders' interactions with followers may differ according to the followers' characteristics. Hence, the leader follower relationship, either negatively or positively, may determine how the leaders relate to followers in the leadership process.

Leaders may build obstacles in the organizations when they fail to delegate work to followers and expect followers to be productive. Leaders may recognize that their involvement alone in the leadership process is not sufficient to direct the organization and motivate followers. Leaders who fail to adapt within the work environment may hinder organizational success and disengage productive followers (Epitropaki et al., 2017). Most followers demonstrated leadership abilities while in the follower roles (Blanchard et al., 1993). A graphical depiction of the leaders' adaptable leadership styles for followers' development levels is in Figure 2.

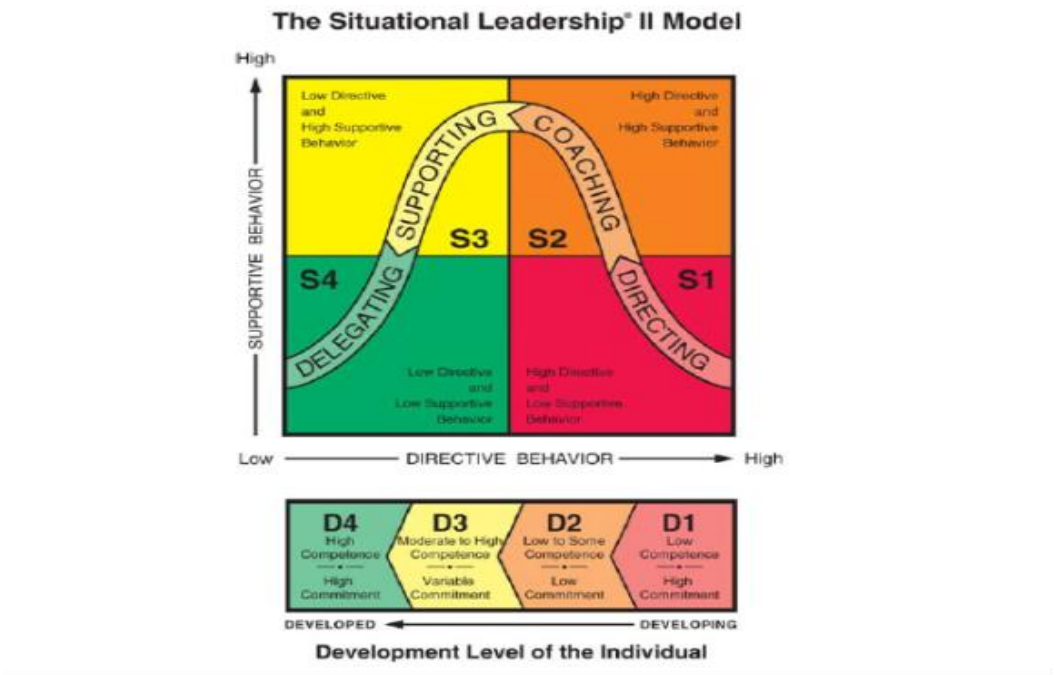

Figure 2. Graph of Situational Leadership II Model. The Ken Blanchard Companies. Reprinted with Permission.

Organizational leaders need to adapt situational leadership behaviors to build relationships with followers to support organizational growth. Organizational leaders may demonstrate LE by incorporating business practices to develop followers in leadership roles (Storlie, Baltrinic, Aye, Wood, & Cox, 2019). Avery (2001) examined 248 leaders among Australian organizations using LBA II Self and Other Questionnaires. Avery discovered the senior managers rated their direct reports, supervisory leaders, with moderate LE with a score of 60 out of 80 maximum points. Avery further reported supervisory leaders self-reported a score of 53, and their followers reported a score of 49 for LE, which is below the average situational leadership score of 59 for moderately LE. Avery concluded followers reported their supervisory leaders as the least effective among the three groups: (a) senior managers, (b) supervisory leaders, and (c) followers. Both

leader and follower engagement in the leadership process is an adaptable approach to achieve organizational goals.

Leaders should apply situational behaviors to understand factors affecting the leader follower relationship in the workplace. Leaders and followers may share similar attributes, which contributes toward an effective leader follower relationship (Thompson & Glaso, 2018). Leaders should develop adaptive techniques to react proactively to situational problems that impact the organization and followers (Doyle, 2017). Reza et al. (2018) examined situational factors that motivated millennial auditors' job performance in the Indonesian banking industry. Reza et al. reported situational leadership was the only situational factor that influenced in follower performance, work motivation, and when performance is influenced through work motivation. The other situational factors, i.e., organizational culture, motivation, and training had a partial influence on either follower work performance, motivation, and follower performance through work motivation. Reza et al. suggested examining the relationship of a different organizational culture and advanced technology suitable for millennial workers. Situational leadership was the only situational factor with a full impact on follower performance. Leaders may adapt leadership styles in additional to understanding various situational factors impacting follower engagement to increase work performance, which, in turn, may influence LE.

Situational leaders may achieve LE by adapting leadership styles to work situations and engaging followers in the leadership process to achieve organizational objectives. Scholars examined situational leadership on LE. Some scholars have noted

situational leaders recognized follower engagement in the leadership process and adapted leadership styles according to work situations and followers' capabilities and performance. Some business leaders lacked the flexibility to adapt leadership styles corresponding to followers' competency level, which hindered LE. Other scholars compared situational leadership to various leadership styles and discovered situational leadership impacted followers' relationships with the leaders. Business leaders may evaluate followers' potential to engage in various work assignments to work with the leaders to facilitate LE.

Followers' Influence on Leadership Effectiveness

Organizational leaders once served as the primary drivers and critical thinkers in the leadership process. Business executives once served as the primary distributors of knowledge, and nowadays, leaders rely on followers to provide relevant information for making decisions in complex situations (Fadden & Mercer (2019). Oc, Bashshur, and Moore (2015) examined business students' outspokenness and passive influences on business leaders who distributed resources to followers or retained resources for self-interest. The authors reported that leaders ignored followers' use of candor, which may influence leaders to accommodate followers and followers failed to challenge leaders to be accountable. According to Henkel and Bourdeau (2018), the leader follower work relationship is situational. Leaders should adapt their leadership style and followers should adapt their performance readiness to achieve effectiveness in leadership process. The traditional single leadership structure within the organizational hierarchy is obsolete

because followers use information and knowledge as leverage to engage in the leadership process like the leaders. Followers, like leaders, are influential in the leadership process.

The inclusion of followers in the leadership process may influence LE and organizational outcomes. Leaders and LE are common contextual factors of the leadership process, and the least are followers and leader follower interactions (Oc, 2018). Understanding follower effectiveness may unveil how followers prevent organizational failure and influence LE. Actively engaged, ICT followers in the workforce support leaders to achieve organizational goals and retain effectiveness in the leadership process as well as increase work quality (Boothe et al., 2019). Leaders may overcome failure by applying appropriate leadership and involving followers in work situations. Yang et al. (2017) noted health care professional followers, with behaviors similar to leaders, were proactive in work tasks and displayed higher active involvement than leaders. Followers, like leaders, display behaviors to improve organizational efficiency and effectiveness in the leadership process. Business leaders may avoid placing followers in the shadow of the leaders and incorporate partnering with followers to advance organizational growth (Tolstikov-Mast, 2018). The influence of followers on LE and organizational outcomes is the absent bridge in the literature, and it lacks recognition.

Followers are sharers of useful information about how to apply critical thinking skills to manage work situations. Followers actively engage in the leadership process and apply critical thinking skills to influence LE. A combination of the followership and situational leadership model might provide business leadership with the information on

recognizing follower AE and follower ICT influence LE might provide business leaders with information on recognizing active followers to include in the leadership process. Organizational leaders need appropriate instruments to assess how followers influence LE. An organizational workforce consists of more followers than leaders, and some followers contribute to organizational growth as both leaders and followers.

Follower Engagement and Critical Thinking

Followers engage actively and think critically to influence LE. Followers understand that leaders' behaviors may affect the leaders' ability to accomplish organizational goals (Bastardoz & van Vugt, 2019). Jiang, Gao, and Yang (2018) conducted a study using 273 dyads (leaders and followers) in large size companies in China. Jiang et al. reported a significant relationship between followers' critical thinking and leaders' inspirational motivation, which influenced followers' voice behavior through voice efficacy. Follower critical thinking is a cognitive related to follower engagement and behavior as driving factors when interacting and supporting the leaders. Actively engaged followers serve as mediators to perform efficiently and effectively in the leadership process. Gerards, de Grip, and Baudewijns (2018) examined whether new ways of working (NWW) increased follower work engagement among industrial supervisors in the Netherlands. The researchers used multiple mediating factors (facets of NWW) with social interaction and leadership styles to determine if a relationship existed with follower work engagement. Gerards et al. reported that two facets of NWW impacted supervisors' leadership styles and workplace social interaction, which in turn, directly impacted follower work engagement. Highly competent followers actively

engage in the leadership process and use critical thinking skills as valuable resources to assume responsibilities that some leaders are not suitable to take on.

Followers who support the leaders are resourceful in the leadership process. Engaged followers may disengage at work when leaders fail to show an interest in followers and identify followers who require limited support to accomplish organizational goals (Rastogi, Pati, Krishnan, & Krishnan, 2018). Jin et al. (2019) examined to what extent a relationship existed between followership behavior, motivation, and perception of leader support among 692 U.S. public workers. The authors reported that 64% of followers who demonstrated high motivation of perceived leaders' support felt valued in their organization and were indirectly impacted through active followership behavior. In turn, follower commitment and willingness were heightened the followers' public service to the community (Jin et al., 2019). Followers' level of engagement may be associated with the perception of identity with their leaders and may differ within the organization according to their followership behavior (Bastardoz & van Vugt, 2019). Leaders' support may motivate some level of follower engagement in the leadership process, and not all followers may experience increased work engagement and job satisfaction.

The leadership process includes both followers and leaders, and both may influence LE. Burke (2009) studied leadership and followership styles among medical science liaisons in the pharmaceutical industry and observed participating and selling styles among the leaders. Burke reported that followers in the leadership process included passive followers (S1 level) and moderately effective followers (S3 level) as capable

performers. In this situation, a direct leadership style would be suitable for passive followers. Followers with low competency required more direction from leaders than actively engaged, critical thinking followers (Jin et al., 2019). Inactive followers, like active followers, might perform proficiently with supporting leaders (Burke, 2009). The leader's level of support for followers may vary according to the type of dominant and alternate leadership approaches in which leaders demonstrate through interaction with followers in various work situations (Henkel & Bourdeau, 2018). Leaders and followers engaging in the leadership process may display reciprocity of support to ensure LE to achieve organizational goals.

Follower AE and follower ICT in the leadership process may determine how followers influence LE. Pack (2001) reported that nurses provided high ratings using the self-rating scale of KFQ. Pack assumed that some participants showed bias in the self-reported assessments of followership styles, which might result in a false perception of follower AE and follower ICT. Peterson and Peterson (2020) used a modified KFQ to evaluate followers' organizational behaviors and followership dimensions in medical organizations in the United States. The researchers asserted that the modified KFQ was reliable in the study and recommended researchers utilize the modified KFQ to further confirm the validity of the instrument (Peterson & Peterson, 2020; Peterson, Peterson, & Rook, 2020). Kelley noted that the respondents might be candid when answering the questions to prevent response bias, which may reflect how others might perceive the study participants. Follower AE and follower ICT as situational factors impact the effectiveness of leaders, and in turn, LE impacts organizational success.

Effective followers may display the appropriate followership styles to complement the leaders' behavior when managing different situations. Both leaders and followers demonstrate performance to support the leadership process. Followers represent a situational factor influencing LE and effective followers have the insight to discern opportunities to prove value to the leaders. Leaders who fail to adapt within the work environment created a hindrance in organizational success and disengaged productive followers (Epitropaki et al., 2017). Leaders may create barriers in the organizations when they fail to delegate work to followers and expect followers to be productive. Leaders may recognize that their involvement alone in the leadership process is not sufficient to direct the organization and motivate followers.

Leaders and followers contribute to LE to accomplish organizational objectives. All followers do not apply the same level of AE and ICT skills in the business environment. Leaders associate with the role of leading, and leaders who lead effectively partner with followers to assume responsibility in the leadership process to build successful organizations (Ghias et al., 2018). The leader's awareness to adapt leadership styles in work situations is more critical when leaders understand how to utilize followers to address specific changes within the organization (Mohiuddin & Mohteshamuddin, 2020). Some leaders perceive the followers' engagement and critical thinking abilities differently from the followers' self-perception in the work environment to achieve LE.

Followers are a key situational factor impacting the leaders' success in an organization. Boehe (2016) noted that researchers examined situational factors altering the leaders' behavior and effectiveness. Researchers commonly use leaders, followers,

and relational task situations as elements to examine leadership, situational factors, followers, leaders, leadership styles, and LE (Salehzadeh, 2017; Zigarmi & Roberts, 2017). Bastardoz and van Vugt (2019) noted that following is a static process, and some followers may experience the benefits of following while observing how leaders lead in preparation to become future leaders. Leaders and followers do not function in isolation; together they are the backbone of an organization and both contribute to business growth.

Leaders and Followers in Clinical Research

Leaders and followers contribute to the success of pharmaceutical research. Martin, Hutchens, Hawkins, and Radnov (2017) collected 5 years of data between 2010 and 2015 from seven biopharmaceutical companies using 273 clinical trials. Martin et al. noted personnel costs to manage large, complex, global clinical trials were nearly 37% of the trial budget. In the United States, the cost was $3.4 million, $8.6 million, and $21.4 million, respectively from approval to conduct the investigations to the last report of the clinical trial. Hsiue, Moore, and Alexander (2020) discovered the average cost of 39 approved U.S. oncology clinical trials in 2015 and 2017 was estimated at $31.7 million. Dublin (2019) noted the drug development costs of the commercial market increased between 2010 to 2019 from $802 million to $2.6 billion with a 3% deficit on returned investment. Clinical trial budgets are becoming more rigid and the demand to develop innovative and streamline methods to manage quality research is growing in the research industry. In recent years, the drug approval process has shortened significantly, with a 12% decrease in drug approval rate. Dublin reported the complexity in managing and funding clinical research over a decade had an increase in data endpoints of 86%, about

60% of clinical trials had appropriate enrollment, and 89% of the sites enrolled patients. A practical approach to managing and conducting successful clinical trials is having qualified, creative CRLs and research professionals.

Qualified administrative staff working at CRS may meet the growing demand to manage complex pharmaceutical studies (Cinefra et al., 2017). CRLs may have trouble determining the staffing needs to conduct a research study and determining to which followers to delegate specific work functions to support the research. CRLs need to make sure the research staff is allotted sufficient time to manage clinical trials and provide the necessary oversight to conduct the research. The engagement of competent followers is the support that leaders need to conduct quality research studies at CRS. Leaders and followers function in different roles. Leaders in the pharmaceutical industry do not independently carry out all of the responsibilities of managing clinical trials. There are many obligations at CRS and at other outsourced facilities, where clinical leaders delegate most of the research duties to followers. Dublin (2019) noted that sponsors are aware their business partners face many challenges when providing services to support the research studies. Investigators at CRS rely on the research staff to assume responsibilities and perform specific work functions to conduct successful clinical trials (Ciurea et al., 2017; Dublin 2019). A collective research team of leaders and followers from different research professional backgrounds working at CRS to conduct quality research.

