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TESTING AN ADAPTED AND INTEGRATED MODEL OF MOTIVATION TO LEAD AND INTENTION TO APPLY

Mandolen Mull
University of Texas at Tyler

TESTING AN ADAPTED AND INTEGRATED MODEL OF MOTIVATION TO LEAD AND INTENTION TO APPLY

by

MANDOLEN MULL

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Kim Nimon, Ph.D., Committee Chair

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MANDOLEN MULL

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Approvals:

Dissertation Chair: Kim Nimon, Ph.D.

Member: Paul Roberts, Ed.D.

Member: Greg Wang, Ph.D.

Interim Chair, Department of Human Resource Development: Mark R. Miller, Ph.D.

Interim Dean, Soules College of Business: Roger Lirely, Ph.D.

Dedication

This dissertation, and the degree that it concludes, is dedicated to my father, Johnny D. West. During my formative years, he dropped me off at school each morning with the same directive, “Learn something new today”, and it was that adherence to knowledge expansion that brought me to this scholarly domain. As well, his deep commitment to the development of his employees fostered my own leadership and organizational development skills.

Countless times, I have witnessed my father sacrifice for others, work through unfavorable conditions, and overcome seemingly insurmountable obstacles with ease. As a child, I would bring broken toys or jewelry to him for repair. He’d sit at the dinner table, after a long day’s work in the hot Texas sun, and tinker with a $3.00 toy because he knew it was my favorite. As a teenager, he fixed the car when I crashed it. As an adult, he fixed my eyes on hope and success when I ventured out into new realms and encountered challenges. Although the process of this doctoral pursuit brought me against many daunting obstacles, my father remained my most ardent supporter and my constant protector. Undeniably, it was the knowledge of this very dedication to him that kept me striving onward despite those trials.

Throughout my entire life, my father has taught me, he has inspired me, and he has developed me into the woman I am today- and the woman I am still becoming. Indeed, what my father has instilled in me will most certainly be infused throughout the classrooms in which I am fortunate enough to teach, and imparted to those I am honored to mentor. There simply would be no Dr. Mull without Johnny West.

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Abstract

TESTING AN ADAPTED AND INTEGRATED MODEL OF MOTIVATION TO LEAD AND INTENTION TO APPLY

Mandolen Mull

Dissertation Chair: Kim Nimon, Ph.D.

The University of Texas at Tyler
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Leader development is a growing field of study within the leadership and human resource development (HRD) fields. As such, various studies have evaluated the traits, skills, and situational influences that contribute to an individual's likelihood of becoming a leader. However, often researchers fail to examine an individual's intention to apply for a leadership position within their examination of an individual's leadership potential. Although prior research has examined the motivation to lead (MTL), very little research has examined the relationship between an individual's MTL and their intention to apply for a leadership position. Furthermore, no research to date has evaluated the antecedents of MTL and their relationship to the intention to apply for a leadership position. Therefore, the current study integrated personality traits, values, past leadership experience, perceptions of leadership, and the motivation to lead within the same model to assess the impact on an individual's intention to apply for a leadership position. A parsimonious model of the intention to apply for a leadership position (IALP) is derived through various statistical analyses such as factor analysis, hierarchical regression analysis, and path analysis. It was found that the personality traits of extraversion and openness to experience, as well as the value of vertical individualism either indirectly or directly influenced an individual's intention to apply for a leadership position. Additionally, past leadership

experience, leadership self-efficacy, and MTL were found to have a direct impact on an individual's intention to apply for a leadership position. Therefore, impacts to theory, practice, and research were discussed.

Key words: intention to apply for a leadership position, motivation to lead, personality traits

Chapter One—Introduction

Background to the Problem

Leadership models offer a framework for creating leadership development programs (Pearce, 2007). A leader's personal characteristics, such as personality and values, impact the ability to build meaningful relationships with colleagues and followers (Deci & Ryan, 2002; Miniotaitè & Buciunienè, 2015; Ryan & Deci, 2008). Supporting Ryan and Deci's (2008) argument that personality traits constitute a predictive fulcrum across various situations and environments, Strauss, Griffin, and Parker (2012) found that identifying employee values provided understanding of the employee's future work performance, including the motivation to lead. While the aforementioned studies indicate a need for assessing a leader's personality and values, Dries and Pepermans (2012) reported that as little as one third of organizations in the United States have clearly defined protocols for examining the leadership potential of current employees. Instead, many organizations rely primarily on prior or current performance reviews in their evaluation of an employee's future leadership potential (Church & Silzer, 2014).

Although a need for leadership within the business realm exists, it is important to first define leadership. Leadership is a concept that has historically been difficult to define, with even conventional dictionaries providing circular definitions such as "individuals who are the leaders in an organization" (BusinessDictionary.com, 2017) or "the office or position of a leader" (Merriam-Webster Dictionary, 2017). Winston and Patterson (2006) evaluated myriad definitions for leadership and presented an integrative definition as:

> [O]ne or more people who selects, equips, trains, and influences one or more follower(s) who have diverse gifts, abilities, and skills and focuses the follower(s) to the organization's mission and objectives causing the follower(s) to willingly and enthusiastically expend spiritual, emotional, and physical energy in a concerted coordinated effort to achieve the organizational mission and objectives. (p. 7)

However, it is clear that even this attempt at a robust, yet concise, definition of leadership contains many components enjoined by the term "and", thereby producing a rather narrow class of individuals who would conventionally be described as a "leader."

Motivation is another term amorphously defined (Kleinginna & Kleinginna, 1981), although it is commonly described as a desire to accomplish a goal or activity (Oxford Dictionary, 2017). Conversely, intention is defined as a direction of behavior (Hung & Petrick, 2011). Although motivation is often used interchangeably with intention (Kleinginna & Kleinginna, 1981), Weinstein and Rothman (2005) indicated that intention is "behavior in the expected direction" (p. 295). Yet the authors cautioned that intentions "can never substitute for behavior" (p. 295). In other words, as Ajzen (1985) described, the combination of one's favorable or unfavorable attitudes toward a behavior, the perceived social pressure concerning the behavior, and the feeling of control that one has regarding the behavior all culminate to form an intention. As well, Bagozzi (1981) found that intention was the intermediary step between attitude and behavior.

Therefore, "intention is thus assumed to be the immediate antecedent of behavior" (Ajzen, 1985, p. 1). Chan, Rounds, and Drasgow (2000) first introduced the concept of motivation to lead (MTL), which pertains to an individual's desire for holding a position

of leadership (Amit, Lisak, Popper, & Gal, 2007; Chan & Drasgow, 2000; Hong & Catano, & Liao, 2011). Based on the distinction between motivation (a desire) and intention (a direction of behavior), one could infer that an individual's motivation to lead, and the intention to apply for a leadership position, would therefore be two distinct constructs. In fact, Felfe and Schyns (2014) stated that they found, through the comparison of a two-factor and single-factor CFA model, that MTL and the intention to apply for a leadership position were "distinct measures" (p. 856), although the factor analysis the author's performed is not a sufficient method for declaring nomological validity (cf. Shuck, Nimon, & Zirgarmi, 2017).

Thus, as motivations and intentions are important to the realm of leadership, an articulated definition of leadership is needed that includes a clearer distinction between motivation and intention. Therefore, the definition of leadership used for the purposes of this study includes the distinction between motivation and intention. Ward (2017) offered this definition of leadership: "leadership is the art of motivating a group of people to act towards achieving a common goal" (p. 1). This definition can be sufficient for the purposes of this research if we interpret "motivating" as creating a desire (cf. Allen, 1999) and "act towards" as representing intention (cf. Weinstein & Rothman, 2005).

