DISSERTATION

RELATIONSHIP OF TRANSFORMATIONAL LEADERSHIP AND ORGANIZATIONAL READINESS FOR CHANGE AS MEDIATED BY LEADER-MEMBER EXCHANGE AND WORK ENGAGEMENT

Submitted by

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ABSTRACT

RELATIONSHIP OF TRANSFORMATIONAL LEADERSHIP AND ORGANIZATIONAL READINESS FOR CHANGE AS MEDIATED BY LEADER-MEMBER EXCHANGE AND WORK ENGAGEMENT

The purpose of this study was to investigate the relationship between transformational leadership and organizational readiness for change as mediated by the quality of the leader-member relationship and employee work engagement. Organizations face unprecedented cycles of change, which are ever-present during company merger and acquisition events. Research has shown that between 70% and 90% of mergers fail to deliver a realized benefit to companies and shareholders.

This research proposed merger and acquisition events fail partly due to a lack of organizational readiness for change due to leadership practices and poor employee engagement. There is a gap in the scholarly research on what practical actions practitioners can take to improve the likelihood of success in merger and acquisition events. Research has shown a connection between organizational readiness for change and organizational performance. Previous research has also shown there are relationships with transformational leadership, leader-member exchange, employee work engagement, and organizational performance. While this research has shown the individual relations of these theoretical constructs on organizational performance, more research needs to be done to understand the relation of these constructs with each other and their ability to improve organizational readiness for change and, therefore, organizational performance.

This research hypothesizes a positive relationship between transformational leadership and organizational readiness for change and sought to answer the question of what the relation of transformational leadership and organizational readiness for change is as mediated by leader-member exchange (LMX) and work engagement. The context used to study this question was a biotechnology firm in the Pacific Northwest that had experienced the announcement of two separate significant acquisitions within 12 months.

A non-experimental, descriptive, cross-sectional survey research design was used to investigate this research question and hypotheses. The population for this study was 1,145 employees of a bio-pharmaceutical company in the Pacific Northwest of the United States.

Well established in the scholarly research, the following surveys were used to study transformational leadership, leader-member exchange, work engagement, and organizational readiness for change. Transformational leadership was measured using the 7-item Global Transformational Leadership (GTL) scale. The quality of leader-member exchange relationships was measured by administering the 12-question LMX-MDM survey. Work engagement was measured through the administration of the 9-question UWES-9. Organizational readiness for change was measured using the 14-question OCQ-R.

The hypotheses were analyzed using confirmatory factor analysis and structural equation modeling. Structural equation modeling was used to test the hypotheses and the hypothetical model. The model's fit was evaluated using root mean square error of approximation, standardized root mean square residual, comparative fit index, normed fit index, and the goodness of fit index. The mediation hypotheses of this research were analyzed using bootstrapping in combination with Baron and Kenny’s established regression test for mediating factors using macros for SPSS & R.

The outcome of this research found a relationship between the transformational leadership styles and actions managers and leaders take and the readiness of employees for organizational change in support of organizational performance and the success of change events. Specifically, this study provided insights to scholars and practitioners on the actions organizations can take when faced with large-scale organizational change events, such as merger and acquisition events.

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CHAPTER ONE: INTRODUCTION

70-90% of all mergers and acquisitions (M&A) fail, and the planned synergies and value creation are never realized (Martin, 2016). A study by Mercer showed that 30% of planned synergies are never realized, and 67% of planned value creation is forgotten or never captured (Mercer, 2018). An organization's ability to manage the change resulting from the merger from a people and organizational perspective appears critical in successful M&A deals (Chatterjee, et al., 1992; Stahl & Mendenhall, 2005; Stahl & Voigt, 2008; Vaara, et al., 2014). The ability of the organization to prepare people for organizational change seems to be a crucial factor in success. There is substantial evidence that work engagement and high-quality leader-member exchange (LMX) contribute to improved employee and organizational performance (Bakker & Bal, 2010; Bakker & Demerouti, 2008; Byrne,et al., 2014; Christian, et al., 2011; Dulebohn, et al., 2012; Gerstner & Day, 1997; Ilies, et al., 2007; Markos & Sridevi, 2010; Martin, et al., 2015). Less well-known are the specific actions and processes that leaders of organizations can take to ready their teams for the pending organizational change. Transformational leaders inspire their organizations to achieve more than they believed they could (Bass, 1985a). This study explored the relation of transformational leadership and organizational readiness for change as mediated by LMX and work engagement, looking to answer the question, how do transformational leaders affect the ability of an organization to ready itself for the organizational change associated with a merger or acquisition? This chapter introduces the research topic and presents the problem statement, the significance of the problem, the research purpose, the research questions, delimitations, and the definition of terms.

Activities associated with M&As drive large-scale change within organizations, and change itself is ubiquitous and continuous within organizations, even outside such events (Burnes, 2004). An organization's ability to recognize and prepare for this constant state of change is essential for its survival (Burnes, 2004; Choi & Ruona, 2011). Organizational readiness for change has been researched in the context of organizational structure and strategic initiatives (M&A) as well as organizational development (OD) initiatives, where leaders intentionally lead efforts to change the way an organization works through personnel development and structure initiatives (Choi & Ruona, 2011). Much of the research concludes that change efforts fail due to organizational leaders failing to acknowledge the importance of individuals in the change process (Choi & Ruona, 2011, p. 49). Compared with the construct of change resistance, organizational readiness for change is "the extent to which an individual perceives a change as needed and whether he or she has the capacity for it" (Choi & Ruona, 2011, p. 51).

Organizations manage and prepare for change in a variety of different ways. Chin and Benne (1985) proposed three strategic categories by which organizations manage change. Empirical-rational strategies are based on the premise that people are rational, and if presented with rational reasons for change, they will be open to and accept the change (Choi & Ruona, 2011). Power-coercive strategies use the power of punitive consequences, either political or financial, to persuade members of an organization to conform to the change (Choi & Ruona, 2011). Normative-reductive strategies rely on an individual's participation in shaping the change process and exploring their and the team's norms and values considering the change. Through this participation, they can reeducate themselves, unfreeze and freeze in terms of Lewin (1974), and therefore ready themselves for the change. Normative-reductive strategies foster commitment, while power-coercive strategies foster conformity (Choi & Ruona, 2011). These strategies influence the way work is done in an organization or, in other words, the organizational culture.

Schein (2010) described organizational culture as it “is to a group what personality or character is to an individual” (p. 13). Organizational culture has also been defined as “the way things we do things around here” (Burke, 2010, p. 220) in research studies. During organizational change, such as an M&A event, the organization's personality is being questioned and undergoing radical change. The way things are done is often called into question. Therefore, even when the organizational change is structural in nature, i.e. an M&A event as opposed to an organizational design change, the culture of the organization is subjected to the forces of change. An organization's “rituals, climate, values, and behaviors” come together to form its culture (Schein, 2010, p. 17). When organizations undertake change initiatives, whether internal or externally initiated, the rituals, climate, values, and behaviors are challenged. This research explored the relationship of how leaders leverage transformational leadership to build high-quality leader-member relationships and engagement helping organizations prepare and ready themselves for changes to rituals, climate, values, and behaviors and how work gets done.

During times of change, individuals turn to their leaders for cues on how to respond. The ability of members of the organization to trust their leadership is vital in developing readiness for change (Bouckenooghe, et al., 2009). Kotter (1996) has reported over half of organizational change efforts fail due to leaders not readying their organizations for change. If this is true, how can leaders support their teams in being prepared for the challenges and opportunities that organizational change presents? The qualities of a transformational leader have been found to be related to improved employee performance (Barling, et al., 1996; Dvir, et al., 2002; Howell &

Avolio, 1993; Wang, et al., 2005). Transformational leadership has been defined as the ability of a leader to motivate people to achieve more than they thought possible through idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Antonakis, 2011; Bernard M. Bass, 1985a; Bass & Avolio, 1993). Transformational leaders, in essence, inspire extra-role performance versus in-role performance (Podsakoff, et al., 1990).

The role management plays in a transformational change is critical to the successful outcome of the change initiative. Both executive and front-line management must be engaged and committed to all aspects of the change process (Cummings & Worley, 2009). Cummings and Worley (2009) pointed to research that indicated outside executives are three times more likely to drive successful transformational change initiatives than their internal peers. The elements of the message of change to middle management and front-line staff need to be envisioning (credible message), energizing (showing genuine excitement for a change), and enabling (providing the right resources) (Cummings & Worley, 2009).

Transformational leadership is contrasted with transactional leadership which is “based on a series of exchanges or bargains between leaders and followers” (Bass, 1985; Bass & Avolio, 1993; Howell & Hall-Merenda, 1999, p. 681; Howell & Avolio, 1993). Transactional leadership often takes two forms: management by exception and contingent reward leadership (Bass, 1985; Bass & Avolio, 1993; Howell & Avolio, 1993). In contingent reward leadership, rewards are provided in alignment with the completion of negotiated tasks or agreements (Howell & Avolio, 1993). Management by exception is characterized by a manager, either actively or passively, monitoring and delivering negative consequences when transactions are not completed or appear to be heading off track. Transactional and transformational leadership are not mutually exclusive, and the best leaders use both styles interchangeably (Bass & Avolio, 1993). Transactional leadership has been found to be directly related to extra-role behaviors, while some transformational leadership factors have been found to be indirectly related (Podsakoff et al., 1990). Podsakoff et al. (1990) found that transformational leadership behaviors were indirectly related to organizational citizenship behaviors. This research also looks to understand the relationship between manager and leader behavior, specifically transformational leadership, and antecedents of organizational performance, employee engagement, and organizational readiness for change.

How do leadership styles then show up in the workplace? This study proposes work engagement as one measure by which the efforts of managers and leaders can be measured. Engagement is still a relatively new construct within the social sciences, and it has experienced dilemmas faced by new research areas. Namely, is employee engagement independent and distinguishable from more well-established constructs such as job satisfaction and organizational commitment, and if so, what is the shared and common definition of employee engagement (Saks & Gruman, 2014)? Over the last two decades, there has been a proliferation of research on the topic, and some clarity on the independence of the construct has emerged (Shuck, 2011; Truss, et al., 2013). Researchers have capitalized on this increased clarity by differentiating work engagement from employee engagement and by selecting well established and proven measures of work engagement, the Utrecht Work Engagement Scale (UWES) (Schaufeli, et al., 2006) and other measures which measure other specific aspects of engagement.

Acknowledged as the first to propose a theory of engagement, Kahn's (1990) ethnographic research concluded there are three factors associated with engagement: psychological meaningfulness, psychological safety, and psychological availability (Saks and Gruman, 2014). While several other theories and models for engagement have emerged, Kahn defined personal engagement as “the simultaneous employment and expression of a person's ‘preferred self’ in task behaviors that promote connections to work and to others, personal presence (physical, cognitive, and emotional), and active, full role performances” (p. 694).

Building on Khan’s personal engagement framework and three-dimensional model, Shuck, Adelson, and Reio (Shuck, et al., 2017) operationalized Kahn’s model and developed a definition and a scale to measure employee engagement. Defining employee engagement as “an active, work-related positive psychological state operationalized by the intensity and direction of cognitive, emotional, and behavioral energy”, Shuck, et al. (2017, p. 954) captures the essence of Khan’s (1990) definition while simultaneously distinguishing it from similar constructs such as job satisfaction, organizational commitment, and job involvement (Shuck et al., 2017). This definition differentiates employee engagement as not an umbrella construct but as a separate construct from work engagement (Schaufeli et al., 2002; Shuck & Wollard, 2010; Shuck, et al., 2014)

Work engagement has been defined as “a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption” (Schaufeli, et al., 2006, p. 702). In an integrative literature review, Shuck (2011) identified four scholarly frameworks of engagement. The burnout-anthesis approach viewed engagement as the antithesis of burnout and was measured by the MBI-GS instrument (Maslach, et al., 2001; Shuck, 2011). Schaufeli et al. (2006) reframed Kahn’s (1990) state of engagement as *work engagement.* They developed a new instrument, the UWES instrument, based on a positive psychology alternative to the MBI-GS, which was developed by Maslach et al. (Schaufeli et al., 2006; Shuck, 2011). The UWES, while not without its critics, has been the most widely used measure of engagement in social science and has proven to be a reliable measure of work engagement (Byrne et al., 2014; Schaufeli & Bakker, 2004; Schaufeli et al., 2006; Schaufeli et al., 2002; Shuck, 2011; Truss et al., 2013).

Bakker and Demerouti (2008) further advanced the concept of work engagement by exploring and establishing the linkage of the jobs demand-resource (JD-R) model with work engagement. The JD-R model assumes job resources (autonomy, performance feedback, social support, supervisory feedback, etc.) improve performance through a process of motivation leading to work engagement (Bakker & Demerouti, 2008, p. 218). The job resources of performance and supervisory feedback are often core components of manager-employee one-on-one meetings. Additionally, Bakker and Demerouti cite several studies that link work engagement with employee performance improvement. Following this reasoning, if job resources, in the form of one-on-one meetings, can lead to improved work engagement and then to improved employee performance, exploring what makes for a good one-on-one meeting is deserving of additional research. Specifically, how do one-on-one meetings help build trust and relationships between managers and employees?

An antecedent of engagement is trust (Martin et al., 2015; Truss, Delbridge, et al., 2013). Managers and employees can build relationships based on “mutual trust and support” (Truss et al., 2013, p. 169). Trust is a foundational aspect of four forms of justice: distributive, procedural, informational, and interactional (Truss, Delbridge, et al., 2013). Specifically, trust in management at the senior and front-line levels is essential to building trust between the organization and its employees (Truss, Delbridge, et al., 2013). Informational justice, procedural justice, and interactional justice combine to establish trust and support an environment where employee engagement can thrive. Meetings are one practical intervention to improve manager-employee trust through information sharing (Chaurasia & Shukla, 2013). A potential outcome of the manager-employee relationship would be the sharing of information and the building of trust. One way of measuring this relationship is the theory of LMX (Graen, Uhl-Bien, & Na, 1995).

LMX has been defined as the process by which “followers develop unique exchange relationships with their leader” (Breevaart, Bakker, Demerouti, & van den Heuvel, 2015 p. 754). LMX theory states leaders develop varying strengths of relationships with different employees (Erdogan & Bauer, 2014; Strauch, et al.,2016). The quality of these relationships is characterized from low to high and is positively related to both work engagement and job performance (Agarwal, et al., 2012; Breevaart et al., 2015; Erdogan & Bauer, 2014; Graen et al., 1995). Erdogan and Bauer cited two studies (Kacmar, et al., 1999; Sin, et al., 2009) where the higher quality of the conversation and the higher frequency of meetings led to higher-quality LMX relationships. Given the methods of transformational leadership, the methods for building high-quality LMX, and improving employee engagement, why do organizations struggle to build and maintain readiness for change?

The Problem

While cyclical, the number of M&As are increasing (Platt, et al., n.d.). A majority of M&As fail to return on expectations and fail partly due to a lack of organizational readiness for change (Mercer, 2018). Research has shown that leaders in an organization can have a dramatic influence on the performance of individuals and their organizations (Macey & Schneider, 2008; Shuck, et al., 2011). Given this research, what practical actions can leaders take to help ensure their organizations are ready to deal with the challenges of organizational change associated with merger and acquisition activities? How do leaders shape the organizational climate and culture? These are the primary questions this research study looks to examine.

The research literature is conflicted about the nature and extent of the factors involved in the success or failure of M&A activities. Cultural differences are the primary source of failure or success of an M&A deal (Dauber, 2012). Communication issues and national and organizational cultural differences were conceptually perceived and empirically found to support or hinder acculturation strategies of integration and/or assimilation (Dauber, 2012). Communication issues, particularly when the merging companies are from different countries and do not share a common language, can be a contributor to M&A failure (Dauber, 2011). It is important to distinguish between national and organizational culture when discussing cultural differences related to M&A deals. There is some debate as to whether national or organizational culture has a more significant effect on M&A success or failure (Dauber, 2012). National culture typically refers to the cultural differences that exist when the merging companies are from different countries (Weber, et. al., 2008). Organizational culture refers to the culture developed and which manifests itself within the organization (Stahl & Voigt, 2008). Stahl and Voigt (2008) found that "cultural differences affect sociocultural integration, synergy realization, and shareholder value in different and sometimes opposing ways" (p. 171). More specifically, in their review of the literature they found the impact of organizational culture on M&A deals depends largely on the "degree of relatedness and the dimension of cultural differences separating the firms" (Stahl & Voigt, 2008, p. 172).

One way organizations prepare their leaders for organizations for change is through training (Oreg, et al., 2011). Organizations are spending nearly $1,300 per employee on leadership and employee development programs with the intent of improving performance (ATD, 2018). The level of resources dedicated to improving organizational readiness for change through the development of such leaders is significant. Courses for managers and leadership topped the list of content delivered in 2018, and an average of over 34 hours were spent in learning and development programs in 2018, according to the ATD. Organizational culture and employee work engagement are positively related to transformational leadership (Bass & Avolio, 1993; Hoon Song, et al., 2012; Popli & Rizvi, 2016; Tims, et al., 2011). Therefore, organizations are investing financial resources to improve leadership and organizational readiness for change. Organizations are also investing resources in time managers and employees spend in meetings meant to improve the LMX relationship.

Managers and employees spend millions of hours in one-on-one meetings without understanding what makes for effective one-on-one meetings (Keith, 2015). These meetings intend to improve LMX relationships, work engagement, and organizational performance but appear to be based on evidence-based methods rarely (Mroz & Allen, 2015). Without understanding what practical action to take, how are managers and organizations to know which activities will have a positive influence on engagement and, ultimately, organizational performance? This current study will look to explore how the relationship between managers and employees influences organizational readiness for change.

Intervention research is practiced inconsistently in the Human Resource Development (HRD) field (Kalis, et al., 2016). This certainly pertains to the field of work engagement and change management. There remains much to be understood regarding what interventions will best improve work engagement and the management of organizational change (Saks & Gruman, 2014). The problem statement of this research is:

M&As fail in part due to a lack of organizational readiness for change due to leadership practices and poor employee engagement.

To date, little research has been conducted to address this gap from either the scholarly or the practitioner perspective. While researchers have confirmed the relationship between strong LMX relationships and engagement and then engagement to improved job and organizational performance, few of these have provided actions or methods for managers to build strong LMX relationships (Martin et al., 2015; Saks & Gruman, 2014). Of note, Bryne (2014) discussed two studies on how interpersonal leadership is positively related to employee engagement. Leadership, job characteristics, and a connection to the organization were reported to be related to engagement (Byrne et al., 2014). While some practitioners and consultants have taken actions such as providing surveys, doing team building events, and conducting resource-intense training events, these actions are largely based on someone's gut instinct rather than being based on empirical evidence the action will improve engagement and organizational readiness for change.

Significance of the Problem

In 2018, close to $4.2 trillion in total deal volume was spent on merger and acquisition activity globally (Brownstein et al., n.d.). Sixty of these deals were over $10 billion, compared to 46 deals over $10 billion in 2017 (Brownstein et al., n.d.). Carpenter & Mahoney (2012) found that 30-50% of M&A deals decrease shareholder value. As noted at the beginning of this chapter, over 70% of M&A deals fail to return any shareholder value. Certainly, M&A deals have a major impact on the global economy. Research has shown that one of the leading causes of M&A deal failure is organizational culture and change management issues (Dauber, 2012). M&A success rates and, to some extent, the reason for their failure appears to be well documented and well understood. If so, why do so many firms continue to succumb to issues related to human performance as they relate to M&A deals? Since these factors are in their control, do firms feel that while others have failed, they will be successful? This research sought to understand the relationship between one of the established key factors in a firm's ability to merge with another successfully, the firm's leadership practices, and organizational readiness for such a change.

Organizations take various actions to help improve the chances of success of M&A events (Dauber, 2012). Not least of which are training programs to help employees understand and cope with organizational change (Oreg et al., 2011). As mentioned before, in 2017, organizations in the US spent $1,296 per employee on learning and development programs (ATD Research, 2018). Indeed, not all these programs were focused on organizational change. Still, the number of resources spent supporting leaders and followers on basic change principles such as engagement, change, and performance improvement is significant (Park & Jacobs, 2011; Saks & Gruman, 2014). How do organizations know the millions of dollars and hours of valuable employee time are being well spent on such activities? This research looks to understand the relationship between transformational leadership and organizational readiness for change and contends organizations should take evidence-based approaches to improve engagement specifically, and ultimately, employee and organizational performance and organizational readiness for change.

Organizations are taking action and committing significant resources to improve employee engagement (Park & Jacobs, 2011; Saks & Gruman, 2014). One way in which organizational leaders build engagement and reduce intention to quit is through meeting with their employees (Allen & Rogelberg, 2013; Mroz & Allen, 2015; Yoerger, et al., 2015). If only a tenth of the 36 million meetings a day are one-on-one meetings between a manager and an employee, there would be over 3.6 million one-on-one meetings occurring every day (Keith, 2015). Therefore, organizations could invest millions of hours and millions of dollars daily in one-on-one meetings. Saks and Gruman (2014) succinctly identify the significance of this issue:

> The frenzy of research has left many important questions unanswered. As a result, we do not know what causes engagement, the effect of engagement on employee and organizational outcomes, and the most effective program and interventions for improving employee engagement. (p. 178).

The sharing of information has been found to be important in developing trust between managers and employees (Truss, Delbridge, et al., 2013). Unfortunately, according to a 2010 UK civil service engagement survey, roughly only one-third of employees have confidence in senior management's decision-making Saks and Gruman (2014) have stated the need for actual interventions to improve employee engagement (Truss, Delbridge, et al., 2013). As noted above, the lack of trust between organizations on both sides of an M&A deal can be highly prevalent.

In terms of organizational performance, disengagement of employees can come at a significant cost to an organization. Bryne et al. (2014) reported comprehensive data from multiple references to the cost and impact on companies and economies. According to reports by Gallup, in 2013, unengaged or disengaged workers cost $355 billion in lost annual revenue, and only 15% of the global population surveyed were actively engaged. Flade (2003) reported that disengagement costs the British economy between £37.2 billion and £38.9 billion annually.

Measuring the success or failure of M&A deals appears to be largely situationally dependent and needs to begin with the end in mind. What was the objective of the M&A? Was it for the acquiring firm to simply acquire the assets of the acquired company, or was a true merger planned? Four acculturation strategies have been commonly defined: integration, assimilation, separation, and marginalization (Berry, 1980; Nahavandi and Malekzadeh, 1988). Success, as defined by one of these strategies, could be defined as failure for another. For example, integration is defined as "structural assimilation, but little cultural and behavioral assimilation." Assimilation is defined by Nahavandi and Malekzadeh (1988) as "a unilateral process in which one group willingly adopts the identity and culture of the other" (p. 82). Given these definitions, one can see that if the definition of assimilation was achieved when integration was hoped for, this would not be defined as a successful integration.

Purpose of the Research

The purpose of this quantitative survey-based research was to investigate the relationship between transformational leadership and organizational readiness for change as mediated by the quality of the leader-member relationship and employee work engagement. This research hypothesizes there is a positive relationship between transformational leadership and organizational readiness for change in a biotechnology firm in the Pacific Northwest. The organization experienced the announcement of two separate acquisitions within 12 months. This research explored the nature of how transformational leadership is related to the development of high-quality leader-member exchange, work engagement, and organizational readiness for change in this organization, which experienced a dramatic level of change in a condensed period.

Research Question

1. What is the relation between transformational leadership and organizational readiness for change as mediated by LMX and work engagement?

Figure 1 shows the hypothesized relationship between transformational leadership and organizational readiness for change as mediated by LMX and work engagement. This served as the theoretical framework for this study.

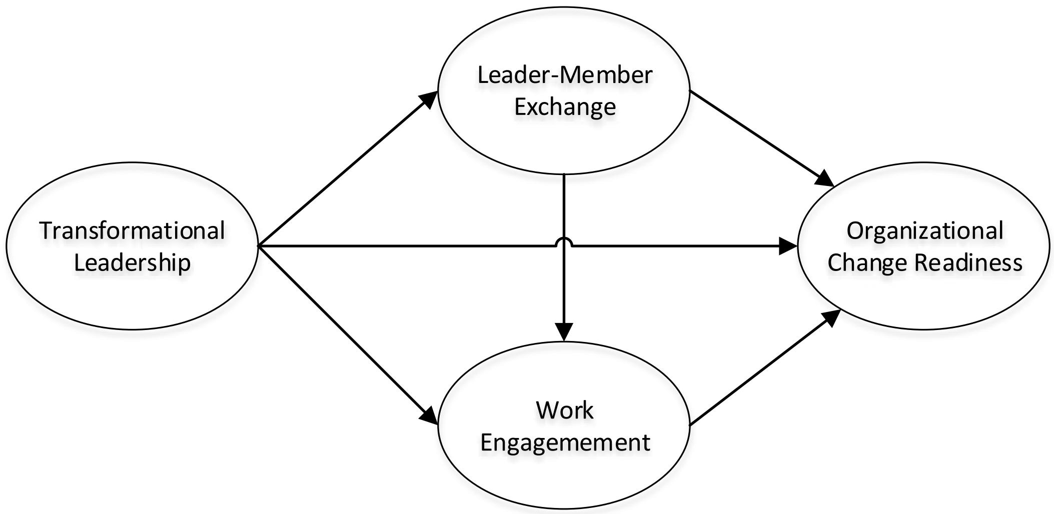

Figure 1
Simplified model of the proposed relationship between transformational leadership and organizational change readiness as mediated by LMX and work engagement.

Definition of Terms

Terms are provided in the order they are discussed in this study.

Transformational Leadership: Leaders who are characterized by the attributes of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration (Bass, 1985; Bass & Reggio, 2006). Leaders who "lift ordinary people to extraordinary heights" (Boal & Bryson, 1998, p. 11)

Transactional Leadership: Leadership "based on a series of exchanges or bargains between leaders and followers." Transactional leadership often takes two forms: management by exception and contingent reward leadership.

Work Engagement: "a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74).

Vigor: "characterized by high levels of energy and mental resilience while working" (Bakker & Demerouti, 2008, p. 210).

Dedication: is “being strongly involved in one’s work and experiencing a sense of significance” (Bakker & Demerouti, 2008, p. 210).

Absorption: “is characterized by being fully concentrated and happily engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work” (Bakker & Demerouti, 2008, p. 210).

Employee Engagement: “a moment-to-moment state of motivation, wherein one is psychologically present (i.e., in the moment) and psycho-physiologically aroused, is focused on and aligned with the goals of the job and organization and channels his or her emotional and cognitive self to transform work into meaningful and purposeful accomplishment” (Byrne et al., p. 15).

Job Engagement: "is best described as a multidimensional motivational concept reflecting the simultaneous investment of an individual’s physical, cognitive, and emotional energy in active, full work performance” (Rich et al. 2010, p. 619).

Organizational Engagement: “employees will choose to engage themselves to varying degrees and in response to the resources they receive from their organization” (Saks, 2006, p. 603).

LMX: “...through different types of exchanges, leaders differentiate in the way they treat their followers” (Martin et al., 2015, p. 68).

Trust: firm belief in the reliability, truth, ability, or strength of someone or something (Oxford Dictionaries, n.d.).

Organizational Readiness for Change / Readiness for Organizational Change: “Employees’ beliefs that (a) they are capable of implementing a proposed change (i.e., change self-efficacy), (b) the proposed change is appropriate for the organization (i.e., appropriateness),

(c) the leaders are committed to the proposed change (i.e., management support), and (d) the proposed change is beneficial to organizational members (i.e., personal valence)" (Choi & Ruona 2011, p. 52; Holt et al., 2007)

Job Resources: "refer to those physical, psychological, social, or organizational aspects of the job" (Bakker & Demerouti, 2007, p. 312). Examples of job resources are autonomy, performance feedback, social support, and supervisory feedback.

Job Demands: "refer to those physical, psychological, social, or organizational aspects of the job that require sustained physical and/or psychological (cognitive and emotional) effort or skills and are therefore associated with certain physiological and/or psychological costs" (Bakker & Demerouti, 2007, p. 312).

Integration: "structural assimilation, but little cultural and behavioral assimilation" (Nahavandi & Malekzadeh, 1988, p. 82).

Assimilation: "a unilateral process in which one group willingly adopts the identity and culture of the other" (Nahavandi & Malekzadeh, 1988, p. 82).