CRLs should confirm qualified staff perform procedures to manage successful research studies. Kelly, Hounsome, Lambert, and Murphy (2019) noted investigators are

responsible for the conduct of the clinical trial. Hillyer et al. (2020) reported incongruent data between 120 investigators and staff to 150 oncology patients about participating in a clinical trial. About 75% of the research team reported administrative and process related issues more challenging than patient related issues. The investigators struggled with administrative and process issues and the research staff had more difficulty with patient issues. Kelly et al. noted the formation of an experienced research team is critical in the delivery of quality research. Hillyer et al. reported an oncology research team in the United States invited 25% eligible oncology patients to participate in a clinical trial. Kelly et al. noted that regardless of the investigator's experience, qualified research staff are necessary to support the conduct of a clinical investigation and the immaturity of the staff creates greater risks. The research staff, as well as the investigator, must address patient related issues within the purview of their delegated responsibilities. Dedicated CRLs and followers serve as conduits for pharmaceutical and biotechnology companies to achieve performance goals and manage quality research involving human beings (Frankel et al., 2017). CRLs, such as investigators, should avoid engaging naïve followers in the leadership process of clinical research and recognize the value of competent followers.

The inclusion of qualified followers is a key resource in conducting successful pharmaceutical research. Cinefra et al. (2017) studied 115 research staff members in follower roles among 319 oncology CRS in Italy to observe the clinical research coordinators' (CRCs) effectiveness in the management of pharmaceutical studies. Cinefra et al. reported CRCs' AE increased the quality of the studies by 83.3%. According to

Abebe et al. (2019), the personnel workforce is a cost driver for clinical trials. The CRCs apply critical thinking skills to manage rigorous research functions using complex technology and to make sure other research team members followed compliance guidelines in work performance. The workforce included 80% of followers and effective followers willingly engaged in a followership process in supporting the leaders' visions and goals in different work situations (Leung et al., 2018). The CRCs, as effective followers, are the primary backbone of leadership support to manage complex clinical trials involving different health conditions. Some CRCs' daily work time consists of overseeing the work performance of other team members and leaders, when necessary, to achieve business objectives for organizational growth.

CRLs with sufficient staffing or a qualified research staff may adequately manage research studies. Clinical research professionals; e.g., CRCs and research nurses in follower roles may assume leading roles in research and business operations (Mozersky, Antes, Baldwin, Jenkerson, & DuBois, 2020; Tinkler & Robinson, 2020). The resources for conducting clinical studies may differ across CRS and for different types of clinical trials. CRLs may use followers to support LE to achieve organizational goals. CRLs may develop an understanding that the most valuable resources to manage clinical trials are effective followers.

Synthesis of Follower Influence on Leadership Effectiveness

Organizational leaders may collaborate with and identify competent followers as complements in the work environment. Effective leaders focus on interacting and motivating followers to succeed in the work environment and choosing the most suitable

followers to complete work tasks (Metwally et al., 2018). Traditional organizational leaders' perspectives of followers as submissive counterparts needing the leaders' instructions to accomplish work assignments are diminishing in the workplace. Different scholars have given attention to the importance of followers in the leadership process (Chaleff, 1995; Kellerman, 2008; Kelley, 1992). For example, Wilkinson and Wagner (1993) examined Missouri State vocational rehabilitation workers. A total of 115 followers used LBA II Other Questionnaire to self rate their leadership style. The researchers reported that the followers' scoring for LE was statistically significant with job satisfaction (DV) and supporting and coaching leadership styles (IVs) were (R = .418) and (R = .502) respectively (Wilkinson & Wagner, 1993). Organizational leaders need to focus on how followers influence LE, and to motivate and choose appropriate followers to achieve organizational growth.

Leaders in the clinical research industry constantly need to address complex issues to manage pharmaceutical studies and recognize the value of the research team, especially the CRCs who are the primary followers supporting the leaders to facilitate LE. A concern is that some leaders are self-confident about their level of effectiveness in the leadership process, even when their followers may perceive that the leaders are not effective (Wilkinson & Wagner, 1993). Chaleff (1995), Kellerman (2008), and Kelley (1992) discovered a lack of recognition of competent followers actively engaged in the leadership process with critical thinking skills to support LE. Followers are situational, and they may adapt different follower styles similar to leaders adapting effective

leadership styles depending on the work environment to achieve desired business outcomes.

Leaders and followers in the clinical research industry may use role playing to achieve organizational goals. Leaders rely on followers to perform administrative and technical responsibilities to manage clinical research studies (Hillyer et al., 2020). The traditional clinical research structure is obsolete for leaders to effectively manage the organization and provide oversight of quality research performance. Clinical investigators are leaders in the research industry and usually function as medical doctors in the health care industry. The clinical investigators need competent followers to support the management of the clinical research studies. A collaborative work relationship is necessary for leaders and followers at research organizations to address the growing need for the staff to demonstrate knowledge to coordinate complex research procedures (Howley, Malamis, & Kremidas, 2017; Kelly et al., 2019). CRLs must recognize how follower AE and follower ICT support LE.

Transition and Summary

The U.S. corporate workforce consists of 20% leaders, some of whom fail to include actively engaged ICT followers in the leadership process. Leadership scholars have recognized that followers, not leaders, are the critical factor in organizational growth (Phillips, 2017; Thompson & Glaso, 2018). Researchers usually measure LE through the lens of the leader; recent attention has steered toward the followers' lens to measure the leaders' effectiveness to lead (Madanchian et al., 2017). In modern

organizations, followers and leaders serve as primary resources to facilitate LE to achieve organizational growth.

Section 1 consists of the theoretical lens of SLT and followership theory for followers to examine to what extent a relationship existed among follower AE, follower ICT, and LE of CRLs. The background of the problem is the introduction of the reason for conducting the study supported by the general and specific problems. Section 2 includes the rationale for selecting the research method, a quantitative correlational study, including the sample size and using study instruments for collecting research data to perform data analysis to address the research questions and hypotheses.

The objective of performing the activities in Section 2 was to examine if and to what extent relationships exist among follower AE, follower ICT and the dimensions of LE to engage competent followers. The objective of Section 3 was to present the findings of the collected data from the sample population and how the research is applicable to the target population and the impact on business practices in the clinical research industry. In Section 3, I present the implications for social change and recommendations for future research to include other populations working in different industries and to broaden the research to examine how the leaders' leadership style preferences might impact LE. Another objective that I include in Section 3 was to determine the impact of follower AE and follower ICT on LE using study populations outside the United States.

Section 2: The Project

The organizational workforce consists of nearly 80% of followers who have leaders who may fail to include stakeholders in organizational growth (Cismas et al., 2016). Leadership effectiveness is optimal when leaders discuss and remediate complex problems to obtain organizational growth (Nelson & Squires, 2017; Omilion-Hodges & Wieland, 2016). The leader–follower role dynamic is more important than the person because leading and following in various work situations is a constant process for leaders and followers.

Section 2 consists of an overview of the study, beginning with a restatement of purpose. My intent in conducting this research study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE necessary to engage competent followers. In this section, I discussed the ethical research principles of the research study, the reliable and valid study instruments in the data collection process, the data analysis process, and the study conclusions, as well as the summary of the research data.

Purpose Statement

The purpose of this quantitative, correlational study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE necessary to engage competent followers. The target population was followers working in nonleadership roles in various U.S. research organizations. Follower AE and follower ICT were the two IVs in the study. To assess the competency level of followership, the followers used KFQ to determine their AE and ICT. The DV in the study was LE.

Followers rated leaders' LE using the LBA II Other Questionnaire. The followers' responses provided information about the followership in different research organizations and their views of the leaders' leadership effectiveness.

The study implications for social change include the potential impact on the services CRLs provide to support the health care outcomes of local communities. A stable and successful workforce attract new clients and fulfills the growing demand for clinical research professionals. Likewise, a growing economy that can develop alternative methods of clinical research services helps individual communities.

Role of the Researcher

My primary role as the researcher in this study was to protect study participants' privacy and the confidentiality of their research data. I collected and organized the data to perform the analysis using the Statistical Package for the Social Sciences (SPSS). The followers responded to close-ended questions relating to the IVs, follower AE and follower ICT, and the DV, LE, using the LBA II Other Questionnaire. As a professional in the research industry, I am familiar with the geographical areas where participants were drawn from because I have interacted with various clinical research professionals in the southeastern and southwestern regions. Researchers need to maintain objectivity when conducting research (Coburn & Penuel, 2016; Davis, 2016). I had no relationship with the participants prior to conducting this research study.

My role relating to research ethics was to conduct an unbiased study and to uphold the ethical principles in *The Belmont Report*. Related to the treatment of participants, the National Commission for the Protection of Human Subjects of

Biomedical and Behavior Research (1979) outlined the moral principles of beneficence, justice, and respect for persons in *The Belmont Report*. I exercised beneficence by minimizing the risks and maximizing the benefits to research participants. I applied the ethical principle of justice to ensure I made a fair selection of participants for the research study. Likewise, the ethical principle of respect for persons requires that humans give voluntary consent to participate or decline to take part in a research study (Connelly, 2014; S. E. Kelly et al., 2015; NCPHS, 1979). I respectfully requested participants to participate in the research study without any coercion or monetary stipend to influence their decisions. Each participant had the right to withdraw from the study at any time, for any reason. I performed the data analysis using data from the completed questionnaires.

Researchers must safeguard study participants and maintain the integrity of the research data because the protection of participants' rights, privacy, and confidentiality of data is a requirement in research (White et al., 2014). I upheld *The Belmont Report* principle of respect regarding the subjects' privacy during participation and confidentiality and protected their personal and research data. I did not share the names of the CRSs from which the participants were drawn or retain any of the participants' identifiers I collected while conducting the research. Researchers must maintain data integrity and restrict access to research data from unauthorized individuals (Stellefson et al., 2015). I did not disclose the participants' responses. Each study participant received a unique respondent identifier number through SurveyMonkey, and I transferred this number to a Microsoft (MS) Excel spreadsheet next to the participant number (i.e., PO01, PO02, PO03, etc.). I secured the study information in a password-protected file on a USB

drive stored in a locked filing cabinet in a secure office and am the only person able to access the information. I secured all the research data and communications in the same manner.

Participants

The participants I recruited were followers working at different research organizations in the United States from different backgrounds (e.g., study coordinators, research nurses, and pharmacists) in nonleadership roles, such as project managers, quality personnel, and regulatory personnel. The study participants agreed to take part in the research study by reading the informed consent document (ICD) and selecting the link to access and complete the study questionnaires. The participants' responses to the questions provided data to measure LE and follower AE and ICT using LBA II Other Questionnaire and KFQ, respectively, through SurveyMonkey.

I used different strategies to gain access to participants for this study. The first strategy I used was obtaining the CRLs' authorizations to conduct research involving followers at their facilities. The second strategy was obtaining the CRLs' e-mail addresses and contacting study participants after receiving WU Institutional Review Board (IRB) approval. The last strategy was contacting prospective study participants by e-mail and providing them a link to access the ICD and the two study questionnaires through SurveyMonkey. These research strategies to gain access to the target population included multiple steps.

The use of different methods is effective for researchers to build relationships with participants and gatekeepers to collect study data and provide the study results to

participating respondents and organizational leaders who support the research study (Espino, 2014; Hoyland et al., 2015; Monahan & Fisher, 2015). I secured the participants' voluntary informed consent to take part in this study. Next, I apprised the participants that their participation would remain private and the research data would remain confidential and secure. Finally, I answered the participants' questions to help them understand the objective of the research, their role as participants, and whom to contact about questions they had related to the study. Researchers must create good relationships with study participants and advocates supporting the study to obtain research data.

Research Method and Design

Determining a research method and design for this quantitative research study was critical for testing the hypotheses and investigating the relationships among three variables.

Research Method

Researchers may choose from three research methods: qualitative, quantitative, and mixed methods (Maxwell, 2016). Larson-Hall and Plonsky (2015) stated that the quantitative method involves collecting numerical data using surveys or preexisting data sets and analyzing variables using statistical analysis to test hypotheses. I selected the quantitative method for this study to test the hypotheses and examine to what extent a relationship existed among (a) follower AE, (b) follower ICT, and (c) the dimensions of LE necessary to engage competent followers.

A researcher's philosophical view may influence the research questions, research method, and the research design (Iivari, 2015; Iskander et al., 2016; Kennedy-Clark, 2015). I applied the quantitative research method to measure relationships among follower AE, follower ICT, and LE using data analysis to test the hypotheses (Hagan, 2014; Manning & Robertson, 2016b; Miricescu, 2015; Quick & Hall, 2015). I selected the quantitative research method as the research involves data collection using survey instruments with close-ended questions to measure the study variables.

Another reason I chose to use the quantitative method over the qualitative and mixed methods. The quantitative method is beneficial to researchers analyzing numerical data and inferring the results to a larger population (Hagan, 2014; Manning & Robertson, 2016b; Miricescu, 2015; Quick & Hall, 2015). The qualitative method involves researchers using open-ended questions to collect data from individuals through interviews and documentation (Dellis et al., 2014; McCusker & Gunaydin, 2015; Saunders et al., 2019). The qualitative method was not suitable because answering the research question of the study did not require documentation of humans' perceptions or experiences expressed in words to identify themes and patterns (see Daigneault, 2014). Researchers use the mixed methods to explain phenomena from different perspectives (Maxwell, 2016; Mayoh & Onwuegbuzie, 2015; Siddiqui & Fitzgerald, 2014). I chose not to use mixed methods because the qualitative component would provide data beyond the scope of this study.

Research Design

The primary quantitative research designs are correlational, experimental, and quasi-experimental (Podsakoff & Podsakoff, 2019). The use of a quantitative, correlational design was appropriate for this study. I examined the followers' insights into the relationship between the IVs of follower AE and follower ICT and the DV of LE of CRLs. Researchers use correlational designs to examine the relationships among the DV and IVs (Shahbazi, Kalkhoran, Beshlideh, & Banitey, 2014) and to evaluate causal effects among the variables (Bettany-Saltikov & Whittaker, 2013). My primary reason for using a quantitative, correlational design was to measure the correlation among the variables and not cause and effect. I performed the data analysis to explain the degree of correlation between two or more variables and to answer the research question (see Kirmizi et al., 2015; Manning & Robertson, 2016b). A correlation coefficient of zero means there is no relationship because both variables are independent (Saunders et al., 2019). The IVs may or may not influence the outcome of the DV.

In the experimental research design, the researcher controls a mediation variable to define the relationship between the IV and the DV (Johns et al., 2017). When experimenting, researchers manipulate variables to understand the cause and effect in which manipulation of the IV creates a change in the DV (Callao, 2014; Rucker, McShane, & Preacher, 2015). Experimental researchers use random treatment assignments and place some subjects in active treatment groups and others in control groups (Cokley & Awad, 2013). Using an experimental design was beyond the scope of this study, which was to examine to what extent relationships exist between follower AE,

follower ICT, and the dimensions of LE to engage competent followers; therefore, I did not employ an experimental design.

In a quasi-experimental design, the researcher collects data at multiple times and examines the range of variances among different variables (May, Luth, & Schwoerer, 2014). Using this design, researchers study the cause and effect relationship of the variables in multiple groups and manipulate the IVs (Rucker et al., 2015). I did not select a quasi-experimental design because this research study involved a one-time collection of data and an examination of the relationships among variables without an attempt to determine causation.