While many landmark studies have evaluated the motivations of a leader (e.g., Herzberg, 1966; House, 1971; McGregor, 1960), the review of literature has revealed that an individual's intention to apply for a leadership position has largely been ignored in scholarly research. In fact, a brief Google Scholar search conducted in May 2018 yielded only three articles containing the direct phrase "intention to apply for a leadership position." Additionally, although prior research regarding intention to apply has

evaluated situational factors that may impact an individual's intention to apply for a vacant position (Nater & Sczesny, 2016; Neidhart & Carlin, 2003; Prooijen & Ellemers, 2015), the studies did not pertain specifically to leadership positions, or the studies only evaluated applicants only after they had applied for a position (Taylor & Bergmann, 1987).

Statement of the Problem

Scholarly literature, as well as practitioner studies, have indicated a need for measuring leadership potential (Silzer, 2010; Spreitzer, McCall, & Mahoney, 1997). Although Dries and Peppermans (2012) indicated that as few as a third of U.S. organizations have clear criteria for evaluating potential leaders, other research indicates that number is between 31 and55% of organizations lacking a measure for identifying leaders (e.g., Silzer, Slider, & Knight, 1994; Slan & Hausdorf, 2004; Wells, 2003). While leadership theory has been studied for decades (Avolio, Reichard, Hannah, Walumbwa, & Chan, 2009), evaluating leader development has had a relatively short research history (Day, Fleenor, Atwater, Sturm, & McKee, 2014). Day, Harrison, and Halpin (2009) suggested that leader development occurs simultaneously with adult development, and therefore, "we need to focus on development as much as leadership to shed light on how this process unfolds" (Day et al., 2014, p. 64). Therefore, to develop leaders it is important for organizations to be able to identify individuals with leadership potential (Clinton, 2017). However, merely identifying leadership potential is not enough if the individual has no intention to actually apply for a leadership position. While there is a clear need for identifying potential leaders, research examining an employee's intention to apply for a leadership position has been neglected within social sciences as researchers

struggle to ascertain the impact that individuals' motivations and intentions have on their application for a leadership position.

Intentions have been defined as differing from motivations in the organizational domain (Koys, 2011; Wright & Bonett, 2007) and in the psychological realm (Ajzen & Fishbein, 1980; Bagozzi, Baumgartner, & Yi, 1989). Furthermore, the concepts of intentions and motivations, independent of the action of applying for, or assuming a leadership position, have been shown to be distinct constructs (Fishbein & Ajzen, 1975; Li & Cai, 2012). This is an important distinction to evaluate as individuals may desire, or are motivated, to perform a behavior yet do not intend to carry out that behavior. As motivation indicates a desire, intention refers to directing effort in performing a behavior. For example, an individual may be motivated to exercise, but not have the intention to do so (Bagozzi, 1992). Therefore, intention pertains to harnessing one's motivation and the level of effort an individual is willing to exert to perform a behavior (Ajzen, 1991).

However, Chan and Drasgow's (2001) definition of MTL confuses the lines between motivation and intention as they define MTL as a "construct that affects a leader's or leader-to-be's decisions to assume leadership training, roles, and responsibilities and that affect his or her intensity of effort at leading and persistence as a leader" (Chan & Drasgow, 2001, p. 482). While Chan et al. (2012) indicated that they evaluated an individual's "intention to pursue an entrepreneurial, a professional, or a leadership career" (p. 75) related to leadership motivations, the "intention" measure used by the authors contained items focused on career aspirations or plans, rather than the specific intention to apply for a leadership position. Prior research has indicated that aspirations and intentions are distinct constructs (Bigliardi, Petroni, & Dormio, 2005;

Shinnar, Pruett, & Toney, 2009). However, Chan et al. (2012) studied career aspirations as being comprised of motivation, efficacy, and intention. Therefore, the only studies to date that have specifically evaluated MTL and the intention to apply for a leadership position are those conducted by Felfe and Schyns (2014), and Stiehl, Gatzka, Elprana, and Felfe (2015). Although Felfe and Schyns (2014) evaluated MTL and intention to apply for a leadership position within the same model, they did not evaluate the relationship between the antecedents of MTL and the intention to apply for a leadership position. Additionally, while Stiehl, Gatzka, Elprana, and Felfe (2015) included personality traits within their study they did not include the remaining antecedents evaluated in Chan and Drasgow's (2001) study, nor Felfe and Schyns's (2014) study. As such, it is unknown if a relationship exists between the antecedents of MTL and the intention to apply for a leadership position. This potential relationship is important to investigate because Chan and Drasgow (2001) observed antecedents to MTL, Felfe and Schyns (2014) observed that MTL is the antecedent to intention to apply for a leadership position, and Ajzen (1985) found that intention was the direct antecedent to behavior. Therefore, it is necessary to study the intention to apply for a leadership position within the MTL framework presented by Chan and Drasgow (2001) to provide a robust understanding for assisting organizations in identifying potential leaders.

This study sought to address two primary research gaps. The first gap pertains to a lack of research within the HRD field of study that evaluates the intention to apply for a leadership position. With human resource officers declaring leader development as the crucial component needed for organizational success (IBM, 2010), understanding individuals' intention and motivation to lead should be of significance to HRD scholars.

However, to the best of the researcher's current knowledge, intention to apply has not been studied within the realm of HRD, and MTL has been only tangentially evaluated within the field (e.g., Hutchins & Rainbolt, 2017; Kirchner & Akdere, 2014).

The second research gap that the current study sought to address concerned the antecedents to MTL model created by Chan and Drasgow (2001). The authors claimed MTL as an indicator of potential leadership, yet neglected to include intention, which is the "immediate antecedent of behavior" (Ajzen, 1985, p.1). Therefore, it may be argued that MTL stops short of being able to predict leadership potential, as claimed by Chan and Drasgow (2001). The current study sought to rectify the shortcoming by evaluating the intention to apply for a leadership position construct within the antecedents to MTL model.

Purpose of the Study

The purpose of this study was to test an adapted portion of Chan and Drasgow's (2001) model that integrates additional constructs informed by Felfe and Schyns's (2014) model to examine the intention to apply for a leadership position (IALP). The IALP model (Figure 1) provides a framework with which to examine the relationships between the independent variables of personality (extraversion, conscientiousness, openness to experience, agreeableness, and emotional stability) and values (vertical individualism, horizontal individualism, vertical collectivism, and horizontal collectivism), as they relate to the intervening variables of past leadership experience, perceptions of leadership (leadership self-efficacy, personal initiative, and Romance of Leadership), and affective–identity MTL, with the dependent variable of intention to apply for a leadership position.

Relationships established between personality traits, values, past leadership experience, leadership self-efficacy, and affective–identity MTL evaluated in Chan and Drasgow's (2001) study, and those relationships identified by Felfe and Schyns (2014) between personal initiative, Romance of Leadership, affective–identity MTL, and the intention to apply for a leadership position have been identified within Figure 1.