Summary

This chapter introduced the problem faced by organizations during M&A events and discussed practical methods for improving engagement and organizational readiness for change. Specifically, what actions, such as the promotion of transformational leadership, can organizations take to improve engagement and, ultimately, organizational readiness for change? Organizations are committing significant resources to improve engagement and develop leaders, but there is limited evidence these actions have positively related to the organization's readiness for change. The understanding of these constructs can be further advanced by exploring the effect of transformational leadership on work engagement and organizational readiness for change as mediated by work engagement and the quality of LMX relationships.

CHAPTER TWO: LITERATURE REVIEW

This review consists of the literature related to the latent variables of transformational leadership, LMX, work engagement, and organizational readiness for change. It reviews how these variables relate to each other to build the case for this research study and establish a framework for the study. The outcome of this review supports the research question and hypothesis of this research study. Woven through this framework is the review of the antecedents, outcomes, and related constructs of the research variables.

The following section will discuss how the literature review was conducted. Specifically, it will discuss how literature was selected, key terms used, databases explored, criteria for selecting literature that was used or not used, how the literature was reviewed, how the main themes of the literature were identified, organized, and interpreted, and how a conceptual structure methodological approach was used to synthesize and present the literature in a way that provides the rationale for this study (Torraco, 2016).

Literature Review Methodology

A review of the literature was made to explore historical as well as recent literature on the topics of transformational leadership, LMX, engagement, and organizational readiness for change. Several electronic databases were used to complete this search. The primary electronic search tools used were the Colorado State University PRIMO library catalog and search tool, Google Scholar, and the Mendeley reference management software research catalog. These search tools look across their given catalogs, which include the databases of Academic Search Premier, Web of Science, and Psyc Info, among others. Advancements in research technology allowed for efficient literature searches without the need to search individual databases. One individual database that was searched over time was the Digital Dissertations database. This allowed for dissertation searches using the keywords identified.

The following keywords were used individually and combined in Boolean search techniques in the search tools discussed: merger and acquisition, transformational leadership, employee engagement, work engagement, leader-member exchange, LMX, meetings, one-on-one meetings, organizational readiness for change, change, and performance. These searches returned thousands of results. The results were narrowed by filtering the results to peer-reviewed items only, limiting the topic to specific terms (education, psychology, management, etc.), and language. This allowed for the selection of relevant works on the defined topics.

Once a library of literature was gathered, it was reviewed using the following techniques and methods suggested by Torraco (2016). Initially, items were scanned to evaluate their applicability to the research topic, whether they were of adequate quality and rigor for use in scholarly research, and whether they were of appropriate relevance. Some items were discarded because they did not meet these criteria. Essential items were identified and read thoroughly. These included integrative literature reviews and scholarly books on transformational leadership, engagement, LMX, and organizational readiness for change. These essential resources provided an additional source of relevant literature. These additional sources were carefully reviewed as well and added to the framework of the review.

A concept map was then created to help identify themes and the relation of the topics to one another, see Figure 2.

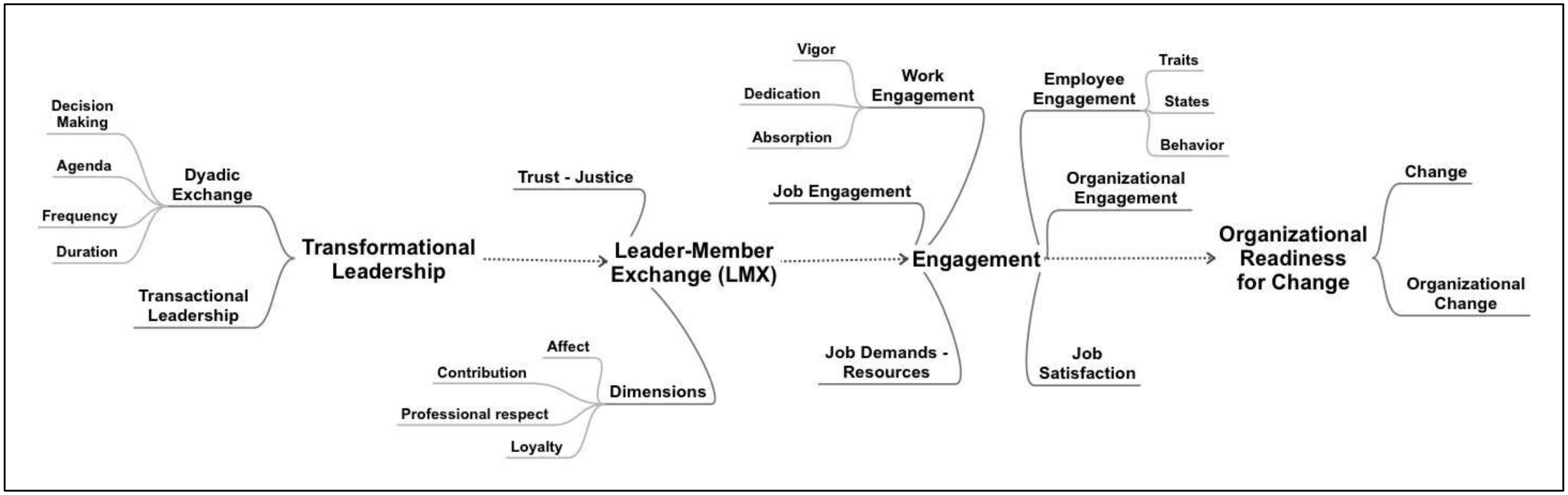

Figure 2
Concept map of topics, subtopics, and themes from literature review.

Literature Review Themes and Organization

With the concept map in Figure 2 as a guide, the items of the literature review library were organized and reviewed for themes related to the broad topics of M&A and change, organizational readiness for change, transformational leadership, LMX, and work engagement. The sections of the remainder of this chapter are organized as follows. First, the topic is introduced, and historical background is provided to frame more recent literature. The topics of M&A and culture and the dependent variable of organizational readiness for change are reviewed first to provide context for the review of the literature on the independent variables, transformational leadership, LMX, and work engagement. The literature for the independent variables is then reviewed, and each section follows the general format. First, the topic is introduced. Second, the literature related to how the topics are interrelated is reviewed. Third, the literature for the measures used is reviewed. Finally, the study hypotheses related to the topic are introduced.

M&A and Change

As noted in Chapter One, greater than 70% of M&A activities do not meet expected goals (Martin, 2016). This section first explores the M&A literature and what is known about what makes for success or failure in M&A deals. Next, the construct of organizational culture and its relation to M&A events is reviewed. Through the review of organizational culture and M&A events literature, the framework of this study is established.

Large-scale organizational change has been shown to have a dramatic impact on the performance of an organization (Dauber, 2012). Specifically, M&A activities bring together two organizations to create “one” organization. This one organization can take many different forms and the term “integration” has been used in a variety of ways. This is relevant because using integration as an umbrella term has apparently led researchers to draw different conclusions as to the success or failure of M&A events (Dauber, 2012).

Marks & Mirvis (2011) defined five different types of integrations as (a) preservation, (b) absorption, (c) reverse takeover, (d) best of both, and (e) transformation. In preservation, the acquired company keeps much, if not all, of its independence and ways of operation. The hope from the acquiring company is that the acquired company maintains its performance, which presumably made it an attractive acquisition. Absorption is, as its name implies, the acquired company assimilating into the acquiring organization and adopting its culture. A reverse takeover is when the acquiring company adopts the culture and operating principles of the acquired company. Full integration of both companies is the desired outcome in the "best of both" scenario. While Marks and Mirvis note this is often the most successful combination, it often results in a reduction of force and consolidation of resources. Finally, transformation is when both companies forgo their cultures and operating principles to create an entirely new way of working. Marks and Mirvis supply the example of the merger of Pfizer's Animal Health group and SmithKline Beecham's animal health pharmaceutical company. Here, both organizations gave up their operating models for a joint and entirely new way of working.

Offering a slightly different model of M&A events, Nahavandi and Malekzadeh (1988) developed four modes of acculturation: integration, assimilation, separation, and deculturation. Dauber (2012) in his comprehensive review of M&A research, he found the four-item typology of Nahavandi and Malekzadeh the most used by M&A researchers and is based on Berry's (1980) acculturation research. Like Marks and Mirvis' (2011) preservation, integration is the acquired company's structural, but not cultural, combining with the acquiring company. Marks and Mirvis' assimilation is like the assimilation of Nahavandi and Malekzadeh. In their definition of assimilation, however, the complete adoption of the other company's culture and structure can be performed by either the acquiring or the acquired company. This is different from what Marks and Mirvis defined when the acquired company adopted the ways of the acquired as a reverse takeover and as a separate type of acculturation. The separation of Nahavandi and Malekzadeh is also like Marks and Mirvis' integration in that the acquired company tries to maintain its independence from the acquiring company by refusing to give up its culture and organizational processes. Each company operates independently from each other.

The common idea through both frameworks is the idea of structural versus human integration, or acculturation. Acculturation has shown to be the preferred term over the over and misapplied term of integration (Dauber, 2012; Marks & Mirvis, 2011; Stahl & Voigt, 2008; Straub, 2007). Dauber (2012) summarizes a current common belief of researchers of the "umbrella" use of the term integration to represent different acculturation strategies.

Alignment of frameworks and definitions is critical for M&A research to ensure there can be comparisons of results. To date, the research on cultural M&A events has been inconclusive due in part to the inconsistent use of the term "integration" (Dauber, 2012). As noted earlier, the comparison of the widely used definitions of integration by Nahavandi and Malekzadeh (1988) and the definitions of Marks Mirvis (2011) are inconsistent. Marks and Mavis use the term integration as an umbrella term, made of four different types of M&A integrations: (a) integration, (b) assimilation, (c) separation, and (d) deculturation. Nahavandi and Malekzadeh see integration as one type of acculturation. Dauber (2012) found such differences to be a contributor to the inconsistency of research findings regarding M&A success or failure.

Additionally, there have been inconsistencies in how researchers have defined M&A success. Return on assets, return on sales, number of new products launched, productivity of employees, sales growth, and perceptions of performance by management were all items noted by Dauber (2012) as ways in which researchers have measured M&A success or failure. Without a standardized mechanism for measuring M&A success, Dauber contends it is almost impossible to compare studies given this variety of methods. However, this also presents opportunities to fit the best measurement to the topic of study and anticipated findings.

Culture and M&A.

Scholars have defined organizational culture differently based on the context and nature of the research in the HRD field (Burke, 2010; Dauber, 2012). How does the construct of organizational culture relate to the study of M&A events? This section will explore the definitions of culture in general and organizational culture specifically. Broadly, culture has been defined as "the way things we do things around here" (Burke, 2010, p. 220). Recently, Dauber (2012) put forward that organizational culture "refers to the system of values which reflect and guide social interactions between members of the organization" (p. 392). As noted previously, the two common threads of acculturation are structural and human integration. Burke's (2010) definition appears to support the structural integration notion of culture as the way work is accomplished in an organization. On the other hand, Dauber's definition seems to relate more to the social integration and human interaction aspects of organizational culture. Taken together, both definitions can provide a comprehensive view of the landscape of organizational culture as defined for this study.

In relation to M&A events, "culture" has been positioned in two primary ways: organizational and national (Dauber, 2012; Stahl & Voigt, 2008). Organizational culture has been defined as follows.

> The culture of a group can now be defined as a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal

> integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems. (Schein, 2010)

It is interesting to note Schein (2010) identified "problems of … integration" (p. 18) as a part of the definition he developed for culture. While most likely not in reference to M&A integrations specifically, Schein certainly was referring to the general work required to solve the issues faced by organizations when they undergo M&A activities. This is evidenced through the identification of two categories of issues organizations deal with: "(1) Survival, growth, and adaptation in their environment; and (2) Internal integration that permits daily functioning and the ability to adapt and learn." (Schein, 2010, p. 18). Here, Schein identifies the persistent integration activities that go on in an organization even outside of M&A activities. The ability to function, let alone survive, is clearly critical as managers consider the implications of entering an M&A event. Numerous studies have shown that upwards of 70% of M&A events fail, with the leading cause of this failure being cultural issues. Clearly, leaders may not be taking the appropriate actions to promote the adaptation, growth, and hopeful survival of the organizations (Martin, 2016). Both historical and more recent research have shown culture to be a leading contributor to M&A failure. The following section explores this research and positions actions managers can take to help promote successful M&A activity.

There is a wealth of robust research in the field of organizational culture as it relates to the HRD field (Hofstede, et al., 2010; Schneider, 1988; Weber et al., 2008). The following section will focus on the aspects of organizational/corporate culture that inform this study. Specifically, how does culture influence the success or failure of M&A events? Weber et al. (2008) proposed that insufficient research has been conducted and that managers of integrating organizations should focus not only on organizational or corporate cultural differences but also on national cultural differences. Their findings suggest that all organizations should consider both national and organizational cultural differences during M&A events. However, international firms with strong organizational cultures cannot forget the impact of national cultural differences, which may be obscured by the strong corporate or organizational culture, when acquiring a company of different national origin (Weber et al., 2008). As conceptualized by Hofstede (1980) and expanded upon by Schneider (1988), national culture should not be discounted by managers participating in M&A activities and those who do so assume additional risk of M&A failure. To mitigate this risk executives must take care to understand the expectations of managers and employees by establishing communication mechanisms which can elicit aspects of both organizational/corporate culture and national cultural differences. (Weber et al., 2008). Executives do seem to be aware of the importance of culture. Weber et al. note that a survey of European CEOs measures the success of an acquisition by determining how successful the integration of the new company is, above other factors, such as financial performance (Cartwright & Cooper, 1993).

How, then, do managers and executives affect change that will move their organizations forward? Hofstede, et al. (2010) provide a model of how culture change can be positioned within organizations and enable managers and employees to conceptualize their roles in cultural and organizational change initiatives. Positioned as an “onion” with distinct layers, Hofstede et al. (2010) it suggests four layers of culture. In the outermost layer, symbols “are words, words, gestures, pictures, or objects that carry a particular meaning” (Hofstede et al., 2010, p. 199). Heroes make up the next level and are people the organization holds up as role models. Rituals, the third layer, are activities the organization does not need to perform but does because it values them. The centermost layer is the values of the organization. Values are defined as “broad tendencies to prefer certain states of affairs over others" (Hofstede et al., 2010, p. 199). Hofstede et al. contend change can occur often at the outer layers of symbols, heroes, and rituals, but more slowly at the values level. Observable behaviors or practices also characterize the three outermost levels. Therefore, changes in the culture can be observed through changes in the practices or behaviors of the organization. Still, the meaning of those practices is only known to people inside the organization. Organizations looking to support organizational readiness for change can leverage this model to make explicit the culture of both the acquiring and acquired companies. In this way, organizations can understand the differences and similarities between their cultures. Then, using the methods associated with transformational leadership, building strong LMX relationships, and employee work engagement, managers can improve the likelihood of organizational readiness for change. The premise of this study is that managers and executives can take action to improve organizational readiness for change.

Cartwright and Cooper (1993) defined and connected four different types of organizational cultures: (a) power, (b) role, (c) task/achievement, and (d) person/support. This is contrasted with Cameron and Quinn's (2011) four types of (a) Clan, (b) Adhocracy, (c) Hierarchy, and (d) Market cultures. Both models have been widely cited in scholarly research since their publication and provide good frameworks to further explore the topic of organizational culture in relation to this study. Both models contend that much like personality tests for individuals, it is tempting, yet dangerous, to categorize an organization as having one culture. Organizations, like people, are multifaceted and multidimensional. However, reliable and valid measures of organizational culture can provide a window into the preferences or tendencies of an organization. Cartwright & Cooper (1993) and Stahl & Voigt (2008) found the importance of understanding cultural tendencies in times on time of organizational change. By understanding the nature of the organizational cultures of two merging firms, organizations can predict potential areas of conflict and areas of alignment to define actions to take pre- and post-merger to help ensure success. Table 1 compares and contrasts the Cartwright and Cooper and Cameron and Quinn models of organizational culture.

Table 1
Models of Organizational Culture

Cartwright and Cooper (1993)	**Cameron and Quinn (2011)**
Power: • Individual decision making • Employees act in fear of management • Management seen as autocratic • Centralized authority	**Market**: • The organization values achievement of goals and profits • Competition and customer focus • Leaders are goal oriented and drive their organizations
Role: • The role or position is more important that the person in that role • Highly structured, with rules and formal procedures • Bureaucratic	**Hierarchy**: • The organization values efficiency, alignment, and being in control • Leaders organize and monitor • Efficient and capable processes drive the organization
Task/achievement: • Commitment to teams and the mission / vision of the organization • Workers decide who work gets done • Often found in creative companies, but workload is often great	**Adhocracy**: • The organization values creative innovation and agile processes • Leaders look to transform through innovation and clear vison of the future
Person/support: • Focused on the development of the personnel in the organization • Not typically found in for-profit organizations	**Clan**: • Focus on human resource development • Communication and commitment are prized values

Several different measures of organizational culture have been developed to assess the current and, in some measures, the desired state. Scott, et al. (2003) cataloged several organizational culture measure instruments specific to the healthcare industry. Some of the instruments listed were developed for use in healthcare. However, some instruments identified are for general use across organizations. The Organizational Culture Assessment Instrument (OCAI) developed by (Cameron & Quinn, 2006) is one such measure. The OCAI asks respondents to rate the organization in terms of its current and preferred dominant characteristics, Organizational Leadership, Management of Employees, Organizational Glue, Strategic Emphases, and Criteria of Success. Another such instrument is the survey of Organizational Culture by Tucker, McCoy, and Evans (1990). This 55-question instrument defines culture as 13 dimensions and has been used in a variety of settings. The Organizational Culture Inventory is a 120-question instrument by Lafferty and Cooke(1987) that provides participants with the identification of their preference of 12 thinking scales and has also been used across a wide variety of settings. While these instruments were not used in this study, these examples are presented here to provide a comprehensive view of the topic of organizational culture and the role it can play in determining an organization's readiness for change.

In summary, culture does play a role in M&A success or failure. Both positive and negative relationships have been identified. Stahl and Voight found in their 2008 meta-analysis degrees of readiness and the degrees and the nature of cultural differences between the merging organizations. Taking the latter first, the nature of the cultural difference appears to be vital in determining which outcome, success or failure, will be experienced by the merging organizations (Stahl & Voight, 2008). The comparison of Cartwright and Cooper (1993) and Cameron and Quinn (2011) models provide similar frameworks for researchers and practitioners to measure and explore the cultural differences between the two organizations. Knowing the differences and degree of difference, organizations can take actions to promote the likelihood of success over failure. Actions to be taken can include preparing the organization for the change. Organizational readiness for change will be discussed in depth at the end of this chapter. However, the concept will be integrated throughout this literature review. It and its suggested predecessors of work engagement, LMX, and transformational leadership are the premises for this research. Transformational leadership is rested to improve employee and organizational outcomes. The model of transformational leadership, its measure, and its relation to organizational readiness for change, LMX, and employee work engagement are discussed in the following section.

Organizational Readiness for Change

This section reviews the construct of organizational change in general and organizational readiness for change specifically. A review of the historical and modern literature was conducted to support the development of a hypothesis related to this study. First, a definition of organizational readiness for change is offered. Then, the antecedents, explicit reactions, and consequences of change are explored in detail. Finally, the multi-level and multi-faceted nature of organizational readiness for change construct and related literature is examined. The review of the literature thereby establishes a framework for the hypotheses of this study. It establishes the relation between the independent (transformational leadership, LMX, and work engagement) and dependent (organizational readiness for change) variables.

Central to this study is the concept and theory of organizational readiness for change. Organizational readiness for change has been defined as “a shared psychological state in which organizational members feel committed to implementing an organizational change and confident in their collective abilities to do so” (Weiner, 2009, p. 1). One of the earliest examinations of organizational readiness for change was completed by McNabb and Sepic (1995). In their study, they explored the implementation of Total Quality Management in federal agencies. McNabb and Sepic developed a model in which organizational culture relates to organizational climate and policies and drives organizational performance outcomes ultimately predicting organizational readiness for change. Weiner (2009) offers a well-developed definition and theory of organizational readiness for change, and while similar in approach and basis to McNabb and Sepic, it does not reference the 1995 study.

Offered above, Weiner defined organizational readiness for change and proposed a theory and a model of organizational readiness for change based on his review of the literature and prior research. His study produced a model similar to that of McNab and Thomas (1995). The central concept of organizational readiness for change is based on “change valance,” defined as the collective organization valuing the change, and “informational assessment,” defined as the organization has the capacity, resources, and situational circumstances required for the change (Weiner, 2009). Organizational readiness for change is comprised then of the organization’s commitment to the change and the organization's assessment of the capacity for the change. This model is also similar to the Job Demands-Resources (JD-R) model proposed by Bakker and Demerouti (2007).

In the JD-R model, job demands are mental, emotional, or physical parts of one’s job that have the potential to create stress and strain (Bakker & Demerouti, 2007). In contrast, Bakker and Demerouti (2007) define job resources as support, autonomy, or feedback that help to complement or offset job demands and create a sense of motivation, ultimately leading to organizational outcomes. As in the informational assessment aspect of organizational readiness for change, job resources such as peer and manager support and feedback, can result in confidence of the employee and drive organizational outcomes. This is important to this study in that solutions put in place by organizations and managers can address multiple constructs and can be related to observed outcomes.

In summary, this study defines organizational readiness for change as the state where employees feel committed and confident in implementing an organizational change effort. The next section reviews the 60 years of literature on organizational readiness for change, specifically the seminal work of Oreg, et al. (2011) in their review of the quantitative studies from 1948 to 2007.

Antecedents, Explicit Reactions, and Change Consequences

Organizational readiness for change has been defined as one possible reaction employees can have to change. Oreg, et al. (2011) reviewed 60 years of quantitative studies of change recipients' reactions to organizational change. In a comprehensive review of the quantitative studies published between 1948 and 2007, they found 79 studies that met predefined criteria as related to change recipients' reactions to organizational change. The researchers developed a framework for their review consisting of a chance recipients' explicit reaction to change being proceeded by antecedents, comprised of pre-change antecedents and change antecedents; and resulting in change consequences, consisting of work-related consequences and personal consequences (Oreg et al., 2011). Figure 3 presents a modified version of Oreg et al.'s model with a focus on the research related to organizational readiness for change. The following paragraphs will explore and integrate the research on organizational change and readiness for such change as it relates to the model proposed by Oreg et al.

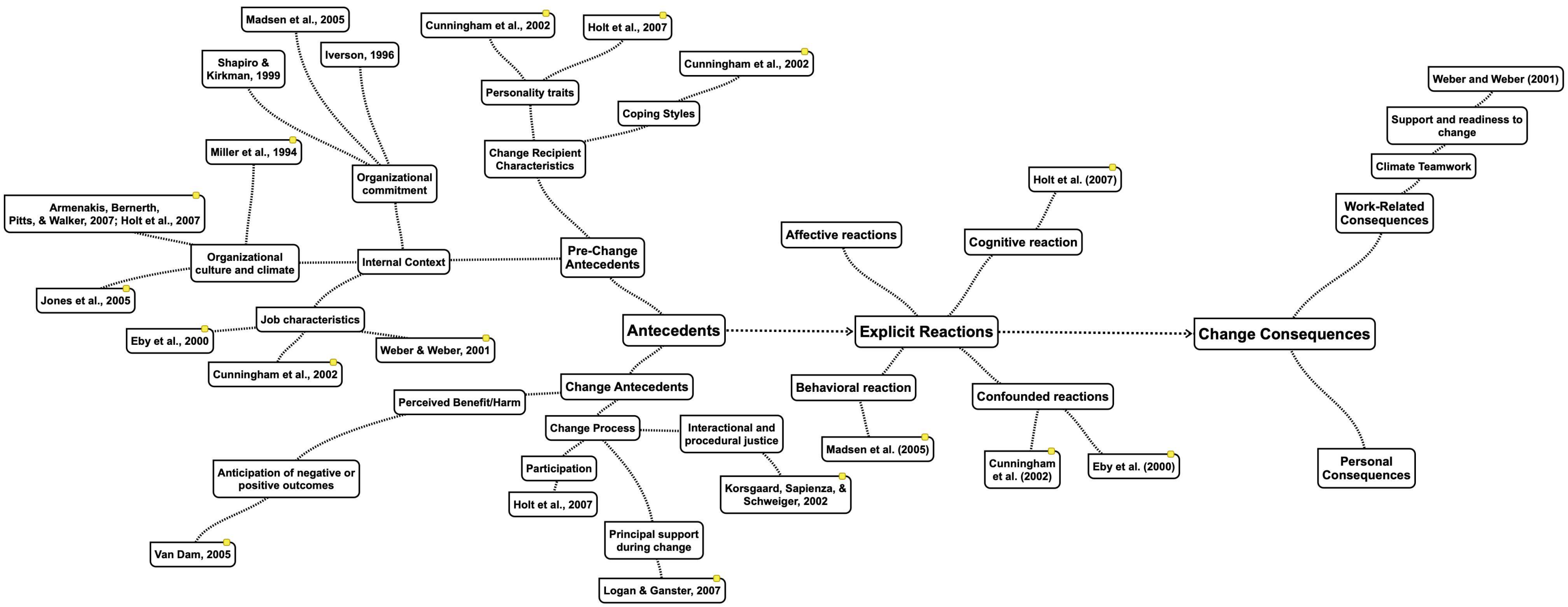

Figure 3
Modified Oreg et al. (2011) model antecedents, explicit reactions, and change consequences with sources related to organizational readiness for change.

Change Consequences

The Oreg et al. (2011) model, at the most simplified level, consists of antecedents, explicit reactions, and change consequences. Beginning with change consequences, this review focused on the quantitative studies associated with readiness for change. Oreg et al. defined change consequences as “indirect change recipient consequences,” which are made of both work-related and personal consequences (p. 467). Organizational commitment and job satisfaction were among the most frequently measured work-related consequences of organizational change (Oreg et al., 2011). The sub-consequences of climate teamwork were found to be related to support and readiness to change by Weber and Weber (2001). The researchers found that training, communication, goal setting, and employee participation in change planning were significantly and positively related to employees' perceptions and attitudes toward the change.

Additionally, trust in management and perceived supervisory support, along with the previously mentioned items, led to an improved readiness for organizational change (Weber & Weber, 2001). Oreg et al.’s model also defined personal consequences as a result of organizational change. However, no research articles relating to organizational readiness for change were identified as being related to the consequences of personal change. Preceding change consequences in Oreg et al.’s model are the explicit reactions employees have to an organizational change. These reactions as they pertain to organizational readiness for change will be explored in more detail.

Explicit Reactions

Oreg et al. (2011) identified three categories of explicit reactions to organizational change: affective reactions, cognitive reactions, and behavioral reactions. The researchers found no research related to organizational readiness for change as related to affective reactions. Cognitive reactions were defined as how the change was valued in terms of the individual, the organization, or both (Oreg et al., 2011). Holt, et al. (2007) developed a scale to measure organizational readiness for change. The scale was developed as a multidimensional construct based on the four beliefs held by employees. One is that employees believe they can implement the change. Two, employees believe the change is appropriate for the organization. Third, organizational leadership is committed to change. Fourth, the change benefits the members of the organization. Holt et al. found that through the development of the scale and initial application of the scale, the thoughts and beliefs of employees regarding the proposed change were a valid method for determining their readiness for change. Such cognitive processes can lead to behavioral reactions as found by Madsen, et al. (2005).

Breaking behavioral reactions into two different categories, Oreg et al. (2011) found studies related to such reactions fell into either explicit reactions or intentions to behave. Madsen et al. (2005) found that Eby et al. (2000) and Weber & Weber (2001) postulated that when employees are committed to their organizations, they perceive they have higher levels of readiness for change. The results also indicated employees who identify, are involved, and are loyal to their organizations perceive higher levels of readiness for change (Madsen et al., 2005). Cunningham et al. (2002) and Eby et al. found that employees who had had "positive feelings, attitudes, and perceptions" of their colleagues and management were more open to organizational change. Interestingly, Madsen et al. also found that age, gender, education level, and number of children the employee had were related to readiness for change. The authors speculated having more children better prepares one for dealing with continuous personal and professional prioritization and change.