The correlational design is suitable to examine whether a potential statistically significant relationship exists between two or more known variables for a single data collection process without manipulating the variables (Basar & Sigri, 2015). I chose the correlational design over other key designs because this study involved examining the relationship between the three variables. The focus of an experimental design is controlling one variable, the mediating variable, over others to define the relationship between the IVs and the DV (Johns et al., 2017). I did not select the experimental design because the study did not require manipulating data or observing and recording participants' behavior.

Population and Sampling

The target population consisted of followers in nonleadership roles working in different research organizations in the United States. Researchers must align the study population with the research questions (Kennedy-Clark, 2015). I chose the simple

random sampling method to select followers from a list of members of the targeted population (Rahi et al., 2019; Tansey, 2007). The targeted population consisted of approximately 4,000 employees working at different clinical research organizations in various parts of the United States.

The sources I used to obtain this information came from using an internet search and the states' online yellow pages. As of May 29, 2019, there were nearly 3,877 certified clinical research professionals through the Society of Clinical Research Associates in various southeastern and southwestern states (B. Williamson, personal communication, May 29, 2019). I used the G*Power 3.1.9.2 statistical software to calculate a sufficient sample size of 68 for the research study. The estimated number of employees, as well as certified clinical research professionals, was sufficient to obtain enough potential followers to participate in the study.

Population

Followers working at different clinical research organizations outside the United States did not participate in the study. CRLs were not participants in this research study. I chose followers, not leaders, to access follower AE, follower ICT, and LE. The followers provided responses to indicate how the leaders address complex situations in the work environment. Leaders may use the study findings to create ways to succeed in managing work situations and to choose competent followers to help the leaders achieve LE.

Sampling

The two primary sampling methods are probability and nonprobability. A probability, random sampling method is common in a study with a population in a similar

industry in different geographical regions (Kaifi, Noor, Nguyen, Aslami, & Khanfar, 2014; Lucas, 2014). I chose the probability sampling method because it was suitable and aligned with the quantitative correlational study. Conversely, the nonprobability sampling method is common in a qualitative research method that involves coding patterns and themes in the data collection process (Lucas, 2014; Morse & McEvoy, 2014). I did not select the nonprobability sampling because this study did not require a targeted population to collect qualitative data.

Four primary subcategories of probability sampling techniques are random sampling, stratified sampling, systematic sampling, and cluster sampling. The sampling technique must correspond to the sample and the research methods (Haegele & Hodge, 2015; Lucas, 2014; Shields, Teferra, Hapij, & Daddazio, 2015). The subcategory I chose for the study was the random sampling method.

Simple random sampling is a common technique used in probability sampling. A strength of the random sampling method is to ensure all members of the population may equally participate in the study for an unbiased selection of study participants (Özdemir, St. Louis, & Topbas, 2011). The random sampling will help determine the power of the study and the sample size to select a moderate sample of the population (Fugard & Potts, 2014). Likewise, the random sampling will satisfy the parametric testing assumption that the participants will be randomly selected.

I created a random list of employees working at the CRS collected from internet searches through professional organizations' websites, research publications, online yellow pages, social media, and Google searches. Although the random sampling method

consisted participants having an equal chance to participate in the study; a weakness of the technique was that not all individuals were in a category to complete the questionnaires after reading the ICD. Another weakness of this method is creating a sampling frame or comprehensive list of all individuals in the study population who are eligible to participate in the research (Vearey, 2013). I used this technique until I reached the desired study sample to conduct my analysis.

The simple random sampling technique is useful for having an unbiased study selection process among eligible participants. A random sampling method is used for ensuring all members of the population may equally participate in the study and for researchers to ensure an unbiased selection of study participants (Özdemir et al., 2011). A researcher may create a complete member list of every potential participants in the population when conducting a simple random sampling (Özdemir et al., 2011). I did not invite every potential participant to read the ICD and complete the two questionnaires. I used MS Excel's *random between* and *Vlookup* functions to create a random list, and I used it to send out electronic mail notifications to prospective study participants. Individuals who met the study eligibility criteria received the link to SurveyMonkey to read the ICD, to participate in the study, and to complete the two questionnaires.

I maintained a list of randomly selected participants in the CRS Participants' List Tracker (see Appendix A). Researchers use a study tracker to maintain a list of randomly selected participants to manage and retain study participants' involvement in the research (Hunt & White, 1998; Morrison et al., 1997; Ribisl et al., 1996). Ivey (2012) noted that researchers make sure study participants are aware of the study objectives and the

participants' role in the research. I interacted with study participants to make sure I addressed their questions about the research study to collect their complete responses.

Sample Size

I used the G*Power version 3.1.9.2 statistical software package to conduct a power analysis for the study. A graphical model of the sample size calculation from G*Power 3.1.9.2 is in Figure 3. Cohen (1988) suggested (a) the use of a power of .80 in most fields of psychology, which corresponds to an alpha of .05 for a 4 to 1 trade off in terms of Type I and II error, and (b) researchers expect a medium effect ($f2 = .15$) when no evidence exist. I conducted a priori power analysis, assuming a medium effect size ($f\,2 = .15$), $\alpha = .05$, and two predictor variables, identified that a minimum sample size of 68 participants is required to achieve a power of .80. Increasing the sample size to 106 will increase power to .95. I sought between 68 and 106 participants for the study. The sample size of 68 participants is appropriate for the parametric assumption of the distribution if the population is approximately normal.

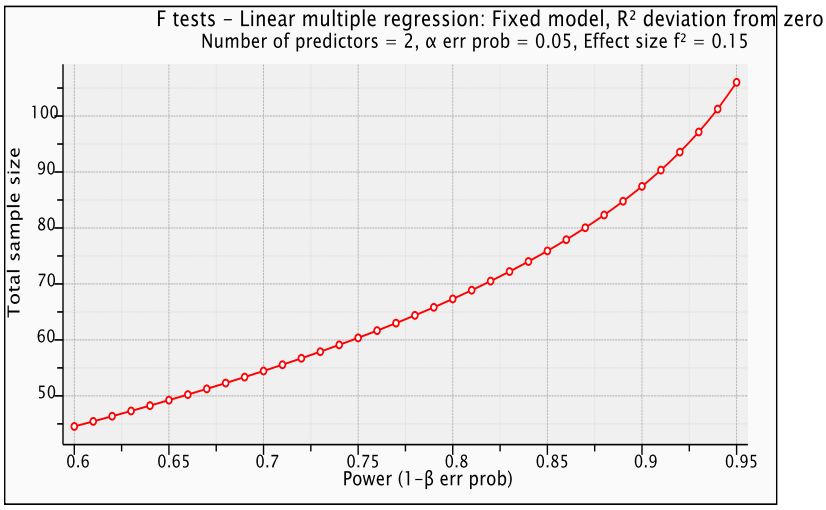

Figure 3. Graph model of sample calculation from G*Power 3.1.9.2.

Ethical Research

Ethical conduct in research includes the researcher obtaining approval from an Ethics Committee to conduct research, receiving consent from study participants, and protecting subjects' research data and privacy of study participation (Connelly, 2014; Hardicre, 2014; Mandal & Parija, 2014). WU's IRB approved the study for me to conduct the research. The WU IRB approval number is 11-26-19-0293981.

The recruitment involved the participants agreeing to participate in the research study by voluntarily signing the ICD. The ICD process is implemented to ensure the participants are aware of the research study to make the proper decision to take part in the study. Study participants who read the ICD and proceed to answer the questionnaires indicate their consent to take part in the study and trust of the researcher (Connelly, 2014; Hardicre, 2014; Kelly et al., 2015). Study participants are becoming comfortable with the

online consent process than traveling to a facility (Hardicre, 2014; Kelly et al., 2015; Mandal & Parija, 2014). Included in the ICD is contact information for concerns or questions about the research. In addition to implementing measures to protect the confidentiality of research data, includes the participants' rights and privacy, risks, and benefits for study participation, and the security of research data during and after study completion. The ICD will also include the IRB approval date and the study assignment number.

The ICD has a statement about withdrawal procedures for participants who choose to no longer participate in the study. A participant may withdraw from the study without explanation at any time (Gabriel & Mercado, 2011). Participants may select the withdrawal option in SurveyMonkey to discontinue study participation. The participant and the investigator will receive an automatic withdrawal notification through SurveyMonkey. Researchers may decide to retain or discontinue the use of withdrawn participants' study data (Melham et al., 2014). I considered participants who did not complete the questionnaires as withdrawn from the study and I excluded their partial responses from the data analysis. I retained the data collected on fully completed questionnaires. The participants' requests to remove fully completed questionnaires will remain part of the study data to prevent study bias. Participant data may be removed if the participant withdraws from the study (Hardicre, 2014; Kelly et al., 2015). Further, data protection included adhering to WU's IRB procedures for data retention up to 5 years after study completion.

I administered an online ICD and study questionnaires to the study participants. Participants may access the online questionnaires and instructions to complete the study questionnaires (Connelly, 2014; Cunningham et al., 2015; Maniaci & Rogge, 2014). I used random sampling to select volunteers from the targeted population to avoid selection bias. Researchers often offer incentives for participation in a research study (Chin, Choi, & Lam, 2015; Connelly, 2014; Wright & Ogbuehi, 2014). I did not offer any incentives to the study participants. A prudent researcher shares the study results that may benefit the participants and other research practitioners as well as contribute knowledge to the clinical research industry about the investigation (Connelly, 2014; Hudson & Collins, 2015; Tenopir et al., 2015). I did provide participants a copy of the condensed version of the research findings and individual followership styles.

The ethical principle of beneficence (i.e., not harm) is applicable for reviewing risks that volunteers may experience when taking part in a research study (NCPHS, 1979). The risks for participants include a breach of confidentiality, which may include unauthorized disclosure of the research data. Secondary risks include a breach of the participants' privacy of participating in a research study. To assure the ethical protection, I did receive IRB approval prior to engaging in any research activities. My obligation to uphold ethical protection did include no one other person to access the names of the individuals involved in this study. The ICD and the two questionnaires will not have a space to collect the participants' names because the identities of the participants are not applicable for the online documents. Such measures include securing the respondents' identities to prevent unauthorized disclosure of the study data provided by the volunteers,

and to report the research findings without deducing the participants' identities. I have the research data in a secure storage location to retain for 5 years after study completion (Connelly, 2014; Hardicre, 2014).

I used a private computer with restricted access to store the volunteers' research data. I used a separate electronic folder containing a file for each volunteer's response to the questionnaires. The questionnaires and the ICD have unique, password-protected codes with letters, numbers, and special symbols. I am the only person with access to the password-protected codes. Additional protective measures for paper documents include storage of the research notes in a locked filing cabinet in a personal office. I am the only person with authorized access to the area and the filing cabinet containing the data. The WU's IRB requirement for the storage of research documents containing the organizations and the volunteers' names is 5 years, and the destruction procedure is to shred the documents to prevent reconstruction to the original form. All electronic information is on a USB drive, where it will remain for 5 years. The data collection forms, which may exist after the completion of the research, are the participants' signed online ICDs and the two completed questionnaires.

Data Collection Instruments

I administered two 20 item instruments to follower participants to measure the IVs and the DV. The first instrument was KFQ to measure the IVs: (a) follower AE and (b) follower ICT. The second instrument was LBA II Other Questionnaire to measure the DV, LE. Researchers use suitable self-reported instruments in the research design for collecting data, measuring variables, and reporting the study results (Chintaman, 2014;

Claassens et al., 2016; Yilmaz, 2013). For this project, I hypothesized that using these instruments allowed for appropriate analysis of followers' relationship of AE and ICT upon LE.

Kelley's Follower Questionnaire (KFQ)

Kelley's Follower Questionnaire. The KFQ is a 20 item instrument developed by Robert E. Kelley (1992) to assess followership styles on the dimensions of AE and ICT. The KFQ is a diagnostic tool developed for individuals interested in self assessment of their respective followership styles and to identify effective followers. The responses on the KFQ are based on a ratio scale of zero to 60 on two dimensions of follower AE and follower ICT (Kelley, 1992). The responses of the instrument assign the numerical value of 0 for *Never*, 1 for *Rarely*, 2 for *Occasionally*, 3 for *Sometimes*, 4 for *Frequently*, 5 for *Almost Always*, and 6 for *Every Time*.

Burke (2009), Manning and Robertson, (2016a), and Gatti, Cortese, Tartari, and Ghislieri (2014), as well as Strong and Williams (2014) used KFQ to measure followers' followership styles and followers' leadership style adaptability. Burke assessed follower behaviors of 74 medical science liaisons in pharmaceutical and biopharmaceutical companies and reported most medical science liaisons demonstrated a high degree of AE and ICT abilities. Burke reported a significant relationship between individual followers' leadership style and individual followers' followership style. Burke reported no significant correlations between followers' followership style and followers' leadership style adaptability. Burke did not explore whether a relationship existed between followers leadership style and followers' development level. Gatti et al. reported the reliability of

KFQ by assessing health nurses' followership styles with coefficients of .81 and .74 for AE and ICT, respectively. The study findings are comparable to Kelley's assumption that 80% of followers contribute to organizational success and reliability of KFQ.

Strong and Williams (2014) tested the reliability of Kelley's (1992) instrument with the follower AE and follower ICT dimensions, and they obtained coefficients of .84 and .87, respectively. Only effective followers scored highly in both these categories. Strong and Williams examined follower style and self-directed learning and reported most followers actively engaged in critical thinking. These followers required guidance (S2) from leaders, which demonstrates a development level of low/some competence and high commitment (D2) based on situational leadership model (Blanchard, Hambleton, Zigarmi, & Forsyth, 1999) situational leadership model. Kalkhoran, Naami, and Beshlideh (2013) used KFQ to evaluate the followership dimensions of followers in an industrial organization. Blanchard et al. (1993) calculated Cronbach's alpha reliability coefficients for followers' styles of .82 and .63 for follower AE and follower ICT, and a range of .43 and .81 for validity coefficients.

Reliability and Validity of KFQ

The information from the literature review is an indication that the reliability of KFQ is not well established. This finding is attributable to the lack of widespread testing of the instrument. The instrument remains a significant contribution to the study of followership (Chaleff, 2014; Kellerman, 2008). Gatti et al. (2014) used a 4-item follower questionnaire based on Kelley's followership typology to assess health care nurses' follower behavior and job satisfaction. The researchers reported a more significant

relationship between actively engagement and job satisfaction than ICT and job satisfaction. Ghislieri, Gatti, and Cortese (2015) used an 8 item follower questionnaire using Kelley's (1992) followership typology and reported instrument reliability with a Cronbach's alpha of .81 for AE and .74 for ICT and a correlation of r = .36 for the two variables. Gatti et al. further reported that the Cronbach's alpha for AE was .80 and for ICT was .73. Likewise, Shahbazi et al. (2014) assessed Kelley's followership dimensions with job outcomes and found a reliability coefficient of .82 for AE and .63 for ICT. For this study, I used Cronbach's alpha to test the reliability of the instrument using the IVs, AE, and ICT.