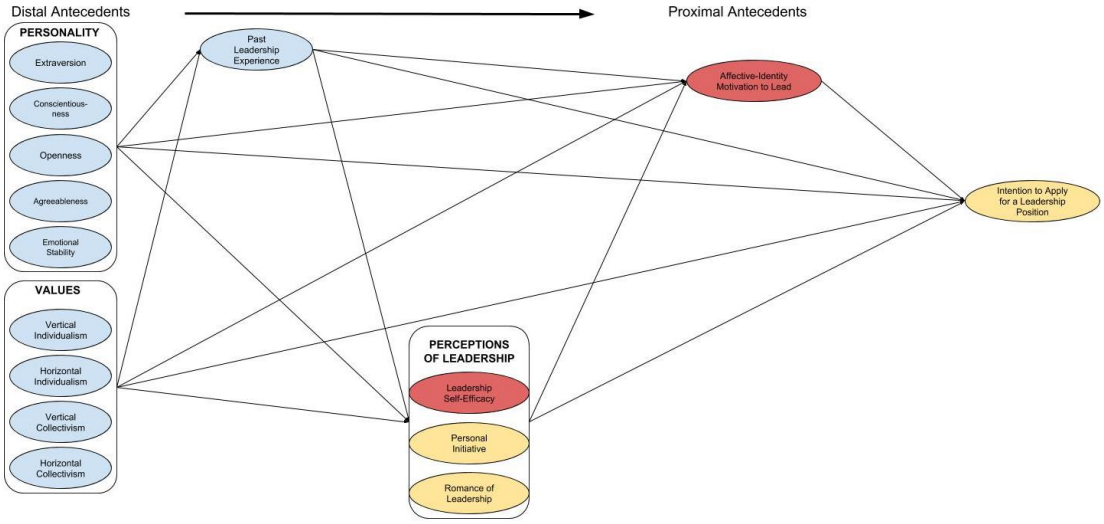

Figure 1. Intention to Apply for a Leadership Position (IALP) Model. Variables in blue are from Chan and Drasgow's (2001) model, with variables in tan from Felfe and Schyns's (2014) model. Variables in red are those included in both models.

Theoretical and Conceptual Underpinnings of the Study

This study was underpinned by the theory of planned behavior. Although this study included an evaluation of leadership self-efficacy and personal initiative, both constructs that have originated within Bandura's (1986) general social cognitive theory (Bobbio & Manganelli Rattazzi, 2006; Chan & Drasgow, 2001), as well as the theory of Motivation to Lead (Chan & Drasgow, 2001), the basis of this study focused primarily on the theory of planned behavior (Ajzen, 1985). However, due to motivation being identified as the antecedent to intention (Felfe & Schyns, 2014; Li & Cai, 2012) it is

important to discuss both the Motivation to Lead Theory and the theory of planned behavior that underpinned the study.

Motivation to Lead Theory

The MTL theory first introduced by Chan (1999) and later published by Chan, Rounds, and Drasgow (2000), suggests that an individual's noncognitive abilities such as personality, values, self-efficacy, and past leadership experience affect the likelihood that an individual will be motivated to seek future leadership positions. Seeking to solve a problem faced by the Singapore military in identifying potential leaders, Chan (1999) "proposed a theoretical framework for understanding the role of individual differences in the study of leadership behaviors" (Chan, Ong, & Chah, 2000, p. 11–1). In particular, Chan (1999) sought to answer the questions "Can we select-for and measure the motivation to lead?" and "Can the motivation to lead be changed, for example through training?" (Chan, Ong, & Chah, 2000, p. 11–1). This multivariate approach of examining predictors of behavior was in response to Lord and Hall's (1992) request for a general theory that could evaluate the process of leader development.

An assumption of the MTL theory is that an individual's personality, values, and self-efficacy remain relatively stable over time (Chan, 1999). Yet, perhaps the most primary assumption of the theory of MTL is that no one is born with the motivation to lead (Chan, 1999). Therefore, MTL theory integrates the leader development process, focused on social–learning components borrowed from the general social cognitive theory (cf. Bandura, 1986, 1997) and the leader performance process related to an individual's prior leadership experience. However, it is important to note that the MTL theory does not assume a claim of leadership effectiveness, merely that personality,

values, self-efficacy, and past leadership experience assist in identifying motivations for pursuing leadership roles or partaking in leadership training (Chan, 1999). Although Chan (1999) used Fishbein and Ajzen's (1975) theory of reasoned action (TRA) as a basis for the theory of MTL, intention is not considered within the MTL theory. Where TRA refers to an individual's intention to enact a behavior, the MTL theory and the larger "Theory of Leader Development" framework (see Figure 1 of Chan & Drasgow, 2001) fail to incorporate intention. Additionally, Chan and Drasgow's (2001) study was intended "as a partial effort at gathering empirical support for the theory of leader development that forms one half of the theoretical [MTL] framework" (p. 196). Therefore, the current study contributes to broadening the understanding of the MTL theoretical framework.

Theory of Planned Behavior

The theory of planned behavior has been utilized in recent leadership studies (Bakari, Hunjra, & Niazi, 2017) and research evaluating intentions (Pan & Truong, 2018; Zampetakis, Bakatsaki, Litos, Kafetsios, & Moustakis, 2017). An extension of the TRA, Ajzen (1985) explained that the theory of planned behavior is predicated on intention, which is described as the combination of an individual's beliefs about behavioral outcomes, the motivation to comply with normative expectations of others, and the perceived power of factors that may advance or obscure outcomes. A primary component of this theory concerns the individual's intention to perform a specific behavior (Ajzen, 1991).

Additionally, Ajzen (1988) found that identifying personality traits was integral to understanding human behavior, but only in an aggregate form where situational factors

are considered. Ajzen (1991) notes: “Indeed, it may be argued that broad attitudes and personality traits have an impact on specific behaviors only indirectly by influencing some of the factors that are more closely linked to the behavior in question” (p. 181), which indicates that a multivariate approach is needed to evaluate the antecedents which contribute to an individual’s intention to perform a behavior.

Research Hypotheses

A total of eight research hypotheses were tested in this study. The hypotheses are presented in Chapter One; however, they will be further supported in Chapter Two. Five of the eight hypotheses (H1–H5) are supported with theoretical and empirical foundations, whereas the remaining three (H6a–H6b) were evaluated from data-driven modeling of the antecedents of the intention to apply for a leadership position, which is consistent with Chan and Drasgow’s (2001) study.

Extending Chan and Drasgow’s (2001) research, Felfe and Schyns (2014) conducted a study that evaluated the relationship between affective–identity MTL and the variable of intention to apply (ITA). While Felfe and Schyns (2014) included the variable of general self-efficacy rather than leadership self-efficacy, as modeled by Chan and Drasgow (2001), Felfe and Schyns did not test the personality, values, or past leadership experience constructs contained in Chan and Drasgow’s MTL theory, or empirical model, within their study. However, Felfe and Schyns found the independent variables of personal initiative and Romance of Leadership (RoL) to be the highest predictor of MTL as a moderator for ITA. As such, it was the premise of this study to test the IALP model of antecedents of affective–identity MTL, including the personal initiative and RoL

predictor variables, and the ITA outcome variable, as tested in Felfe and Schyns's (2014) study. Therefore, the following hypotheses were evaluated within the present study:

H1. Personality constructs are antecedents to the intention to apply for a leadership position.

H2. Values are antecedents to the intention to apply for a leadership position.

H3. Past leadership experience is an antecedent to the intention to apply for a leadership position.

H4. Perceptions of leadership are antecedents to the intention to apply for a leadership position.

H5. Affective–identity MTL is an antecedent to the intention to apply for a leadership position.

H6a. There exist both direct and indirect paths (through affective–identity MTL) from distal antecedents to the intention to apply for a leadership position.

H6b. There exist only direct paths from distal antecedents to the intention to apply for a leadership position.