Additionally, Madsen et al. (2005) propose actions organizations can take to improve their organizational readiness for change. In support of better readiness for change, Madsen et al. (2005) suggest organizations take action to increase organizational commitment and build social relationships. Specifically, organizations can develop “persuasive communication” through thoughtful communication efforts, encouraging active participation in the change effort through learning programs and involving employees in decision-making, and using internal and external sources to inform employees of various views of the change (Madsen et al., 2005).

Oreg et al. (2011) also found some of the research related to explicit reactions did not fit neatly into one of the three categories, but were “confounded” and were made of general items or items of “different components”. Two of the articles reviewed by Oreg et al. (2011), Cunningham et al. (2002), and Eby et al. (2000) fell into this confounded category, but are also two of the most widely cited articles on the topic of readiness for change. Eby et al (2002). identified three main categories of variables as they relate to organizational readiness for change: individual attitudes and preferences, workgroup and job attitudes, and contextual variables. Cunningham et al. (2002), in a longitudinal study of organizational readiness for change, identified two similar main categories of variables: individual contributors and workplace contributors. The individual contributor factor can either positively or negatively affect the individual’s ability to contribute to the success of the change through self-efficacy, the belief of an individual they can manage the change (Cunningham et al., 2002). They predicted and found employees who were confident in their abilities to manage the change and self-efficacy had higher organizational readiness for change scores.

Similarly, Eby et al. (2002) hypothesized and found employees’ experiences were related to their perception of an organization’s readiness for change. The hypothesis was based on organizational climate research (James & James, 1989; Schneider, 1988) in which one's work experiences shape the collective organizational climate. However, Eby et al. suggested an employee's individual experiences develop and lead to individual self-efficacy and organizational readiness for change. Being involved in decision-making processes contributes to perceptions of organizational readiness for change (Armenakis, et al., 1993). Employees who found their work environment highly participative also had a high level of decision-making responsibilities regarding the impending organizational change (Eby et al., 2000).

As for the workplace factors that are related to organizational readiness for change, Cunningham et al. (2002) also predicted and found jobs that supported employees with "the skills, attitudes, and opportunities to manage change should increase work-related self-efficacy" and organizational readiness for change. Eby et al. (2000) also hypothesized and found an employee's job role and participation at work were positively related to the employee's perception of the organization's readiness for change. Organizations, job roles, and abilities to change policies and procedures were found to support the employee's perceptions of the organization's ability to manage the change (Eby et al., 2000).

Antecedents

Oreg et al. (2011) , in their model, Figure 3, defined the collections of research, which were the reasons for the explicit reactions employees had as "pre-change antecedents" and "change antecedents." Pre-change antecedents are conditions and characteristics that existed prior to the change. Change antecedents are items related directly to the change which impact an employee's reaction to the change. In total, Oreg et al (2011). defied five categories of antecedents. Research related to organizational readiness for change within these five categories will be examined in detail below.

Change recipient characteristics

As related to organizational readiness for change, Oreg et al. (2011) found several research articles related to the change recipients' characteristics. Two sub-categories, coping styles, and personality traits, were found to have research associated with organizational readiness for change. Two studies, Cunningham et al. (2002) and Holt et al. (2007) were related to the personality trait sub-category. Cunningham et al (2002). found that depression and emotional exhaustion were negatively related to willingness and readiness for change. Oddly, Oreg et al (2011). report the Cunningham et al (2002). findings as "depression and emotional exhaustion were unexpectedly linked with higher readiness and willingness to participate in an organizational reengineering program" (p. 27). However, in my review of Cunningham et al. (2002), I could not find where this conclusion comes from. The data reported by Cunningham et al (2002). appear to support their hypothesis that "emotional exhaustion and depression would reduce readiness for organizational change and participation in redesign activities" (p.378). Holt et al. (2007), in the development of a scale for readiness for change, found individual attributes such as self-efficacy and personal valence lead to high perceptions of organizational readiness for change. Oreg et al (2011). describe these factors as positive affectivity factors. These positive affectivity factors of self-efficacy and personal valence provide additional support. Organizational readiness for change is dependent upon individual employees' perceptions the change will be beneficial for them personally and the organization, and they themselves can manage the aspects of the change. The second sub-category of change recipient characteristics identified by Oreg et al. (2011) were coping styles. Among the different coping styles, Cunningham et al. (2002) found employees who took a problem-focused approach to organizational change contributed more to and participated more in the change process and had higher readiness for change scores.

Internal context: organizational commitment

Organizational commitment is defined as an employee’s belief in the organization's goals and values and willingness to exert effort to help the organization achieve its objectives (Madsen et al., 2005). Purporting to be the first study to link organizational commitment and readiness for change, Madsen et al. (2005) found that the multilevel construct of organizational commitment was positively related to organizational readiness for change. Organizational commitment has been demonstrated to be made of three components: identification, involvement, and loyalty (Madsen et al., 2005). Identification pertains to the “connection and pride employees feel toward their organization” (Madsen et al., 2005, p. 217). Involvement is the “perceived contribution” and level of effort an employee makes to the organization (Madsen et al., 2005, p. 217). Loyalty can be described as an employee’s desire to remain with the organization (Madsen et al., 2005). The anticipated injustice was related to employee commitment and positively related to turnover (Shapiro & Kirkman 1999). Similarly, Iverson (1996) found employees' willingness to accept organizational change was positively related to organizational commitment. In summary, organizational commitment and its aspects of identification, involvement, and loyalty, as well as the independent variables of transformational leadership, LMX, and work engagement, are hypothesized to be related in distinct ways.

Internal context: organizational culture and climate.

Internal to the organization are the constructs of organizational culture and climate. In relation to organizational readiness for change, Oreg et al. (2011) found four research studies, Armenakis, et al., 2007; Holt et al., 2007; Jones, et al., 2005; Miller, Johnson, & Grau, 1994, which have contributed to the understanding of the relation of organizational readiness for change to organizational change. For the purposes of the present study organizational culture has been defined as “the way things we do things around here” (Burke, 2010, p. 220). Denison (1996) provided a differentiation of organizational culture and climate as follows:

> Climate refers to a situation and its link to thoughts, feelings, and behaviors of organizational members. Thus, it is temporal, subjective, and often subject to direct manipulation by people with power and influence. Culture, in contrast, refers to an evolved context (within which a situation may be embedded). Thus, it is rooted in history, collectively held, and sufficiently complex to resist many attempts at direct manipulation. (Denison, 1996, p. 620)

More specifically and in relation to organizational readiness for change Schein’s (1990) description of organizational culture comprised of three components; assumptions, values, and artifacts. Assumptions being the (1990) description of organizational culture comprised of three components; assumptions, values, and artifacts. Assumptions are the unconscious beliefs employees have about the nature and environment of their organization (Jones et al., 2005). Attitudes in the Schein model are defined as the “shared beliefs and rules that govern the attitudes and behaviours of employees, making some modes of conduct more socially and personally acceptable than others” (Jones et al., 2005, p. 363). Artifacts are described by Jones et al. as the visible aspects of an organization’s culture such as language, symbols, and behaviors.

The debate over the similarities and differences between organizational culture and organizational climate has ebbed and flowed for more than 20 years. Denison's (1996) seminal article serves as a milestone in defining the debate until that point. In the article, Denison conducts a comprehensive review of the foundational and current literature on the research approach to both organizational culture and climate. Denison defines the origins of the debate stemming from the theoretical origins of each construct. Culture developed from the social construction frameworks of Berger & Luckmann (1966) and Mead (1934), and climate developed from Lewin's 1951 field theory. Another historical aspect that differentiates between climate and culture has been the type of research mythology used and the epistemological and ontological approach to studying the phenomenon. Historically, culture primarily relied upon constructivist ontology and used qualitative methods to conduct research.

Climate researchers historically have used quantitative methods when studying the phenomenon. However, over the last decade or more, researchers began using quantitative methods to study the culture phenomenon. This came with the shock and dismay of some culture researchers who feel the proper methodology for studying culture is through qualitative, not quantitative, methods. Specifically, one can only truly understand the lived experience of a subject and how culture affects and is affected by qualitative research. Recently, some researchers have been applying quantitative methods to study culture. Quantitative methods such as surveys and questionnaires traditionally have increasingly been used, leveraging the advantages of quantitative methods to analyze and study large organizations rapidly. Case study research, which can combine both qualitative and quantitative methods, has been used extensively in studying the phenomenon of culture (Denison, 1996). However, ethnographic or lived experience studies dominated the early research of the organizational culture phenomenon. Climate research, on the other hand, has primarily used quantitative methods. Organizational climate surveys have measured the organization's pulse, while organizational culture studies have measured the "values and shared beliefs" (Jones et al., 2005).

Taking Denison's (1996) definition of organizational climate as being linked to the temporal thoughts of members in an organization, communication is clearly one method to shape perceptions. Timely and relevant communication, coming from a trusted source, was found by Miller et al. (1994) to contribute to openness and readiness for change. Similarly, (Armenakis et al., 2007; Holt et al., 2007) found the existence of a positive “information environment” was positively related to organizational readiness for change and openness to change. From Denison’s organizational culture definition, being related to the values, history, and deeply held beliefs, Jones et al. (2005) found that to the extent the proposed change vision and objectives were aligned to the organization’s cultural values, this would predict an employee’s readiness for the change.

In summary, several studies, both qualitative and quantitative, have shown a positive relationship between organizational readiness for change and the factors that influence organizational culture and climate. As related specifically to this research, interventions such as communication from management that is aligned with the organization’s established cultural values can positively impact the organization’s readiness for change (Armenakis et al., 2007; Denison, 1996; Jones et al., 2005; Miller et al., 1994).

Change antecedents.

The final aspect of antecedents for change are items that have been found to be directly related to antecedents of change. The following constructs, perceived benefit or harm, the processes related to change, and perceptions of interactional and procedural justice, are discussed in relation to an organization’s readiness for change.

Perceived benefit or harm.

The specific aspect related to perceived benefit or harm associated with the change is the anticipation of positive or negative outcomes. Specific to organizational readiness for change, Van Dam (2005) a study related to job changes associated with reorganizations and mergers found that employees who perceived a positive benefit of the job rewards-cost ratio were more committed to the proposed change.

Change process.

As related to the process of change itself, two sub-contexts were identified by Oreg et al. (2011) participation in the change and principal support received during the change. Participation in the change has been defined by Armenakis and Bedeian (1999) as the level of interaction employees have in the planning and execution of the proposed change. Holt et al. (2007) found that employees who participated in change efforts demonstrated higher organizational readiness for change. In addition to participation in the change process, Logan and Ganster (2007) found when principles (persons in a position to influence others or leadership positions) are found to be in active support of the proposed change, personnel in the organization show increased levels of organizational readiness for change. The study consisted of an intervention designed to improve the empowerment of employees through the delivery of training courses specifically designed to improve their feeling perceptions of control and self-efficacy. Only managers who felt their supervisors were supportive achieved better organizational outcomes, performance, and perceptions of empowerment.

The final aspect of Oreg et al.'s (2011) model as related to organizational readiness for change was the role of interactional or in the case of organizational readiness for change, procedural justice. Procedural justice is "judgments of the fairness of the process by which allocation decisions are made" (p.501), which has long-term effects on outcomes for the organization. While the study did not find the proposed change reduced perceptions of organizational obligations, the researchers found that procedural justice positively related to and mitigated employee perceptions of organizational obligation. Korsgaard et al. (2002) , therefore, recommended managers and executives focus on all aspects of a proposed organizational change, including a focus on communication with employees to obtain their feedback related to the change and to manage the message and perception of the change.

In summary, Oreg et al. (2011) provided a framework for this study survey the literature related to organizational readiness for change, its antecedents, explicit reactions of employees and management, and the consequences of the change to personnel and the organization.

Organizational Readiness for Change as a Multi-level and Multi-faceted Construct

Organizational readiness for change has been conceptualized as a multi-level and multi-faceted construct (Vakola, 2013; Weiner, 2009). As a multi-level construct, organizational readiness for change has been seen at the individual, team, department, and organizational levels. In a well-researched article in the Journal of Change Management, Vakola (2013) lamented the lack of conceptualization of organizational readiness for change as a multi-level construct. The challenge with multi-level research, however, is fraught with debate among scholars on the best methods to aggregate data and evaluate the models that result from the analysis (Kozlowski & Klein, 2000). Vakola did cite other notable and highly referenced sources but omitted Weiner. That said, Vakola provided a rich and thoughtful exploration of the multi-level nature of organizational readiness for change and the relations between each level. The following will integrate their findings and discuss their relevance to this study.

Vakola (2013) defined organizational readiness for change on three levels: the macro (organizational) level, the meso (group) level, and the micro (individual) level. At the micro level of individual readiness to change, Vakola concluded the positive attitudes of personnel lead to a willingness to support the change, which ultimately leads to confidence in the success of the proposed change. This is similar to Weiner's (2009) conclusion "organizational readiness is likely to be highest when organizational members not only want to implement an organizational members not only want to implement an organizational change and but also feel confident that they can do so" (p. 3). The agreed-upon concept of willingness and want to change is foundational to this study. If this willingness and desire to change is critical to developing confidence to change, does transformational leadership, LMX, and employee work engagement help managers of an organization related to the development of such beliefs?

As compared to organizational readiness for change and group readiness for change, individual readiness for change has been well studied and defined within the HRD field (Weiner, 2009). Brown et al., (2002) traces the roots of individual readiness for change back to Prochaska et al., (1994) work on individual behavior change as related to 12 problem behaviors primarily related to personal health situations. Prochaska et al., (1994) defined behavior change in three items of their integrated transtheoretical model: stages of change, pros and cons, and decision variables. These three constructs also connect with the concept of self-efficacy or the "the perceived ability to manage change successfully" (Cunningham et al., 2002, p. 388).

Self-efficacy is a core construct of organizational readiness for change. The perception employees have of their ability to manage change has been found to be directly tied to individual and organizational readiness for change and has both positive and negative impacts on organizational readiness for change (Armenakis et al., 1993; Cunningham et al., 2002; Prochaska et al., 1994). Positive impacts were found to be observed as willingness to engage in planning, positive attitude towards the change, and willingness to support the change (Armenakis et al., 1993; Cunningham et al., 2002; Prochaska et al., 1994). When self-efficacy was low, employees were observed to resist the change due to their ability to cope with the change (Armenakis et al., 1993; Bandura, 1982).

The following definitions are quoted to provide a sense of the similarities and differences in the existing literature. Individual readiness for change has been defined as one who "exhibits a proactive and positive attitude that can be translated into a willingness to support and confidence in succeeding" as related to a change initiative (Vakola, 2013, p. 98). Armenakis et al. (1993) define individual readiness for change as "the cognitive precursor to the behaviors of either resistance to, or support of, a change effort" (p. 681). Holt, et al. (2007) defined individual readiness for change as "the extent to which an individual or individuals are cognitively and emotionally inclined to accept, embrace, and adopt a particular plan to purposefully alter the status quo" (p. 235). Both Holt et al. (2007). and Armenakis et al. (1993) definitions specifically call out that individual readiness for change is a "cognitive" process in which individuals internalize the change prior to observable behaviors. In slight contrast is Vakola's (2013) exhibition of a "proactive and positive attitude" related to change. Although not called out in the definition, Vakola (2013) acknowledges the need for individuals to have certain "dispositional characteristics" before positive attitudes are activated (p. 98). Also, of note is Armenakis et al. (1993) inclusion of an individual possibly exhibiting resistance to the change and of interest to the current study that action or inaction taken by managers and individuals can lead to positive and or negative perceptions of the proposed change.

Group readiness, or the meso level of Vakola's (2013) model, pertains to a shared belief of the members of that group of four ideals. One, the change is needed. Two, the organization can manage the change. Third, the outcome change will be a benefit to the organization. Fourth, the group can handle the requirements of the change (Vakola, 2013, p. 99). Here again Vakola (2013) and Weiner (2009) are aligned on what is required for a group within an organization to develop such group organizational readiness to change. Weiner (2009) contends change efficacy is the group's shared belief in their ability to manage and deal with the requirements of the change. The group must have a common understanding of the requirements of the change, the need for the change, and their shared ability and competency to accomplish the tasks associated with the change (Weiner, 2009). Vakola (2013) cites the model developed by Feldman (2011) , which identified four items that inform a group's ability to establish group norms: (1) past situations, (2) explicit statements, (3) critical events, and (4) patterns that are hard to change. This study looked to identify the relation of these group norms, particularly the concept of explicit statements by managers and leaders on a group's organizational readiness to change. The preceding discussion has established the concept of an individual affecting the development of a shared or collective commitment to change, but does the group's organizational readiness for change affect the individual's organizational readiness for change? Both Vakola (2013) and Weiner (2009) agreed that this is the case, and this concept will now be further discussed, with particular attention paid to how the reciprocal nature of this relationship is related to this study.

Just as individual readiness for change is related to group readiness for change, group readiness for change shapes individual readiness for change (Vakola, 2013).

Weiner (2009) conceptualized the multifaceted nature of organizational readiness for change in terms of the organizational member's commitment to change and change implementation efficacy. Commitment to change refers to physiological commitment to the change. Change efficacy occurs when members of the organization have a collective shared belief that they will be able to implement the change.

Managers involved in M&A activities should understand that the members of their organization will have varying levels of commitment to the change and, therefore, varying levels of belief that the organization will be able to implement the change (change efficacy).

Cunningham et al., (2002) found readiness for change was most likely when both individual and organizational models were employed. Employees who had active positions in challenging roles were found to be more willing to adopt the change and participate in organizational design (Cunningham et al., 2002). From an individual perspective, belief in one's ability to cope and manage the change (self-efficacy) was positively related to readiness for change and willingness to participate in change-planning activities (Armenakis et al., 1993; Cunningham et al., 2002). This study explored the path to organizational readiness for change using transformational leadership to build engagement through effective LMX relationships.

In summary, Oreg et al. (2011), in their review of the antecedents, explicit reactions, and consequences of organizational change, and Vakola (2013) , along with Weiner, (2009) provide the framework for the study. The nature of the relationship of the dependent variable of organizational readiness to each independent variable of transformational leadership, LMX, and work engagement serves as the basis for the research question and hypothesis of this study. As each of the independent variables is discussed, the hypothesis of the study will be presented. The following section explores transformational leadership in detail to establish it as a potential method for managers to affect the organization's commitment and efficacy of change during M&A events.

Transformational Leadership

Originally conceptualized by Burns (1978) the construct of transformational leadership and transactional leadership has been advanced by many researchers, but maybe none more than Bernard Bass and Bruce Avolio. In research studies, separately and together, they have conducted empirical and positional research, which has advanced the concepts of transformational and transactional leadership. In the process of their research, they have also developed a measure, not without its critics, of transformational and transactional leadership (Bass & Avolio, 1995). Transactional leadership is characterized by an “exchange relationship between leader and follower to meet their own self-interests” whereas transformational leadership is defined as “the leader moving the follower beyond immediate self-interests through idealized influence (charisma), inspiration, intellectual stimulation, or individualized consideration” (Bass, 2002, pp. 10–11). Transactional leadership may take the form of active or passive management-by-exception or laissez-faire by avoiding any action at all. In active management-by-exception, a leader actively monitors and prompts the follower or correction only when the follower has failed to meet expectations. In passive management-by-exception, the leader waits for failure or issues on the follower's part before acting. The laissez-faire approach is found when the leader takes no action at all (Bass, 2002).

Transformational Leadership and Organizational Readiness for Change

As established in the preceding section organizational readiness for change is a multi-faceted and multi-level construct (Vakola, 2013; Weiner, 2009). This section will review the transformational leadership factors and their relation to organizational readiness for change. Transactional leadership is contrasted with transformational leadership characteristics of idealized influence (charisma), inspiration, intellectual stimulation, or individualized/idealized consideration (Bass, 1985b). These four factors, proposed by Bass, differentiate transformational leadership from other leadership models. Idealized influence involves the leader, in a charismatic way, leading by example (Bass, 2002). Inspirational motivation occurs when a leader provides a vision of the future to their followers in a way that encourages the followers to take enthused action ￼. Intellectual stimulation takes place when a leader motivates their followers to take creative actions and inspires them to develop unique solutions to challenges (Antonakis, 2011;

Bass, 2002; Chai et al., 2017). Individualized consideration happens as a leader takes action to develop and coach their followers through educational and developmental activities (Antonakis, 2011; Bass, 2002).

Antonakis (2011) cites Bass (1998) in explaining the impact of transformational leaders on their followers regarding idealized influence. Bass (1998) noted that idealized influence moves followers to deprioritize their goals of personal safety and security and prioritize the "greater good" (p.41). This is significant for this study in establishing the hypothesized mechanism transformational leaders use, namely charisma / idealized influence (Bass, 1985b), to promote the desired behaviors in their employees/followers and efforts to increase organizational readiness for change(Vakola, 2013; Weiner, 2009).

Managers can also inspire their employees to exceed even their own expectations of themselves. This is what Bass (1985b) defined as inspirational motivation or the Pygmalion effect. The mechanism by which managers can help their employees achieve this outcome is proposed by this study through the development of strong LMX relations as well as through the development of strong employee work engagement. Both proposed mitigating constructs will be discussed in detail later and are central to the model proposed in this study.

The third factor of transformational leadership proposed by Bass (1985b) is intellectual stimulation. As discussed in this chapter, the more employees are involved in the change, the more likely they are to build self-efficacy and organizational commitment (Armenakis et al., 1993; Cunningham et al., 2002; Eby et al., 2000; Madsen et al., 2005). Transformational leadership, through the factor of intellectual stimulation, engages employees through problem-solving and challenges them to find ways to improve their performance and the organization's readiness for change (Vakola, 2013; Weiner, 2009).

The factor of individualized consideration and the one-on-one attention provided is another method managers can leverage to build up employees through coaching, counseling, and frequent contact (Antonakis, 2011). The current study proposes that one-on-one meetings are one such way managers can coach, counsel, and have frequent contact with their employees. The outcome of these one-on-one meetings is proposed to result in behavioral change of employees.

Limited research on transformational leadership and organizational readiness for change was identified. One empirical study Alharbi (2018) found a significant positive relationship between transformational leadership behaviors and organizational readiness for change. The study conducted in Saudi Arabian hospitals found transformational leadership behaviors accounted for 30% of the variation of readiness for change in a population of 83 middle managers. While not mentioning transformational leadership specifically, a study by Lyons, et al. (2009) found that leaders engaging in change leadership from management was positively related to readiness for change in the United States military.

Transformational Leadership and LMX

The relationship between transactional and transformational leadership initially developed by Bass (1985) provides an additional perspective on the leader-member relationship and how it develops. Transactional leadership "motivate(s) their followers to fulfill their leaders' expectations" (Breevaart et al., 2014, p. 139). In transactional leadership employees are motivated by contingent rewards, compensation for completing a task, and management by exception, managers discussing failure to meet expectations with their employees (Breevaart et al., 2014). Transformational leadership, in contrast, is "characterized by the four I's: Idealized influence, inspirational motivation, individual consideration, and intellectual stimulation" (Breevaart et al., 2014, p. 140).

In multiple research studies, transformational leadership has been found to relate positively to both high-quality LMX relations and employee engagement (Breevaart et al., 2014; Christian et al., 2011; J. Howell & Hall-Merenda, 1999; Piccolo & Colquitt, 2006; Wang et al., 2005). Graen et al. (1995) found that LMX is transactional and transformational, and that the relationship evolves over time. The relationship begins as transactional, with managers setting expectations and employees fulfilling those expectations. Then, over time, the relationship changes into a transformational exchange involving influence, motivation, consideration, and intellectual stimulation (Breevaart et al., 2014; Graen et al., 1995).

Transformational leadership and Work Engagement

The construct of work engagement will be discussed in detail later in this chapter, but this section will review the relationship between transformational leadership and work engagement. For the purposes of this study, work engagement is "characterized by vigor, dedication, and absorption" (Schaufeli et al., 2002, p. 74). Vigor, dedication, and absorption are related to the factors of transformational leadership in the following ways. Vigor, an employee's energy and resilience at work, appear to align with the transformational leadership factors of inspirational motivation and intellectual stimulation. Transformational leaders challenge their employees to achieve more than they believe they can through their emotional appeals, and inspirational motivation and challenge them to solve difficult problems, and intellectual stimulation by appealing to the rational intellect. This study proposes inspirational motivation and intellectual stimulation will lead to increased vigor and, thereby, work engagement.

Similarly, the dedication aspect of work engagement is proposed to align with the appeal of the transformational leader through idealized influence and inspirational motivation. Dedication, being the sense of involvement and significance of one's work, is proposed to be influenced by the leader’s ability to inspire through inspiration and motivation (Antonakis, 2011; Bakker & Demerouti, 2008; Bernard M. Bass, 1985b; Eden, 1988).

Finally, an employee’s absorption in their work is proposed to align with transformational leadership's intellectual stimulation factor. Bass (1985b) and Antonakis (2011) contend that as employees become engrossed in problem-solving, they become motivated to achieve personal and organizational goals and higher levels of performance.

Measure of Transformational Leadership

The most used measure for transactional and transformational leadership has been the multi-factor leadership questionnaire (MLQ) (Bass & Avolio, 1995). With over 1900 citations listed in Google Scholar, the handbook for MLQ administration has been the standard for measuring transactional and transformational leadership. However, Bass (2002) submitted the measure is not a perfect measure of the constructs and additional methods should be developed to measure transformational and transactional leadership alike. In his 2002 review of the preceding two decades of transformational leadership research, Bass explores at some length the issues with measuring both transactional and transformational leadership.

While widely used across different research fields, the MLQ has had its share of criticism. The primary criticism pertains to the validity of the factor structure (Antonakis, 2011). Some researchers complain about the collinearity of transformational leadership factors, which makes them redundant in regression models (Antonakis, 2011). However, Antonakis (2011) argues that researchers often overlook two items that support the MLQ as a valid instrument. First, by using large sample size and second, by using modern psychometrics tools such as multiple indicators, multiple causes (MIMC) models, the effects of highly correlated factors mitigated and improved the fit of the model. Antonakis contends models using least squares or maximum likelihood estimators can be estimated if the sample size is large enough using Monte Carlo analysis.

Given the above review of the relevant literature, the following hypotheses related to transformational leadership are proposed for this study.

> *Hypothesis 1a:* Transformational leadership practices will have a significant positive relation to organizational readiness for change.
>
> *Hypothesis 1b:* Transformational leadership practices will have a significant positive relationship to LMX relationships.
>
> *Hypothesis 1c:* Transformational leadership practices will have a significant positive relation to work engagement.

LMX

Standing apart from other leadership theories, LMX focuses on the didactic relationship between manager and employee (Day & Miscenko, 2015). Other leadership theories focus on the leader/manager and their approach. LMX instead centers on the relationship built between the manager and employee (Erdogan & Bauer, 2014). Another differentiating factor of LMX from other leadership theories is the notion that leaders develop different relationships with different employees (Graen et al., 1995). This is an important distinction for this research. All members of an organization have limited time to invest in various activities on a day-to-day basis. How do managers decide how to invest this time? LMX theory states that leaders make the choice, maybe even unconsciously, to invest their time and energy in developing higher-quality relations with some employees and not with others (Erdogan & Bauer, 2014). This section will review the literature on LMX by exploring three key aspects of LMX in relation to this study. First, a general overview of LMX theory will be provided. Second, the relationship between trust building and LMX will be reviewed. Then, the relationship between transactional and transformational leadership and LMX will be explored. Finally, the measures of LMX will be reviewed.

LMX Theory Overview

Until the development of the vertical dyad linkage (VDL) approach, traditional leadership theory was based on two assumptions (Dansereau, et al., 1975). First, employees reporting to the same manager were relatively the same regarding their opinions and could be considered a single unit. Second, the employees' managers acted in the same way as each employee. Dansereau et al. (1975) proposed that managers develop different relations with each employee, and this relationship-building was based on the role-building between the manager and employee over time. The term LMX was first mentioned in 1975 by Graen and Cashman. This began the transition to the use of LMX. While VDL focused on the didactic relation between a leader and a member, LMX has taken on a broader context encompassing manager-employee relations (Liden, et al., 2015). LMX has come to include not just the transactions of manager and employee, but to encompass the complete relationship and how the relationship was integrated into the employees' job role and the organization (Liden et al., 2015).