Leadership Behavior Analysis II Other Questionnaire

LBA II Other Questionnaire. The LBA II Other Questionnaire is a leadership assessment based on the theoretical framework of situational leadership (Blanchard et al., 1993). The LBA II Other Questionnaire consisted of six scales: two primary scales defined as flexibility and effectiveness with four secondary scales relating the number of times or frequency with which a respondent selects a particular style out of the four available style options (Blanchard et al., 1993). The primary scores were based on an interval scale (e.g., style effectiveness 20 to 80), which allowed for parametric testing. The secondary scores were a forced choice; subjecting the data gleaned, in most part, to nonparametric analysis (Blanchard et al., 1993).

I only evaluated the DV of LE. I collected the primary data point, style flexibility, to obtain the calculations for the secondary data point, leadership effectiveness. Style flexibility was not part of the data analysis. The data output for LE was within the scope

of the analysis. The LBA II Other Questionnaire has an interval scoring of 80 (4 x 20) by multiplying the four effective leadership styles from among the 20 questions. A score of 50 to 58 is usually the norm for leaders. A score of 80 indicates a high degree of leader effectiveness in work related situations involving followers and a score less than 50 indicates a low degree of effectiveness (Blanchard et al., 1999). Many researchers have supported the scoring summation for LE, as presented in Table 1 (Avery, 2001; Burke, 2009; Burtch, 2011; Zigarmi & Roberts, 2017).

Table 1

Style Effectiveness Scoring Range (LE)

Leadership Effectiveness	Scoring Range
High degree of effectiveness	58 to 80
Normal degree of effectiveness	50 to 58
Low degree of effectiveness	20 to 50

Reliability and Validity of LBA II Other Questionnaire

Followers used the LBA II Other questionnaire to measure LE. Scholars have applied the LBA II Other Questionnaire to measure its reliability and validity (Avery, 2001; Hostetler, 1992; Wilkinson & Wagner, 1993). Avery (2001) examined LE among 248 leaders in Australian organizations using LBA II Self and Other Questionnaires. Avery reported that supervisory leaders' self-reported effectiveness score was 53 of 80 maximum points and scores from their senior managers and colleagues as well as followers were respectively 60 points and 49 points. According to the SLT model for using the LBA II Other Questionnaire, supervisory leaders and their followers perceived

supervisors' effectiveness as normal to low, respectively. The LBA II instruments have received widespread use in different industries.

Researchers may use different statistical tests to analyze data when using the LBA II Other Questionnaire. Wilkinson and Wagner (1993) used stepwise regression analysis to examine the relationship between leaders' style effectiveness and workers' job satisfaction among 115 vocational rehabilitation counselors in the state of Missouri. The overall leadership style effectiveness scores: supporting (R = .418) and coaching (R = .502) had statistically significant between job satisfaction. Wilkinson and Wagner relied on followers, not leaders, to evaluate LE. Not all researchers report that the study has favorable results.

Researchers rely on reliable and valid study instruments when they conduct data analysis. Hostetler (1992) used a clear research strategy to examine a relationship between androgynous leadership role (IV) and LE (DV) among135 leaders and 500 followers in U.S. manufacturing, sales, and service industries. Hostetler rejected the null hypothesis because no relationship existed between the IV and DV with a 0.05 significance level. Hostetler noted the lack of statistical significance might be related to other researchers use of different research methods and study instruments. The study included multiple regression analysis for statistical testing and a different instrument for followers to measure the IVs.

The ICD, KFQ, and LBA II Other Questionnaire are in paper format. I converted the instruments into electronic versions using SurveyMonkey to submit the ICD and the two questionnaires to participants at their work e-mail addresses. Regmi, Waithaka,

Paudyal, Simkhada and van Teijlingen (2016) noted that online questionnaires are no more complicated to complete than paper questionnaires. Lavrakas (2008) noted that researchers may submit self-administered questionnaires to study participants to complete without conducting an interview process for data collection. Each participant needed an electronic device; e.g., mobile phone, computer, or laptop to review the ICD (10 minutes) and complete the KFQ (15 minutes) and LBA II Other Questionnaire (20 minutes). van Schaik, Wong, and Teo (2015) noted the questionnaire completion time might vary for each respondent because some individuals might read certain questions more than once. The online questionnaires were in 14-point Times New Roman font and include the title of the study with question and page numbering and NEXT, SUBMIT, and EXIT buttons for respondents to easily complete the questionnaires (Regmi et al., 2016; van Schaik et al., 2015). I did store the raw data in a Microsoft Excel spreadsheet on a USB device in a secure filing cabinet in a locked office with restricted access.

Data Collection Technique

The data collection technique included administering the ICD and self-reported questionnaires. The use of online questionnaires for data collection is economical, convenient, and more efficient than sending paper questionnaires to participants through courier or the U.S. Postal Service (Alam, Khusro, Rauf, & Zaman, 2014). Benfield and Szlemko (2006) noted the respondents' lack of technological intelligence to navigate electronic data collection tools is a disadvantage for using online surveys. The followers received an electronic version of the LBA II Other Questionnaire and the KFQ and a copy of the WU IRB approved ICD. Researchers use closed ended questionnaires and

instruct participants to select chosen responses from a rating scale, which closely represent the respondent's viewpoint for quantitative research (Saunders et al., 2019).

A researcher must obtain IRB approval before starting research activities (Burke et al., 2016). After I received WU IRB approval, I started conducting the research study. I used a script in the recruitment process to communicate with the CRLs by electronic mail or telephone to gain access to the study participants. After the CRLs provided me with the participants' e-mail addresses, I contacted some 2,416 followers by invitation through SurveyMonkey to access the online ICD and two questionnaires located at surveymonkey.com. The data collection process involved obtaining letters of cooperation from leaders located at CRS to invite their staff to participate in the research study.

Other data collection involved obtaining individuals' names and contact information from membership directories of professional organizations and websites of different organizations. Researchers should understand the basis element for conducting research is obtaining authorized consent to do so (Kass, Taylor, Ali, Hallez, & Chaisson, 2015; Nishimura et al., 2013). I sent a permission request to the CRLs to approach the CRS staff to participate in the research. For transparency, the CRLs did receive a copy of the WU's IRB approval letter permitting me to conduct the research study, and a copy of the WU IRB approved ICD.

Once the CRLs authorized me to invite their staff, I did obtain the leaders' decisions and requested the followers' work e-mail addresses to invite these followers to participate in the research study. I requested the IRB to provide expedited approval to extend the 3-week recruitment period to allow a minimum 68 participants to give consent

and complete the two online questionnaires. I provided the followers with the link to access the ICD and the two online questionnaires with instructions to complete within 3 weeks. Researchers use standard instruments to collect data relating to the study variables from a sample of the study population (Alshenqeeti, 2014; Cor, 2016). Each link will have a unique subject identification number to allow each person to submit one response. The process is appropriate for performing data analysis to make statistical inferences about the relationship between follower AE and follower ICT, and LE within the research sample or in a comparable population. Access to the prospective participants was essential to obtain the research data.

Followers will provide voluntary consent, located on the front page of SurveyMonkey, to participate in the research and completed two online questionnaires within 3 weeks of providing their consent to study participation. The first instrument to complete is KFQ, and the second instrument is LBA II Other Questionnaire. The estimated time to complete both instruments were 35 minutes. Respondents will receive a prompt to respond to unanswered questions to make sure the data are available to measure the variables. I used the Anonymous Responses in SurveyMonkey to track who received a study invitation and did not respond to complete the two study questionnaires. The participants who imply consent and complete the two questionnaires will receive the message. *Thank you for your participation*. The use of KFQ is appropriate for measuring competent followers working at CRS to identify which followers are capable of influencing LE to achieve organizational goals. I received permission from Penguin Random House, LLC, on May 14, 2015, to use the KFQ (see Appendix B).

I provided followers the LBA II Other Questionnaire (Blanchard et al., 1999), which contains 20 situational scenarios on two subscales: (a) style adaptability and (b) style effectiveness (Avery, 2001; Blanchard et al., 1999; Zigarmi & Roberts, 2017). The followers chose one of four situational styles to describe how leaders would address specific work situations involving followers: (S1) high direction/low support, (S2) high direction/high support, (S3) high support/low direction, and (S4) low direction/low support. I used the LBA II Self Questionnaire scoring grids Blanchard et al. (1999) to sum the style effectiveness scores based on the followers' responses in the LBA II Other Questionnaire to describe which of the four situational styles the leaders applied among 20 work situations to generate interval data (Blanchard et al., 1999; Zigarmi & Roberts, 2017). Followers who described leaders with an even selection of the four styles indicated how their leaders balanced leadership styles and they achieved LE.

The use of online questionnaires has advantages and disadvantages for participants and researchers. One advantage is that researchers may contact populations in different geographical areas in lesser time when using electronic questionnaires (Fang, Wen, & Prybutok, 2013; Regmi et al., 2016). Another advantage is that study participants may find convenient to submit online questionnaires upon completion rather than using traditional postal or courier services (Cunningham et al., 2015; Fang et al., 2013). A third advantage is to use a web-based software with programming to detect unanswered questions before allowing participants to move to the next question (Regmi et al., 2016; van Schaik et al., 2015). Some populations are not as responsive to completing online questionnaires, which may result in a low response rate (Cunningham et al., 2015; Saleh

& Bista, 2017). Another disadvantage is that respondents who experience technical issues may get frustrated and not complete the questionnaires (Arroyo, Ruiz, Mars, & Serna, 2018). Researchers need solutions to remediate these issues.

Researchers may decide to conduct a pilot study to detect deficiencies with the study instruments and the data collection process (Thompson & Glaso, 2018). Despite a researcher's effort to detect problems using the study instruments, a pilot study does not ensure a flawless research study (Rosas et al., 2014). In contrast, Regmi et al. (2016) noted pilot studies are useful for researchers to improve administering the questionnaires, the instrument design, and technological issues. I chose not to conduct a pilot study for this research study because researchers used the study instruments, LBA II Other Questionnaire and KFQ, in previous research studies for followers to provide self-reported data and assessments of their leaders' effectiveness in the workplace. I received permission from Dr. Drea Zigarmi of the Ken Blanchard Companies, on August 4, 2016, to use the situational leadership instrument, i.e., LBA II Other Questionnaire (see Appendix C).

Data Analysis

I chose multiple regression analysis to answer the primary research question, if and to what extent relationships exist among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The study IVs were follower AE and follower ICT. The study DV was LE. To evaluate the influences of followership on LE. I chose a quantitative correlational study to answer the research question and associated hypotheses.

Research Question: To what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers?

(H_0): There are no significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

(H_1): There are significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

I began the data analysis after downloading and cleaning the study data. I downloaded the data through SurveyMonkey into MS Excel. I created a dataset with labeled variables and response categories using used MS Excel, and I removed all respondents with incomplete questionnaires from the dataset. For example, some respondents completed the KFQ and did not complete the LBA II Other Questionnaire, which resulted in 50% of missing data from these datasets. I transferred the datasets with no missing data from MS Excel into SPSS format. I used SPSS to download the data.

Researchers may use SPSS to ensure data integrity in study conduct and to incorporate data screening and data cleaning procedures to ensure the accuracy of self-reported data (Allen, Lourenco, & Roberts, 2016; Amemiya, Monahan, & Cauffman, 2016; Xu et al., 2015). I performed the data analysis to explain the degree of correlation between two or more variables and answered the research question (Kirmizi et al., 2015; Manning & Robertson, 2016b). I used the data analysis to generate clean data to support the research.

Data screening and data cleaning, (e.g., handling missing data), may impact the data analysis and study findings (Allen et al., 2016; Xu et al., 2015). I performed the data

cleaning procedures, which consists of an assessment of consent and missing data followed by outlier testing. I checked the ICDs, which involved reviewing data from the participants' consent as the first qualifier as a sample for the study. This excluded respondents with no IV or DV values, as these responses were not usable for the analyses. Tabachnick and Fidell (2013) provided guidelines for outlier testing, which begins with a calculation of standardized scores, also known as *z* scores. These scores represented each participant's distance from the mean on the target variable, and Tabachnick and Fidell recommended removing any participants with *z* scores lower than -3.29 or higher than 3.29. Scores outside this range are more than 3.29 standard deviations away from the mean and they represent 0.1% of scores. Tabachnick and Fidell considered these outliers extreme and suggested removing them from the data set before performing the data analysis.

Misplaced data in research are unavoidable, and insufficient data may result in study bias and insufficient statistical power. DeCrane, Sands, Young, DePalma, and Leung (2013) offered techniques for researchers to deal with missing data. Kang (2013) noted missing data decrease the sample size as a representation of the study population, which may lead researchers to accept the research hypothesis when it is false if they are inadequate statistical testing. When respondents provide data using surveys and questionnaires, a sufficient response rate and complete data are necessary for a powerful study (Karanja, Zaveri, & Ahmed, 2013; Saleh & Bista, 2017). Kang noted the importance of applying best practices to avoid missing data and ensuring only study participants provide data. I communicated with the study volunteers through the ICD and

instructions for completing the study instruments to respond promptly to avoid missing data. Study participants who missed answering a question received requests to provide any missing data values.

Regression analysis is most appropriate given the nature of the data, as the subscales of the DV are both continuous scales, and the IVs meet the requirements of being either (a) continuous or (b) binary (Saunders et al., 2019; Stevens, 2016). The study variables are continuous, and the goal of the research is to assess relationships among these variables (Saunders et al., 2019; Stevens, 2016). This research study does not include any innovative research methods (Leon, Davis, & Kraemer, 2011) and does not require conducting a pilot study.

The intent of this quantitative correlational study was to examine to what extent a relationship existed among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The IVs, follower AE, and follower ICT are continuous data, which meets the requirement of performing parametric regression analysis. The parametric method was appropriate when calculating statistical significance using numerical data testing the normal distribution of the data (Dehghani, Majidi, Mirlohi, & Saeidi, 2016; Florackis, Kanas, & Kostakis, 2015; Riaz, Mahmood, & Arslan, 2016). I used multiple regression analysis to test for the relationships of interest regarding the IVs. Each regression analysis involved one IV and the DV (Stevens, 2016). The research question for the study consisted of two IVs, follower AE and follower ICT. One DV with two subscales, style adaptability and style flexibility. I performed one regression will take place for the DV, LE.

Researchers have options for quantitative statistical tests like multiple analysis of variance (MANOVA), multiple regression analysis (MRA), and logistic regression to perform data analysis. Researchers use MANOVA to compare differences in the data using multiple DVs across various groups (Finch, 2016; Tonidandel & LeBreton, 2013; Zancada-Menendez, Alvarez-Suarez, Sampedro-Piquero, Cuesta, & Begega, 2017). Finch (2016) stated researchers may experience a high level of missing data when using multiple DVs. The MRA is appropriate to determine the relationship between one DV and more than one IV (Tabachnick & Fidell, 2013). In this research study, multiple regression analysis was a more suitable method of analysis than MANOVA. Although MANOVA was not suitable for this research study, another analysis to consider is logistic regression.

Logistic regression was another option for researchers to assess the relationship between variables. Logistic regression is appropriate when researchers use categorical data (Bernard, 2012). Ranganathan, Pramesh, and Aggarwal (2017) noted logistics regression is appropriate for evaluating categorical data or dichotomous data with two response options, yes or no. For this research study, the data were not categorical or dichotomous. I used regression analysis to determine whether follower AE and follower ICT were the best predictors influencing LE.