H6c. There exist only indirect paths (through affective–identity MTL) from distal antecedents to the intention to apply for a leadership position.

Overview of the Design of the Study

A cross-sectional quantitative research design approach was used for this study. Data were collected using an online Qualtrics® survey for survey design, deployment, and data collection. Recruitment of participants was through the Amazon® platform, Mechanical Turk (MTurk®). MTurk® has been found as a valuable method for data collection as MTurk® participants ("Workers") represent a more diverse sample than

other convenience sampling strategies such as college sampling (Landers & Behrend, 2015). Diversity within the sample is important as Chan and Drasgow (2001) studied both Singaporean (military and students) and American (students) samples, whereas Felfe and Schyns (2014) evaluated the responses of German students and employees. Additionally, data quality gathered from MTurk® "Workers" has been found to be equal to those of other online sites such as SurveyMonkey (Berinsky, Huber, & Lenz, 2012).

The participants were asked to complete the Qualtrics® online survey, which included items pertaining to demographics consistent with the demographics collected in the Chan (1999) study. Also, consistent with Chan (1999), to analyze the data, three statistical analyses were conducted with the latter analyses being informed by the preceding analyses. First, confirmatory factor analysis at the instrument level was conducted in IBM® AMOS® 24.0. For the Romance of Leadership Scale, an exploratory factor analysis was also conducted in IBM® SPSS® 24.0. Then, multiple linear regression analysis using the ordinary least squares (OLS) regression technique was performed in IBM® SPSS® 24.0. This analysis resulted in creating a parsimonious model of antecedents to the intention to apply for a leadership position to be tested. Third, path analysis was conducted in IBM® AMOS® 24.0 to confirm the best fitting parsimonious IALP model.

Significance of the Study

The study has implications and significance for leadership theory and practice. Evaluating the effect that individuals' personality traits, values, past leadership experience, perceptions of leadership, and their motivation to lead, has on their intention to apply for a leadership position furthers existing research that has previously focused

only on the motivation to lead (i.e., Chan & Drasgow, 2001). The present study extends the robust theoretical framework of MTL (see Figure 1 of Chan and Drasgow, 2001) by going beyond evaluating individuals' desire (motivation) to lead, to assess the effort being put forth (intention) to apply for a leadership position.

Therefore, the current study has implications for leadership practice as well. It is not enough to understand an individual's motivation to lead if that motivation does not translate into a direct application for a leadership position. As intention is the antecedent to behavior (Ajzen, 1985), it is crucial that an individual's intention to apply for a leadership position be evaluated when attempting to predict leadership potential.

Leadership development is pertinent not just within the leadership realm (Day, Harrison, & Halpin, 2009), but also within the context of HRD (Shuck & Herd, 2012; Seo, Huang, & Han, 2017; Zigarmi, Zigarmi, Roberts, & Roberts, 2017). Furthermore, as more focus is targeted at leadership development programs within the field of HRD, myriad techniques are being created (Edwards, Elliot, Iszatt-White, & Schedlitzki, 2015) without regard to identifying those individuals who seek to apply for a leadership position within an organization. As such, it is important to understand not only the motivations of a potential leader (the desire to lead), but also the intentions to apply for a leadership position (the psychological commitment and effort put forth to perform a certain behavior) to assist practitioners with identifying leadership potential.

Assumptions

For the current study, an important assumption was made by the researcher. It was assumed that the respondents to the survey would answer truthfully and honestly according to their personal experience and anticipated behavior. Within the survey

design, care was taken with respect to detailed survey instructions and assurances of anonymity for the participants. Consistent with Chan and Drasgow (2014), other primary assumptions were that no one is born with the motivation to lead or have subconscious desires to lead. Additionally, there was no assumption made that individuals are born with the intention to assume a leadership position. Therefore, it was assumed by the researcher that an individual's motivation to lead and intention to apply for a leadership position are learned constructs and can be changed.

Limitations

As expected within the field of research, this study was not without limitations. While a "ballot-stuffing" feature was employed within Qualtrics®, there is no guarantee that a "Worker" could not take the survey on various devices, thereby introducing concerns associated with duplicate data. Additionally, although the MTurk® population represents diverse demographics, it is still important to note that the individuals participating within the survey were required to have internet access and an MTurk® "Worker" account. Therefore, researchers should practice caution in generalizing the results across all demographics. Furthermore, the responses on the survey instrument were self-reported by the participants contributing to an inability to independently verify the responses.

Delimitations

Delimitations regarding the survey structure and content were present within the present study. The items within the survey instruments used in Chan and Drasgow's (2001) and Felfe and Schyns's (2014) studies were structured within the proposed survey exactly as the prior authors presented the items within their research, with the exception

of the measurement instrument for intention to apply for a leadership position. Where Felfe and Schyns (2014) used the term *assume* within their 2-item instrument for assessing intention to apply for a leadership position, the present study survey used the term *apply*. It should be noted that 2-item instruments may be problematic in terms of assessing reliability and construct validity, particularly with exploratory research (Little, Lindengerger, & Nesselroade, 1999).

Where general self-efficacy was evaluated within Felfe and Schyns' (2014) study, leadership self-efficacy, which was evaluated within Chan and Drasgow's (2001) study was used for the proposed study. As well, the shortened, validated version of Chan and Drasgow's (2001) motivation to lead instrument was used (Bobbio & Manganelli Rattazzi, 2006). Additionally, the instrument to measure RoL was used from the shortened and validated study conducted by Schyns, Meindl, and Croon (2007) instead of the 7-item instrument used by Felfe and Schyns (2014). The item-order of the survey questions followed Chan and Drasgow's (2001) survey, which organized the longest-scaled items first, with the dependent variable in the middle of the survey, followed by the intervening variables last.

Another delimitation of the current study was that cognitive ability was not evaluated, as it was in Chan and Drasgow's (2001) study. The reason for this exclusion was due to Chan and Drasgow's removing general cognitive ability from their combined sample "because the indicators were nonequivalent in the different (samples)" (2001, p. 489). As general cognitive ability was evaluated in Chan and Drasgow's (2001) Singapore samples based on aggregate primary and secondary exam scores and the U.S. sample based on ACT scores, the authors were unable to standardize the scores for

comparison. Additionally, as the present study targeted a wide population, it was conceivable that the same inability to equivalently measure cognitive ability akin to Chan and Drasgow's (2001) method would arise. Furthermore, Chan and Drasgow stated that "the finding that general cognitive ability is unrelated to MTL also provides some support for the separation of cognitive versus social ability as different components of a leader's personal resources" (2001, p. 495). Therefore, cognitive ability was excluded from evaluation within the IALP model.

Lastly, only one of the three sub-types of MTL (affective–identity MTL) was evaluated within the proposed study. This decision was due to findings within Chan and Drasgow's (2001) study that affective–identity MTL explained more variance than the other two sub-types of MTL. Additionally, Felfe and Schyns (2014) evaluated only affective–identity MTL within their study. It is also important to note that the data collection did not yield a large enough sample to split the data for confirming the parsimonious IALP model with an independent sample, as was conducted in Chan and Drasgow's (2001) study.

Definitions of Terms

The following terms and definitions are relevant within the proposed study:

- Agreeableness: Agreeableness has also been referred to as Likability (Conley, 1985; Goldberg, 1981; McCrae & Costa, 1985). This personality trait refers to "being courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant" (Barrick & Mount, 1991, p. 4).
- Affective–identity Motivation to Lead: Affective–identity Motivation to Lead is defined as "people [who] just like to lead. They identify with a leadership

role and are willing to take charge without feeling pressure due to social norms or without the expectation of benefits" (Felfe & Schyns, 2014, p. 852).