In the last decade, many researchers have made the case for a structured approach to theory development and research design in the social sciences and other applied disciplines (Nimon, 2011; Nimon & Astakhova, 2015; Swanson & Chermack, 2013). There have been several critiques of LMX theory, which suffers from a lack of rigorous theory and measurement development. Dulebohn, et al., (2012) in their meta-analytical study of the antecedents and consequences of LMX summarize both conceptual and measurement development concerns. Conceptually, the theories of LMX and transformational leadership are distinct, however, due to the nature of the instruments primarily used in LMX research, they appear to be empirically similar (Dulebohn et al., 2012). Dulebohn et al. (2012) and others contend this could be due to the LMX-7, a dominant LMX measurement instrument, “is not based on the conceptualization of social exchange” defined by Blau (1964) (Bernerth, et al., 2007, p.983). The consequence of this is that the scales used to measure LMX and transformational leadership appear more similar empirically than they really are conceptual (Dulebohn et al., 2012, p. 1739). This concern is a clear example of the need for rigorous theory development, as espoused by Swanson and Chermack (2013). If caution is not taken to follow a methodology for theory development such as the four-phase process of conceptualizing, operationalizing, confirming, and applying defined by Swanson and Chermack (2013), then the researcher runs the risk of mistaking empirical similarity for conceptual similarity, potentially leading to false conclusions of causality if not at least correlation.

Leader behavior is important and explains more of the variance of the quality of the manager-employee relationship (LMX) than the member’s (employees) behaviors (Dulebohn et al., 2012). A manager’s use of expectation setting, transformational leadership skills, and rewarding behaviors resulted in higher quality LMX (Dulebohn et al., 2012). However, Dulebohn et al. (2012) also found that the relationship quality had an even more profound relation to higher LMX than any specific behaviors of the manager/leader. Other leader variables, such as extroversion and agreeableness, were factors that we also related to stronger LMX relationships (Dulebohn et al., 2012; Nahrgang, et al., 2009). Building a strong relationship, regardless of the method, leadership style, or behavior, appears to be critical to building high-quality LMX. Mechanisms and situations to create these strong relationships would, therefore, be important to investigate.

The quality of LMX relationships is also influenced by broader organizational structural factors, interpersonal co-worker interactions, and the leader's level in the organization (Day & Miscenko, 2015). Items found to have a positive relationship with quality LMX relationships include learning organizational culture and perceived organizational support (POS) (Day & Miscenko, 2015; Erdogan & Enders, 2007; Joo & Ready, 2012). In organizational cultures where personal respect was valued over aggressiveness, the relation of LMX relations to work-related outcomes (Day & Miscenko, 2015; Erdogan, et al., 2006). Sparrowe and Liden (1997) found a leader's level (centrality) related to higher quality LMX relations due to the leader's ability to connect the employee to the larger organizational network (Day & Miscenko, 2015). In summary, there are additional factors beyond the didactic relation of the leader (manager) and member (employee), which have an effect on the quality of their LMX relationship (Day & Miscenko, 2015).

LMX Theory and Trust

Interpersonal trust has been defined as "an expectancy held by an individual or a group that the word, promise, verbal, or written statement of another individual or group can be relied on" (Rotter, 1971, p. 444). In the most cited work on the topic of LMX (Day & Miscenko, 2015), Graen and Uhl-Bien (1995) theorized trust was one of the three dimensions of LMX, along with respect and obligation. They concluded that the items are highly correlated and should be combined into one measure and not separated out into measurable dimensions (Graen et al., 1995). Regardless of this, it highlights the prominent position trust takes in the LMX literature.

Brower, et al. (2002) proposed the need to integrate trust research with LMX. The researchers contend that this integration strengthens LMX theory while maintaining the exchange and relation aspects of LMX (Brower et al., 2002). Brower et al. (2002) propose using

LMX to explore further leader trust in subordinates and subordinate trust in leaders. Without providing empirical evidence, Brower et al. (2002) contend that the empirical results of LMX studies are more consistent with trust theory than with LMX theory. An obviously provocative statement, this is an interesting conclusion, to say the least. It is not an unbelievable statement either in light of a meta-analysis conducted by Martin, Guillaume, Thomas, Lee, & Epitropaki (2015).

Martin et al. (2015) put the equally bold statement “trust is at the heart of the LMX construct as LMX has been defined as a trust-building process” (p. 73). The authors explored the relationship between LMX quality and performance and found that trust had the largest mediating effect among several other factors (Martin et al., 2015). Regarding the development of organizational citizenship behaviors, Deluga (1994) it was found that perceived fairness was the primary behavior in building supervisor trust. It is apparent from the literature that trust plays an important role in LMX theory and the building of higher-quality LMX relationships.

LMX and Engagement

Given that leader behavior (Dulebohn et al., 2012), individual relations between manager and employee (Dulebohn et al., 2012), and the trust relationship (Martin et al., 2015) are central to developing strong LMX relationships and engagement is characterized by vigor, dedication, and absorption, what is the nature of the relation of LMX to engagement? Agarwal, Datta, Blake-Beard, & Bhargava (2012) hypothesized “LMX correlates positively with work engagement”. Using cross-sectional survey research methods of 979 Indian managerial employees and structural equation modeling (SEM) to analyze the results, Agarwal et al. (2012) found there was a direct relation between LMX and work engagement. The authors found that job resources, such as manager support, built employee engagement and were related to improved employee outcomes (Agarwal et al., 2012). If this insight is provided, an obvious question would be, what methods can a manager use to support and develop positive relations with an employee? This study suggests a one-on-one meeting between the manager and employee is one such method.

The literature reviewed for this section discussed the clear relationship between LMX and engagement established by previous research. As reviewed, Breevaart, et al. (2015) found a direct and mediated relationship, between LMX and employee engagement. Agarwal, et al. (2012) found that higher quality exchanges between managers and employees led to higher levels of engagement. As previously discussed, employees perceive meetings that have a structured agenda, time management, and achieve results, improve are related to engagement and leader-member relationships (Allen et al., 2012; Allen & Rogelberg, 2013; Nixon & Littlepage, 1992; Probst, 2005; Yoerger et al., 2015).

One-on-one meetings and LMX

As noted previously in this chapter, the scales used to measure LMX and transformational leadership can result in data that appear closer than one would believe them to be conceptual (Dulebohn et al., 2012). An additional concern has been using composite measure of transformational leadership and not separating the transformational leadership scale into its components. At least one research study (Deluga, 1992) has shown while individualized consideration, idealized influence, and relations-oriented aspects of transformational leadership are related to LMX, inspirational motivation, intellectual stimulation, and change-oriented aspects are not related (Dulebohn et al., 2012, p.1738). Meetings have been shown as one mechanism transformational leaders use to develop stronger relationships with their employees.

A search of the literature for manager–employee one-on-one meetings resulted in limited scholarly items. The keywords were modified to manager–employee meetings, resulting in an increase in the number of items. Meetings are a primary method managers use to communicate with employees (Allen & Rogelberg, 2013). Allen and Rogelberg (2013) explored manager-led group meetings and employee engagement. Using the Schaufeli et al., (2002) definition of engagement, Allen & Rogelberg (2013) found when managers conduct group-led meetings, keep meetings relevant to employee interest, provide opportunities for employees to express their opinions, and conduct meetings in a time-efficient way, employees are more engaged. Similarly, Nixon and Littlepage (1992) it was found, among other items, that temporal integrity, open communication, and agenda integrity led to more effective meetings as measured by goal attainment and decision satisfaction.

Having psychological meaningfulness, safety, and availability is critical to establishing manager-employee relationships and employee engagement. Both Allen and Rogelberg (2013) and Nixon and Littlepage (1992) found that the ability of managers and employees to have open communication was important to building psychological safety and group performance. Swanson and Holton (2009) contend psychological theory is one of the "three legs" or components of HRD theory. Specifically, Gestalt, behavioral, and cognitive psychological theories provide structure, knowledge, and expertise and harmonize the goals and behaviors of managers and employees in organizations (Swanson & Holton, 2009, p. 107). Kahn's (1990) foundational work in employee engagement established psychological meaningfulness, safety, and availability as factors of employee engagement. For employees to think, feel, and act engaged, the ability to build high-quality relationships is a critical factor.

The way meetings are structured was also found to be critical to employees' ability to engage with teams, managers, and their organization. Allen and Rogelber (2009) found meeting relevance was related to psychological meaningfulness. Managers who ensured meetings were run in an organized manner and were related to employees and organizational goals helped employees feel more engaged. Meeting agendas were one manner used to help ensure meetings were run in an organized manner. Meeting effectiveness is improved by consistently using an agenda (Allen et al., 2012; Allen & Rogelberg, 2013; Nixon & Littlepage, 1992).

The number of meetings employees participate in is also important to how they feel about their jobs. In one study, 10 percent of employees having more meetings helped them feel better about their jobs, while 30 percent felt more meetings made them feel worse about their jobs (Allen et al., 2012). Among those who felt more meetings helped them in their roles, the ability to communicate and share information was the primary reason for feeling better about having more meetings. For those who indicated more meetings made them feel worse, the primary reason was related to a concern for time. Specifically, meetings were taking away time from other job-related items and tasks, further supporting the need for managers to take action, like setting agendas and ensuring open communication, to ensure employees see value in meetings (Allen et al., 2012).

In contrast, Yoerger et al. (2015) regarding perceived decision-making, found that meeting workload moderated employee engagement. For some employees, fewer meetings led to lower engagement. Yoerger et al. (2015) reasoned this was due to fewer opportunities to interact with their manager.

Time in meetings is related to employee job attitudes and how employees perceive managers to show respect for them. Employees spend close to six hours a week in meetings and managers spend close to seven hours a week in pre-scheduled meetings (Rogelberg, et al., 2006). Allen and Rogelberg (2013) found that managers who start and end meetings on time and use meeting time effectively build psychological meaningfulness in their employees (Kahn, 1990).

Meetings that start and end on time also build trust (Rao, 2017). Employees appear concerned that their time is being used wisely and constructively. Managers should be thoughtful regarding time and meeting management.

The outcome of meetings is related to how employees perceive meeting effectiveness. Perceived decision-making (PMD) in meetings has been defined as the "degree to which employees are allowed or encouraged to share their thoughts, feelings, and ideas in the formal meeting setting." Yoerger et al. (2015) found when employees feel they have been heard and have the support of their supervisor, the relationship between PMD and employee engagement is stronger. Meeting effectiveness can also serve as a buffer to meeting overload (Rogelberg et al., 2006). Allen et al. (2012) found employees looked forward to meetings when they were productive. Employees perceive meetings to be effective when meetings result in clear outcomes, decisions have been made, and their voices have been heard.

LMX Measure

This section will review the various measures which have been used to measure LMX. Specific aspects of the LMX measures are reviewed in some detail due to the nature of the historical development of the measure and criticisms of the scales' origins. The review begins with a comparison of LMX and VDL.

Given the broader scope of LMX versus VDL, measures of LMX began to differ significantly from those of VDL. VDL remains a separate construct conceptually from LMX, with VDL concentrating on negotiating latitude and delegation and LMX concentrating on a multilevel approach related to relationship quality, including the factors of "competence, interpersonal skill, trust (Graen, 1976), attention, sensitivity (Cashman, et al., 1976), support reward, and satisfaction with the leader (Graen & Ginsburgh, 1977)" (Liden et al., 2015). The initial VDL measurement instrument was 2 questions in length and was focused on how a manager "negotiated latitudes" with the employee (Dansereau et al., 1975; Liden et al., 2015). Two items were added which explored loyalty and dedication of the employee to the relationship (Liden et al., 2015). In 1978, while changing the name to LMX the question of the instrument contained the same questions as the 4-question VDL measure (Liden et al., 2015).

Over the next 10 years, instruments of varying length, content, and scales were deployed, all primarily exploring the aspects of LMX. Additionally, the scale used with these instruments varied using different scale measures among the items and not the same Likert scale across the instrument items. Adding to this complexity, the instrument's LMX score was reported as a difference between an individual's score and the average LMX score across the associated workgroup and not the traditional method of averaging all the LMX items scores (Liden et al., 2015). In summary, the early VDL and LMX scales lacked the desired scale development rigor used in many modern scale and theory development processes. The implications of this are the use of a measure of LMX over the course of decades in which proper psychometric analysis was not conducted or provided by researchers. However, in 1998, Liden and Maslyn introduced a scale developed using rigorous scale development processes (Liden et al., 2015).

The two most widely used instruments to measure LMX have been the LMX-7 and the LMX-MDM. The LMX-7, developed by Graen and Uhl-Bien (1995), was a refinement of the LMX-12 which traces its origins to the VDL (Liden et al., 2015). While the VDL four-item measure by Graen and Cashman (1975) provided psychometric analysis, the LMX-7 does not and therefore is not grounded in established theory and instrument-building methods (DeVillis, 1991; Hinkin, 1995; Liden & Maslyn, 1998; Swanson & Chermack, 2013). With this issue clearly in mind, Liden and Maslyn (1998) developed the LMX-MDM using rigorous and proven methods for instrument development (Liden & Maslyn, 1998). The LMX-MDM (multidimensional measure) has four dimensions: affect, loyalty, contribution, and professional respect (Liden & Maslyn, 1998).

Following the scale development approach defined by DeVillis (1991) and Hinkin (1995) Liden and Maslyn (1998) generated items, conducted content validation, tested (and retested) the items generated, and then provided the psychometric data associated with the accepted practices for scale development. The initial item generation included a review of the current and historic LMX literature and from subject matter experts. These items were refined, and content validation was conducted in two phases. The resulting 31 items were tested and retested over time with a well-defined population. Other measures were administered to the population to test for convergent and discriminate validity. Finally, the results were analyzed in five phases, resulting in 12 questions that fell into the four dimensions of affect, loyalty, contribution, and professional respect (Liden & Maslyn, 1998). Additional details regarding the scale development and results of the psychometric tests are provided in chapter three.

Although Liden and Maslyn (1998) followed the rigorous path of scale development, some criticism remains. The LMX-7 and LMX-MDM have been found to be highly correlated and appear to perform similarly when exploring the antecedents and consequences of LMX (Liden et al., 2015). Additionally, while the multidimensional nature of the LMX-MDM provides certain advantages to the research when exploring the construct’s antecedents and consequences, Liden and Maslyn (1998) found there was limited distinction when the four dimensions of the LMX-MDM were loaded into one factor and then compared to the LMX-7. Additional criticism of the LMX-MDM and the LMX-7 is the concern that the instruments do not measure exchanges between leaders and members but rather the perceptions of the dimensions of the scale (Liden &

Maslyn, 1998). Liden and Maslyn (1998) recognize this weakness and propose future research to develop a scale and enhancement of the LMX-MDM that would incorporate the nature of the exchanges between leaders and members. Taken in total, the longevity of the LMX construct, the continued and increasing interest in the topic, and the creation and deployment of a psychometrically sound measure (LMX-MDM) cements the theory of LMX and provides the social sciences a sound theory to explore the nature of the relations between managers and employees.

Given the above review of the relevant literature, the following hypotheses related to transformational leadership for this study are proposed.

Hypothesis 2a: LMX relationships will have a significant positive relationship to work engagement.

Hypothesis 2b: LMX relationships will have a significant positive relationship to organizational readiness for change.

Hypothesis 2c: The relationship between transformational leadership and organizational readiness for change will be mediated by LMX relationships.

Engagement

As Chapter One notes, engagement is still a relatively new topic in the social sciences and human resource development. This challenges researchers as they develop, plan, and conduct research into the field. Specifically, is the topic of engagement, and work engagement in particular, a separate construct, or is it just old wine in new bottles (Macey & Schneider, 2008)? This section of the literature review helps to inform this research study by establishing the framework for the research questions and hypothesis related to work engagement specifically and the topic of engagement in general. The following topics and related constructs will be discussed. First, an overall view of engagement will be provided, as well as a historical framework for the section. Second, the topic of work engagement will be discussed and contrasted with the general engagement topic. Next, organizational and job engagement will be compared and contrasted with other forms of engagement. Fourth, the nature of state versus trait engagement will be discussed. Finally, the related constructs of job satisfaction and job-demand resources will be reviewed to provide the context for the leader-member relationship.

Introduction to Engagement

The foundation of engagement study can trace its roots back to an ethnographic / epically study by William Kahn in 1990. Kahn (1990) defined personal engagement “as the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (p. 694). As of this writing, Google Scholar notes nearly 7,000 citations of his work. This researcher believes is for good reason. Over the last nearly three decades, many practitioners and scholars have offered their own definition of engagement in the workplace, but all scholarly works always come back to or start with this foundational work because of its simplicity, logic, and accessibility. This chapter section provides an overview of engagement, related constructs, and definitions of engagement relevant to this study.

While often cited but rarely even in the several inclusive and exhaustive integrated literature reviews on engagement gone into detail to review Kahn’s initial study, an exception being Shuck’s 2011 integrative literature review. The first characteristic often overlooked is that Kahn’s 1990 study was primarily ethnographic in nature. Most studies conducted on the topic of engagement over the last 25 years have been strictly empirical in nature (add #’s and references). Shuck (2011) notes the “wide net” Kahn (1990) cast in the inclusion of sources to inform his research ranging from Freud (1922) to Maslow (1970) and beyond. The inclusion of relevant scholarly references supported his observations and conclusions.

Those conclusions are the desire of employees to bring their whole selves to their jobs, a desire to express their “preferred self”, and a desire to engage in physical, emotional, and cognitive ways in their work as it relates to meaningfulness, safety, and availability (Kahn, 1990; Rich et al 2010, Shuck 2011). While empirical research has gone on to substantiate the premise and framework established by Kahn (May. Gibson, and Harter, 2004; Rich, et al., 2010; Shuck, 2010) the narrative nature of Kahn’s 1990 research fit the needs of the topic at the time. Shuck (2011) commented on the return of some to the theoretical framework established by Kahn, that of the internal state employee engagement being affected by external resources. An argument could also be made for a return to the mixed methods, empirical and ethnographic, used by Kahn as a preferred method to study engagement. Additionally, the thoughtful nature of the structure, execution, and recognition of limitations and weaknesses of the study served as an inspiration to a generation of researchers on this topic.

Kahn’s (1990) model aligns with the positive psychological approach taken by many human resource organizations and the interventions, such as manager-employee one-on-one meetings, which is the intervention examined in this study. Saks and Gruman (2014) noted that the JD-R model, while widely researched, only indicates that job resources will provide for phycological conditions related to a job, but the JD-R model does not provide a theoretical foundation. Thus, this study, used Kahn’s 1990 theoretical work as the basis of the study and has informed the instruments used to measure the effects of manager and employee one-on-one meetings on employee engagement.

The remainder of this chapter will focus on different perspectives of engagement relevant to this study. In a review of the varied definitions of engagement, keywords in groups of three appear frequently in the literature. It is curious that so many researchers have followed this pattern. It is a possibility that researchers patterned this from Kahn's (1990). See Table 2 for a review of the keywords used in the descriptions of engagement from various engagement researchers.

Table 2
Key words of engagement definitions from various authors of engagement

Author	**Key Words**		
Kahn (1990)	Meaning	Safety	Availability
Kahn (1990)	Physically	Cognatively	Emotionaly
Mastich, Schafeli, Leiter (2001)	Energy	Involvement	Efficacy
Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002)	Vigor	Dedication	Absorption
May, Schneider (2008)	Energy	Focused effort	Enthusiasm
Harter, Schmidt, Hayes (2002)	Involvement	Satisfaction	Enthusiasm
Shuck, Wollard (2010)	Behavioral	Cognative	Emotional
Macleod and Clarke (2009)	Organization's goals and values	Organizational success	Onhance own sense of well-being
Christian, Garza, and Slaughter (2011)	Physical energies	Cognitive energies	Emotional energies
Rich, Lepine, Crawford (2010)	Hands	Head	Heart

Shuck (2011) offered a coherent and integrated literature review and presented four approaches to the employee engagement landscape. The four approaches are "(a) Kahn's (1990) need-satisfying approach, (b) Maslach et al.'s (2001) burnout-antithesis approach, (c) Harter et al.'s (2002) satisfaction-engagement approach, and (d) Saks's (2006) multidimensional approach" (Shuck, 20110). A debate continues in the scholarly and practitioner worlds on the more accepted approach and the strengths and weaknesses of each approach (Newman, et al., 2010; Shuck, 2011). However, Shuck (2011) offers practical advice, when choosing an approach, "…researcher should ask, 'what question about engagement am I hoping to answer?".

Work Engagement

One of the most cited definitions of engagement by Maslach, et al. (2001) depict engagement having three aspects; energy, involvement, and efficacy (Byrne et al., 2014). Maslach et al. are often cited as the first to expand on Kahn's (1990) initial research into engagement. The research explored employee engagement as the antithesis of burnout, three dimensions of exhaustion, cynicism, and inefficacy (Maslach et al., 2001). They proposed that engagement was the opposite of burnout in which "energy turns into exhaustion, involvement turns into cynicism, and efficacy turns into ineffectiveness" (Maslach et al., 2001, p. 416). As such, the instrument to measure burnout, the Maslach Burnout Inventory (MBI), was thought to and later shown to measure engagement (Maslach & Leiter 1997). A positive psychology approach was used, built upon the work of Maslach et al. (2001), to develop a refined definition of engagement and a new measuring instrument, the UWES (Schaufeli et al., 2002).

Leveraging the work of both Kahn (1990) and Maslach et al. (1997, 2001), Schaufeli et al., (2002) they defined engagement as "a positive, fulfilling, work-related state of mind characterized by vigor, dedication, and absorption" (p. 74). Vigor is the capacity of an individual to display high levels of energy and mental resilience even in the face of challenges (Schaufeli et al., 2002).

Dedication is "characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge" (Schaufeli et al., 2002, p. 74). Absorption is defined as being fully engrossed and dedicated to the work when time passes without noticing, and individuals do not know when to stop working (Schaufeli et al., 2002). Here Schaufeli et al., (2002), refer to engagement as work engagement. As noted, before, there has been much debate from the scholarly perspective on the most appropriate definition of employee engagement. A notable recent effort to develop a unified definition of employee engagement came from Byrne et al. (2014, p .15). They defined employee engagement as:

> Employee engagement refers to a state of motivation, wherein one is psychologically present (i.e., in the moment) and psychophysiologically aroused, is focused on and aligned with the goals of the job and organization, and channels his or her emotional and cognitive self to transform work into meaningful and purposeful accomplishment.

Byrne et al (2014) offered the following rationale for the advantages of developing a unified definition. One, specific to the previous definitions provided by Kahn (1990) and Maslach et al. (2001), Schaufeli et al., (2002) creating a unified definition links the similarities of the different definitions with similar language. Two, a unified definition helps link the shared constructs across the definitions and separates the combined concept from other constructs. Third, it can help identify key concepts of the nature and science of the construct. Fourth, supports the definition of antecedents and consequences of the construct (Byrne et al., 2014).

The criticism of the Maslach et al. (2001) and definitions and measures have been they disregard the importance of the cognitive engagement aspects of Kahn’s (1990) definition Schaufeli et al., (2002). Additionally, Byrne et al. contend what makes Kahn’s definition different is the inclusion of the moment-to-moment aspect of engagement. Byrne et al. also preferred the multidimensionality of both Kahn's (1990) Schaufeli et al., (2002) definitions. The most recent unified definition to be proposed was by (Shuck et al., 2017). They defined employee engagement “as an active, work-related positive psychological state… operationalized by the intensity and direction of cognitive, emotional, and behavioral energy” (Shuck et al., 2017, p. 954). Similarities of the unified definitions proposed by Byrne et al. (2014) and Shuck et al. (2017) include an active psychological and physiological state of work and result in positive outcomes. The differences include the moment-to-moment state (Byrne et al., 2014), lacking in

Shuck et al.'s (2017) definition. Byrne et al. (2014) also define the outcomes are directed at the job and organizational goals, whereas Shuck et al. (2017) do not specify the outcome directions.

Organizational and Job Engagement

What actions can be taken to build engagement? What are the consequences of engagement? These were the questions Saks (2006) set out to examine through research on job and organizational engagement. Saks (2006) based his definition of job and organizational engagement items on social exchange theory. Social exchange theory states relationships between two individuals develop over time and the strength of the relationship develops as commitments are exchanged (Saks, 2006). Saks (2006, p. 603) contended that employees repay their organizations through their levels of engagement. The more resources an employee receives from the organization, the more obliged they feel to repay the organization through job and organizational engagement (Saks, 2006). Saks (2006) suggested one implication for practice would be for managers to understand the importance of social exchange and identify what resources and benefits would create a greater sense of obligation to, in turn, repay the organization with job and organizational engagement. However, the study's results did not indicate a relationship between supervisor support and job nor organizational engagement (-.05 and -.03 respectively). Another observation of Saks' (2006) study is the lack of complete discussion on the outcome of the results and whether the data support the hypothesis. One is left to make one's own conclusions, and only the positive results are discussed at any length.

These criticisms aside, Saks' (2006) work provided a foundation for many others to build upon and the model has provided a framework for the development of related models of the need for employee engagement antecedents (Shuck, 2011). Britt, et al. (2005), (Rich, et al., 2010) and (Macey & Schneider, 2008) found when employees have physical, emotional, and psychological resources job and organizational engagement improve (Shuck, 2011). The job-demands resources (JD-R) model, initially proposed (Demerouti, et al., 2001) in its relation to burnout, while being criticized for not integrating Kahn's (1990) theory into the model (Saks & Gruman, 2014), does provide a solid framework for understanding how the demands and resources of the job are related to engagement.

Job Demand-Resources

Job demands are "those physical, social, or organizational aspects of the job that require sustained physical or mental effort and are therefore associated with certain physiological and psychological costs" (Demerouti et al., 2001, p. 501). Job resources are "those physical, psychological, social, or organizational aspects of the job that may do any of the following: (a) be functional in achieving work goals; (b) reduce job demands at the associated physiological and psychological costs; (c) stimulate personal growth and development" (Demerouti et al., 2001, p. 501). The full text of these definitions from the initial study in which they were defined to provide context for the discussion. Namely, some criticism has been made that the JD-R model does not integrate Kahn's (1990) theory. On the contrary, looking at the primary tenants of Khan's theory, which includes "…people employ and express themselves physically, cognitively, and emotionally during role performances" (Kahn, 1990, p. 694), all aspects of Kahn's theory appear to be included.

Job resources can include feedback, support from a manager, role organization, autonomy, and performance feedback (Bakker & Demerouti, 2007). Examples of job demands are physical and mental effort over a period of time (Bakker & Demerouti, 2007). While not necessarily negative in nature, Bakker and Demerouti (2007) note they may turn into "stressors" and not allow the employee to fully recover, thereby increasing the demands on that employee.

Bakker & Demerouti (2007) found that job resources "buffer" job demands and lessen the impact of job strain and burnout. Again, some criticism (Saks & Gruman, 2014) of the model and the buffering effect is the relation of this finding to burnout and not initially to engagement. However, Crawford, et al. (2010) the relation between engagement and demands to be dependent upon the type of demand, and the relationship between resources and engagement was consistently positive. Demands evaluated as "hindrances," such as emotional conflict, organizational politics, and resource inadequacies, were found to have a negative relationship with engagement. Meanwhile, "challenge" demands such as time urgency and job responsibility demands were found to be positively related (Crawford et al., 2010). In summary, research has shown that job resources and demands, like leadership, can be situational and dependent on the type of resource and demand, which can have a positive or negative relationship with engagement.

Job satisfaction, organizational commitment, and job involvement and engagement

In support of the distinction between other constructs and engagement, the following review of job attitudes as researched by Christian et al. (2011) is provided. Defined as a "positive evaluative judgment one makes about one's job or job situation" (Weiss, 2002, p. 175), job satisfaction has been found to be a distinct construct from engagement. Job satisfaction has been described as a condition or characteristic of the job as compared to engagement, which can be described as an employee's experience of work (Christian et al., 2011, p. 97). Job satisfaction in this way is an attribute of the job role along with organizational commitment and job involvement (Christian et al., 2011).