There were several statistical assumptions to address other than the decision to use regression analysis. Researchers may test for parametric assumptions to provide information on the accuracy of predictions, test how well the regression model fits the

data, determine the variation in the DV explained by the IVs, and test the hypotheses on the regression equation. The assumptions to test in this research study were:

1. The first assumption was the DV is measured continuously. This assumption was met due to LE being a scale level variable.
2. The second assumption was having two or more IVs. This assumption was met with follower AE and follower ICT as the two IVs.
3. The third assumption was the independence of residuals. I used the Durbin Watson test to assess the assumption for the individuality of residuals. Durbin Watson statistics between 1.5 and 2.5 indicated that the assumption of individuality of observations was met (Howell, 2013).
4. The assumption of linearity verifies that there is a linear relationship between each predictor variable and the DV. I created two scatterplots to examine the relationship between follower AE, follower ICT, and LE.
5. Homoscedasticity is the assumption that data points are evenly distributed around the line of best fit without funneling toward either end of the line. An assessment of the assumption is possible by assessing a standardized residual scatter plot for any recurring pattern. A lack of patterning indicates the assumption is met (Stevens, 2016).
6. Multicollinearity is the next assumption in which the variables in the regression have significant correlations. Instances of multicollinearity often cause the regression to overestimate variance and produce inaccurate results. I used SPSS to produce a VIF value for each independent or predictor variable

and to indicate its degree of multicollinearity with the associated predictor variable. Predictor variables with VIFs greater than five might be of some concern for the researcher; however, I removed predictor variables greater than 10 from the regression by simple deletion or by combination with a correlated variable.

7. The next assumption is outliers are removed, and I will test this assumption by removing univariate outliers during the preliminary steps of data analysis. I identified the outliers by examining *z* scores for three variables: follower AE, follower ICT, and LE. *Z* scores exceeding + 3.29 standard deviations for data analysis (Tabachnick & Fidell, 2013).
8. Residuals represent the error between the actual value of the DV and the value predicted through regression modeling; most of these residual values are zero, with larger residuals tapering off and a resultant normal distribution overall. The normal *P-P* plot is a common way to test the assumption (Stevens, 2016). Stevens (2016) noted the analysis of variances (ANOVA) statistical test is not too sensitive to deviations from normality to cause problems if the sample size reaches 30. If the data highly deviate from normality, transformations are a consideration, though these are less effective regression analysis, as normality for regression is not an option to consider in a univariate sense (Saunders et al., 2019; Stevens, 2016).

If the normality and homoscedasticity assumptions of the parametric regression analysis are not met, the analysis will take place following Stevens's (2016) suggestion to

perform bootstrapping. Bootstrapping is a method of sampling with replacement and is useful in estimating the sampling distribution even when many of the assumptions necessary for parametric analysis are not met (Stevens, 2016; Tabachnick & Fidell, 2013). Performing bootstrapping results in bootstrapped confidence intervals, which will be the source of statistical findings if the regression assumptions are not met and bootstrapping is necessary.

After I conducted the regression, I completed the interpretation with an assessment of the overall *F* test. The test corresponds to the regression for the researcher to determine whether using the regression statistics is sufficient to predict the dependent, or outcome variable. I performed the test examining the *F* statistic against its degrees of freedom to determine a corresponding *p* value. If the *p* is less than .05, the regression is significant, and the R^2 is available for interpretation. The R^2 is a representation of the amount of variance in the DV and the value of prediction using the regression (Saunders et al., 2019). In the case of significant regression, both predictor variables require assessing whether they are individually predictive parts of the regression.

I performed the analysis by testing the variable's β value against zero. The β represents the strength of the relationship between the IVs and DV, so being significantly different from zero represents a significant relationship within the regression. Saunders et al. (2019) recommended assessing significant predictors regarding the β values, which are unlike the β when there is no strength in the relationship, but the slope of the relationship. For any significant predictor, the influence on the DV can be expressed

through the variable, as a single unit increase in the IV corresponds to a β unit increase in the DV.

Study Validity

Researchers may demonstrate the validity of the instrument by showing that the instrument accurately measures the constructs they propose to measure according to the situational leadership and followership theories (Bezzina & Saunders, 2014; Mangioni & McKerchar, 2014). I used SPSS data analysis to draw factual statistical inferences to support the internal validity of the study. Internal validity occurs when the instrument repeatedly collects data at different periods and within different contexts and produces comparable results (Saunders et al., 2019). According to Mangioni and McKerchar (2014), an instrument is externally valid when it produces similar results in research using different populations or industries.

Threats to Internal Validity

Threats to internal validity may involve the study selection, the background or working environment, and the implementation of the study instruments (Cor, 2016). Strategies to eliminate internal validity threats include using a purposive, convenience population working in various clinical and pharmaceutical organizations. Individuals who meet the study eligibility criteria will complete the study instruments (Haegele & Hodge, 2015; Haegele & Porretta, 2015; McCrae, Blackstock, & Purssell, 2015). The one-time data collection will occur within 3 weeks, and the study participants received information about the study and instructions for completing the instruments. Researchers use standard instruments to collect data to measure the association between the DV and the IVs (Cor,

2016). The process is appropriate for performing data analysis to make statistical inferences about the relationship between follower AE and follower ICT and LE within the research sample or in a comparable population.

Threats to External Validity

The major threat to external validity was the extent to which the study outcomes are applicable beyond the specific study sample, followers. The specific study sample for the research may not represent other professionals in different industries, e.g., marketing, academia, and health care (Cor, 2016; Wijnhoven & Bloemen, 2014). Ways to control threats to external validity include ensuring the sample is representative of the study population and examining a business problem applicable to the context and other business components within the same industry (Crooke & Olswang, 2015). The study outcomes may be representative of clinical research professionals working in similar elements in the research industry, e.g., pharmaceutical and biotechnology companies. Researchers may provide accurate study conclusions based on evidence of research validity (Norris, Plonsky, Ross, & Schoonen, 2015).

Statistical Conclusion Validity

When researchers apply the proper statistical tests to interpret the relationship between the DV and IVs, they may address the research question and conclude which hypothesis the evidence supports (Cor, 2016; Hales, 2016). Researchers may use proper sampling techniques, apply statistical methods to the data variables, e.g., nominal, or ordinal, and apply the appropriate statistical power, effect size, and *p* value in statistical analysis (Gibbs, & Weightman, 2014). For this study, I used a formula of a median effect

size of .30, an alpha of .50, and a statistical power of .80 by way of a two-tailed *t* test correlation in G*Power statistical software version 3.1.9.2. A preliminary query suggests that 68 study participants are required to power the study (Ali & Bhaskar, 2016; Emerson, 2016; Faul, Erdfelder, Buchner, & Lang, 2009).

To confirm the validity of the study, I used the statistical tests identified in the data analysis section to avoid making a Type I error to retain a true null hypothesis, or a Type II error to accept a false null hypothesis (Das, Mitra, & Mandal, 2016; Téllez, Garcia, & Corral-Verdugo, 2015). As a researcher, I concluded to what extent a relationship existed between follower AE and follower ICT and LE.

Transition and Summary

In Section 2, I included a description and rationale for selecting a quantitative correlational design and the role of the researcher. I included key principles for conducting ethical research and the justification for selecting the probability sampling method. Section 2 included a rationale for selecting the data collection instruments, techniques, organization, and data analysis tools.

In Section 3, I present a brief introduction of the study, the research method and design, the study variables, a description of the study population and the country where the population was obtained from, the data collection process, and the final sample size. Next, I present the presentation of findings and how the findings related to business practice and apply to the professional practice. I further discuss the implications for social change, provide recommendations for action and further research. Finally, I provide

reflections of the doctoral study process for my research study, and the conclusion of the study.

Section 3: Application to Professional Practice and Implications for Change

Introduction

The purpose of this quantitative, correlational study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers in the clinical research industry. I developed the theoretical framework using the followership and situational leadership theories. The research study included three variables. I collected data through SurveyMonkey using the Follower Questionnaire (Kelley, 1992) to measure the IVs and the LBA II Other Questionnaire (Blanchard et al., 1993) to measure the DV. The COVID-19 pandemic was an unexpected limitation for this study, which impacted the data collection beyond 3 weeks and the study sample size; consequently, the data collection period was extended to nearly 7 months. The final sample size was $n = 52$, which was less than the G*Power calculated sample size of 68.

In Section 3, I presented an overview of the study findings related to the research question and hypothesis testing. I further discussed how the study is applicable to professional practice, implications for social change, recommendations for action and further research, and reflections and conclusions of the research study.

Presentation of the Findings

In this subsection, I provided a description of the variables, statistical tests, and how they relate to the hypotheses. I used multiple linear regression to perform the data analysis. Researchers may test for parametric assumptions to provide information on the accuracy of the predictions, to test how well the regression model fits the data, to

determine the variation in the DV explained by the IVs, and to test hypotheses on the regression equation (Saunders et al., 2019). The output of the regression model, LE, $F(2,49) = .036$, $p = .964$, $R^2 = .001$, is greater than .05 between the predictor and outcome variables. Therefore, I failed to reject the null hypothesis in favor of the alternative hypothesis.

Testing of the Study Assumptions

I performed a preliminary data analysis using multiple regression on 52 completed records and reported descriptive statistics of the data observations. Pearson (2010) suggested that researchers should test assumptions when performing multiple regression statistical analysis and correct violations of the regression assumptions. I used SPSS software (Version 25) and evaluated the following assumptions of multiple regression: multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals assumptions related to performing multiple regression statistical analysis.

Descriptive Statistics

The study population consisted of adults aged 18 years and older with at least 1 year of clinical research experience in a nonleadership role with no direct reports. The study participants worked in different research organizations (e.g., CRSs, contract research organizations, biotechnology, and pharmaceutical companies). The study participants gave consent to take part in the research study and completed two online questionnaires.

I sent a total of 2,416 study invitations to individuals to take part in the research study. SurveyMonkey generated a total of 532 (22.02%) opened and 1,884 (77.98%) unopened study invitations. Of the 532 opened study invitations, nOTE102 individuals consented to study participation, of whom 52 completed both questionnaires. The remaining 50 individuals only completed KFQ and either clicked through or did not complete the second questionnaire, LBA II Other. I eliminated the 50 incomplete records because of missing data from the LBA II Other Questionnaire. The final sample size included 52 participants. I downloaded the data from SurveyMonkey into MS Excel, removed the 50 incomplete records, and uploaded the 52 completed data records into SPSS Version 25. The descriptive statistics include the output of data observations I used to test the hypotheses (see Table 2).

Table 2

Means and Standard Deviation for Study Variables

Variables	*M*	*SD*	*N*
Independent critical thinking	40.15	8.356	52
Active engagement	46.58	7.058	52
Leadership effectiveness	48.81	5.541	52

Multicollinearity. I tested for multicollinearity to detect whether a correlation existed between the predictor variables. Multicollinearity exists when the bivariate relationship between two or more IVs are highly correlated (Pearson, 2010). A significantly high correlation coefficient means the multiple regression assumption is violated (Disatnik & Sivan, 2016). In Table 3, there was a small but significant relationship between the study variables ($r = .55$, $p < .001$), and the variance increase factor (VIF) is 1.4, less than 10. In Table 4, the correlation coefficient between the two

predictor variables is less than .9. The bivariate correlations are small in Tables 3 and 4. Pearson (2010) noted the regression statistics may be unreliable when the correlation coefficient between two or more predictor variables are > .7. In this study, multicollinearity was not present, and the regression assumptions were not violated.

Table 3

Correlation Coefficients for Study Variables

		Independent Critical Thinking	Active Engagement
Independent critical thinking	Pearson correlation	1	.550**
	Sig. (2-tailed)		.000
	N	52	52
Active engagement	Pearson correlation	.550*	1
	Sig. (2-tailed)	.000	1
	N	52	52

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

Table 4

Collinearity Diagnostics

Predictors	Tolerance	VIF
Independent critical thinking	.698	1.433
Active engagement	.698	1.433

Outliers. Anomalies in the data are outliers, which may change the output of the data analysis (Pallant, 2016). I tested for outliers in SPSS using a box plot. Grimmett and Ridenhour (1996) noted that outliers may impact the statistical significance of the test statistics in support of the alternate hypothesis. Cousineau and Chartier (2010) noted a nonsignificant outlier may have a minimal impact on the mean. There was one insignificant outlier detected outside the top whisker bar in the box plot (see Figure 4).

The DV, LE (Case Record 31), did not affect the interpretation of the hypotheses or the results in this study. I identified the outliers by examining *z* scores for each variable, which did not exceed +3.29 standard deviations for data analysis (see Table 5).

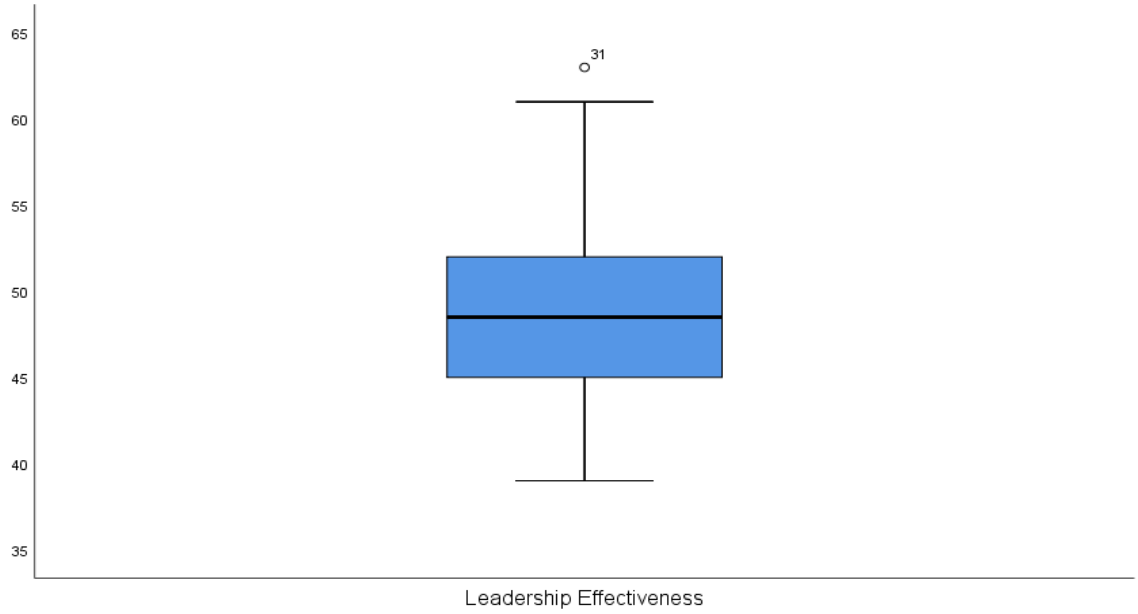

Figure 4. Boxplot of LE and insignificant outlier.