- Conscientiousness: Conscientiousness, a personality trait associated with the Big-Five Personality Factor (Goldberg, 1999), is attributed as being "hardworking, achievement-oriented, and persevering" (Barrick & Mount, 1991, p. 4).
- Distal Antecedents: Distal antecedents are "believed to affect [a dependent variable] indirectly through their influence on the proximal antecedents" (van Iddekinge, Ferris, & Heffner, 2009, p. 465).
- Emotional Stability: Emotional stability refers to "the capacity to allocate resources to accomplish tasks" (Barrick & Mount, 2005, p. 360).
- Extraversion: Extraversion, a component of the Big-Five Personality Factor (Goldberg, 1999), is described as traits associated with "being sociable, gregarious, assertive, talkative, and active" (Barrick & Mount, 1991, p.3).
- Horizontal Collectivism: Horizontal collectivism is "a cultural pattern in which the individual sees the self as an aspect of an in-group," which also values equality within said in-group (Singelis, Triandis, Bhawuk & Gelfand, 1995, p. 244).
- Horizontal Individualism: Horizontal individualism refers to the value "where an autonomous self is postulated, but the individual is more or less equal in status with others" (Singelis, Triandis, Bhawuk & Gelfand, 1995, p. 245).

- Intention: Intention is defined as "behavior in the expected direction" (Weinstein & Rothman, 2005, p. 295), and is "the immediate antecedent of behavior" (Ajzen, 1985, p. 1).
- Intention to Apply for a Leadership Position: Although Felfe and Schyns (2014) named their construct Intention to Apply, the authors' created 2-item measurement instrument contains "assume a leadership position" in both items. Additionally, no definition of the Intention to Apply construct was provided. As such, an operational definition for this study is as follows: *An individual's intention to apply for a leadership position is a psychological commitment of an anticipated behavior, which represents the effort an individual is willing to put forth to seek, and submit application for, a leadership position.*
- Leadership: "Leadership is the art of motivating a group of people to act towards achieving a common goal" (Ward, 2017, p. 1).
- Leadership Self-Efficacy: Leadership self-efficacy is defined as "a person's judgment that he or she can successfully exert leadership by setting a direction for the work group, building relationships with followers in order to gain their commitment to change goals, and working with them to overcomes obstacles to change" (Paglis & Green, 2002, p. 217).
- Motivation: Motivation is defined as "enthusiasm for doing something" (Cambridge Dictionary, 2017).
- Motivation to Lead: Motivation to Lead is defined as "an individual-differences construct that affects a leader's or leader-to-be's decisions to

assume leadership training, roles, and responsibilities and that affect his or her intensity of effort at leading and persistence as a leader" (Chan & Drasgow, 2001, p. 482).

- Openness to Experience: Although previously referred to as Intellect, Intelligence, or Culture, Openness to Experience is described as traits associated with "being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive" (Barrick & Mount, p. 5).
- Past Leadership: Past leadership experience refers to the "quantity…of past leadership experience" (p. 484) measured by the number of years served in a leadership position (Chan & Drasgow, 2001).
- Personal Initiative: Personal Initiative is "a behaviour [sic] syndrome resulting in an individual's taking an active and self-starting approach to work and going beyond what is formally required in a given job. More specifically, personal initiative is characterized by the following aspects: (1) is consistent with the organization's mission, (2) has a long term (sic) focus, (3) is goal directed and action oriented, (4) is persistent in the face of barriers and setbacks, and (5) is self-starting and proactive" (Frese, Kring, Soose & Zempel, 1996, p. 38).
- Proximal Antecedents: Proximal antecedents are those variables that "exhibit a direct influence" on a dependent variable (van Iddekinge, Ferris, & Heffner, 2009, p. 465).
- Romance of Leadership: Romance of Leadership is defined as "the attributional phenomenon that people overemphasize the role of leadership

and at the same time neglect situational factors when explaining the success or failure of organizations" (Felfe & Schyns, 2014, p. 851).

- Vertical Collectivism: Vertical collectivism is "a cultural pattern in which the individual sees the self as an aspect of an in-group, but the members of the in-group are different from each other, some having more status than others" (Singelis, Triandis, Bhawuk & Gelfand, 1995, p. 244).
- Vertical Individualism: Vertical Individualism is described as "a sense of service and sacrifice for the in-group, a primary emphasis on doing one's duty, and an acceptance of the benefits of inequality and rank" (Cuker, de Guzman, & Carlo, 2004, p. 614).

Chapter Summary and Organization of the Dissertation

This dissertation contains five chapters. Chapter One of this dissertation introduced the background concerning the problem, included the statement of the problem, purpose of the study, and the theoretical underpinning and research hypotheses. Additionally, an overview of the research design, significance of the study, assumptions, limitations, delimitations, and definitions are presented. The concluding component of Chapter One contains a chapter summary and the organization of the proposal.

Chapter Two presents the literature review concerning the primary domains of the study along with hypotheses support. Chapter Three contains the research design and methodology of the present study, including the purpose of the study, research hypotheses, the population and sample, measurement instruments, procedures for data collection and analysis, and hypotheses testing. Chapter Four reports the results of the study, and Chapter Five presents a discussion of the results in regard to relevant

literature, implications to theory, practice, and research, limitations, and recommendations for future research.

Chapter Two—Literature Review

This chapter reviews the literature domains relevant to leadership, specifically the motivation to lead (MTL), and the intention to apply for a leadership position. Additional literature domains included the Big Five personality traits (extraversion, conscientiousness, openness to experience, agreeableness, and emotional stability) individualism-collectivism (INDCOL) values (vertical individualism, horizontal individualism, vertical collectivism, horizontal collectivism), past leadership experience, and perceptions of leadership (leadership self-efficacy, personal initiative, and Romance of Leadership [RoL]). Each component is narratively evaluated to provide a holistic understanding of the construct. The review is organized into eight sections. The first section provides an overview of the concept of leadership. The second section provides a review of literature concerning the motivation to lead, specifically focusing on affective–identity MTL. The third section provides a review of literature pertinent to intentions, primarily concerning the intention to apply for a leadership position. The fourth section reviews the five components of the Big Five personality traits included in this study. The fifth section includes a literature review of the four INDCOL values. The sixth section pertains to literature surrounding the topic of past leadership experience. The seventh section reviews literature pertinent to the three perceptions of leadership components (leadership self-efficacy, personal initiative, and RoL). The final section concludes with support for research hypotheses that the current study evaluated.

The resources utilized for the literature review were, the University of Texas at Tyler Robert R. Muntz Library computer system as well as Google Scholar. Research

terms included “motivation to lead”, “leader motivations”, “intention to apply”, “leadership intentions”, “intention to apply for a leadership position”, “intention to assume a leadership position”, “Big Five Personality Factor”, “extraversion”, “openness to experience”, “vertical individualism”, “Romance of Leadership”, “personal initiative”, “leadership self-efficacy”, “past leadership experience”. Primary search terms were entered into the library’s SwoopSearch feature, with more detailed searches within the following databases: Business Source Complete, Emerald, SAGE: Management and Organization, PsycINFO, Ebscohost, and Wiley Online. Additionally, interlibrary loan services were utilized as necessary. Combinations of the terms were also used. All initial searches were constrained to only scholarly, peer-reviewed articles. The reference sections of both primary sources for the current study (i.e., Chan & Drasgow, 2001; Felfe & Schyns, 2014), along with articles that cited the primary sources, were searched for relevant references beyond those found through the keyword search within the databases.