Organizational commitment is the emotions one has related to the organization and is differentiated from engagement in two ways (Christian et al., 2011). One, organizational commitment refers to one's attachment to the values of an organization (Brooke, et al., 1988) whereas work engagement refers to the specific work itself. Second, Macey & Schneider, (2008) suggested organizational commitment is a facet of engagement and not representative of the entire construct (Christian et al., 2011). Job involvement is a "cognitive or belief state of psychological identification" (Kanungo 1982, p. 342), and, like organizational commitment, is considered to be a facet of engagement (Christian et al., 2011). The second way in which job involvement differs from engagement is related to the specificity of the terms. Job involvement helps define how the employee identifies personally with the job as a whole and not to the specific work or work tasks as in work engagement (Christian et al., 2011). The outcome of the discriminant validity test showed there was distinct validity between job attitudes (job satisfaction $M\rho = .53$, organizational commitment $M\rho = .59$, and job involvement $M\rho = .52$) and engagement.

Engagement antecedents and state vs. trait nature of engagement

Kahn's position is central to the differentiation of the state vs. trait nature of engagement, which is that engagement is a "moment-to-moment" experience (Byrne et al., 2014). Saks (2006) found that job characteristics were positively related to job engagement, perceived organization support (POS) was positively related to both job and organization engagement, and perceptions of procedural justice were positively related to job engagement. Engagement is state-like, but antecedents of engagement are trait-like (Saks, 2006). If engagement is state-like, then the measurement of it has different consequences.

How does the leader-employee relationship affect the state-like nature of employee engagement, and specifically, how does the manager/leader-employee one-on-one meeting affect employee engagement? Soane as noted in Truss, et al. (2013, p. 423), "Leaders have a key role in increasing the frequency and intensity of positive affective experiences”. She elaborated that one way in which leaders can do this is through individual-level interaction. Frequency and intensity are two key aspects of this study. What is the frequency with which managers and employees interact through one-on-one meetings?

Soane as noted in Truss, et al. (2013, p. 423) referred to increasing the intensity of interactions between leaders and employees as well. “One way leaders can do so is through individual-level interactions that focus on shaping emotional tone and affective responses to situations. One-on-one interaction between managers and employees is one such example. To what extent can leaders influence engagement through the intensity of their interactions with their employees?

One-on-one Meetings and Engagement

The literature review showed that meetings are an important tool managers use to create psychological safety (Rogelberg, 2013; Nixon & Littlepage, 1992). Meeting structure, effective time management, and a results orientation were identified as items employees felt were critical to meeting success (Allen et al., 2012; Allen & Rogelberg, 2013; Nixon & Littlepage, 1992; Probst, 2005; Yoerger, et al., 2015). Kahn (1990) defined personal engagement “as the harnessing of organization members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances” (p. 694). This research explored the relationship between tools managers use to create psychological safety and the relationship to cognitive and emotional aspects of engagement.

Based on these examples and others, the following research questions and hypotheses were developed:

*Hypothesis 3***:** Work engagement will have a significant positive relationship to organizational readiness for change.

Hypothesis 4a: The relationship between transformational leadership and organizational readiness for change will be mediated by LMX relationships.

Hypothesis 4b: The relationship between transformational leadership and organizational readiness for change will be mediated by work engagement.

Conclusion

In summary, the literature related to the variables of this study was reviewed to provide context for the study and a framework for the research question and study hypothesis. The review was conducted using modern research tools and well-used methods for the synthesis and integration of the literature reviewed. The literature on the topics of M&A and change and organizational readiness for change were reviewed and provided the general context and purpose of the current study. The literature on the theories of transformational leadership, LMX, and work engagement were then reviewed to provide the framework for the study and explore the relationships among the topics, as outlined in the model for the study as depicted in Figure 1. Based on the integrated review of the interrelationships of the topics, hypotheses were proposed.

CHAPTER THREE: METHODOLOGY

This chapter provides the methods and methodology used to explore the nature of the relationship between transformational leadership and organizational readiness for change. First, the purpose of the study is restated along with the research questions and hypothesis. Next, the research design and the population and sampling methods are presented. Finally, the instruments and measures used, data collection, analysis, and limitations are provided.

Purpose of the Study

This research explored the relationship of transformational leadership, LMX, work engagement and organizational readiness for change. Guided by Nimon and Astakhova (2015, p. 243), the research looked to answer "important 'what works" questions". Specifically, what is the relation of transformational leadership and organizational readiness for change? What are the processes by which leaders develop different relationships with employees and, subsequently, work engagement to influence positively? This chapter presents the research question and research hypothesis, provides an overview of the research design and philosophy, discusses the sample population and instruments used, and the data collection and analysis methods used in this study.

Research Question

1. What is the relationship between transformational leadership and organizational readiness for change as mediated by LMX and work engagement?

Research Hypotheses

Hypothesis 1a: Transformational leadership practices will have a significant positive relation to organizational readiness for change.

Hypothesis 1b: Transformational leadership practices will have a significant positive relationship to LMX relationships.

Hypothesis 1c: Transformational leadership practices will have a significant positive relation to work engagement.

Hypothesis 2a: LMX relationships will have a significant positive relationship to work engagement.

Hypothesis 2b: LMX relationships will have a significant positive relationship to organizational readiness for change.

Hypothesis 3: Work engagement will have a significant positive relationship to organizational readiness for change.

Hypothesis 4a: The relationship between transformational leadership and organizational readiness for change will be mediated by LMX relationships.

Hypothesis 4b: The relationship between transformational leadership and organizational readiness for change will be mediated by work engagement.

Figure 4 provides a depiction of the proposed hypothesis of this research. Nimon and Astakhova (2015) recommended selecting mediators that are conceptually linked. Based on research and literature presented in chapter two, LMX and work engagement were selected as the mediating variables.

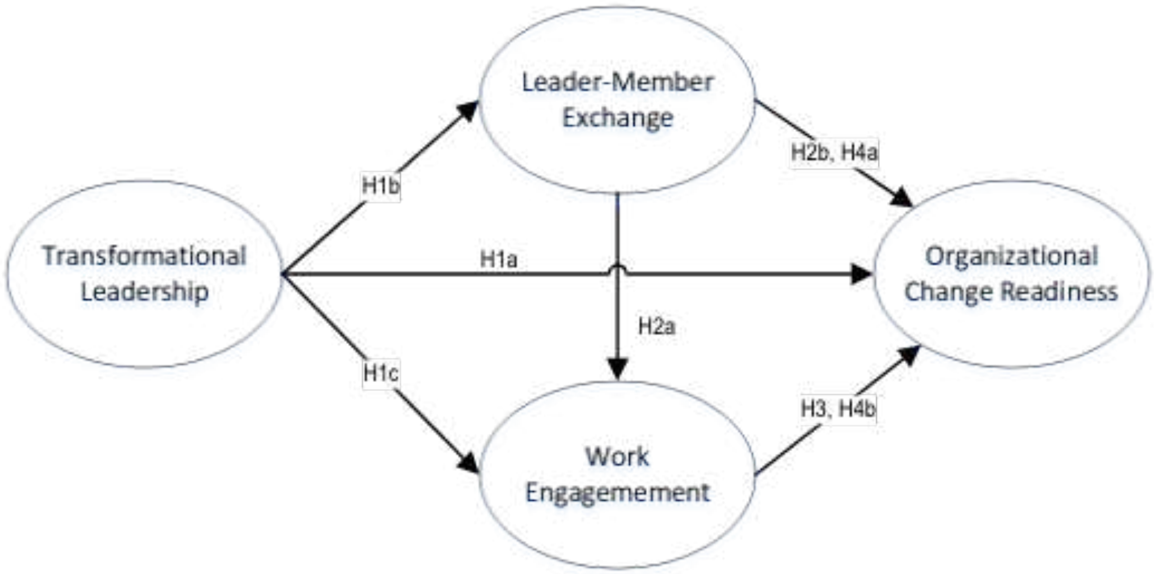

Figure 4
Relationship between transformational leadership and organizational change readiness as mediated by LMX and work engagement.

Research Design

The design of this research was non-experimental, inferential, cross-sectional survey research. This section provides an overview of the general research design and justifies the choices. Non-experimental research often takes the form of surveys in the social sciences (Dilman, et al., 2009). An electronic survey was chosen for this study to allow for the study of many participants and to facilitate data analysis from the population. The survey was distributed via email to the population sampled. Email was selected over paper and traditional mail service distribution to improve the response rate (Dillman, et al., 2009). Descriptive research seeks "to describe systematically and accurately the facts and characteristics of a given population or area of interest" (Dulock, 1993, p. 154). This definition of descriptive research fits well with the objective of this study, which is to understand the relation of transformational leadership, LMX, work engagement, and organizational readiness for change in the context of merger and acquisition activity. The cross-sectional survey research design was selected based on the size of the population being studied and the desire to understand the relation of the variables at the point of merger/acquisition of the two companies in the study (Roberts, 2010).

The following latent variables were measured: transformational leadership, LMX, work engagement, and organizational readiness for change. Transformational leadership was measured using the seven-item Global Transformational Leadership (GTL) scale (Carless, Wearing, & Mann, 2000). The quality of LMX relationships was measured through the administration of the 12-question LMX-MDM survey (Liden & Maslyn, 1998). Work engagement was measured through the administration of the 9-question UWES-9 (Schaufeli et al., 2002). Organizational readiness for change was measured using the 14-question OCQ-R (Bouckenooghe et al., 2009). Demographic data were gathered to allow for appropriate data analysis.

Population and Sample

The following section discusses the population of this research, the sample, the procedures used, external validity, and the pilot study that was conducted.

Population

In 2018, there were over 50,000 M&A activities affecting worldwide, potentially millions of employees and managers alike (Brownstein et al., n.d.). For this study, the population were the employees of a division of bio-pharmaceutical company located in the Pacific Northwest of the United States. Personnel at all levels and job roles of the organization were included. The population was 1,145 for this study.

Sampling Procedures

The population was a biopharmaceutical company in the Pacific Northwest of the United States. The population was 1,145 employees, and the entire workforce was covered. The total number of the population was determined by the number of email addresses in the email distribution list used. The sample population was located primarily in two sites 21 miles apart. No employees were intentionally excluded from the sample population. The rationale for including all employees at all levels of the organization was to obtain as diverse a sample as possible. Diversity in levels of the organization was desired to understand the relation of organizational readiness for change to levels within the organization.

Additionally, given the data analysis methods to be used, including SEM, a higher number of responses was preferred. SEM was used to analyze the survey data. Kline (2016) , in his seminal book on SEM, suggests a ratio of 20:1. Therefore, for a sample size of 1,000, greater than 200 is preferred, 100 to 200 is not ideal, and less than 100 is not trustworthy. To maximize the number of samples, results from the survey where not all questions were answered were used. Therefore, the sample size for this study was 145 responses, which were obtained and used in the initial data analysis, and 124 complete responses of which were obtained and used for the modified data analysis.

Demographics

Demographic data was collected; see Appendix A for questions presented. SPSS software was used to analyze the demographic data. Table 3 presents the demographics of the study.

Table 3
Demographics

Characteristics		N	%.
Gender	Male	44	30
	Female	79	55
	Non-binary, gender-fluid, agender	2	1
	Missing	17	12
Age	18-24	7	5
	25-34	49	34

Characteristics		N	%.
	35-44	32	22
	45-54	31	21
	55-64	8	6
	Missing	18	12

Professional Characteristics

Professional characteristics data were collected; see Appendix A for questions presented. SPSS software was used to analyze the data. Table 4 presents the professional characteristics of the study population.

Table 4
Professional Characteristics

Characteristics		N	%.
Education	High school graduate	1	1
	Some college	5	3
	2-year degree	3	2
	4-year degree	72	50
	Professional degree	35	24
	Doctorate	12	8
	Missing	17	12
Working from home/remote	Yes	95	66
	No	34	23
	Missing	16	11
Experience working from home/remote	Less than a year	25	17
	1-2 years	83	57
	3-5 years	13	9
	Greater than 5 years	7	5
	Missing	17	12
Impact of working from home/remote on amount of time meeting with manager	More frequently	18	12
	Less frequently	23	16
	Same amount	88	61
	Missing	16	11

Characteristics		N	%.
Over the last two weeks, how often have you been bothered by feeling nervous, anxious, or on edge?	Not at all	50	35
	Several days	52	36
	More than half the days	18	12
	Nearly every day	8	6
	Missing	17	12
My role in the organization is	Manager	52	36
	Individual contributor	76	52
	Missing	17	12
My level in the organization is	Director	28	19
	Manager	45	31
	Specialist	36	25
	Associate	19	13
	Missing	17	12
I have been with the company for	0-2 years	66	46
	3-5 years	52	36
	6-10	10	7
	Missing	17	12

External Validity

External validity is the extent to which research can be generalized to other people or settings (Bracht & Glass, 1968). In this research, two of Bracht and Glass' (1968) threats to external validity were of note: accessible population versus the target population (population validity) and the Hawthorn Effect (ecological validity).

As noted, the potential population to which this research applies could be identified as the population of employees and managers in organizations undergoing an M&A event or, theoretically, any large organizational change event. However, the population available to this research is a very small subset of the entire US workforce. This research did not claim to generalize to the entire US workforce, but the notion does highlight a population validity threat. Specifically, the researcher needed to have a complete understanding of the sample population participating in the research (Bracht & Glass, 1968). This research addressed this issue by gathering demographic data relevant to the topic of engagement to develop a complete picture of the population being sampled. Survey items, including length of employment, level in the organization, and age range, among others, were gathered.

The Hawthorn effect has been described as an individual's awareness of their participation in a research study, and this awareness alone influences their behavior and responses in the study (Bracht & Glass, 1968). By simply asking employees about transformational leadership, organizational readiness for change, exchanges with their manager, and work engagement, there is a potential threat the sample population may respond to the survey in the way they think they should respond or what they perceive to be the "correct" response. This study ensured that participants' responses were completely anonymous. The survey was configured to prevent the researcher from being able to identify individuals. Additionally, a brief introduction to the study was provided, highlighting the need for participants to respond honestly and there are no right or wrong answers.

Instruments and Measurement

This section provides an overview of each instrument and presents prior score validity and reliability reports. Transformational leadership was measured through the use of the 7-item GTL scale (Carless et al., 2000). Work engagement was measured through the administration of the UWES-9 (Schaufeli, Bakker, & Salanova, 2006). The quality of LMX relationships was measured by administering the 12-question LMX-MDM survey (Liden & Maslyn, 1998). Organizational readiness for change was measured through the use of the 14-item OCQ-R

(Bouckenooghe et al., 2009). Including demographic and professional characteristics questions the total number of items for the current study was 48. This section will briefly overview each instrument and present prior reporting of score validity and reliability.

Validity

Validity can be defined as the sources of evidence of an instrument that supports the interpretation of those scores (Byrne, et al., 2014, p. 100). The sources of validity have been defined as face and construct validity (Byrne et al., 2014; Truss, et al., 2013). Face validity occurs when an item in an instrument *looks* like it assesses what it claims to measure (Byrne et al., 2014). Construct validity is comprised of internal structural validity, convergent validity, divergent validity, and criterion-related validity (Byrne et al., 2014). Construct validity provides evidence that the components of an instrument align with the aspects of the construct (Byrne et al., 2014; Truss, et al., 2013). Divergent or distinct validity is the ability of an instrument to differentiate between the construct of interest and other similar, but distinct constructs (Truss, et al., 2013).

A pilot survey was sent out to confirm the face validity and the general ease of use and functionality of the survey. The survey was sent to 20 people who work in the industry, but who were not a part of the study population. Minor adjustments to the survey, such as the sequencing of the demographic questions and the look and feel of the survey were modified as a result. A pilot study was conducted to identify potential weaknesses in the survey design and presentation. A draft of the survey, Appendix A, was sent to 20 persons in the bio-pharmaceutical industry, but who were not a part of the sample population.

Reliability

Reliability has been described as each time an instrument is used, the same results are obtained if used under the same conditions and measuring the same sample (Byrne et al., 2014). One measure of reliability is internal consistency. The estimate of internal consistency is reported as the alpha coefficient (Cronbach, 1951). An alpha coefficient greater than .7 is generally accepted as good internal consistency for research purposes (Byrne et al., 2014; Nunnally & Bernstein, 1994). The alpha coefficient was generated for each construct used in the study. Results for all construct alpha coefficients were found to be greater than .7; GTL (.915), LMX (.924), UWES – Vigor (.815), UWES – Dedication (.775), UWES – Absorption (.702), and OCQ_R (.842).

Transformational Leadership

Significant research has been conducted on the construct of transformational leadership in the last several decades since its initial conceptualization by (Burns, 1978). The most widely cited and used instrument to measure transformational leadership is clearly the (MLQ) (Bass & Avolio, 1997). The MLQ is a 45-question survey that measures the degree to which leaders exhibit transformational leadership behaviors (Bass & Avolio, 1997). The measure was developed by Bass and Avolio (1997) to measure a construct first established in 1978 by Burns. Further developed by (Bass, 1985) and others (Avolio, Bass, & Jung, 1999; Bass & Avolio, 1993; Bass & Yammarino, 1991) over the following decades the MLQ and its various versions are by far the most popular measure of transformational leadership (Antonakis, 2011; Bass & Riggio, 2006; Shuck & Herd, 2012). However, there is some criticism of the measure, specifically that it is lengthy,45 questions, and it is difficult to score (Carless et al., 2000).

Additionally, the MLQ is not for open use, and a licensing fee is required for use. Carless et al. (2000) then developed a short, open-source measure of transformational leadership that could be rapidly deployed and easily scored. The result of their research was the development of the (GTL) instrument.

Prior reports of score reliability and validity

Based on the work of Podsakoff, et al. (1990), Carless et al., (2000) developed a short measure of transformational leadership. As noted above, the MLQ developed by Bass and Avolio (1997) has been widely used to measure transformational leadership, transactional leadership, and lassie-fair leadership styles. However, the MLQ's length and proprietary nature create barriers for some researchers and research participants alike. Carless et al., using standardized methods, developed a measure that was proven to have strong convergent validity to the MLQ and the Leadership Practices Inventory (LPI) (Kouzes & Posner, 1990).

Six behaviors of transformational leadership were identified by Podsakoff et al. (1990): identifying and articulating a vision, providing an appropriate model, fostering the acceptance of group goals, high-performance expectations, providing individualized support to staff and intellectual stimulation. A modified version of these behaviors were used by Carless et al. (2000) to develop the seven question GTL survey. The two changes to Podsakoff et al.'s (1990) six items were to differentiate between leaders' behaviors of supporting their direct reports and encouraging individual development and the preference for using the concept of charisma as opposed to Podsakoff et al.'s (1990) "high-performance expectations." The seven behaviors of the GTL are (1) communicate a vision, (2) develop staff, (3) provide support, (4) empower staff, (5) be innovative, (6) lead by example, and (7) is charismatic (Carless et al., 2000). These behaviors, as well as literature related to each behavior, were used to craft items of the survey. These items were written in an intentionally broad manner to support the span of the theoretical construct of transformational leadership (Carless et al., 2000).

Standardized and common methods to determine validity and reliability were used in developing the GTL. A study of 695 branch managers of retail banks in Australia served as the population sample for the study. Both confirmatory and exploratory factor analyses were performed on the items of the GTL to explore the internal reliability of the proposed measure. The results of the EFA ranged from .78 to .89, and the results of the CFA ranged from .72 to .88 (Carless et al., 2000). These results confirmed the items in the measure were reliable measures of transformational leadership as proposed by the theoretical model. Goodness of fit was measured by measuring the root mean square error of approximation (RMSEA), relative noncentrality index (RNI), and root mean square residual (RMSQ). The results of these analyses were as follows and indicated a good fit of the observed results to the proposed model: chi-square = 243, d.f. = 14, p = .001, RMSEA = .11, RMSR = .03, and RNI = .97 (Carless et al., 2000). Finally, using the Bagozzi and Heartherton (1994) method for the calculation of reliability and amount of variance extracted (AVE), the GTL proved to have acceptable reliability (.93) and AVE (.67) results (Carless et al., 2000).

Convergent and discriminant validity of the GTL were measured and found the GTL met commonly acceptable standards for both convergent and discriminant validity (Carless et al., 2000). Convergent validity was assessed by administering the LPI and MLQ measures alongside the GTL. The hypothesized relationships of the seven items with the related items of the LPI and MLQ were all found to be statistically significant ranging from .71 to .87. For example, the GTL item of vision related to the LPI item of “inspiring a shared vision” resulted in a value of .79 (Carless et al., 2000).

Discriminant validity, items which should not be related are found not to be related, was measured through the use of *t-tests* of differing groups, namely those of district managers and subordinates (Carless et al., 2000). By splitting the groups of these populations into two groups, high and low-performing, as measured by a manager performance (Carless et al., 2000) and subordinate extra effort (Bass & Avolio, 1990; Tjosvold, et al., 1991), Carless et al. (2002) found significant differences among the contrasting groups; highly motivated subordinates compared with less motivated subordinates (5.56), high and poor performing managers (5.47, 7.06), and highly effective leaders compared with less effective leaders (7.57). In summary, the GTL has been found to be a reliable measure of transformational leadership (Carless et al., 2000; van Beveren, et al., 2017).

Work Engagement

This research defined work engagement "as a positive, fulfilling work-related state of mind that is characterized by vigor, dedication, and absorption" (Schaufeli et al., 2006). The UWES-9, developed by Schaufeli et al., was used to measure engagement in this study. The UWES-9 was chosen after a detailed review of the literature and a review of other instruments and because the UWES-9 has been shown to be positively related to supervisory support (Bakker & Demerouti, 2007; Byrne et al., 2014). Additionally, supervisory support, as an aspect of the JD-R model, was hypothesized as a component/outcome of one-on-one meetings. Although the UWES has its critics, it was proposed as a good fit for this research study.

Prior reports of score reliability and validity

As the most widely used measure of engagement, the UWES has been completed by over 60,000 individuals worldwide (Truss, et al., 2013). The 2004 instrument manual provides an overview of the instrument development and reports the validity and reliability of the data from

12,631 individuals in the international languages (including English) database and 9,679 in the Dutch Language version (Schaufeli & Bakker, 2004). The manual reports internal consistency across the three factors of vigor (.84), dedication (.89), and absorption (.79), all above the typically acceptable limit of greater than .7 (Schaufeli & Bakker, 2004). Using a two-step Multiple Group Method approach, Schaufeli and Bakker (2004) were able to assess the fit of factors across the entire data set This resulted in the normed fit index (NFI), non-normed fit index (NNFI), and comparative fit index (CFI) results exceeding .9, which is the critical value for those measures indicating an acceptable fit (Schaufeli & Bakker, 2004). The three-factor solution did perform better than the one-factor solution, but not substantially. The UWES can be used as a one or three-dimensional construct (Schaufeli & Bakker, 2004).

Internal consistency and test-retest analysis were reported to substantiate the reliability of the instrument data. Internal consistency were reported at .9 for the UWES-9, indicating acceptable internal consistency, greater than .7 (Nunnally & Bernstein, 1994; W. B. Schaufeli & Bakker, 2004). Test-retest reliability was reported based on results from two longitudinal studies. No differences among the three dimensions were noted and the stability of the UWES-9 was reported to be similar to that of the 15 and 17-item versions (Schaufeli & Bakker, 2004).

However, there remains some question as to the validity and reliability of the UWES to measure engagement. Byrne (2014) offered the following critiques of the data's validity and reliability. One, no chi-squared test was conducted to test for the difference in fit, and no item or scale factor loading was provided. Second, exploratory factor analysis was not provided. Byrne expressed concern related to the theoretical underpinnings of the construct. The concern is that UWES was developed as the antithesis of burnout, and Maslach and Jackson (1984) offer no theory on which their three-part definition of burnout is based. Given this, exploratory factor analysis was warranted. Finally, Byrne notes that a general lack of confirmatory factor analysis has been conducted. Specifically, "…with no adequate fit indices, no statistical difference test, no item loadings and cross-loadings, and no factor correlations, it is challenging to determine the true psychometric strength of the measure" (Byrne et al., 2014, p. 111). Thus, Byrne recommends researchers offer psychometric details for their sample and remain cautious of the potential lack of divergent validity.

LMX

Leaders differentiate how they treat their followers through different types of exchanges (Martin et al., 2015). The theory of LMX, initially conceptualized as VDL and measured by the Leader Behavior Description Questionnaire (LBDQ) in the early 1970s, has had decades to develop as a construct. Over the course of those decades, several different measures of LMX have come into and out of favor (Liden et al., 2015). For the first 25 years of the construct, measurement scales using 2, 4, 5, 7, 12, or 13 items were used to measure LMX (Liden et al., 2015). Some measurement scales used varied responses to each question, while others used a five or seven-item response scale of strongly disagree to strongly agree (Liden & Maslyn, 1998; Liden et al., 2015).

In a review of the first 25 years of the construct, Graen et al. (1995) recommended using the LMX-7 with a varied response scale. However, no psychometric analysis was provided to support the use of the scale. Realizing the need for an LMX instrument with "psychometrically sound" measure, Liden and Maslyn (1998, p. 48) developed a 12-item measure of LMX and provided psychometric data supporting the reliability and validity of the instrument data. The LMX multidimensional measure (LMX-MDM) was the LMX instrument used in this research.

Prior reports of score reliability and validity

This section will describe the content validation methods used in developing the instrument. The process began with identifying 80 items based on leadership literature and an additional 40 items were gathered from 24 master's and Ph.D. student interviews. Using a two-phased process of subject matter review, evaluation, and elimination in phase one and selection of the most relevant items as they related to the four identified dimensions of affect, loyalty, contribution, and professional respect in phase two, the number of items was reduced to 42. An additional 11 items were eliminated through an evaluation of content adequacy (Liden & Maslyn, 1998; Schriesheim, et al., 1993).

The remaining 31 questions were administered to a sample population of 302 working students and 251 organizational employees using scaled responses from strongly disagree (1) to strongly agree (7) (Liden & Maslyn, 1998). To examine convergent and discriminant validity, additional questions from the LMX-7 and other scales were provided to a subset of the population along with the remaining 31 questions. The test-retest method was used to assess item stability over time at intervals of 8 and 10 weeks apart (Liden & Maslyn, 1998).

Five phases of data analysis were completed. First, two of the additional scales provided to a subset of the survey population were measures of acquiescence and social desirability. Items related to these measures were discarded, along with items showing little variance (Liden & Maslyn, 1998). After the first phase, 26 items remained.

Second, an exploratory factor analysis was performed. Two exploratory factor analysis were performed; one without a number of factors defined and one with four factors defined and oblique rotation applied (Liden & Maslyn, 1998; Tabachnick & Fidell, 1989). The oblique factor pattern and additional iterations of factor analysis resulted in the loading of 11 items into four dimensions of affect, loyalty, contribution, and professional respect explaining 79.4% of the variance (Liden & Maslyn, 1998, p. 55-56).

Third, a confirmatory factor analysis was conducted. The eleven selected items with the proposed four dimensions, as well as with competing models showed a good fit of the four-factor model (Chi-Square of 59.40, CFI of .986, GFI of .960, AGFI of .93). In support of the multidimensionality hypothesis, factor correlations were reported ranging from .456 to .763 and supported the conclusion of a lack of redundancy between the four dimensions (Liden & Maslyn, 1998).

Fourth, scales of the four dimensions were subjected to intercorrelation analysis. The four-dimensional scales showed moderate correlation ranging from .26 to .63 for the student subset and .32 to .67 for the organizational subset (Liden & Maslyn, 1998).

The fifth and final phase looked at the scale regarding response bias susceptibility, convergent validity, discriminant validity, and criterion-related validity (Liden & Maslyn, 1998). Results from the correlation of acquiescence and social desirability to the four dimensions LMX-MDM were insignificant, indicating a lack of susceptibility to response bias. Convergent validity was established by looking at the LMX-MDM and the previously established LMX-7 correlation. It was expected that two instruments measuring the same construct, even with different internal factors, should be correlated. As expected, the items were correlated with scores of affect (.71), loyalty (.71), contribution (.55), and professional respect (.70) as related to the LMX-7. Discriminant validity was examined by conducting a correlation analysis between the four factors of the LMX-MDM and a measure of satisfaction with co-workers. Correlation scores between the four factors and satisfaction with co-workers were not established: affect (.12), loyalty (.25), contribution (.00), and professional respect (.00). Finally, several outcome variables such as organizational commitment, autonomy, and turnover intention were regressed against the four factors of the LMX-MDM. For four of the six outcome variables, the scales of the LMX-MDM were significant. These results also support the multidimensionality of the model by demonstrating the relation of expected constructs. For example, satisfaction with one's supervisor was found to be related to the loyalty factor (Liden & Maslyn, 1998). An addendum was made after the study was accepted for publication to add one item to the "contribution" dimension, bringing the total number of items to twelve. The addition of this item has little to no effect on the validity and reliability of the instrument (Liden & Maslyn, 1998).