Table 5

Z Scores for Predictor and Outcome Variables

		ICT	AE	LE
N	Valid	52	52	52
	Missing	0	0	0
M		.0000000	.0000000	.0000000
Mdn		.0414269	-.0108985	-.0555258
SD		-.0555258	1.00000000	1.00000000
Range		4.30840	4.10872	4.33102
Minimum		-2.17261	-2.20694	-1.76989

Note. ICT = independent critical thinking; AE = active engagement; LE = leadership effectiveness

Normality and linearity. Normality represents the normal distribution of data (Stevens, 2016). The normality assumption is used to test the normal distribution of the data. When testing for normality, I found the skewness and kurtosis values of the data were within the variance range of -1.96 and +1.96. I performed Shapiro Wilk's normality tests ($p > .05$; Löfgren, 2013) to determine whether the data are normally distributed for the IVs (see Tables 6 and 7). ICT has a skewness of .188 (*SE* = .330) and a kurtosis of -.286 (*SE* = .650) and AE has a skewness of -.130 (*SE* = .330) and a kurtosis of -.672 (*SE* = .650 (Blanca, Arnau, López-Montiel, Bono, & Bendayan, 2013; Löfgren, 2013; see Table 7). I failed to reject the null hypothesis because the $p > .05$ (see Table 6).

Further testing of normality and linearity included the normal distribution of the data displayed in the normal P-P plot of regression (see Figure 5), the histogram of the regression standardized residuals (see Figure 6), and the partial regression plots of the outcome and each predictor variable (see Figures 7 and 8). The data are normally distributed for the null hypothesis test of normality. The bootstrapping technique was not necessary because the assumptions for parametric tests were met.

Table 6

Tests of Normality

	Kolmogorov-Smirnov[a]			Shapiro-Wilk		
	Statistics	*df*	*p*	Statistics	*df*	*p*
ICT	.079	52	.200*	.983	52	.654
AE	.083	52	.200*	.979	52	.489
LE	.071	52	.200*	.979	52	.500

Note. ICT = independent critical thinking; AE = active engagement;

LE = leadership effectiveness

Table 7

Normality Statistics

	ICT	AE	LE
N	52	52	52
	0	0	0
M	40.15	46.58	48.81
Mdn	40.50	46.50	48.50
SD	8.356	7.058	5.541
Variance	69.819	49.817	30.707
Skewness	.188	-.130	.330
Std. Error of Skewness	.330	.330	.330
Kurtosis	-.286	-.672	-.104
Std. Error of Kurtosis	.650	.650	.650
Range	36	29	24

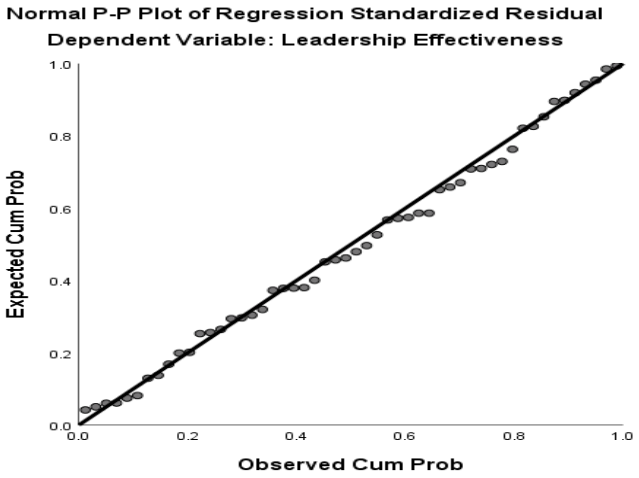

Figure 5. Normal P-P plot of regression standardized residual.

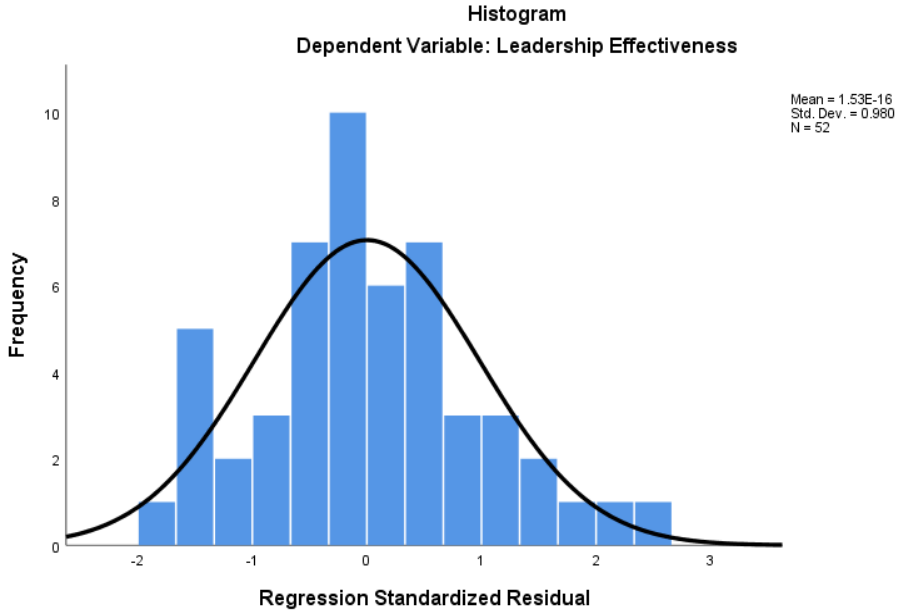

Figure 6. Histogram of linearity of the outcome and predictor variables.

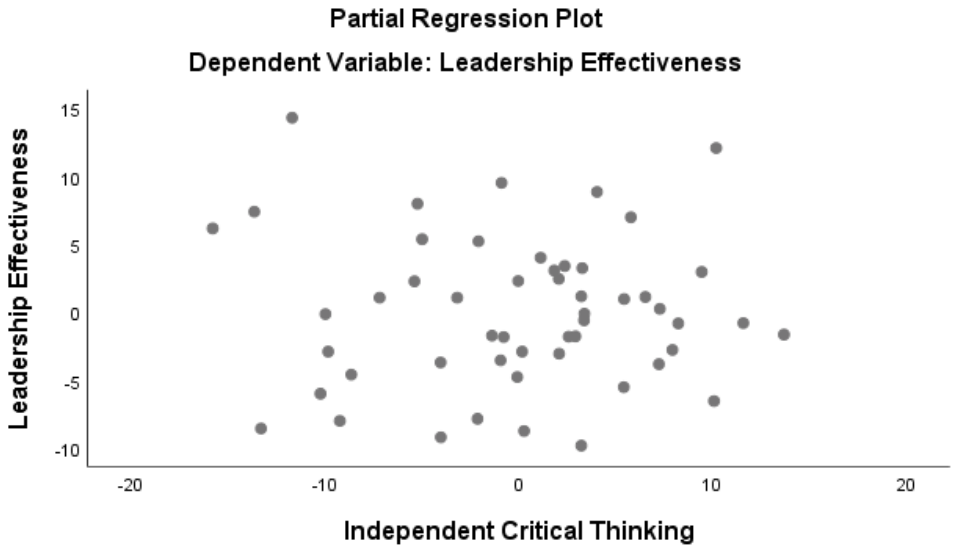

Figure 7. Partial regression plot for ICT and LE.

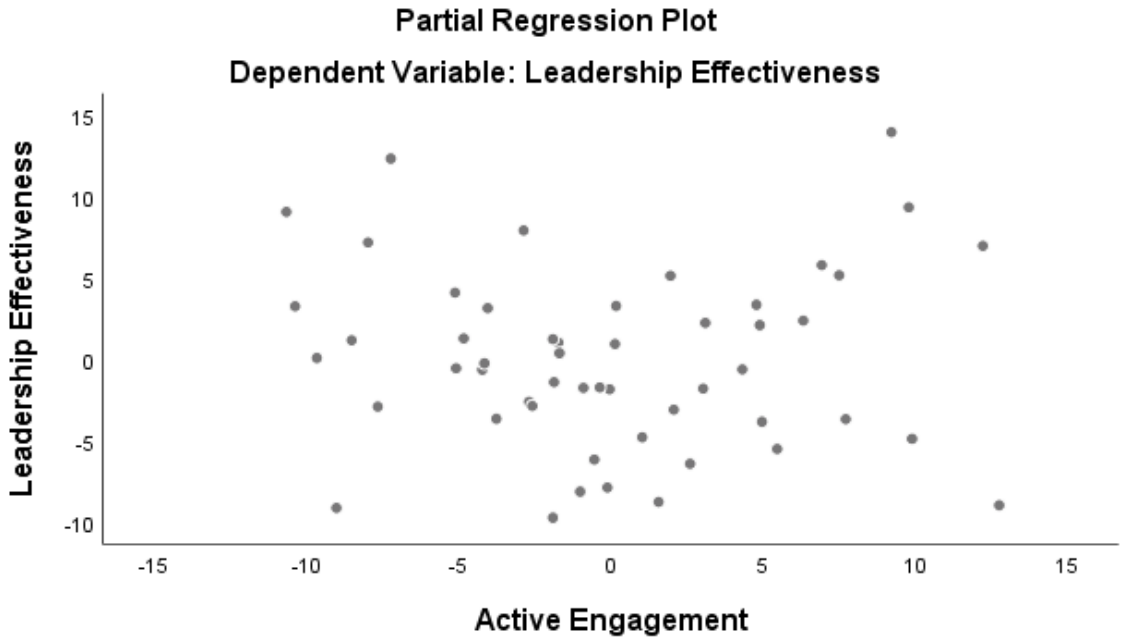

Figure 8. Partial regression plot for AE and LE.

Homoscedasticity. Homoscedasticity is the assumption that data points are evenly distributed around the line of best fit without funneling toward either end of the line (Stevens, 2016). The homoscedasticity assumption was met by assessing whether the data indicates a recurring pattern exists among the predictor and outcome variables, which is between –3 and +3 in the scatterplot. The test for homoscedasticity is presented in Figure 9.

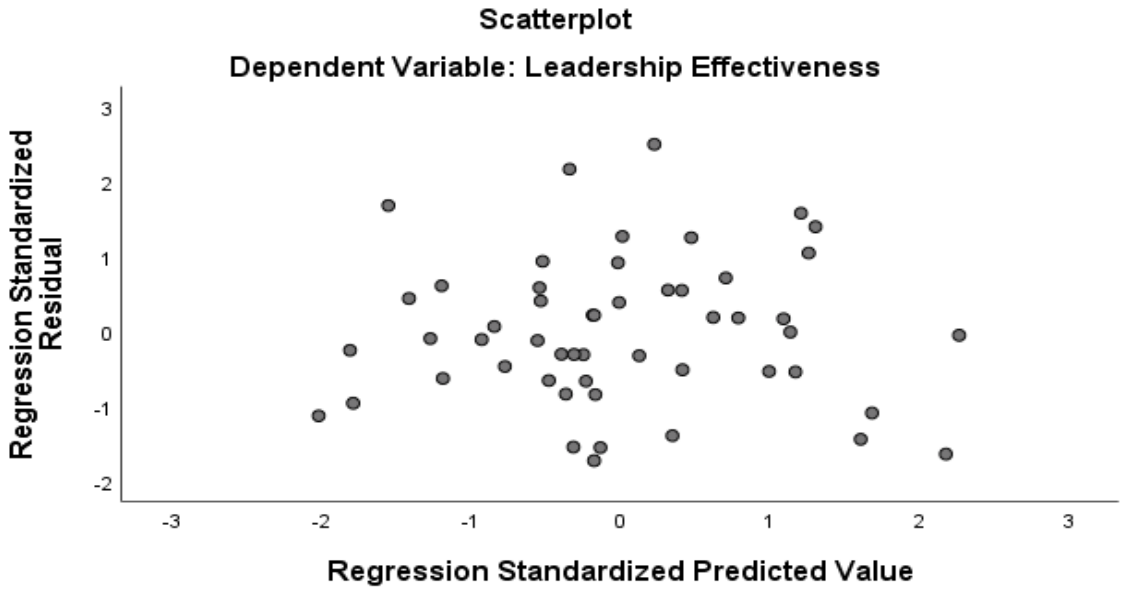

Figure 9. Scatterplot of regression standardized predicted value (DV).

Table 8

Residuals

	Minimum	Maximum	*M*	*SD*	*N*
Predicted value	48.38	49.29	48.81	.213	52
Residual	-9.771	14.143	.000	5.537	52
Std. predicted value	-2.015	2.267	.000	1.000	52
Std. residual	-1.730	2.504	.000	.980	52

Note. Dependent variable = leadership effectiveness.

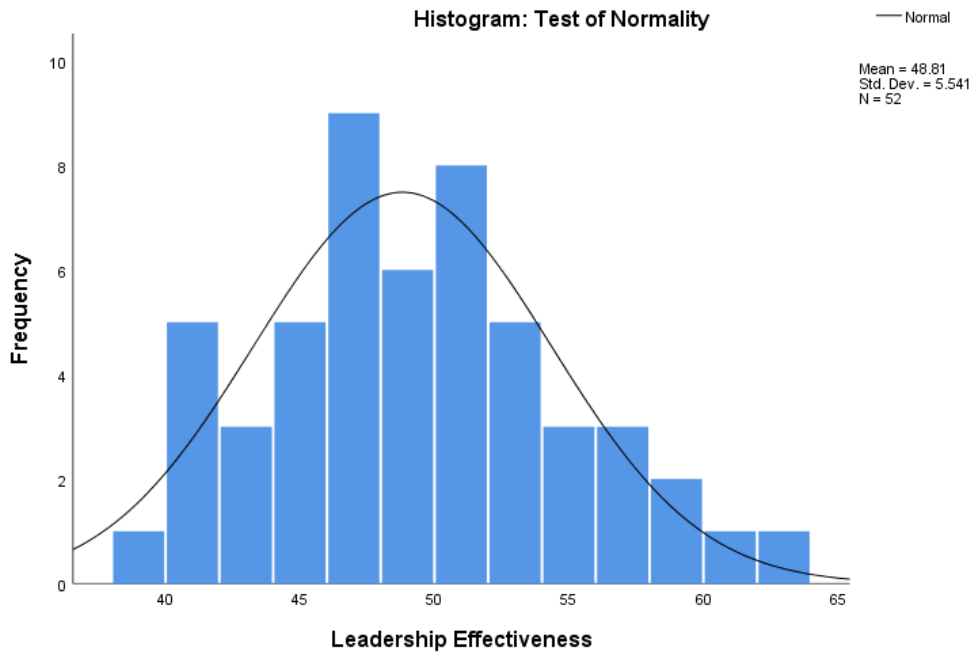

Figure 10. Histogram of normal distribution.

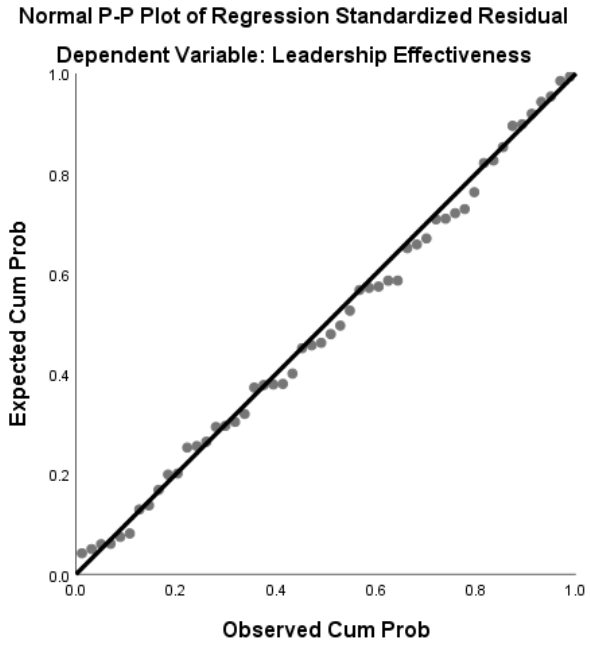

Figure 11. Scatterplot of the standardized residuals.