Leadership

Leadership is a well-researched domain within the fields of business management, human resources, and human resource development (HRD; Cumberland, Herd, Alagaraja, & Kerrick, 2016). In 2012, Madsen declared that leader development “is now central to HRD theory, research, and practice” (p. 135). However, leader development extends beyond just the business realms and is relevant to other fields such as health care (Natt och Dag, 2017), the military (Davis & Minnis, 2017), and higher education (Ngunijiri & Hernandez, 2017).

Furthermore, for many business organizations within the United States, leader development comprises the greatest budgetary share within training and development

programs (Ardichvili, Natt och Dag, & Manderscheid, 2016), at an estimated expense of $14 billion (Loew & O'Leonard, 2012). Yet leader development is also important to international organizations as human resource officers across the globe cited "developing future leaders" as the most important skill needed for organizational success (IBM, 2010, p. 18). While leadership is certainly a well-researched field, the definition of leadership is even more varied. In 1974 Stogdill proclaimed, "there are almost as many definitions [of leadership] as there are persons who have attempted to define the concept" (p. 259). In the ensuing decades since, leadership has continually been defined and redefined by various scholars, practitioners, and commercial authors.

Perhaps the most common type of definition, akin to that of Ward's (2017), mirrors Yukl's (2009) leadership definition, which defines leadership as "the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives" (p. 2). As such, Ward's (2017) definition of leadership as, "the art of motivating a group of people to act towards achieving a common goal" (p. 1) is therefore appropriate for the purposes of research evaluating the motivation to lead and the intention to apply for a leadership position.

It is of importance to discern between *leader development* and *leadership development* within the context of this research. As prior HRD scholars have ascertained, *leader development* involves a singular individual's development, whereas *leadership development* pertains to multiple individuals (e.g., leader-follower relationships; Day, Fleenor, Atwater, Sturm, & McKee, 2014). For the purposes of this research, the current

study focuses on *leader development* as it is the singular motivations and intentions of an individual that the researcher seeks to evaluate.

Although leader development has been widely researched within the field of HRD (e.g., Carter, 2018; Johnson, 2008; Kirchner, 2018; Phipps, Prieto, & Ndinguri, 2014), with more than 800 Google Scholar results using the keywords of "leader development" and "HRD", MTL has been less studied in the HRD realm producing 100 Google Scholar results using the keywords of "motivation to lead" and "HRD". Furthermore, using the keywords of "intention to apply" and "HRD" yielded 90 Google Scholar results, however many of the resulting articles pertained to the application of knowledge or physical applications of employment. When narrowed to include the keywords of "intention to apply for a leadership position" and "HRD", no results were obtained from Google Scholar. When the keywords of "intention to apply" and "motivation to lead" were entered into Google Scholar, three articles were derived from the search with two articles being published in German publications and the third being Felfe and Schyns (2014) study. As one of the two articles published within the German publications (Hentschel, Bruan, & Peus, 2017) evaluated only an organization's motivation and intention to promote women in management positions, it was not deemed relevant to the current study. However, the second article (Stiehl, Gatzka, Elprana, & Felfe, 2015) is discussed within the literature review. Therefore, while an argument may be made that leader development and MTL are important to the field of HRD, the intention to apply for a leadership position has been largely neglected within the leader development and HRD fields.

Motivation to Lead

Although motivation has historically proven to be a difficult term to define (Kleinginna & Kleinginna, 1981), it is commonly described as a desire to accomplish a goal or activity (Oxford Dictionary, 2017). MTL, therefore, pertains to an individual's desire for holding a position of leadership (Chan, Rounds, & Drasgow, 2000). Evaluating the antecedents to leader development, and specifically the antecedents to MTL, is beneficial to the practitioner realm (van Iddekinge, Ferris, & Heffner, 2009), as many leadership assessments have primarily focused on distal antecedents (Avolio, Sosik, Jung, & Berson, 2003; Mumford, Zaccaro, Harding, Jacobs, & Fleishman, 2000), which raise concerns regarding validity. The reason for this concern is that situational factors may impact an outcome, and therefore could be ignored only if distal antecedents are evaluated (Lance, 2008). Indeed, cries of a lack of integration between leader traits and leader behaviors have permeated the literature for decades (Avolio, 2007; Bennis, 1959).

Seeking to address this concern, Chan and Drasgow's (2001) Theory of Leader Development theoretical framework was created, which was used within the present study. This robust, integrative framework provides the underpinning assertion that an individual's personality and values affect behavior through the individual's MTL. Furthermore, the theoretical framework provides a rationale for a leader's self-efficacy to affect MTL. This relationship between a leader's self-efficacy and the ability to change MTL is derived from Bandura's (1986) general social–cognitive theory (Chan & Drasgow, 2001). Therefore, the theoretical framework provides the basis for an individual's personality and values to impact leadership self-efficacy, which can be altered by past leadership experience, in turn impacting MTL.

Chan, Rounds, and Drasgow (2000) described three types of MTL: affective–identity MTL, social–normative MTL, and non–calculative MTL. Affective–identity MTL describes individuals who lead out of a sense of personal affinity for assuming a leadership role. These individuals generally and genuinely enjoying being in a leadership position. Social–normative MTL pertains to individuals who lead out of a feeling of obligation or duty. Non–calculative MTL refers to individuals who assume a leadership position without first conducting a cost-benefit analysis. This type of MTL infers that an individual who does not consider the potential costs associated with holding a leadership role would therefore be less likely to avoid leadership roles (Chan & Drasgow, 2001).

Affective–Identity MTL

Chan, Rounds, and Drasgow (2000) defined affective–identity MTL as individuals who identified themselves as leaders. These individuals "tend to be outgoing and sociable (i.e., are extraverts), value competition and achievement (i.e., are vertical collectivists), have more past leadership experience than their peers, and are confident in their own leadership abilities (i.e., have high self-efficacy)" (p. 228). In their landmark study, Chan and Drasgow (2001) found that an empirical, parsimonious model of antecedents of MTL existed. The authors specifically found that affective–identity MTL explained more variance of leadership potential than did non-calculative MTL and social–normative MTL. As such, affective–identity MTL was the MTL sub-factor evaluated in Felfe and Schyns's (2014) model that included the construct of intention to apply. Therefore, the model of antecedents to affective–identity MTL (Chan & Drasgow, 2001) served as the basis for the IALP model evaluated in this study, integrated with the

predictor variables of personal initiative and RoL, and the outcome variable of intention to apply from Felfe and Schyns's (2014) model.

Unfortunately, many leadership studies that have included Chan and Drasgow's (2001) work have not been empirical studies, but rather meta-analytic (DeRue, Nahrgang, Wellman, & Humphrey, 2011; Dickson, Den Hartog, & Mitchelson, 2003; Judge, Colbert, & Ilies, 2004; Taras, Kirkman, & Steel, 2010) or conceptual (DeRue & Ashford, 2010; Kark & Van Dijk, 2007) studies seeking to evaluate the leadership literature. Although Felfe and Schyns (2014) did not evaluate personality traits within their empirical study assessing the relationship between MTL and intention to apply, Stiehl, Gatzka, Elprana, and Felfe (2015) did conduct such an examination. Interestingly, the authors found that the personality trait of emotional stability had an effect on affective–identity MTL and intention to apply. This is important to note as Chan and Drasgow (2001) did not observe such a relationship between emotional stability and MTL within their study. However, the study conducted by Stiehl, Gatzka, Elprana, and Felfe (2015) did not evaluate other variables within the MTL framework (cf. Chan & Drasgow, 2001).