Organizational Readiness for Change

Organizational readiness for change was measured using the OCQ–R (Bouckenooghe et al., 2009). Bouckenooghe and colleagues developed this measure to provide scholars and practitioners with a psychometrically sound instrument to measure organizational readiness for change. Other instruments such as the Organizational Climate Measure (Patterson et al., 2005) and Readiness for Organizational Change Measure (Holt, et al., 2007) have measured other aspects of organizational change, but Bouckenooghe et al. (2009) contend there is a gap in the availability of a measure of organizational readiness for change which is both reliable and valid. To fill this gap, the researchers developed a measure using well-established methods for the development of psychometrically sound measures. The measure was developed in four phases of studies.

The first study examined the content validity of the survey questions developed. Study number two explored the construct validity and structure of the factors. Using a different population, study three tested whether the validity and factor structure examined in study two would translate to another population. Study four developed and tested an English-language version of the Dutch OCQ-C, P, R (Bouckenooghe et al., 2009). The following section explores the results of these studies and other research studies utilizing the OCQ-R measure.

Prior reports of score reliability and validity

Given the popularity of the construct of organizational change and change management, one would expect a greater number of psychometrically sound measures of the construct (Bouckenooghe et al., 2009). However, Bouckenooghe et al. contend outside of the Organizational Climate Measure (OCM: Patterson et al., 2005) and the Readiness for Organizational Change Measure (ROCM: Holt, et al., 2007) there are few if any valid measures of organizational readiness for change. Bouckenooghe and team set a "step-by-step procedure" to develop a valid and reliable measure of the climate, process, and readiness of change in organizations (Bouckenooghe et al., 2009, p. 559).

In the first study, content validity was explored using a panel of 10 subject matter experts who were asked to review 63 items associated with 10 dimensions of the study. The result of this study was the grouping of questions into a range of contexts, general to topic-specific. Three factors, the climate of change or internal change context (C), the process of change (P), and the readiness for change (R), emerged from the analysis of study one (Bouckenooghe et al., 2009).

These items were then taken to develop a questionnaire for use in study 2, administered to 42 Belgian for-profit and non-profit organizations. The survey used a five-point scale ranging from 1 (strongly disagree) to 5 (strongly agree). Exploratory factor analysis (EFA) was conducted on the 63 items using principal axis factoring and direct oblimin rotation (Conway &Huffcutt, 2003). Two items in the "process" factor and one item in the "readiness" factor had unexpected secondary loading into different factors. Secondary EFAs were conducted for the three factors of context, process, and readiness. The results of the EFAs yielded an elimination of

4 of the 22 items for the context factor, a reduction of the 26 items of the process factor to 15, and the retention of 9 of the 15 readiness factor items. These remaining items described 50.46%, 52.6%, and 58.1% of the variance for the C, P, and R factors, respectively (Bouckenooghe et al., 2009).

Interitem and internal consistency reliability analyses were conducted. Interim analyses were performed to explore if the items retained in the three-factor model had adequate variability. While the 42 items retained showed acceptable standard deviation values and mean-variance values, the intentional readiness for change scale had a lower level of variability and a higher mean value than the scales in the three-factor model. The internal consistency reliability scores were found to be acceptable as well ranging from Cronbach alpha between .68 and .89 (Bouckenooghe et al., 2009). Confirmatory factor analyses (CFAs) were conducted to provide additional evidence of construct validity of the 11 scales identified (Bouckenooghe et al., 2009). $\chi 2$, GFI, and RMSR, RMSEA, NFI, NNFI, and CFI, values all fit the data and confirmed the 11-scale model. Model misspecification and comparison analyses were conducted to validate these findings further. Model misspecification was evaluated by exploring modification indexes. Two sets of items were found to have potential redundancy: items I65 and I76 and items I38 and I46. To test for model comparison, the proposed three-factor model was compared to alternative null, first, and second-order models. Again, the three-factor model was found to be a better fit to the data when $\chi 2$, GFI, RMSR, RMSEA, NFI, NNFI, and CFI analyses were conducted (Bouckenooghe et al., 2009).

To further substantiate the validity of the proposed model and measure, convergent validity, discriminant validity, known-groups validity, concurrent validity, and shared-variance validity were examined using the data obtained from study three. Each of these will be briefly reviewed.

The researchers examined convergent and discriminant validity by comparing the climate, process, and readiness scales. Of the 22 tests performed, 15 confirmed adequate levels of convergent and discriminant validity.

To examine known group validity, the expectation that different groups will perform differently on a given scale, Bouckenooghe et al. examined the difference between profit vs. non-profit organizations and the difference observed between job positions. For-profit and non-profit groups have been found to perceive organizational factors differently (Hull & Lio, 2006). Bouckenooghe et al. found this to hold true in relation to the truth of their study as well. The for-profit organizations scored higher on several scales (trust in leadership, involvement in the change process, and the attitude of top management toward change, among others) than the non-profit organizations. Additionally, differences in job roles, management vs. non-management positions, differed in the results of the scales as provided in study three.

Concurrent validity was tested by comparing the three factors of the proposed measure. Climate and process of change are known antecedents of readiness for change (Bouckenooghe et al., 2009). Climate and process of change were regressed on readiness for change while controlling for organizational sector and job position and were found to have differing levels of variance and patterns of support. The researchers concluded that this supported the prediction that readiness for change is a multifaceted concept (Bouckenooghe et al., 2009).

Finally, shared variance validity, when at a sufficient level, allows for aggregating individual reported scores to the organizational level (LeBreton & Senter, 2007). The eleven scales were all found to report Rwg(J) or median Rwg(J) above .70. With the exception of “general support by supervision, all ICC values were found to exceed .70, indicating all scales except for this one can be aggregated, to the organization level.

In conclusion, Bouckenooghe et al (2009) conducted a thorough and exhaustive psychometric analysis of the OCQ-C, P, R and it was found to meet established criteria for validity and reliability. Additionally, several subsequent studies (Claiborne, et al., 2013; Kirrane, et al., 2017; Straatmann, et al., 2016) have confirmed the reliability and validity of the OCQ-C, P, R.

Ethical Considerations

Internal review Board of Colorado State University approval was obtained before collecting any data associated with this study. Additionally, standard practices regarding the protection of personally identifiable information were protected at all times. The Qualtrics survey was used in data collection and was configured in such a way as to provide the utmost data privacy. The ethos of first do no harm was followed at all times during this research.

Data Collection

Permission to conduct this research was received from the Internal Review Board. Permission to conduct the survey was also obtained from the organization’s legal and Human Resources function. The Qualtrics survey software was used to develop and distribute an online survey to the sample population. Qualtrics survey software is used to deploy over one billion surveys a year and is an industry and research standard for deploying scholarly research surveys (“Online Survey Software - Trusted by +5.5M Survey Creators | Qualtrics,” n.d.).

Data collection began after an email communication was sent to the sample population in December 2022, see Appendix B. The sample population was asked to complete the survey within two weeks. Dillman et al. (2009) offer several guidelines to improve data collection from online survey requests distributed by email. Among these, particular attention was made to ensure the communication was not identified as Spam by sending the email from an internal email address, the communication was kept brief and provided clear directions on the request and how to complete the survey, finally, follow up communications were sent one and two weeks after the initial communication (Dillman et al., 2009).

Data collection was closed four months after the initial communication was sent. The data were then extracted from the Qualtrics software and imported to SPSS. Surveys were considered complete and used in the data analysis only if all the instruments, GTL, LMX-MDM, UWES, and OCQ-R, were completed. If the demographic survey questions were not completed, the response was used.

Research Question and Data Analysis

To explore the relation between transformational leadership and organizational change readiness as mediated by LMX and work engagement, data was gathered from the population through the completion of the survey in Appendix A; demographic data (age, gender, educational level, job tenure, organizational level), GTL, LMX-MDM, UWES-9, and OCQ-R (Nimon & Astakhova, 2015). All variables were explored using standard descriptive statistical correlational methods. The demographic data of age, gender, educational level, job tenure, and organizational level were controlled for as it has been established these variables are related to engagement (Agarwal, et al., 2012; Chaurasia & Shukla, 2013; Schaufeli & Bakker, 2004).

Analysis for the hypotheses consisted of confirmatory factor analysis (CFA) and structural equation modeling. CFA was performed for the GTL, LMX-MDM, UWES-9, and OCQ-R. Structural equation modeling was used to test the hypotheses and the hypothetical model. The fit of the model was evaluated through the use of root mean square error of approximation (RMSEA), standardized root mean square residual (SRMR), comparative fit index (CFI), normed fit index (NFI), and the goodness of fit index (GFI) (Agarwal et al., 2012; Anitha, 2014; Breevaart et al., 2015).

The proposed model suggested a mediating effect of LMX and work engagement on organizational readiness for change. The mediation hypotheses of this research (RH4a and RH4b) were analyzed using bootstrapping in combination with Baron and Kenny's (1986) established regression test for mediating factors using the software R with packages based on methods developed by Preacher and Hayes (2004) (Nimon & Astakhova, 2015). The combination of these statistical analysis methods enables the testing of alternative models while controlling for measurement error and testing for the indirect effect of the mediating factor (Nimon & Astakhova, 2015).

The structural and measurement model for this research study is presented in Figure 5.

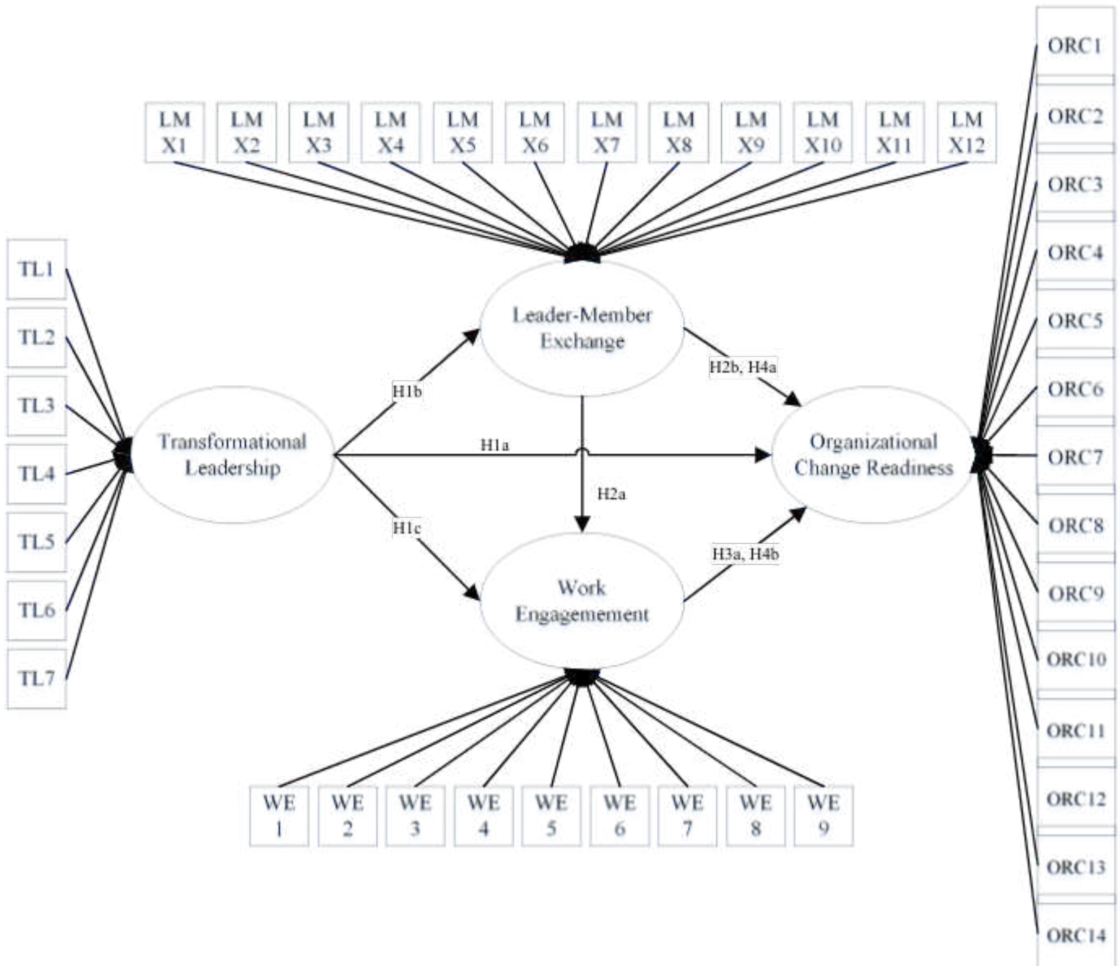

Figure 5
Structural and measurement model for the relation of transformational leadership to organizational readiness for change as mediated by LMX and work engagement.

Summary

This section presented the research questions and hypothesis, provided an overview of the research design and philosophy, discussed the sample population and instruments used, and discussed the data collection and analysis methods used. It also discussed the study's limitations and steps taken to mitigate these weaknesses. Chapter four will discuss the results of the research study.

Chapter Four: Results

This chapter presents, reviews, and analyzes the data collected during the study. First, the descriptive statistics of the study are presented using standardized methods and analysis. Next, confirmatory factor analysis (CFA) is performed to analyze the proposed construct and the data's fit to the hypothesized model. Structural equation modeling (SEM) and a test for mediation using bootstrapping are conducted, and results are presented. Tests for the reliability and validity of the survey were also performed and are presented.

Descriptive Statistics

Descriptive statistics were generated for each variable. Table 5 reflects the descriptive statistics for each construct. Table 6 provides each variable's minimum, maximum, mean, and standard deviation.

Table 5
Descriptive Statistics for Mean Scores of Each Construct

					Skewness		Kurtosis	
	N	Min.	Max.	Mean	Statistic	St. Error	Statistic	St. Error
Transformational Leadership	145	1.00	5.00	3.90	-1.39	0.20	2.46	0.40
Leader-Member Exchange	140	1.33	5.00	4.19	-1.58	0.21	2.75	0.41
Work Engagement	135	2.33	7.00	4.97	-0.44	0.21	0.99	0.41
Organizational Readiness for Change	125	2.5	3.79	3.22	-0.50	0.22	-0.14	0.43

Table 6

Descriptive Statistics of All Items for Each Construct

Note. GTL: Global Transformational Leadership, LMX: Leader-Member Exchange, UWES: Utrecht Work Engagement Scale, OCR: Organizational Change Readiness.

	N	Min.	Max.	Mean	Std. Deviation
GTL 1	145	1	5	3.56	0.857
GTL2	145	1	5	4.18	0.933
GTL3	145	1	5	3.93	0.955
GTL 4	145	1	5	3.92	0.975
GTL 5	145	1	5	3.74	1.054
GTL 6	145	1	5	4	0.986
GTL 7	145	1	5	4.01	1.017
LMX 1	145	1	5	4.46	0.882
LMX 2	145	1	5	4.12	1.06
LMX 3	145	1	5	3.98	1.115
LMX 4	140	1	5	3.71	1.042
LMX 5	140	1	5	4.31	1.003
LMX 6	140	1	5	4.39	1.001
LMX 7	140	1	5	4.16	1.008
LMX 8	140	1	5	4.25	0.953
LMX 9	140	1	5	4.34	0.949
LMX 10	140	1	5	3.98	1.184
LMX 11	140	1	5	4.34	1.05
LMX 12	140	1	5	4.25	1.019
UWES 1	140	1	7	4.41	1.157
UWES 2	137	1	7	4.62	1.119
UWES 3	137	1	7	5.01	1.091
UWES 4	137	2	7	5.05	1.152
UWES 5	137	1	7	4.49	1.29
UWES 6	136	2	7	5.29	1.039
UWES 7	137	3	7	5.98	0.981
UWES 8	136	2	7	5.18	1.056
UWES 9	137	1	7	4.73	1.216
OCR 1	137	1	5	3.7	1.087
OCR 2	134	1	5	3.43	0.779
OCR 3	127	1	5	3.83	0.808

	N	Min.	Max.	Mean	Std. Deviation
OCR 4	128	1	5	3.74	0.816
OCR 5	130	1	5	3.51	0.984
OCR 6	130	1	4	4.02	0.883
OCR 7	130	1	4	4.10	0.801
OCR 8	129	1	5	3.54	0.932
OCR 9	129	1	5	3.69	0.984
OCR 10	129	1	5	3.68	0.76
OCR 11	129	1	5	3.4	0.824
OCR 12	130	1	5	3.79	0.832
OCR 13	128	2	5	4.16	0.718
OCR 14	128	2	5	4.24	0.673

Confirmatory Factor Analysis

The validity of the model proposed in this study was measured through confirmatory factor analysis tests. As discussed in Chapter Three, the Chi-square/*df* estimation, comparative fit index (CFI), normed fit index (NFI), root mean square error of approximation (RMSEA), and standardized root mean square residual (SRMR). The Chi-square/*df* estimation was insignificant and indicated a good fitting model and can reject the null hypothesis of an exact fitting model. However, the CFI (.748), NFI (.662), RFI (.580), and TLI or NNFI (.720) tests all indicated a poorer fitting model. Typically, results at or above .90 indicate an acceptable fitting model (Kline, 2016). Additionally, the result of the Z. Values at or below .05 for the RMSEA typically indicates a closer fitting model (Kline, 2016). Values of up to .08 can indicate an acceptable fitting model (Brown & Cudeck, 1993; as cited by Whittaker, 2016). While initially proposed, the Goodness of Fit Index (GFI) was not calculated as the Chi-Square for the initial model as "estimate means and intercepts" were selected in SPSS AMOS to account for missing data. See Table 7.

Table 7
Confirmatory Factor Analysis

	Chi-Square (*df*)	CFI	NFI	RFI	TLI/NNFI	RMSEA
Estimates	$\chi(813) = 1752.991$, P<.001	.748	.662	.580	.720	.090

Reliability of Instrument

The reliability of each instrument was measured by measuring the internal consistency by reporting the alpha coefficient of each instrument (Cronbach, 1951). As noted in Table 8 below, all alpha coefficients were found to be greater than .7, the generally acceptable limit indicating good internal consistency.

Table 8
Reliability of Instrument
Note: GTL: Global Transformational Leadership, LMX: Leader-Member Exchange, UWES: Utrecht Work Engagement Scale, OCQ_R: Organizational Change Readiness

Construct	Number of Items	Reliability (α)
GTL	7	.915
LMX	12	.924
UWES	9	.764
OCQ_R	14	.842

Results of Correlation Analysis

Correlation analysis (*r*) was performed on the GTL, LMX, UWES, and OCQ_R instruments. All correlations were found to be statistically significant ($p<.01$, McMillan, 2000). See Table 9.

Table 9
Correlation Analysis
Note: **. Correlation is significant at the 0.01 level (2-tailed). GTL: Global Transformational Leadership, LMX: Leader-Member Exchange, UWES: Utrecht Work Engagement Scale, OQC_R: Organizational Change Readiness.

	GTL	LMX	UWES	OCQ_R
GTL	1			
LMX	.843**	1		
UWES	.376**	.437**	1	
OCQ_R	.428**	.446**	.450**	1

Correlation analysis was performed for the demographic variables. No significant correlation was found between the demographic variables of role in the organization, level in the organization, tenure, gender, age, or education level. See Table 10.

Table 10
Correlation Analysis Demographic Variables
Note: **. The correlation is significant at the 0.01 level (2-tailed). GTL stands for Global Transformational Leadership, LMX for Leader-Member Exchange, UWES for Utrecht Work Engagement Scale, and OCQ_R for Organizational Change Readiness.

	GTL	LMX	UWES	OCQ_R
Role	-.100	-.076	-.202	-.094
Level	-.090	-.079	-.099	-.013
Tenure	.013	.022	.024	.104
Gender	-.112	.085	-.188	.018
Age	-.042	-.046	.125	.054
Education	-.076	-.042	-.037	.008

Since the study occurred over the period of the global Coronavirus Pandemic, a correlation analysis was performed for the variables related to working remotely and nervousness and anxiety. No significant correlation was found between the demographic variables related to working remotely. However, there was a significant correlation between variables of LMX and UWES and the following question: Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious, or on edge? Refer to Table 11.

Table 11
Correlation Analysis Demographic Variables
Note: **. The correlation is significant at the 0.01 level (2-tailed). GTL stands for Global Transformational Leadership, LMX for Leader-Member Exchange, UWES for Utrecht Work Engagement Scale, and OCQ_R for Organizational Change Readiness.

	Currently working remotely	Experience working remotely	Amount of virtual meetings	Impact of working remotely on relationship with manager	Bothered by feeling nervous, anxious or on edge
Currently working remotely	1				
Experience working remotely	-.450**	1			
Amount of virtual meetings	-.367**	.406**	1		
Impact of working remotely on relationship with manager	.139	-.101	-.013	1	
Bothered by feeling nervous, anxious	-.033	-.042	.061	-.159	1
GTL	.003	.054	.110	.113	-.215
LMX	*.023*	*.022*	*.028*	*-.003*	*-.240***
UWES	*-.013*	*.029*	*.135*	*.011*	*-.254***
OCQ_R	.085	.061	.111	-.056	-.165

Results of Structural Equation Modeling

The hypothesized model was tested using SEM in AMOS. Transformational Leadership was found to be significantly related to LMX (β=.93, p>.05), Organizational Change Readiness (β=.48, p>.05), and Work Engagement (β=.45, p>.05) supporting hypothesis 1a, 1b, and 1c. LMX was found to be significantly related to Work Engagement (β=.43, p>.05) and Organizational Change Readiness (β=.48, p>.05), supporting hypotheses 2a and 2b. Work Engagement was found to be significantly related to Organizational Change Readiness (β=.53, p>.05) supporting hypothesis 3. See Figure 6.

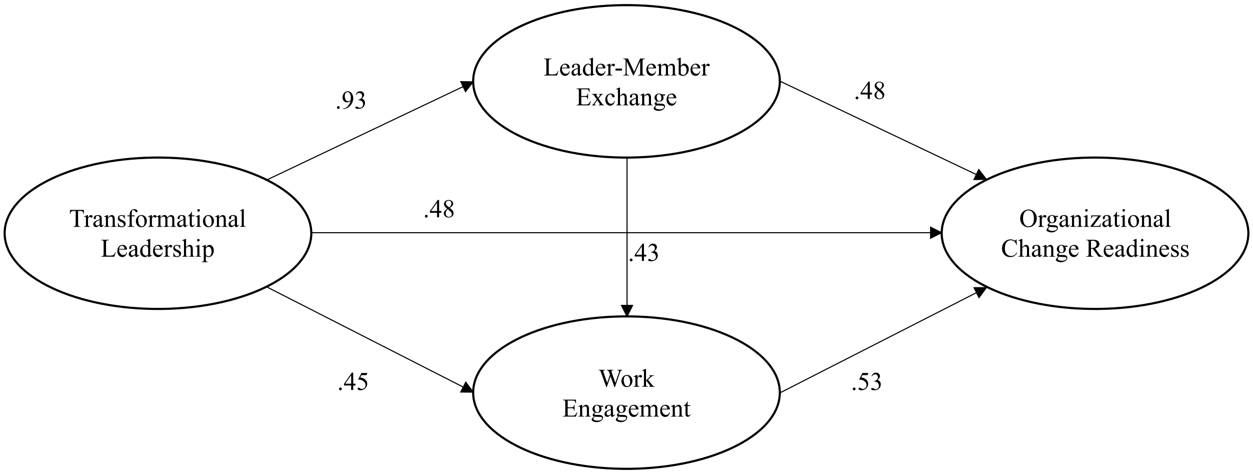

Figure 6
Results of the path analysis
Note: all results p<.05

Test for Mediation Effects

Mediation analysis was conducted using the software R with bootstrapping packages based on methods developed by Preacher and Hayes (2004) (Nimon & Astakhova, 2015). Table 12 and Figures 7 and 8 show the results of the mediation analysis, including the reporting of the strength of the indirect effects, the standard error estimate, the Z score, and the upper and lower 95% confidence intervals (CI).

The path where hypothesis 4a suggested that LMX mediates the relation of transformational leadership with organizational change readiness was not found to be statistically significant (β= 0.1144, 95% CI [-0.0491, 0.2900]). However, for hypothesis 4b, employee work engagement was found to partially mediate the relationship between transformational leadership and organizational change readiness (β= 0.0780, 95% CI [0.1104, 0.5500]). See Table 12, Figures 7, and 8 below.

Table 12
Bootstrap Estimates of the Mediation Model
Note. IV = independent variable; MV = mediating variable; DV = dependent variable; GTL: Global Transformational Leadership, LMX: Leader-Member Exchange, UWES: Utrecht Work Engagement Scale, ORC: Organizational Change Readiness.

Path IV→MV→DV	Product of Coefficients			95% Confidence Intervals	
	a	SE_a	Z	Lower	Upper
GTL→LMX→OCR	0.1144	0.1084	1.291	-0.0491	0.2900
GTL→UWES→OCR	0.0780	0.0468	4.606	0.1104	0.5500

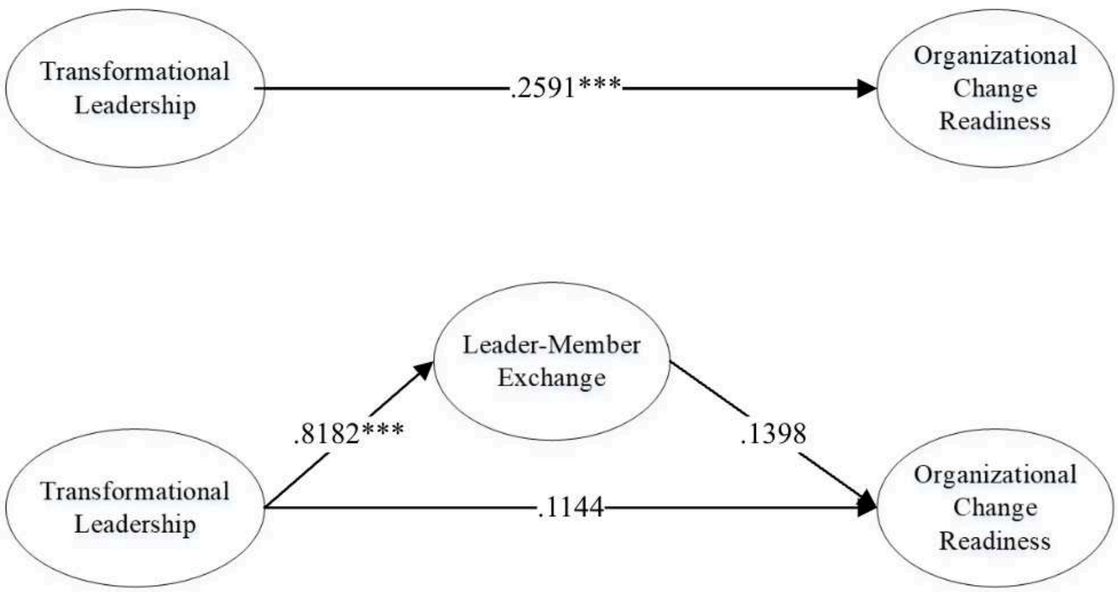

Figure 7
GTL→LMX→ORC Path Mediation
Note: *** significant at $p<.001$. Figure 7 represents the direct effect of transformational leadership on organizational readiness for change and the mediated path of GTL→LMX→ORC.