Inferential results. I utilized multiple linear regression, $\alpha = .05$ (two tailed) to examine the ability of ICT and AE in predicting LE. The IVs were ICT and AE. The DV was LE. The null hypothesis was there are no significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The alternative hypothesis was significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers.

I conducted a preliminary analysis to assess whether the assumptions of multicollinearity, outliers, normality, linearity, homoscedasticity, and independence of residuals were met. There were no violations detected in the assumptions. The output of the regression model did not significantly predict LE, $F(2,49) = .036$, $p = .964$, $R^2 = .001$. The effect size of R^2 is less than 1% of the variation in LE is accounted for by the linear combination of predictor variables (ICT and AE). R2 measured the effect size is less than 1%, which means there is no relationship between the IVs and the DV (see Table 9). In Table 10, $p < .05$, which indicates that the variance of the data is normal. The assumption of normality is met.

Table 9

Model Summary

Model	*R*	R^2	Adjusted R^2	*SE* of the Estimate
1	.038[a]	.001	-.039	5.649

a. Predictors: ICT, AE
b. Outcome: LE

Table 10

Regression Model

Model	*SS*	*df*	MS	*F*	Sig.
1 Regression	2.319	2	1.160	.036	.964
Residual	1563.758	49	31.913		
Total	1566.077	51			

Note. Outcome: LE; Predictors: ICT, AE

Analysis Summary

The purpose of this quantitative correlational study was to examine to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers. I used the multiple linear regression to examine the ability of the predictor variables on the outcome variable. I assessed the assumptions surrounding multiple regression with no serious violations noted. The output of the regression model did not significantly predict LE, $F(2,49) = .036$, $p = .964$, $R^2 = .001$. This analysis concluded that ICT and AE were not significantly associated with LE, even when the other predictors were controlled. Neither ICT nor AE provided useful predictive information about LE. Based on this finding, I accepted the null hypothesis in favor of the alternative hypothesis.

Relationship to the Theoretical Framework

The theoretical framework included two theories: situational leadership and followership. The first theory, SLT, was adapted by Hersey and Blanchard in 1969 to measure the leaders' effectiveness when interacting with followers in 20 work situations (Blanchard et al., 1985). The second theory, followership, was adapted by Kelley in 1992 to measure followers' style (effectiveness or ineffectiveness) when interacting with

leaders in 20 work situations (Kelley, 1992). It is unclear why followers in the research industry did not indicate a significant relationship between the IVs and the DV. A lack of leader assessments and the reduced sample size might be contributing factors for the study outcome. In this research study, the participants in the follower role had no direct reports. The participants engaged in work situations at different hierarchical levels of their organization, and this may have influenced the followers' perceptions of LE.

Glaso and Thompson (2018) recommended congruent ratings from leaders and followers, and peers to counteract self-assessed high ratings and subjective low ratings to prevent unconscious rater bias. Fugard and Potts (2014) suggested using a moderate sample size and the random sampling technique to power the study. The COVID-19 pandemic impacted businesses' normal operations; the potential study participants' interest likely dwindled to support this research study. A reduced sample of 52 was lower than the G*Power calculated sample size of 68. I was not able to obtain a sufficient sample size of 68 participants despite the extended data collection period of 7 months than 3 weeks. The use of a different rating method with a larger sample size may have presented study findings with statistical significance.

Relationship to Finding in Business Practices

CRLs may have different outlooks about the study findings than similar research about relationships between leaders and followers in the research industry. In this research study, the participants in the follower role had no direct reports. The participants engaged in work situations at different hierarchical levels of their organization. Thompson and Glaso (2018) supported a congruent assessment of LE in the work

environment. The inclusion of both leaders and followers provided significant evidence to support LE in Norwegian for profit organizations. Thompson's and Glaso's study findings supported inclusion leaders' assessment of LE. Avery's (2001) research outcomes of senior leaders' assessment of supervisory leaders' LE provide more accurate assessment. Business leaders' might find the inclusion of the leaders' assessment along with the followers' assessments of LE more valuable to make necessary changes in business practices.

Leaders with direct reports may discover the study findings useful for leaders to identify problems affecting LE and make changes in organizations with the support of competent followers. The study participants' feedback may present insight for senior administrators to develop effective business practices for providing quality services to the research community. Followers at different levels of the organizational hierarchical level and with no direct reports participated in this research study. The study variables, follower AE and follower ICT (independent) and LE (dependent), may be useful to leaders with direct reports to gain an understanding of followers' perceptions of self followership and their working interactions with leaders in the clinical and research industries.

Leaders with followers as direct reports, may find these results useful to determine the value of followers in their organization, regardless of the followers' hierarchical position throughout the organization. Some CRLs fail to identify and use competent followers, which may lead to decreased AE of followers and an inability to achieve organizational objectives. Leaders should access other variables with follower

AE and follower ICT to determine which situational issues influence LE to engage or disengage competent followers.

The findings of this study differed from Wilkinson's and Wagner's (1993) study involving 115 Missouri state vocational rehabilitation counselors in the United States. Wilkinson, and Wagner found a significant relationship among leadership style effectiveness and supervisor and administration job satisfaction. There was no significant relationship between leadership style effectiveness and intrinsic, burnout, and coworker (relationship and job roles) scores. This difference between the extant research and Wilkinson's and Wagner's research is that the latter research was conducted in one state in the United States. with individuals of the same professional role and providing the same type of services to people in one geographical area. The extant research included individuals working in multiple states and different geographical areas in the United States in the clinical research industry with different backgrounds working in multiple CRS, clinical research organizations, and biotechnology and pharmaceutical companies.

Avery (2001) examined 43 supervisors and 205 managers' preferences for situational leadership styles and perceived LE in various Australian organizations and compared the managers' self-ratings with the supervisors' ratings of the managers. Avery reported the participants used supportive leadership styles, rated themselves as significantly more supportive and less directive than other managers rated them. Subordinates and managers rated the managers' most effective on supportive leadership style. The difference was that the subordinates rated managers at a lower level on a scoring range of supportive support compared to the managers' self ratings. For instance,

50% of the highest ranking managers had scores consistent with their subordinates, which was not similar for 50% of the lowest ranking managers. In this study, 28.84% of followers with high follower AE and follower ICT ratings scored leaders' with LE lower than the study average of 48.81.

In Avery's (2001) study, the researchers used congruent ratings. The leaders' self-ratings were significantly more effective compared to subordinates' ratings. The leaders (managers) had an average score of 53 for effectiveness compared to subordinates' effectiveness score of 49 out of 80 maximum points. In the current study, the average LE score was 48.81, less than the LBA II Other Questionnaire average score of 58 out of 80 maximum points. The study's average rating of LE is less than the average score of 58. Another 17.30% of followers with high follower AE and follower ICT ratings ranked leaders with LE higher than the study average of 48.81. Most followers in this study had high to moderate follower AE or follower ICT scores, while only 24 out of 52 (46.15%) had high follower AE and follower ICT scores.

In comparison to the results of the current study, Avery reported subordinates did not consider the support of their supervisors being effective. According to the followers' LE ratings, the leaders' effectiveness does not correspond with the followers' development level. To conclude, the leaders lacked the ability to recognize and engage competent followers in the leadership process and followers likely demonstrated self-leadership abilities.

Burke (2009) examined the relationship between individual followership and leadership styles among medical science liaisons in the pharmaceutical and

biopharmaceutical industry. In the current study, the population consisted of followers from different backgrounds in the clinical research industry working in CRS, contract research organizations, and biotechnology and pharmaceutical companies in multiple states in the United States. Burke reported a significant relationship between follower AE, follower ICT, and follower individual leadership style. Burke further reported no significant relationship between followers' leadership style adaptability, follower AE, and follower ICT. Therefore, Burke accepted a partial hypothesis. ~~I reviewed the principal of SLT related to the study findings of this research.~~ Leaders equally apply leadership styles comparable to work situations and interactions with followers (Blanchard et al., 1993). The leaders' ability to demonstrate LE is a primary criterion of SLT (Avery, 2001). Followers who actively engage in the leadership process and apply critical thinking abilities demonstrate competency.

In this research study, 65.4% (34 of 52) of followers rated leaders between 39 to 63. Many leaders performed at low to normal LE level. According to the SLT model, leaders are considered inadequate in LE (see Table 1). The remaining 34.6% (18 of 52) of followers rated the leaders between 51 to 63. This group of leaders performed in the normal to high LE level. The ranking scale for the LBA II Other Questionnaire is between 20 and 80. The overall data spread for this study was 39 to 63, which is only 24 out of a possible spread of 60. This is a significant limitation of this study. Among the 34.6% of followers, two leaders received higher effectiveness scores of 61 and 63. For this study, the mean was 48.81 for LE, which is in the higher percentage range of low LE (see Table 2). Another examination of this study population in a nonpandemic

environment with a larger sample size may provide a higher response rate with the study population's data representative.

The results of this research using a small sample size may have limited generalizability to similar study populations in the clinical research industry. This is an unexpected limitation in addition to the inability to perform random sampling. Only followers in non-leader roles were study participants and provided self-reported and other ratings using two valid instruments: (a) Hersey and Blanchard's Situational Leadership LBA II Other Questionnaire and (b) KFQ and despite using valid instruments (Hersey et al. 1993; Kelley, 1992). According to Blanchard et al. (1993), the leaders' effectiveness levels are usually comparable to the followers' development level.

In this study, the predictor variables were follower AE and follower ICT, not follower development. The mean scores for follower AE and follower ICT were 46.58 and 40.15 on a ranking scale of zero to 60 (see Figure 1 and Table 2). The ICT score of 40.15 is closer to a pragmatist. According to Kelley's (1992) followership typology, the mean score is an indication of exemplary followers. Nevertheless, both pragmatist and exemplary followers may demonstrate effective levels of AE and ICT in the leadership process (Hinić et al., 2017; Leung et al., 2018; Thomas et al., 2017). Followers may have perceived leaders' LE to indicate that the leaders are not applying the appropriate leadership style (Avery, 2001). Leaders are either directing competent followers or delegating to underdeveloped followers, which may present confusion within the leader follower relationship (Avery, 2001). Organizational leaders need to focus on how followers influence LE and motivate and choose appropriate followers to achieve

organizational growth. The literature review that I conducted did not reveal a similar study using the same study population's independent and dependent variables in the clinical research industry.

Applications to Professional Practice

Leaders may acquire a better understanding of being effective leaders when they engage followers in leadership. Leaders should be cognizant of follower development to achieve expected performance outcomes, especially when followers are unaware of needed development compared to discrepant assessments (Thompson & Glaso, 2018). Organizational leaders in pharmaceutical and biotechnology industries desire to partner with savvy research professionals to manage clinical trials (Koski et al., 2018; Yang et al., 2017). Some leaders need to adjust their thinking to develop business practices to attain business growth and meet the clients' growing expectations in challenging work situations (Gordon et al., 2015; Mannion et al., 2015; McKimm & Till, 2015). CRLs may involve actively engaged ICT followers to support the leaders to facilitate effectiveness in leadership to address the general business problem of this study.

Individuals in either a follower, leader, or dual role may desire to perform a self-assessment of their effectiveness in the leader-follower relationship; however, a comparable assessment may yield an accurate significance. Congruent ratings may prevent unconscious rater bias and provide balanced assessments (Thompson & Glaso, 2018). Avery (2001) used a congruent rating technique to collect study data to assess the leader follower working relationship accurately. Both leaders and followers should

contribute to assessing their working relationship to achieve organizational goals with the inclusion of followers.

Implications for Social Change

The business workforce is represented by 20% of leaders, while the remaining 80% of followers contribute to the organization (Bufalino, 2018; Kelley, 1992). This research study may contribute toward leaders learning ways to engage followers in the leadership process and create solutions to problems to achieve organizational growth (Bastardoz & van Vugt, 2019; Leung et al., 2018). The study has implications for positive social change for leaders to engage followers to promote the awareness of clinical trials to address health conditions of eligible patients in the community (Tinker & Robinson, 2020). The business leaders may realize the need for self-development to build confidence to lead competent followers and increase follower development in the work environment to build effectiveness in the leadership process. The leader follower relationship is critical in the workplace to promote readiness to manage growing medical conditions and unexpected pandemics that impact the health of individuals and the community.

The leadership process includes followers and leaders, and each component may influence LE. Leaders' perceptions of followers with ICT and AE abilities may differ among industries and geographical regions. Some leaders may not require the most competent followers in the leadership process to achieve organizational growth. Competent followers may demonstrate more effective leadership than the leader. In such a situation, followers with less challenging attributes may be suitable for certain leaders

to achieve organizational growth. Followers are a key situational factor impacting the leaders' success in an organization. Leaders in the research industry in clinical research centers, contract research organizations, or biotechnology and pharmaceutical companies need to recognize the influence of followers on LE.

Recommendations for Action

Each organization has different types of followers, as do leaders with different types of leadership styles. Leaders in the research industry should recognize which followers are appropriate to include in the leadership process and decision making to enhance organizational growth. Leaders who fail to adapt within the work environment may hinder organizational success and disengage productive followers (Epitropaki et al., 2017). Leaders and followers function in different roles and sometimes shift roles and have dual roles where the follower may lead, and the leader may follow. Leaders may overcome failure when they apply appropriate leadership and involve followers in various work situations.

Leaders need to analyze work environments, and followers' changing needs to ensure LE is rooted in the leadership process. Leaders must understand which followers present barriers to achieve organizational goals and fail to provide the leader with critical information. Park et al. (2018) discovered that leaders acquired fulfillment in their leadership role when including actively engaged and ICT followers to support organizational goals. Some leaders are becoming receptive to engaging competent followers in the leadership process.

Business leaders may avoid placing followers in the shadow of leadership and incorporating a partnership with followers to advance organizational growth (Tolstikov-Mast, 2018). The influence of followers on LE and organizational outcomes is a gap in the literature and lacks business leaders' recognition of followers. The traditional single leadership structure within the organizational hierarchy is obsolete because followers use information and knowledge to engage in the leadership process. Followers are sharers of useful information to apply critical thinking skills to manage work situations.

Leaders in the research industry need competent followers to facilitate organizational growth. Like leaders, followers share relevant information that is useful to impact LE and organizational success. A practical approach to conducting successful clinical trials is having qualified CRLs and professional staff to perform the required work responsibilities and oversight for managing research studies. A necessary action to facilitate follower recognition in the leadership process is to recommend to the program director at WU to include followership in the leadership curriculum.

Recommendations for Further Research

The influence of followers on LE is a gap in the literature and lacks recognition among business leaders. I examined to what extent a relationship existed among follower AE, follower ICT, and the dimensions of LE to engage competent followers. I accepted the null hypothesis that no statistical significance was among the IV and DV. My study population included followers working in various CRS, contract research organizations, and biotechnology and pharmaceutical companies. The addition of follower centric research may contribute toward business leaders' interest in followers and the role of

followership in the leadership process, particularly in the research industry. I recommend repeating this research study after the COVID-19 pandemic with a larger sample size and a wider spread of data.