A primary concern of the researcher is that MTL fails to capture anticipated behaviors (i.e., intention) as it measures only motivation, which is the cause of such behavior (Mook, 1996). Additionally, as MTL concerns how individuals' personalities, values, self-efficacy, and past leadership experiences impact their motivation toward participating in leadership roles, individuals' overarching intentions are not considered. Furthermore, MTL does not pertain to a level of motivation, but rather a type of motivation (Kark & Dijk, 2007), and therefore excludes the level of intended effort exerted by an individual to pursue a leadership role. This gap in evaluation supports

Avolio's (2007) claim that leader effectiveness, derived through leader development, must be fully evaluated by an integrative framework that assesses all antecedents of leader behavior.

Intention to Apply for a Leadership Position

Intention is defined as the direction of behavior (Hung & Petrick, 2011). Weinstein and Rotham (2005) described intention as "behavior in the expected direction" (p. 295) but cautioned that intention and behavior are two distinct concepts. Ajzen (1985) described intention as "in combination, attitude toward the behavior, subjective norm, and perception of behavioral control lead to the formation of a behavioral intention. As a general rule, the more favorable the attitude and subjective norm, and the greater the perceived control, the stronger should be the person's intention to perform the behavior in question" (p. 1). Therefore, intention is the direct antecedent of behavior (Ajzen, 1985).

As motivation refers to a desire, intention refers to directing effort to perform a behavior (Ajzen, 1985; Kleinginna & Kleinginna, 1981). For example, an individual may be motivated to exercise, but not have the intention to do so (Bagozzi, 1992). Therefore, intention pertains to harnessing one's motivation and the level of effort an individual is willing to exert to perform a behavior (Ajzen, 1991). However, Chan and Drasgow's (2001) definition of MTL blends the definitions of motivation and intentions together as they define MTL as "a construct that affects a leader's or leader-to-be's decisions to assume leadership training, roles, and responsibilities and affect his or her intensity of effort at leading and persistence as a leader" (Chan & Drasgow, 2001, p. 482).

Although Felfe and Schyns (2014) were the first authors to evaluate MTL and the intention to apply for a leadership position within the same model, the authors did not

define their intention to apply for a leadership position construct. In fact, while the model contains the variable "Intention to Apply", the authors measured the variable with a self-created 2-item instrument where both items contained the phrase "assume a leadership position" rather than "apply for a leadership position". As such, an operational definition for this study is as follows: *An individual's intention to apply for a leadership position is a psychological commitment of an anticipated behavior, which represents the effort an individual is willing to put forth to seek, and submit application for, a leadership position.*

Felfe and Schyns (2014) found within their empirical study that individuals with personal initiative, positive associations with leadership (RoL), and affective–identity MTL were more likely to intend to apply for leadership positions. As well, Gatzka, Elprana, and Felfe (2015) found that personality traits such as emotional stability impacted affective–identity MTL. Their findings suggest that individuals who are more extraverted, are open to new experiences, and who have positive emotional stability are more likely to be motivated to lead, and thereby more likely to intend to apply for a leadership position.

Big Five Personality Factors

The Big Five personality factors consist of extraversion, conscientiousness, openness to experience, agreeableness, and emotional stability (Goldberg, 1992); this construct has been found to be one of the dominant models for personality traits (Day, Fleenor, Atwater, Strum, & McKee, 2014; Digman, 1990). Personality traits have previously been found to be indicators of applicant evaluation within the job selection process (Robertson & Smith, 2001) as well as supervisor ratings for job performance

(Giluk & Postlethwaite, 2015). Additionally, Judge, Bono, Iles, and Gerhardt (2002) found within their meta-analysis study that the Big Five personality traits had a strong relationship with leadership.

In fact, Hogan and Holland (2003) found that when an individual's performance is focused on "getting along", conscientiousness, agreeableness, and emotional stability were the best predictors of leadership. However, the authors found that when the goal related to "getting ahead", extraversion, conscientiousness, and emotional stability were the best predictors (Hogan & Holland, 2003). Although leadership performance is not the scope of the current research, personality traits have been found to have incremental validity in predicting job performance above and beyond that of other predictors such as cognitive ability (Mount,Witt, & Barrick, 2000; Chan & Drasgow, 2001).

Past research has indicated that personality traits are proximal antecedents to motivation (Campbell, McCloy, Oppler, & Sager, 1993), and scholars have examined personality traits as directly affecting an individual's desire and ability to seek leadership training (Motowidlo, Borman, & Schmit, 1997; Schmitt, Cortina, Ingerick, & Wiechmann, 2003). Furthermore, it is possible that an individual's MTL will impact their desire to seek more training, which in turn further impacts their leader development (Lord & Hall, 2005). Chan and Drasgow (2001) found that extraversion had a direct effect on affective–identity MTL. Additionally, the authors found that openness to experience had an indirect effect on affective–identity MTL through the intervening variables of leadership self-efficacy and past leadership experience.

Extraversion

Extraversion is described as those traits associated with "being sociable, gregarious, assertive, talkative, and active" (Barrick & Mount, 1991, p. 3). Chan and Drasgow (2001) identified the Big-Five personality factors (Hofstee, de Raad, & Goldberg, 1992) as distal antecedents to MTL (Chan & Drasgow, 2001), as traits have been found to be a reliable predictor of behavior in the leadership context (Derue, Nahrgang, Wellman, & Humphrey, 2011). Furthermore, personality traits, such as extraversion, have been found to be integral to hiring processes (Barrick & Mount, 2005). As well, individuals who exhibit extraversion have been found to have higher job performance than their peers, particularly if their job allows for the ability to influence others (Barrick, Mount, & Judge, 2001). Barrick and Mount (2005) acknowledged that "in such jobs, especially sales and management jobs, being sociable, gregarious, assertive, energetic, and ambitious is likely to contribute to success on the job" (p. 360). In their meta-analysis of 117 studies evaluating the Big-Five personality traits, Barrick and Mount (1991) found that extraversion was a predictor of assuming a managerial occupation. Although the authors did not define *manager* within their study, one may hypothesize that extraversion is a predictor of assuming a leadership position. This is consistent with the findings of Judge, Bono, Iies, and Gerhardt (2002), as the authors found that extraversion was the personality trait most closely linked with leadership effectiveness. In fact, Chan and Drasgow (2001) described their findings of a strong correlation between extraversion and affective–identity MTL ($r = 0.55$ for Singapore student sample, $r = 0.24$ for U.S. student sample) as being evident that individuals who

generally like to lead have more outgoing and sociable personalities. Additionally, the authors found a pattern indicating that extraversion may be a possible antecedent to leadership self-efficacy, and that leadership self-efficacy was related to affective–identity MTL through the intervening variable of past leadership experience.

Conscientiousness

Conscientiousness refers to traits associated with an individual's ability to be "hardworking, achievement-oriented, and persevering" (Barrick & Mount, 1991, p. 4). In their meta-analytic review, Barrick & Mount (1991) found that both extraversion and conscientiousness were predictors of managerial performance, which was later supported by Shaffer and Postlethwaite (2012). This may be due to the fact that individuals with high levels of conscientiousness are well-organized, adhere to rules and protocols, and are futuristic thinkers in planning initiatives (Roberts, Jackson, Fayard, Edmonds, & Meints, 2009). Furthermore, conscientious individuals have been found to have better ethical decision-making and honesty (Bratton & Strittmatter, 2013; Giluk & Postlethwaite, 2015). Chan and Drasgow (2001) found that conscientiousness had an indirect effect on affective–identity MTL (.13) through the intervening variable of leadership self-efficacy.