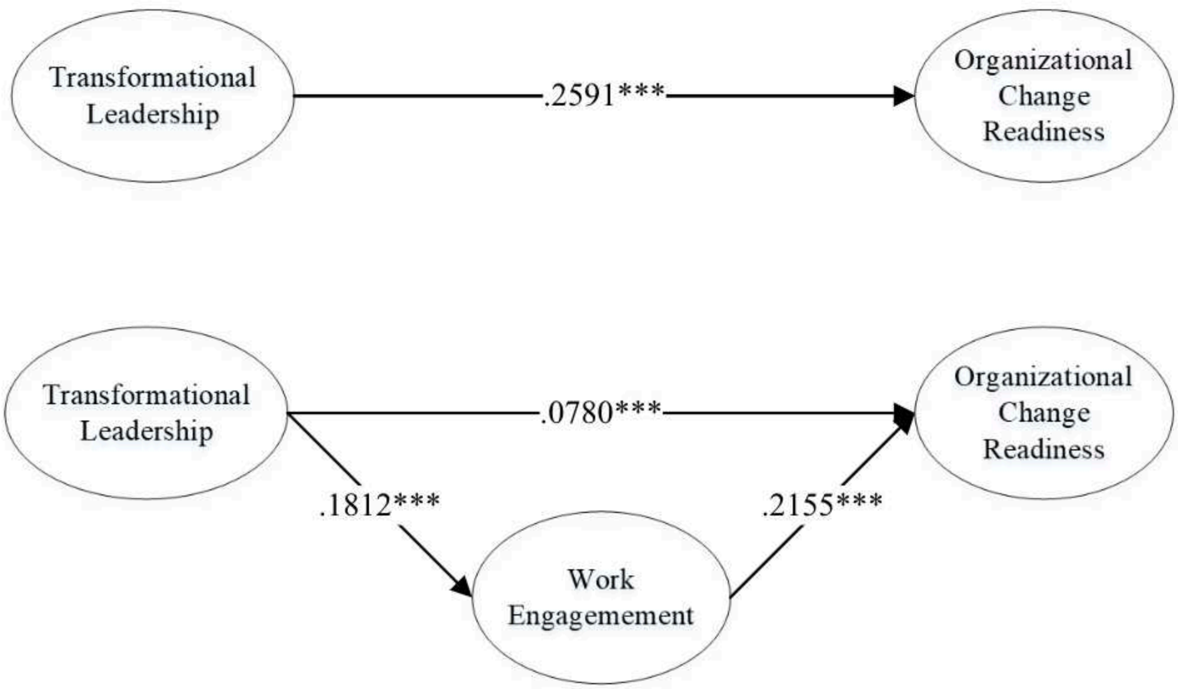

Figure 8
GTL→UWES→ORC Path Mediation
Note: *** significant at p<.001. Figure 8 represents the direct effect of transformational leadership on organizational readiness for change and the mediated path of GTL→UWES→ORC. UWES: Utrecht Work Engagement Scale.

Summary

This chapter presents the study's results, as detailed in chapter three, Methodology. The study was conducted as described in chapter three, and all results supported the study hypothesis. Specifically, direct, and mediated relationships existed between the independent and dependent variables. The implications of these results will be discussed further in chapter five.

CHAPTER FIVE: DISCUSSION

This chapter presents a summary, a review of the study purpose and hypotheses, procedures, findings, and a discussion of the findings.

Summary

This study explored the relationship between transformational leadership and organizational readiness for change as mediated by LMX and work engagement. This was studied in the context of an organization undergoing a significant change event, namely a merger and acquisition.

Purpose and Hypotheses

The purpose of this study was to explore how transformational leadership is related to the development of high-quality leader-member exchange, work engagement, and organizational readiness for change. This was studied in the context of an organization that was undergoing significant change as a result of two major acquisitions in two years.

This study proposed the following research hypotheses:

Hypothesis 1a: Transformational leadership practices will have a significant positive relation to organizational readiness for change.

Hypothesis 1b: Transformational leadership practices will have a significant positive relationship to LMX relationships.

Hypothesis 1c: Transformational leadership practices will have a significant positive relation to work engagement.

Hypothesis 2a: LMX relationships will have a significant positive relationship to work engagement.

Hypothesis 2b: LMX relationships will have a significant positive relationship to organizational readiness for change.

Hypothesis 3: Work engagement will have a significant positive relationship to organizational readiness for change.

Hypothesis 4a: The relationship between transformational leadership and organizational readiness for change will be mediated by LMX.

Hypothesis 4b: The relationship between transformational leadership and organizational readiness for change will be mediated by work engagement.

Procedures

The study was conducted by distributing a survey to a population of employees of a pharmaceutical company located in the Pacific Northwest. The survey was distributed to 1,145 respondents, and 145 surveys were returned and used in the data analysis; 125 surveys were used in the bootstrap analysis.

Analysis for the research question and hypotheses consisted of CFA and structural equation modeling. CFA was performed for the GTL, LMX-MDM, UWES-9, and OCQ-R. Structural equation modeling was used to test the hypotheses and the hypothetical model. The model's fit was evaluated using RMSEA, SRMR, CFI, and NFI (Agarwal et al., 2012; Breevaart et al., 2015; J., 2014). The mediation hypotheses of this research (RH4a and RH4b) were analyzed using bootstrapping, 5,000 samples, in combination with Baron and Kenny's (1986) established regression test for mediating factors using the software R with packages based on methods developed by Preacher and Hayes (2004) (Nimon & Astakhova, 2015).

Findings

As described above, the data analysis supported all the study research hypotheses. Specifically, a significant relationship was found between transformational leadership LMX, work engagement, and organizational readiness for change. Additionally, the study found a significant relationship between LMX and work engagement, LMX and organizational readiness for change, and work engagement and organizational readiness for change. Finally, the study found LMX, and work engagement mediated transformational leadership.

Discussion

This section reviews the hypothesized model and discusses the hypotheses and study results.

Hypothesized Model

As presented in Chapter One, transformational leaders inspire their organizations to achieve more than they believed they could (Bass, 1985). This study explored the relation of transformational leadership and organizational readiness for change as mediated by LMX and work engagement, looking to answer the question, how do transformational leaders affect an organization's ability to prepare for the organizational change associated with a merger or acquisition? The study proposed to explore this question in the context of a biopharmaceutical company located in the Pacific Northwest of the United States.

The model depicted in Figure 6 was developed to study this question. In the context of the acquisition and merger of a biopharmaceutical company located in the Pacific Northwest by another biopharmaceutical based on the East Coast of the United States, this study was conducted to explore the impact of transformational leadership, LMX, and work engagement on the organization's readiness for change. This model was developed based on a literature review as presented in chapter two. Key aspects of the research hypotheses and the results of the study are discussed below.

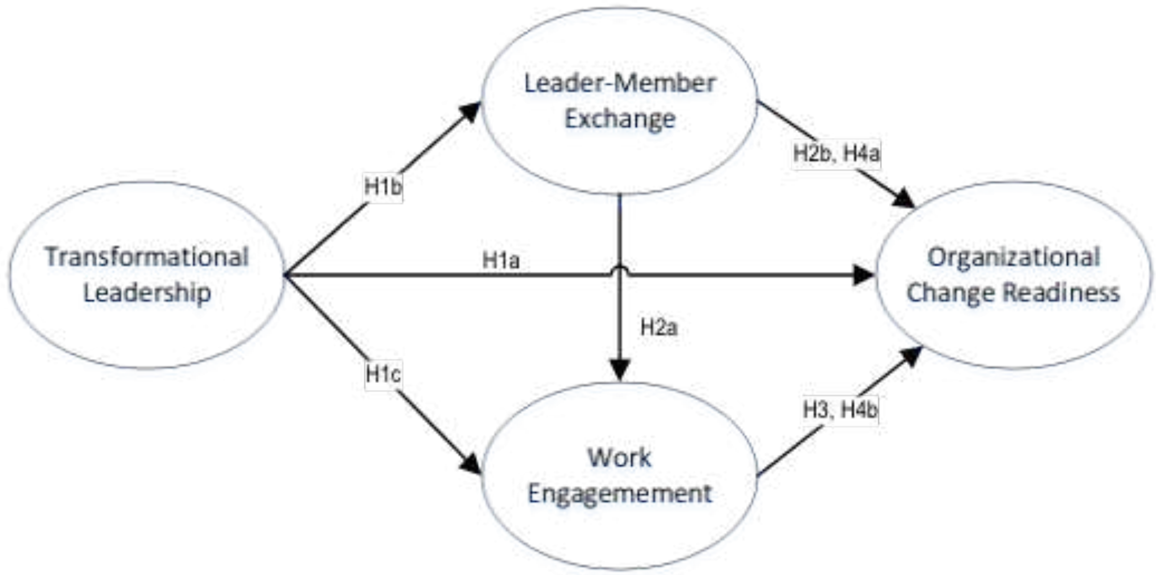

Figure 9
Relationship between transformational leadership and organizational change readiness as mediated by LMX and work engagement.

One issue of note is the poorer model fit results. Again, the RMSEA result of .090 indicated a poorer fitting model. Brown and Cudeck (1993), as cited by Wittaker (2016), did indicate that values of up to .08 indicate an acceptable fitting model. While the results of this study still do not reach the .08 threshold, the study result of .09 is reasonably close. The poorer fit of the confirmatory factor analysis is likely related to two issues with the study. One was the less-than-desired sample size of 1,145, where 145 surveys were completed. Second, the number of incomplete cases, 125 of the 145 surveys were complete responses. The results of the confirmatory factor analysis do bring into question the validity of the SEM.

Hypothesis 1a Transformational Leadership and Organizational Readiness for Change

This study found there to be a significant relationship between transformational leadership and organizational readiness for change. The strength of the relationship as measured by SEM was found to be (β=.48, p>.05), which corresponds to a moderately strong relationship.

Hypothesis 1b Transformational Leadership and LMX

This study found a significant relationship between transformational leadership and LMX. The strength of the relationship as measured by SEM was (β=.93, p>.05), which corresponds to a strong relationship.

Hypothesis 1c Transformational Leadership and Work Engagement

This study found there to be a significant relationship between transformational leadership and work engagement. The strength of the relationship as measured by SEM was found to be (β=.45, p>.05), which corresponds to a moderately strong relationship.

Hypothesis 2a LMX and Work Engagement

This study found there to be a significant relationship between LMX and work engagement. The strength of the relationship as measured by SEM was found to be (β=.43, p>.05), which corresponds to a moderately strong relationship.

Hypothesis 2b LMX and Organizational Readiness for Change

This study found there to be a significant relationship between LMX and organizational readiness for change. The strength of the relationship as measured by SEM was found to be (β=.48, p>.05), which corresponds to a moderately strong relationship.

Hypothesis 3 Work Engagement and Organizational Readiness for Change

This study found there to be a significant relationship between work engagement and organizational readiness for change. The strength of the relationship as measured by SEM was found to be (β=.53, *p*>.05), which corresponds to a moderately strong relationship.

Hypothesis 4a LMX mediates Transformational Leadership and Organizational Readiness for Change

This study found no statistically significant mediation of transformational leadership and organizational readiness for change by LMX. The strength of the relationship, as measured by bootstrapping 5,000 samples, was found to be (β= 0.1144, 95% CI [-0.0491, 0.2900]), which was not statistically significant. However, the total combined effect of transformational leadership and LMX was found to be statistically significant on organizational readiness for change be (β= 0.2592, 95% CI [0.1391, 0.3900]).

Hypothesis 4b Transformational Leadership and Organizational Readiness for Change as Mediated by Work Engagement

This study found a statistically significant relationship between transformational leadership and organizational readiness for change as mediated by work engagement. The strength of the relationship, as measured by bootstrap analysis, 5,000 samples, was found to be (β= = 0.0780, 95% CI [0.1104, 0.5500]).

Implications

The implications of this research provide insights and empirical support of the relationship between transformational leadership behaviors, leader-member relationships, work engagement, and organizational readiness for change. Specifically, the study's results provide evidence of how transformational leaders can affect the ability of an organization to ready itself for organizational changes such as a merger or acquisition. As established in Chapter One, while there have been studies that have looked at the relations of these factors between one another, there has not been significant research that has studied these factors in relation to M&A events. 70% of these M&A events fail to return any shareholders value, yet in 2018 $4.2 trillion was spent on M&A activities (Brownstein et al., n.d.; Dauber, 2012). The results of this study provide guidance to scholars and practitioners that there are actions leaders can take to positively impact leader-member relations, work engagement, and, ultimately, organizational readiness for change. This section will explore the outcomes of this study and the implications on research, theory, and practice.

Implications for Research

The outcome of this study informs research in HRD in several ways. This section will discuss the ways in which the results relate to previous research discussed in chapter two and how the results can inform future research. As noted in Chapter One, the extent to which research has been done separately on the constructs presented in this study is significant. However, in terms of their relationship, this study was unique. Specifically, how transformational leadership activities affect an organization's readiness for change. The results have shown there is a direct relationship between transformational leadership and organizational readiness for change as well as that relationship being mediated by LMX and work engagement.

The purpose of this study was to explore the relationship between transformational leadership and organizational readiness for change as mediated by LMX and work engagement. This was accomplished using a cross-sectional survey. As noted directly above, this type of study has advantages and disadvantages. This study demonstrated a direct and mediated relationship between transformational leadership and organizational readiness for change. Additionally, this study suggested one such activity which supports this relationship is the direct interaction of leaders and their employees is through one-on-one meetings, but this study did not establish causality. A recommendation for future research is to explore and potentially establish the causality of the relationship through a longitudinal or experimental study. This way, the causality of the specific action of one-on-one interaction between leaders and employees could be further explored and established as a causal factor in improving organizational readiness for change.

An example of an experimental study that could be conducted would be to build upon the findings of this study as related to one-on-one meetings between leaders and employees. An intervention could be established to train leaders and employees on the structure and format of a one-on-one meeting. A second group could be established where no direction to leaders and employees was provided, but one-on-one meetings still occurred. Finally, a control group would be established where no formal one-on-one meetings were scheduled. The outcome of such a study could provide insights into the relation and causal factors of leader and employee direct interactions on an individual's organizational readiness for change.

The organizational readiness for change event for this study was an M&A event. Further research could be conducted along several different lines related to an employee's organizational readiness for change and how a leader's actions or inactions influence such readiness. Specifically, further research could explore how, during an M&A event, employee engagement in M&A integration planning activities impacts organizational readiness for change. Such a study is difficult to conduct as the academic awareness of such M&A events is limited, and the timing of the development of an invention for an experimental study, let alone a cross-sectional survey, could be difficult to coordinate. However, such studies could shed light on additional factors and relationships that could ultimately improve the miserable rate of success for M&A events.

Implications for Theory

Swanson and Chermack (2013, p.16) defined theory as "a theory describes a specific realm of knowledge and explains how it works" and theory building as "…the ongoing process of producing, confirming, applying, adapting, and refining theory (Lynham, 2000 as found in Swanson & Chermack, 2013). This study sought to find a deeper understanding of the relationship between transformational leadership and organizational readiness for change. As discussed in Chapter One, there have been previous several theoretical models which have connected work engagement and high-quality LMX contribute to improved employee and organizational performance (Bakker & Bal, 2010; Bakker & Demerouti, 2008; Byrne, et al., 2014; Christian, et al., 2011; Dulebohn, et al., 2012; Gerstner & Day, 1997; Ilies, et al., 2007; Markos & Sridevi, 2010; Martin, et al. 2015). For example, one theory of middle management and front-line staff interactions needs to be envisioning (credible message), energizing (showing genuine excitement for change), and enabling (providing the right resources) (Cummings & Worley, 2009). This study studied the aspects of transformational leadership that act to execute this theory of envisioning, energizing, and enabling.

Transformational Leadership

Chapter Two presented a concept map with the theoretical constructs related to this study. Two related constructs regarding transformational leadership were presented: dyadic exchange and transactional leadership. The aspects of transactional leadership were presented as complementary to transformational leadership (Bass & Avolio, 1995; Bass, 2002). Dyadic exchange regarding decision-making, agenda, frequency, and duration corresponds to envisioning, energizing, and enabling (Cummings & Worley, 2009). Implications with respect to these theories in relationship to this study are that constructs such as dyadic exchange, specifically agenda, and frequency were found to be correlated with transformational leadership (Bass & Avolio, 1995; Bass, 2002), LMX (β=.93, p>.05), Organizational Change Readiness (β=.48, p>.05), and Work Engagement (β=.45, p>.05). Additional future studies could further explore the relationship between transactional and transformational leadership.

Leader-Member Exchange

The two constructs presented in Chapter Two related to LMX were trust-justice and the dimensions of LMX, affect, contribution, professional respect, and loyalty. Aspects of this study also provided support of the relationship of these constructs with LMX. Specifically, trust and justice as defined by the aspects of the LMX measurement construct, were found to be related to LMX. Questions LMX-2 and LMX-4 through LMX-6 from the study survey ranged from a mean of 3.71(LMX-4) to 4.39 (LMX-6) on a five-point scale. Additionally, loyalty, professional respect, and contribution were all found to be related to LMX correlated to the proposed model.

This study found that professional respect was high. Question LMX-11: I respect my supervisor's knowledge of and competence on the job, rated with a mean of 4.38 on a five-point scale by study participants. Similarly, study participants rated the construct of contribution as strongly related to the relationship with their manager; questions LMX-7, LMX-8, and LMX-9 with mean results of 4.16, 4.25, and 4.34, respectively, on a five-point scale. These two dimensions are believed to be critical to developing a strong LMX and, as shown by this study, support the development of employee work engagement and organizational readiness for change.

Work Engagement

As reviewed in Chapter Two, the theory of engagement is a complex, diverse, and divisive construct. This study sought to advance the understanding of how the constructs of transformational leadership are related to work engagement in the context of large-scale organizational change and how both constructs are related to organizational readiness for change. From a theoretical lens, this study found the construct of work engagement is related, in a positive manner, to organizational readiness for change, see Figure 6 (β=.48, p>.05). Additionally, the construct of work engagement mediates the relationship transformational leadership and organizational readiness for change in a positive manner (β= 0.0780, 95% CI [0.1104, 0.5500]). These outcomes reinforce the findings of Bass (1985b) that the transformational leadership characteristics of idealized influence (charisma), inspiration, intellectual stimulation, or individualized/idealized consideration are related to organizational readiness for change.

There are also implications for the Job Demands-Resources (JD-R) model (Bakker & Demerouti, 2007). This study found that work engagement was positively related to organizational readiness for change, (β=.45, p>.05). As discussed in chapter two, job demands are mental, emotional, or physical aspects of one's job which create strain. Job resources-support, autonomy, and feedback, and can offset job demands. This study found using the UWES instrument when respondents felt their job inspired them when they were enthusiastic about their job, proud of the work they performed, was more likely to be ready for organizational change events.

Additionally, the outcomes of this study advanced the work of Alharbi (2018) and Lyons, Swindler, and Offner (2009) on the relationship between these constructs and advanced the theoretical understanding of what specific aspects of the construct of work engagement to improve a organization's readiness for change. Specifically, the sub-constructs of work engagement as theorized by Schaufeli, et al. (2006) of vigor, dedication, and absorption, were found to be related to work engagement and combined to be related to organizational readiness for change, see Figure 1 (β=.53, *p*>.05).

Organizational Readiness for Change

This study defines organizational readiness for change as "a shared psychological state in which organizational members feel committed to implementing an organizational change and confident in their collective abilities to do so" (Weiner, 2009, p. 1). This study explored the path to organizational readiness for change using transformational leadership to build engagement through effective LMX relationships and work engagement. As presented in chapter 2, Cunningham et al. (2002) and Eby et al. (2000) found those employees who had had "positive feelings, attitudes, and perceptions" of their colleagues and management were more open to organizational change. Also, the Oreg et al. (2011) model for ORC with the components of antecedents, explicit reactions, and change consequences provided the framework for understanding the contexts and sub-components of ORC. This study found there was a positive relationship between LMX and ORC (β=.48, *p*>.05), thus advancing the understanding of the employee's relationship and its relation to ORC and confirming the findings of Cunningham et al. (2002) and Eby et al. (2000). The following will explore the implications of this study on the sub-constructs presented in the Oreg et al. (2011) model.

The first aspect of the Oreg et al. (2011) model is that of antecedents to organizational readiness for change. Sub-components of the antecedent include pre-change antecedents, which comprise the change recipient's characteristics and internal context, and change antecedents, which are comprised of perceived benefit/harm and change process. This study advanced the understanding of pre-change antecedents by exploring the participants' responses to the ORC and their demographic responses. Specifically, the study found that for internal context characteristics, specifically those related to organizational commitment, questions ORC 12-14 had mean scores of 3.79 (SD = 0.32), 4.16 (Sd = 0.718), and 4.24 (SD = 0.673), respectively, on a 5-point scale. While more research is clearly warranted, this study furthered the understanding and relation of Oreg et al. (2011) model components of organizational commitment and ORC.

The second aspect of the Oreg et al. (2011) model, explicit reactions, comprised of the sub-components of affective reactions, cognitive reactions (Holt et al, 2007), behavioral reactions (Madsen et al., 2005), and confounded reactions (Cunningham et al., 2002; Eb et al., 2000). While not used in this study Holt et al. developed an instrument to measure ORC. This instrument, like the OCQ-R, measures four basic principles of ORC. First, employees believe they can implement the change. Second, employees believe the change is appropriate for the organization. Third, organizational leadership is committed to change. Fourth, the change benefits the members of the organization. This study's design, using the OCQ-R, found that questions on the OCQ-R were related to these principles in the following manner: refer to Table 6. OCQ-R questions (2 Mean = 3.43, SD = 0.779), 4 (Mean = 3.74, SD = 0.816), 6 (Mean = 4.02, SD = 0.883), 12 (Mean = 3.79, SD = 0.832), 13 (Mean = 4.16, SD = 0.718), and 14 (Mean = 4.24, SD = 0.673), were found to be related to the principle that employees believe they can implement the change. The next principle found to be related was the employee's belief that the change was appropriate for the organization.

The final aspect of the Oreg et al. (2011) model, in which no articles had been identified, was the sub-construct of personal consequences. This study found a positive perception of the change and the personal impact of the change. Questions two and three of the OCQ-R survey were found to have positive relationships; Q2 - I have a good feeling about the change project Mean = 3.43, SD = 0.779; Q3 - I experience the change as a positive process Mean 3.83, SD = 0.808. Certainly, more study would be needed. However, this outcome indicates some positive relationship to the personal consequence of readiness for change.

This study looked to advance these theories and expand them to develop a deeper understanding of the relationship between transformational leadership activities, leadership/member exchange, employee work engagement, and organizational readiness for change. This study confirmed there is a relationship between these activities. It provided insight into what actions managers, leaders, and employees can take to improve outcomes for personal and organizational performance. The next section will explore these possible and proposed actions in more depth.

Implications for Practice

Transformational Leadership and Organizational Readiness for Change

What are the actions leaders can take? First, transformational leadership behaviors motivate employees to achieve more than they thought possible through influence, inspirational stimulation, and individualized consideration (Antonakis, 2011; Bass, 1985a; Bass & Avolio, 1993). As noted in Chapter One, Cummings and Worley (2009) noted that employees adopt change when their leaders are perceived to be envisioning, energizing, and enabling. How specifically can this be achieved? This study proposed envisioning, energizing, and enabling through effective and consistent one-to-one communication between managers and employees. This study found that transformational leadership, characterized by idealized influence (charisma), inspiration, intellectual stimulation, or individualized/idealized consideration was related to an organization's ability to manage readiness for organizational change (Bass, 1985b).

Specifically, this idealized influence (charisma), inspiration, intellectual stimulation, or individualized/idealized consideration were related to an individual's organizational readiness for change. For example, when asked the GTL survey question, "my supervisor communicates a clear and positive vision for the future", study participant responses were found to be positively related to organizational readiness for change GTL to OCQ_R SEM was found to be (β=.48, p>.05) question GTL 1 (β=.74, p>.05). Likewise, when asked, "my supervisor gives encouragement and recognition to staff', participant responses were found to relate to organizational readiness for change positively, GTL to OCQ_R SEM was found to be (β=.48, p>.05) question GTL 5 (β=.68, p>.05). Charisma, as defined by idealized influence, was also found to be positively related to organizational readiness for change. The final question in the GTL survey asked, "My supervisor instills pride and respect in others and inspires me by being highly competent." The responses to this question were found to be strongly correlated to higher levels of organizational readiness for change; GTL to OCQ_R SEM was found to be (β=.48, p>.05) question GTL 7 (β=.75, p>.05) as related to the GTL.

Additionally, when reconsidering the Job-Demands Resources model discussed in Chapter Two, we can see how this study's results support findings of how job resources are provided. Again, job resources can include feedback, support from a manager, role organization, autonomy, and performance feedback (Bakker & Demerouti, 2007). This study found when the manager provides such feedback and support, employees are likely to be engaged in work and ready for organizational change. When provided with resources like performance feedback, employees showed they were more likely to be ready for change (LMX to organizational readiness for change by SEM was found to be (β=.48, *p*>.05)). Specifically, when asked "my supervisor give encouragement and recognition to staff", this study found GTL to OCQ_R SEM was found to be (β=.48, *p*>.05) question GTL 3 (β=.79, *p*>.05) there was a strong correlation to an employee's organizational readiness for change.

In summary, this study provides additional insights into how leaders impact an organization's ability to be ready for change, which is associated with significant organizational change initiatives like M&A activities. Employees were found to respond to leaders' actions and intentions.

Transformational Leadership, LMX, and Organizational Readiness for Change

This study explored the manager and employee relationship through the exchange between a manager and their employee. As described above, this study found there is a positive relationship between transformational leadership and organizational readiness for change. Additionally, this relationship is mediated positively through the LMX model. LMX. LMX, being defined as the process by which "followers develop unique exchange relationships with their leader" (Breevaart, et al., 2015 p. 754), was found to be positively related to organizational readiness for change and to mediate the relationship between transformational leadership and organizational readiness for change. The "unique exchange," as described by et al. (2015) in this study, took the form of one-on-one meetings between manager and employee. Specifically, this study found that employees who felt connected and trusted their manager were likely to score higher in the LMX and the OCQ-R instruments. This signifies a strong relationship between transformational leadership characteristics and leader-member exchanges, which have a strong relationship to readiness for organizational change. LMX to OCQ_R SEM was found to be (β=.48, *p*>.05).

When asked the question in the LMX-MDM survey, “Because of our one-on-one meetings, I am impressed with my supervisor’s knowledge of his/her job” 98 out of 140, 70%, of respondents either somewhat or strongly agreed with this statement. While this is just one aspect of the manager-employee relationship, it is an example of how conversations during a one-on-one meeting can influence it. Additionally, when asked, “I am willing to apply extra efforts, beyond those normally required, to meet my supervisor’s work goals”, respondents answered and was also found to be positively related to organizational readiness for change, LMX to OCQ_R SEM was found to be (β=.48, p>.05) question LMX 8 (β=.56, p>.05). This speaks to the overall willingness for employees to exhibit discretionary effort because of their relationship with their manager. Because of this, managers should consider what actions they can take to build this type of relationship. Whether through periodic or more frequent one-on-one meetings, team meetings, or team-building events.

The finding that LMX did not mediate the relationship between transformational leadership and organizational readiness for change is interesting. There did appear to be some effect, (β= 0.1144, 95% CI [-0.0491, 0.2900], but as reported, not statistically significant. The combined effect of transformational leadership and LMX was found to be significant (β= 0.2592, 95% CI [0.1391, 0.3900]), which suggests further research into the nature of the relationships of these constructs is warranted.

Transformational Leadership, Work Engagement, and Organizational Readiness for Change

Other specific actions managers can take are activities to build engagement. This study not only found a direct positive relationship between work engagement and organizational readiness for change but also that the positive relation between transformational leadership and organizational readiness for change is mediated by work engagement. So, what actions can managers take to build employee engagement? As noted in Chapter Two, studies by Antonakis (2011), Baker and Demerouti (2008), Bass (1985b), and Eden (1998) found as this study found that managers build work engagement through idealized influence and inspirational motivation. This study proposed that influence and motivation occur during the one-on-one interactions between a manager and an employee. As noted earlier, successful one-on-one meetings have good meeting structure, effective time management, and a results orientation (Allen et al., 2012; Allen & Rogelberg, 2013; Nixon & Littlepage, 1992; Probst, 2005; Yoerger, et al., 2015). Through these efforts, employee readiness for change was found to be positively related to actions taken by managers to build work engagement.

These one-on-one interactions have been identified as other researchers and scholars as important to building engagement and these interactions can mediate the relationship between the leader and the employee. As noted in Chapter Two, Soane as noted in Truss, et al. (2013), found that one-way leaders build engagement is through individual interaction. Specifically, leaders have a direct influence on the frequency and intensity of such interactions. This study supports Soane’s finding. Hypothesis 3b of this study is the relationship between transformational leadership and organizational readiness for change, which will be mediated by work engagement. Baron and Kenny’s (1986) bootstrapping method explored organizational readiness for change as mediated by work engagement. This study found work engagement did mediate the relationship between transformational leadership and organizational readiness for change (β= 0.0780, 95% CI [0.1104, 0.5500]).