Leadership scholars and future doctoral students may conduct additional studies on followers using different research methods and designs, geographical areas, industries, and including leaders and followers in hierarchical levels throughout the organization. I do not recommend conducting this research during a pandemic, which may impact the data collection period and the respondents' willingness to support the research study. This was an unexpected limitation for my research because research organizations experienced disruptions in business operations. For example, most workers, except for essential personnel, were forced to work remotely, workers had limited access to their employers' internet server, some workers lost employment, and others changed employment. If similar situations such as a health pandemic are unavoidable, I recommend getting IRB approval on creative ways to ensure data collection is attainable within a reasonable time frame.

I would recommend conducting a qualitative research study to explore followers' preferred leadership styles in a clinical research environment in an individual research organizational setting. The sample size will be smaller than conducting a quantitative if unforeseen occurrences might impact the research study. The current study is believed to have value to the leadership process. I would recommend repeating this study in a larger environment within an individual organization, regardless of the country, to allow for a random sample with leaders who have a broad range of LE scores. Another suggestion

for a quantitative study is where followers indicate the type of leaders present within an organization and compare the outcome with the followers' preferred leaders' leadership style. For instance, followers may recognize that leaders' leadership style needs to exist within an organization to engage competent followers to influence LE.

Further research may include examining both effective and courageous followership typologies to extend the silent follower dimension, courage, that Kelley (1992) referenced in the description of describing followership. Chaleff (1995) introduced the courageous follower model in 1995. Chaleff defined courageous followership using two dimensions based on five styles with which followers either challenge or support leaders in the pursuit of meeting organizational objectives: (a) assume responsibility, (b) serve, (c) challenge, (d) participate, and (e) take moral action. According to Kelley, followers are situational, as are leaders. Leaders are known to display courage, and Chaleff defined the courageous followers. Research to assess how followers are both courageous and situational would further extend knowledge about followers engaged in the leadership process and facilitate LE.

Scholars may use the qualitative research design or mixed method. The data collection process may not be time consuming, and study participants may be more responsive during the data collection process and during in person engagement with the researcher. The next recommendation for scholars would be to extend the study population outside the United States to examine whether similar or different results exist in different cultural environments compared to this research. Another recommendation is

to conduct research using organizational culture or another variable applicable to address the research question(s) and test the hypotheses.

Finally, I recommend conducting future research using the research design of this study to examine different functional areas, e.g., clinical operations, within the same company among various research organizations, e.g., clinical supplier, drug manufacturing centers, and pharmaceutical companies. The root cause of issues impeding LE within smaller groups may allow executive leaders to identify leader follower relationships within the organization, detect problems, and remediate relevant solutions. The rationale to use this research design across different research organizations is for researchers to detect similar business problems impacting the overall research industry.

I plan to present my study findings at the Society of Clinical Research Professionals and the American Society for Quality (Section 509) professional conferences in 2021. The overall study results will be shared cumulatively. My goal is to ensure leaders in the clinical research industry recognize followers and followership roles within their organization. I plan to educate both leaders and followers that followership is a process of leadership, and followers are valuable components of leadership.

Reflections

I recollect choosing a research question to address an ongoing business problem that some research professionals and colleagues observe in the research industry. Followers who report to leaders are essential contributors to LE and achieving organizational growth. Some followers are more effective than leaders. Some followers demonstrate self-leadership to lead, while less effective leaders lead in the shadow of

certain followers while remaining in their leadership roles. Followership was a new phenomenon of study more than 10 years ago, yet there remains sparse research on followership compared to leadership.

Effective followers are actively engaged in the leadership process and ICT individuals. These types of followers are self-leaders and may lead other followers, including some leaders. Followers are known to be situational, as are the leaders. I felt combining SLT and followership typology were suitable to what extent a relationship exists among follower AE, follower ICT, and the dimensions of LE to engage competent followers in the research industry. Situational leaders interact will followers at different development levels in addition to shifting leadership styles for varying circumstances. The situational leader needs to be flexible in different situations and adaptable toward different followers' development. A situational leader proposed adjustment to circumstances to become a certain type of leader to achieve LE and organizational growth.

The study results may indicate that followers who took part in this research study are nonessential components in the leadership process, passive, and lack the ability to be critical thinking as well as nonsupportive in decision-making to facilitate the leadership process for their leaders. From my lens, a situational leader demonstrates characteristics of being adaptable and flexible to demonstrate appropriate leadership that exceeds being a servant or transformational leader. Followership is a component of leadership because followers are the leaders' partners, not subordinates. Leaders and followers are involved in a shared relationship that facilitates both leader and follower effectiveness.

Conclusion

The purpose of this quantitative correlational study was to examine to what extent a relationship existed among follower AE, follower ICT, and the dimensions of LE to engage competent followers. I used followership typology and SLT to develop the theoretical framework for this study. I collected the data using two instruments: (a) Follower Questionnaire developed by Kelley (1992), and (b) LBA II Other Questionnaire developed by Blanchard et al. (1993). The COVID-19 pandemic impacted study recruitment and participation, data collection beyond the planned 3 weeks, the sample size, and business continuity on a global scale. The final sample size was $n = 52$.

I used multiple linear regression to perform the data analysis. The output of the regression model, *LE*, $F(2,49) = .036$, $p = .964$, $R^2 = .001$, indicated no significant relationship between the predicted and outcome variables. I accepted the null hypothesis, there are no significant relationships among follower AE, follower ICT, and the dimensions of LE to engage competent followers. The results of this dissertation research study did not align with three studies: Wilkinson and Wagner (1993), Avery (2001), and Burke (2009), in the literature review. These studies and my study share similarities related to the theories, variables, study population, industry, and the research method and design. These studies were conducted over 27 years, 1993 and 2020.

The study findings of this research were not consistent with three research studies referenced in the literature review: (a) Wilkinson's and Wagner's (1993) research involving 115 Missouri state vocational rehabilitation counselors, (b) Avery (2001) study involving 248 Australian supervisors and managers, including their superiors and

colleagues, and (c) Burke (2009) dissertation study involving 74 medical science. This lack of significance may be due to the small sample size, limited spread of the data, or the nature of the study population.

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Appendix A: CRS Participants' List Tracker

Participant's Study Number	Respondent's Unique Identification Number (Assigned by SurveyMonkey)	Consent Date	Completion of Questionnaires
PO01	11729809406	08/19/2020	08/20/2020
PO02	11876887717	08/06/2020	08/28/2020
PO03	11751283941	07/01/2020	07/01/2020
PO04	11662355706	06/03/2020	06/03/2020
PO05	11458397345	03/30/2020	03/31/2020
PO06	11654192877	06/01/2020	06/01/2020
PO07	11658558430	06/02/2020	06/02/2020
PO08	11910989640	08/17/2020	08/18/2020
PO09	11699757294	06/15/2020	06/15/2020
PO10	11751229372	07/01/2020	07/01/2020
PO11	11699862108	06/15/2020	06/15/2020
PO12	11794755534	07/15/2020	07/15/2020
PO13	11890452859	08/10/2020	08/21/2020
PO14	11719420584	06/22/2020	06/22/2020
PO15	11834534634	07/27/2020	07/27/2020
PO16	11913000739	08/18/2020	08/18/2020
PO17	11699501350	06/15/2020	06/15/2020
PO18	11928072310	08/24/2020	08/24/2020
PO19	11687691001	06/11/2020	06/15/2020
PO20	11851956498	07/31/2020	07/31/2020
PO21	11430434090	03/19/2020	03/19/2020
PO22	11655304510	06/01/2020	06/01/2020
PO23	11847156899	07/30/2020	07/30/2020
PO24	11502221849	04/14/2020	04/14/2020
PO25	11687616093	06/11/2020	06/11/2020
PO26	11692335524	06/12/2020	06/12/2020
PO27	11718398564	06/22/2020	06/22/2020
PO28	11847755410	07/30/2020	07/30/2020
PO29	11902716938	08/14/2020	08/14/2020
PO30	11912821274	08/18/2020	08/18/2020
PO31	11483261479	04/07/2020	04/07/2020
PO32	11699383001	06/15/2020	06/15/2020
PO33	11751858598	07/01/2020	07/01/2020
PO34	11928816233	08/24/2020	08/24/2020
PO35	11908786148	08/17/2020	08/17/2020

Participant's Study Number	Respondent's Unique Identification Number (Assigned by SurveyMonkey)	Consent Date	Completion of Questionnaires
PO36	11833992764	07/27/2020	07/27/2020
PO37	11680132197	06/09/2020	06/09/2020
PO38	11576001476	05/07/2020	05/07/2020
PO39	11717192498	06/21/2020	06/21/2020
PO40	11918880086	08/20/2020	08/20/2020
PO41	11908517092	08/17/2020	08/17/2020
PO42	11655611900	06/01/2020	06/01/2020
PO43	11687947667	06/11/2020	06/11/2020
PO44	11751197694	07/01/2020	07/01/2020
PO45	11918842425	08/20/2020	08/20/2020
PO46	11422056301	03/16/2020	03/16/2020
PO47	11654451690	06/01/2020	06/01/2020
PO48	11688024668	06/11/2020	06/11/2020
PO49	11751296554	07/01/2020	07/01/2020
PO50	11908687222	08/17/2020	08/17/2020
PO51	11662979930	06/03/2020	08/14/2020
PO52	11915772002	08/19/2020	08/20/2020

Appendix B: Usage Permission for Kelley's Follower Questionnaire

Contact: [redacted]

Contract #: [redacted]

Penguin Random House

[redacted]

PRH Request Reference ID #: [redacted]
Applicant's Reference #: [redacted]

Penguin Random House LLC (hereinafter called the "Grantor") grants the undersigned (hereinafter called the "Applicant") one-time, non-exclusive permission to use the following material (hereinafter called "the Selection") as set forth below:

Title: THE POWER OF FOLLOWERSHIP
Fee: $50.00 Selection: Styles of Followership (2 figures) EDITION: Dissertation English (with printability)
Fee: $50.00 Selection: Styles of Followership (2 figures) EDITION: Dissertation Spanish (with printability)
Fee: $50.00 Selection: Excerpt from Followership Questionnaire (3 pages) EDITION: Dissertation English (with printability)
Fee: $50.00 Selection: Excerpt from Followership Questionnaire (3 pages) EDITION: Dissertation Spanish (with printability)
Territory Granted: United States, its Territories and Possessions

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TOTAL NON-REFUNDABLE FEE DUE WITHIN 45 DAYS: $200.00

This grant covers the right to use the Selection in the following publication:

Title: FOLLOWERSHIP INFLUENCE ON LEADERSHIP EFFECTIVENESS (hereinafter called the "Work")
Author(s): Robert Kelley
Publisher: ProQuest Dissertations and Theses
Language(s): English & Spanish*
*The translation of the selection will be faithful to the original and will not change the meaning of the original text.

Format(s)/Edition(s):
-Non-interactive, password-protected Dissertation English (with printability); Total quantity not to exceed: 350 users; Publication date: [redacted]
-Non-interactive, password-protected Dissertation Spanish (with printability); Total quantity not to exceed: 350 users; Publication date: [redacted]

Total quantity for all formats/editions not to exceed: 700

Term of License: 1 year from Publication date

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[redacted] [redacted]

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11. This Agreement and the exhibits attached hereto constitute the full understanding of the parties with respect to the subject matter of this Agreement, and supersede all prior negotiation, agreements and understandings with respect thereto. This Agreement may only be amended by a written document executed by all parties. Any unilateral change to this contract is not valid. Contact the permissions department for any desired revisions.

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Please return unsigned letters with a brief explanation if the material is not published in Applicant's work.

This is a renewal/extension of contract [redacted]

[redacted] 11/18/2016

[redacted] Date: 19 December 2016

Signature of Applicant

Jo Collins
Walden University

Appendix C: Usage Permission for Ken Blanchard & Companies LBA Instrument

Ken Blanchard COMPANIES

Over the years, the LBAII® and LAP assessments have been used in over 100 dissertations and Master studies. We are pleased that the model and instruments have become more visible. As the requests for the assessments increase, we have found it necessary to humbly request that researchers follow certain guidelines.

The Ken Blanchard Companies is willing to provide you with the capability to use a total of 4 **LAP Assessments**, as long as, you agree to the following conditions.

Criteria for Use	Student Initials
1. Any dissertations, papers, etc., written from this theoretical framework and using these instruments must give reference to where the assessment was obtained (i.e., The Ken Blanchard Companies, Tel: [redacted] Citation should read as follows: This instrument was used with permission by [redacted] C/O The Ken Blanchard Companies located at 125 State Place, Escondido, CA 92029 USA | Tel: [redacted]	[redacted]
2. Any dissertations, papers, etc., written using the LBAII® and/or LAP Essentials should reference one or more of the following articles: Blanchard, K., Zigarmi, D. and Nelson, R. (1993). *Situational Leadership® after 25 Years: A Retrospective*. Journal of Leadership & Organizational Studies, 1, 21-36. Benson, J., Zigarmi, D. and Nimon, K. (2011). *The Emotional Intelligence of Managers and Their Perceived use of Directive and Supportive Leadership Behaviors*. Manuscript submitted for publication. Zigarmi, D., Edeburn, C. and Blanchard, K. (1997). *Getting to know the LBAII®: Research, validity, and reliability of the self and other forms* (4th ed.). Escondido, CA: The Ken Blanchard Companies.	[redacted]
3. Do not print or create additional copies of the instrument beyond the quantity granted within this letter and as set forth below. If using pen-and-paper format, all printed copies of the instrument must be clearly marked "For Research Only."	[redacted]
4. Copies of the assessment that you print may not be sold, nor may you charge a fee to those individuals to whom you are administering the instrument.	[redacted]

1 | Page

5. Do not remove or alter the copyright statement that is embedded within the assessment.	[redacted]
6. Student must contact the author, [redacted], prior to finalizing research proposal. Tel: [redacted]	[redacted]
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8. The Ken Blanchard Companies be allowed to pass on your research (in summary form) to others who might be doing similar research as a way of supporting those who are working hard to further the field of education.	[redacted]
9. That you include the following statement in your dissertation: "The assessment used for research to support this dissertation represents the proprietary copyrighted intellectual property of The Ken Blanchard Companies, and is used herein with permission."	[redacted]
10. That the following scores be produced and reported in your publication using your sample base. **For the LBAII® provide:** a) Average Flexibility Score and Standard Deviation b) Average Effectiveness Score and Standard Deviation c) Average Style Score means and Standard Deviations to Styles 1 through Styles 4 d) Percent of Primary Styles 1 through Styles 4 e) Percent of Development Styles 1 through Styles 4 f) Maximums and Minimums Optional scores that would help further comparisons include: g) Average Flexibility Scores and Standard Deviations by Gender h) Average Effectiveness Scores and Standard Deviations by Gender i) Average Style Score Means and Standard Deviations by Gender **For the LAP Essentials provide:** a) Average summated mean score and standard deviations for the 16 subscales. b) Average summated mean score and standard deviations of 16 subscales by Gender.	[redacted]

I, [redacted] accept and agree to the terms and requirements stated above.

[redacted]
Signature of Student

30 July [redacted]
Date

Jo Ann Collins
Name of Student

Jo.Collins@[redacted]
Student Email Address and Phone Number

[redacted]
Signature of Department Chair (if applicable)

[redacted]
Date

[redacted]
Name of Department Chair

[redacted]@waldenu.edu
Department Chair Email Address and Phone Number

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Name of University or Institution

The Influence of Followership on Leadership Effectiveness
Title of Research