Limitations

The limitations and weakness of this research lie primarily in the nature of cross-sectional and self-reporting survey methodology. Regarding cross-sectional survey design, Nimon & Astakhova (2015) acknowledge the attractiveness of cross-sectional surveys in saving time and cost over longitudinal and experimental surveys. The researcher of this study also acknowledges the advantages of longitudinal and experimental in providing the strongest evidence of causality. To mitigate this weakness, care was taken in developing the research question, hypothesis development, and conclusions drawn from this research not to claim causality, but to explore the relationship of the variables of transformational leadership, LMX, work engagement, and organizational readiness for change.

Regarding self-reporting survey methods, Nimon and Astakhova (2015) promote self-reporting when the research question fits. This research explored the relationship between transformational leadership, LMX, work engagement, and organizational readiness for change. Nimon and Astakhova supported the use of self-reported measures in instances when care is taken to design the research questions, methods, and data analysis appropriate to investigating relationships and not causality.

Nimon & Astakhova (2015) encouraged researchers to use cross-sectional designs to measure and control for common method bias (CMB), which they defined as “the degree to which a method's effect inflates correlations” (p. 241). This research took the following steps to control for CMB as suggested by Nimon & Astakhova. First, the distributed survey placed the dependent variable instrument, the GTL, UWES-9, LMX-MDM, and OCQ-R, questions at the beginning of the survey. Second, during data collection, care was taken to protect participant anonymity, and these precautions were communicated to the participant. Finally, the CMB impact was mitigated by controlling for latent variables such as age, job tenure, job role, and education level.

Given the importance of the manager-employee relationship in this study, another potential limitation is the extent to which participants experienced a change in the manager over the course of their time with the company and the study. The study did not directly control for this potential limitation. It is certainly possible and, in some cases, likely that a participant experienced a manager change during the company integration. Participants were not asked to complete the survey for each manager they had during their time with the company but for their current manager. If an error had been introduced from this limitation, it would have been observed in the completion of the GTL and the LMX-MDM instruments. As indicated in Chapter Four, alpha coefficients for both instruments were found to be .915 and .924, respectively, greater than .7, the generally acceptable limit indicating good internal consistency.

The length of time with the company and the extent to which all participants had the same experiences during the merger and company integrations could have also been a limitation in the study. While this was not directly controlled for in the study, the length of time the participant had been with the company was a question in the survey and results are listed in chapter three. Table 9 lists the results of the correlation analysis, which was performed on the demographic characteristics, and no significant correlation was found between the length of time with the company and the study variables.

Another limitation of this research is the ability to generalize to other organizations and locations. Participants of the study were members of a biopharmaceutical organization in the Pacific Northwest of the US. The response rate of 12% was less than desired. This impacts the relatability of the data and results. Typically, a response rate of 50% is desired to provide adequate confidence in the study results as they relate to standard statistical analysis.

Additionally, for bootstrap analysis, one typically desires to have at least 100 usable samples. This study had 125. While less than desired, the number of usable samples provided valuable insight as to the moderation of organizational readiness for change by both LMX and work engagement.

The results of the confirmatory factor analysis do bring into question the validity of the SEM results. The poorer confirmatory factor analysis results were possibly due to the smaller sample size and the then lower number of complete responses that were available to be used for the data analysis. The concern is non-response bias, defined as "…individuals from a special subset of the population are systematically omitted from a particular sample…" (Berg, 2010, p. 865). Initially, this study intended to distribute the request for the study through the internal mail of the company's client. Permission for this was obtained from the company being acquired. However, at the time of the survey request distribution and due to the related merger, the acquiring company's permission had not been obtained and would likely not be obtained. As an alternative, the list of personnel of the acquired company and the target population was obtained, and the participants were sent a communication through LinkedIn, the social networking website.

The question is through this change in using the LinkedIn platform to distribute the survey request, was non-response bias introduced? In short, I do not believe that it was. While using the internal email client could have improved the response rate, it necessarily would have. One concern with the use of LinkedIn could be that it selected for a population of people who use it and may have certain non-random characteristics. While demographics of the population could not be gathered from the internal company systems, the self-reported demographics appear to be consistent with the observed population of the company and, therefore, the study population. The demographic response data discussed in Chapter Three do not indicate any apparent or wildly unexpected results. Gender, age, education, role, level, and time with company listed in Table 3 and 4 appear to be consistent with the observed demographics.

There is also an argument against using the internal email client. Participants could have perceived the request for a non-work-related request through their work email as intrusive and not completed the study. Recommendations for improving the response rate are included in the recommendation for future research below.

Another possibility for poorer-than-expected confirmatory factor analysis results was a misalignment of the initial model with the collected data. Modifications to the initial model could possibly improve the model fit. These modifications were made and are discussed below.

Model Modifications

Considering the results of the confirmatory factor analysis, I conducted several additional model modifications to explore if a better-fitting model could be identified. First, incomplete responses were removed from the data set and the SEM model was modified using the Modification Indices in SPSS AMOS. The removal of the incomplete responses allowed for the generation of the Goodness of Fit Indices, in SPSS AMOS. Since the initial study allowed for the inclusion of incomplete results, the GFI could not be generated as the SPSS AMOS analysis required the "Estimate means and intercepts" toggle to be selected. The modification of the model using the Modification Indices allowed for the covariance of error estimates of certain errors related to the study variable, improving the model's fit. The error correlation covariances were selected by reviewing the Modification Indices and selecting the covariances that would have the largest positive impact on the model fit.

The results of the CFA of the initial model and of the error-modified model are listed in Table 13.

Table 13
Error Modified Confirmatory Factor Analysis

	Chi-Square (*df*)	GFI	CFI	NFI	RFI	TLI/NNFI	RMSEA
Initial Estimates	$\chi(813) = 1752.991$, P<.001	N/A	.748	.662	.580	.720	.090
Error Modified Estimates	$\chi(786) = 1239.039$, P<.001	.692	.868	.771	.684	.855	.068

These modifications alone did make a modest improvement to the fit of the model, leading to ~15% increase in CFI, NFI, RFI, and TLI results. While still below the generally accepted .9 value for these indices, in the case of CFI and TFI, they are substantially closer to this level (Kline, 2016). More significantly, this led to an improvement in the RMSEA result of .068, which is within the range of an acceptable fitting model (Wittaker, 2016).

Additionally, several modifications to the initially proposed SEM model were made to explore how the changes would impact the model fit. These modifications include simplifying the model by removing one or more of the initially proposed variables. These modifications and results are discussed below. Table 14 lists the summary modifications and results of confirmatory factor analyses.

Table 14
Model Modification Confirmatory Factor Analysis
Note. GTL: Global Transformational Leadership, LMX: Leader-Member Exchange, UWES: Utrecht Work Engagement Scale, OCR: Organizational Change Readiness. * Indicate results within an acceptable range (Kline, 2016; Wittaker, 2016).

	Chi-Square (*df*)	GFI	CFI	NFI	RFI	TLI	RMSEA
Initial Estimates	$\chi(813) = 1752.991$, P<.001	N/A	.748	.662	.580	.720	.090
Error Modified Estimates	$\chi(786) = 1239.039$, P<.001	.692	.868	.771	.684	.855	.068*
Removed UWES	$\chi(473) = 650.672$, P<.001	.759	.931*	.789	.765	.922*	.055*

Removed GTL	$\chi(531) = 874.563, P<.001$	.723	.868	.727	.694	.852	.075*
Removed LMX	$\chi(402) = 878.253, P<.001$	.674	.760	.637	.607	.740	.098
UWES to OCR	$\chi(211) = 327.745, P<.001$	.815	.912*	.792	.751	.894	.067*
LMX to OCR	$\chi(280) = 404.478, P<.001$	.803	.930*	.809	.778	.919*	.060*
GTL to OCR	$\chi(177) = 257.680, P<.001$	.835	.936*	.825	.792	.924*	.061*

Modifying the models by removing one of the variables, as well as simplifying the model to a single variable related to organizational readiness for change, did generally improve the overall fit of the model. While not raising all the results of the GFI, CFI, NFI, RFI, and TLI to generally accepted levels of greater than or equal to .9, all modified models showed an increase in results as compared to the initial model. Of note are the results related to the removal of work engagement. When variable work engagement was removed, there was an improvement in CFI, TLI, and RMSEA. There were more modest improvements when the transformational leadership variables and leader-member exchange were removed. One interpretation of this outcome could be that work engagement is irrelevant in the proposed model.

In reviewing the questions of the UWES instrument, it is possible to see why work engagement may not be the best fit for a model related to improving organizational readiness for change. With questions exploring vigor such as "…bursting with energy" and "…feel like going to work" it is possible to imagine that employees going through a change related to a merger or acquisition event may not be feel like they are "bursting with energy". More likely, and as shown by the improvement in the model fit when the model was simplified to a direct path model of LMX to organizational change readiness (NFI, .930; TLI, .919; RMSEA, .06) and transformational leadership to organizational change readiness (NFI, .936; TLI, .924; RMSEA, .061).

Figure 10 depicts the results of the path analysis for the error-modified model with missing data removed. While the overall model fit, as measured by the CFA, improved, the path analysis between transformational leadership and work engagement, as well as between LMX and organizational change readiness, decreased.

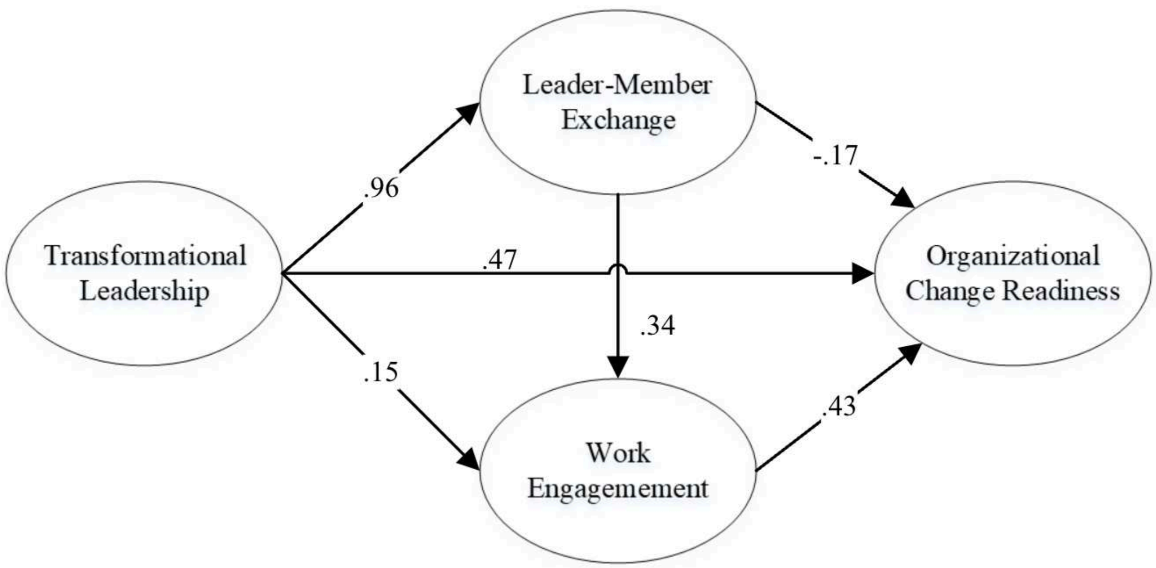

Figure 10
Path analysis for the error-modified model with missing data removed.

The following figures, Figure 11 through Figure 16 depict the path model SEM results. The initial model was simplified by removing one or two of the constructs from the initial model.

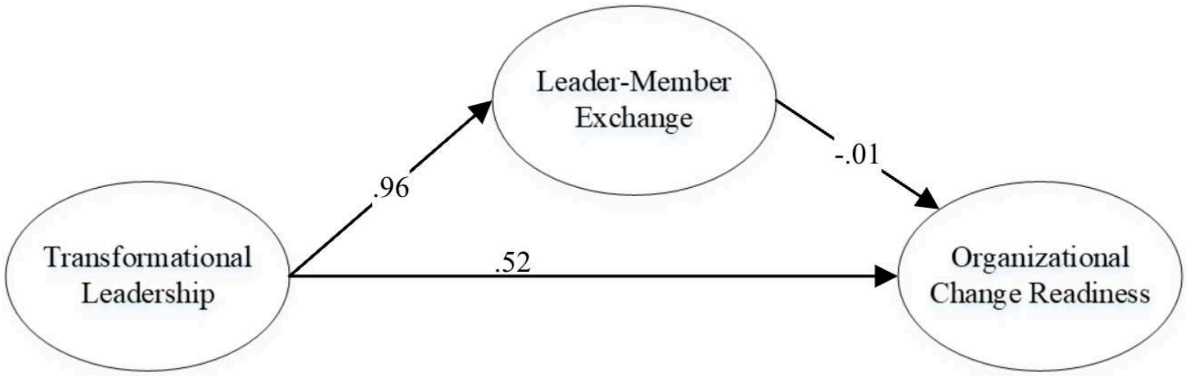

Figure 11
Path analysis for the error-modified model with missing data removed and Work Engagement removed.

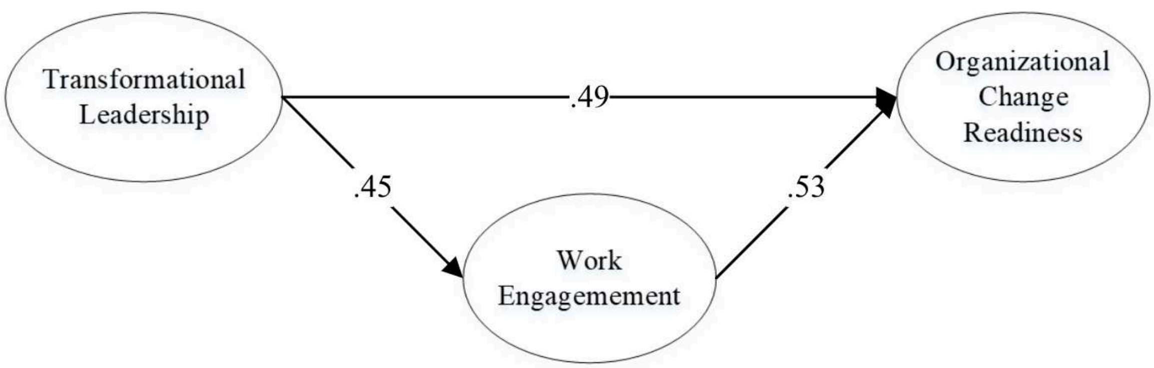

Figure 12
Path analysis for the error-modified model with missing data removed and LMX removed.

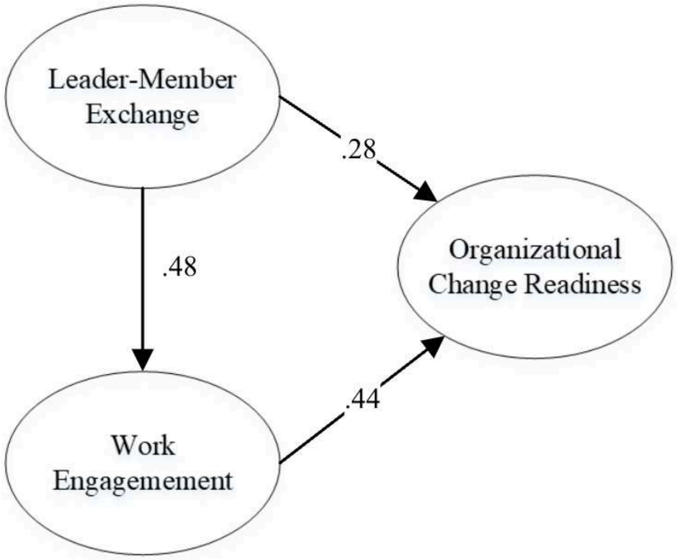

Figure 13
Path analysis for the error-modified model with missing data removed and Transformational Leadership removed.

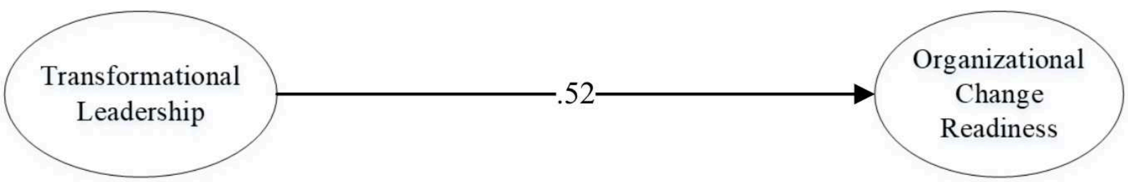

Figure 14
Path analysis for the error-modified model with missing data removed for Transformational Leadership and Organizational Change Readiness.

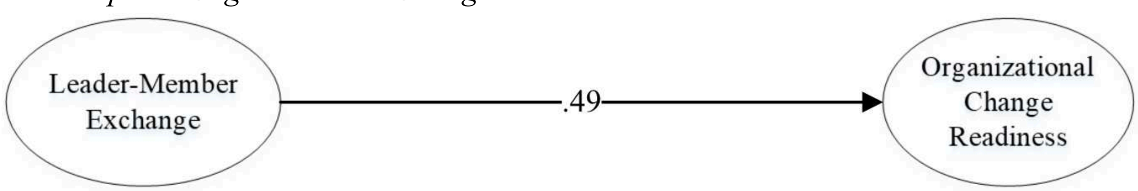

Figure 15
Path analysis for the error-modified model with missing data removed for Leader-Member Exchange and Organizational Change Readiness.

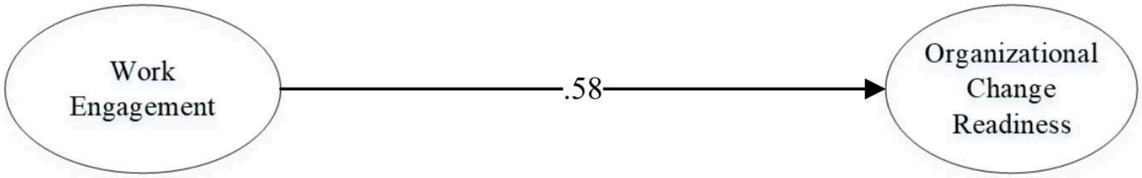

Figure 16
Path analysis for the error-modified model with missing data removed for Work Engagement and Organizational Change Readiness.

In summary, the results of the modifications to the initial model reveal several interesting results. First, the removal of incomplete responses and the error modifications in the SEM modeling improved the overall model fit as compared (RMSEA, .068) to the initial model (RMSEA, .090). Second, the removal of work engagement from the model improved the model fit as measured by the confirmatory factor analysis measures of GFI, CFI, TLI, and RMSEA, see Table 13. Third, with the modifications to the models, there was an increase in the strength of the path analysis results over the initial model, except for the relation of LMX to organizational change readiness, see Figures 11 through 16.

Recommendations for Future Research

While this study did find a relationship between the constructs of transformational leadership, leader-member exchange, employee work engagement, and readiness for change, additional research could be conducted to explore further the nature of other contexts of organizational readiness for change. This study was conducted on a population that had recently experienced two major company acquisitions in two years. The study framework and survey instruments could be replicated on a different population in different industries.

This study was conducted during the global Coronavirus pandemic in 2021. As such, questions were asked of the participants about their experience with working remotely, the amount of time spent in virtual meetings, their perception of the impact of working remotely on their relationship with their manager, and the frequency they had felt nervous, anxious, or on edge in the two weeks preceding completing the survey. The study found that most participants had experience working remotely, 71% with at least one year experience, and were 94% attended at least 1 hour of virtual meetings a week 59% with at least 3 hours, 68% found working remotely did not impact their relationship with their manager and did find 54% of participants had experienced at least several days of anxiety or nervousness in the preceding two weeks. Working remotely and in virtual meetings, the impact on their manager relationship had no impact on the study variables or the relationships between them. Interestingly, though, the frequency they had felt being nervous, anxious, or on edge in the two weeks preceding completing the survey did have an impact on the responses provided for a leader-member relationship, as measured by the LMX instrument, and employee engagement, as measured by the UWES instrument.

Future research could explore how nervousness and/or anxiety influence or is related to the manager/employee relationship and employee work engagement. This study did not ask participants to connect the nervous or anxious feeling to any cause. So, as it relates to this study, it is unclear if these feelings were related to the merger/acquisition-related activities to working remotely or another undefined situation. Therefore, it would be interesting to explore this phenomenon further as it pertains to what actions a manager takes to impact these feelings or how specifically these feelings influence employee work engagement. A potential connection between merger/acquisition activities and feelings of nervousness and anxiety is easier to imagine.

Additionally, it is intriguing that this study found no impact of working remotely on any aspects presented as the focus of this study, such as transformational leadership, leader-member exchange, employee work engagement, and readiness for change. Many return-to-office advocates, post the conclusion of this study, have positioned remote work as related to reduced employee work engagement and manager/employee relations and reasons for why employees need to return to the office. While this research study is a single study to reflect this, additional research could provide additional insights into what aspects of in-office work promote employee work engagement and manager-employee relations.

Lastly, this study could be repeated with a larger sample size and a higher number of complete responses. This would hopefully improve the CFA results and strengthen the SEM validity. One recommendation would be to send the study survey request from company leadership. This would potentially improve the likelihood of employee participation as leadership could provide endorsement of the request.

Summary

The purpose of this study was to investigate the relationship between transformational leadership and organizational readiness for change as mediated by the quality of the leader-member relationship and employee work engagement. This research hypothesized there is a positive relationship between transformational leadership and organizational readiness for change in a biotechnology firm in the Pacific Northwest in which the organization experienced the announcement of two separate acquisitions within a 12-month period. This research found that transformational leadership is related to developing high-quality leader-member exchange, work engagement, and organizational readiness for change in the study population.

The study looked to answer the question, what is the relation of transformational leadership and organizational readiness for change as mediated by LMX and work engagement? The conclusion of this study is that there is a positive relationship between transformational leadership and organizational readiness for change. All hypotheses were supported. However, the lower response rate and number of complete responses likely contributed to the finding of poorer model fit as measured by CFA and brought into question the SEM results. Specifically, the proposed model was found to be poorly supported in CFA, but there were positive relationships between the proposed factors as measured by SEM. However, model modification, specifically when work engagement was removed, improved the fit of the overall model as measured by both CFA and SEM methods.

This research found a relationship between the transformational leadership styles and actions managers and leaders take and the readiness of employees for organizational change in support of organizational performance and the success of change events. Hopefully, this study will provide insights to scholars and practitioners on the actions that organizations can take when faced with large-scale organizational change events, such as mergers and acquisitions.

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APPENDICES

APPENDIX A

Survey Instrument:

Global Transformational Leadership (GTL):

Item responses ranged from 1 = rarely or never to 5 = very frequently or always

1. My supervisor communicates a clear and positive vision of the future.
2. My supervisor treats staff as individuals, supports and encourages their development.
3. My supervisor gives encouragement and recognition to staff.
4. My supervisor fosters trust, involvement and cooperation among team members.
5. My supervisor encourages thinking about problems in new ways and questions assumptions.
6. My supervisor is clear about his/her values and practices what he/she preaches.
7. My supervisor instills pride and respect in others and inspires me by being highly competent.

LMX-MDM:

Item responses ranged from 1 = strongly disagree to 7 = strongly agree

1. I like my supervisor very much as a person.
2. My supervisor is the kind of person one would like to have as a friend.
3. My supervisor is a lot of fun to work with.
4. My supervisor defends my work actions to a superior, even without complete knowledge of the issue in question.
5. My supervisor would come to my defense if I were "attacked" by others.
6. My supervisor would defend me to others in the organization if I made an honest mistake.
7. I do work for my supervisor that goes beyond what is specified in my job description.

8. I am willing to apply extra efforts, beyond those normally required, to meet my supervisor's work goals.

9. I do not mind working my hardest for my supervisor.

10. Because of our one-on-one meetings, I am impressed with my supervisor's knowledge of his/her job.

11. I respect my supervisor's knowledge of and competence on the job.

12. I admire my supervisor's professional skills.

Work & Well-Being Survey (UWES):

Items responses ranged from 0. Never 1. Almost never 2. Rarely 3. Sometimes 4. Often 5. Very often 6. Always

1. At my work, I feel bursting with energy (VI1)

2. At my job, I feel strong and vigorous (VI2)

3.I am enthusiastic about my job (DE2)

4. My job inspires me (DE3)

5. When I get up in the morning, I feel like going to work (VI3)

6. I feel happy when I am working intensely (AB3)

7. I am proud on the work that I do (DE4)

8. I am immersed in my work (AB4)

9. I get carried away when I'm working (AB5)

OCQ-R:

Items responses ranged from 1 (strongly disagree) to 5 (strongly agree)

1. My department is very open.

2. I have a good feeling about the change project.

3. I experience the change as a positive process.

4. I find the change refreshing.

5. I am somewhat resistant to change.*

6. I am quite reluctant to accommodate and incorporate changes into my work.*

7. I think that most changes will have a negative effect on the clients we serve.*

8. Plans for future improvement will not come too much.*

9. Most change projects that are supposed to solve problems around here will not do much good.*

10. The change will improve work.

11. The change will simplify work.

12. I want to devote myself to the process of change.

13. I am willing to make a significant contribution to the change.

14. I am willing to put energy into the process of change.

Demographic:

1. My role in the organization is

   1. Manager 2. Individual contributor

2. My level in the organization is:

   1. Vice President 2. Director 3. Manager 4. Specialist 5. Associate

3. I have been with my current company for:

   1. 0-2 Years 2. 2-5 Years 3. 5-10 Years 4. 11-15 Years 5. 15-20 Years 6. 20+ Years

4. Please select your gender:

   1. Female 2. Male 3. Choose not to indicate

5. Please select your age range.

1. 18 – 34 2. 35 – 49 3. 50 – 68 4. 68 + 5. Choose not to indicate

6. Please indicate the highest level of education completed:

1. High School/GED 2. Some college 3. Undergraduate degree 4. Graduate degree 5. PhD.

7. Are you currently working from home/remotely?

1. Yes 2. No

8. How much experience do you have working from home/remotely?

1. 1-2 years 2. 3-5 years 3. Greater than 5 years

9. How much are you meeting online/virtually with your colleagues each day?

1. 1-2 hours 2. 3-5 hours 3. 6-8 hours 4. More than 8 hours

10. How has working from home/remotely impacted the amount of time you meet with your manager?

1. We are meeting more frequently 2. We are meeting less frequently 3. We are meeting about the same amount

11. Over the last 2 weeks, how often have you been bothered by feeling nervous, anxious or on edge?

1. Not at all 2. Several days 3. More than half the days 4. Nearly every day

APPENDIX B

Dear Participant,

My name is Mark Hutt and I am a researcher from Colorado State University (CSU) in the School of Education, Organizational Leadership, Performance, and Change (OLPC) department. We are conducting a research study on organizational readiness for change. The title of our project is "The Relationship of Transformational Leadership and Organizational Readiness for Change as Mediated by Leader-Member Exchange and Work Engagement". The Principal Investigator is Dr. Thomas Chermack of the School of Education and I am the Co-Principal Investigator as a PhD. Candidate in the OLPC department at CSU. Many of you may also know me as the Director, GMP Training in CTDO at BMS.

We would like you to take an anonymous online survey. Participation will take approximately 15 minutes. Your participation in this research is voluntary. If you decide to participate in the study, you may withdraw your consent and stop participation at any time without penalty.

We will not collect your name or personal identifiers. When we report and share the data to others, we will combine the data from all participants. While there are no direct benefits to you, we hope to gain more knowledge on investigate the relationship between transformational leadership and organizational readiness for change, as mediated by the quality of the leader-member relationship and employee work engagement.

There are no known risks by participating in this research. It is not possible to identify all potential risks in research procedures, but the researchers have taken reasonable safeguards to minimize any known and potential (but unknown) risks.

To indicate your consent to participate in this research and to continue on to the survey, please click here: http://colostate.az1.qualtrics.com/jfe/form/SV_0NUs0EhQnUIHbHT

If you have any questions about the research, please contact Mark Hutt at mark.hutt@colostate.edu. If you have any questions about your rights as a volunteer in this research, contact the CSU IRB at: RICRO_IRB@mail.colostate.edu; 970-491-1553.

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