Openness to Experience

Although previously referred to as "Intellect", "Intelligence", or "Culture", openness to experience is described as traits associated with "being imaginative, cultured, curious, original, broad-minded, intelligent, and artistically sensitive" (Barrick & Mount, p. 5). George and Zhou (2001) and Lepine, Colquitt, and Erez (2000) found that

individuals who were intellectual, curious, and artistic were more likely to adapt well to change.

The personality construct of openness to experience was found to have an indirect effect to affective–identity MTL through the intervening variable of leadership self-efficacy (Chan & Drasgow, 2001). Additionally, the authors found an indirect effect of openness to experience with affective–identity MTL through the intervening variable of past leadership experience (Chan & Drasgow, 2001).

Agreeableness

Often associated with the term "Likability" (Conley, 1985; Goldberg, 1981; McCrae & Costa, 1985), agreeableness refers to "being courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant" (Barrick & Mount, 1991, p. 4). In particular, agreeableness is associated with how individuals develop interpersonal relationships (Giluk & Postlethwaite, 2015), which is primarily important to the realm of leader development (Day, Fleenor, Atwater, Sturm, & McKee, 2014). Individuals who are agreeable are considered to be warm, friendly, and cooperative (Graziano & Tobin, 2009). Barrick et al. (2001) found that agreeableness is an important predictor in job performance where team tasks were required. However, Chan and Drasgow (2001) did not find that agreeableness was related to affective–identity MTL either directly or indirectly.

Emotional Stability

Emotional stability pertains to "the capacity to allocate resources to accomplish tasks" (Barrick & Mount, 2005, p. 360). The low end of this personality trait is associated with feelings of "being anxious, depressed, embarrassed, emotional, worried, and

insecure" (Barrick & Mount, 1991, p. 4). Individuals lacking in emotional stability tend to experience negative emotional states, and their behavior may be unpredictable and impulsive (Giluk & Postlewaite, 2015). Additionally, individuals with low levels of this type of personality trait may perform poorly under stress (Carver & Connor-Smith, 2010). Therefore, the inverse is true for individuals with high levels of emotional stability in that they are better equipped for dealing with stressful situations (Barrick & Mount, 2005). Chan (1999) found that "emotional stability is unrelated to [affective–identity MTL]" (p. 49). However, Stiehl, Gatzka, Elprana, and Felfe (2015) did find that emotional stability had a relationship with the intention to apply for a leadership position through the intervening variable of affective–identity MTL.

INDCOL Values

Schwartz and Bilsky (1990) suggested that values are representative of an individual's motivational goals. Furthermore, values can be ascribed as being derivative from one's socio-cultural environment, rather than the genetic or biological impacts associated with personality traits (Chan, 1999). The individual–collectivism construct originated with Hofstede's (1980) cultural assessment of an individual's values. Although Hofstede originally deemed INDCOL to be unidimensional where an individual either valued individualistic components or valued collective components, other scholars have challenged that INDCOL is multidimensional (Singelis, Triandis, Bhawuk, & Gelfand, 1995). The individual–collectivism measure assesses values associated with autonomy and group norms (Robert, Lee & Chan, 2006). Singelis (1994) defined individualism as a "bounded, unitary, and stable self that is separate from social context" and collectivism as a "flexible, variable self that emphasizes statuses, …roles, and relationships, belonging

and fitting in" (p. 45). Triandis (1995) found that the INDCOL values could be assessed based on situations involving equality (horizontal) or those that concern a status hierarchy (vertical). A meta-analytic review of more than 500 empirical studies found that INDCOL "accounts for about 88% of all reported effects of cultural values" (Taras et al., 2013, p. 2). Furthermore, collective and individual values have been shown as important components within the leadership literature (Gertsner & Day, 1994; Novikov, 2016; Pillai & Meindl, 1998).

Vertical Individualism

Vertical individualism is described as "a sense of service and sacrifice for the in-group, a primary emphasis on doing one's duty, and an acceptance of the benefits of inequality and rank" (Cuker, De Guzman, & Carlo, p. 614). Chan and Drasgow (2001) found that individuals with high levels of vertical individualism, that is, those individuals who tend to be competitive or goal-oriented, were predictors of MTL. In fact, the authors (2001) found vertical individualism to be a distal antecedent to, and to have a direct effect on, affective–identity MTL.

Horizontal Individualism

Horizontal individualism focuses on valuing autonomy, while also recognizing that equality exists among peers. This value is often associated with team-oriented environments as individuals see themselves as an equal member of a larger group, yet they prize autonomy in their specific work tasks (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Therefore, horizontal individualism is not focused on hierarchical status, but is focused on individual achievement. Chan and Drasgow (2001) did not find that

horizontal individualism had an effect on affective–identity MTL either directly or indirectly.

Vertical Collectivism

Vertical collectivism is exhibited by valuing group harmony yet recognizing that hierarchical status differences are important within the group (Shin & Park, 2005). This type of value is "a cultural pattern in which the individual sees the self as an aspect of an in-group, but the members of the in-group are different from the others, some having more status than others" (Singelis, Triandis, Bhawuk, & Gelfand, 1995, p. 244). Individual freedom is restricted within a collectivist society as the good of the group is ascribed higher importance than the good of the individual (Triandis & Gelfand, 1998). Chan and Drasgow (2001) found the two collectivism measures to be "highly correlated at about .90 in a preliminary measurement model fitted to the data" (p. 493) and therefore grouped vertical and horizontal collectivism into a single latent constructed titled "collectivism." However, the authors did not find collectivism to be related to affective–identity MTL either directly or indirectly.

Horizontal Collectivism

Horizontal collectivism refers to "communal sharing, cooperation and interdependency" (Shin & Park, 2005, p. 105). This value is predicated on the belief that the good of the group is more important than the good of a singular individual, and equality is recognized among group members (Shin & Park, 2005). Individuals exhibiting horizontal collectivism display "a cultural pattern in which the individual sees the self as an aspect of an in-group" (Singelis, Triandis, Bhawuk, & Gelfand, 1995, p. 244).

Although Chan and Drasgow (2001) collapsed both individual and horizontal collectivism into a single construct, the authors found no direct or indirect effect between collectivism and affective–identity MTL.

Past Leadership Experience

Nichols (2016) found that a leader's prior leadership experience was related to leadership traits. Past leadership experience refers to the "quantity … of past leadership experience" (p. 484) measured by the number of years served in a leadership position (Chan & Drasgow, 2001). Past leadership experience was measured by Chan and Drasgow (2001) as a biographical factor. The authors found that extraversion and openness to experience both were positively related to affective–identity MTL through the intervening variable of past leadership experience. However, Felfe and Schyns (2014) did not include past leadership experience in their model, yet the authors concluded, "one may speculate that … RoL may be more relevant for students when it comes to MtL [sic] and intention to apply for a leadership position than for employees as the latter are older and have more work experience" (p. 860). Therefore, past leadership experience was included in the current study not only in adherence with Chan and Drasgow's (2001) study, but also to evaluate whether Felfe and Schyns's (2014) speculation could be confirmed.

Perceptions of Leadership

Where personality, values, and past leadership experience focus on the traits or attributes of an individual, it is also important to consider the perception of leadership roles when considering an individual's leadership potential (Felfe & Schyns, 2006).

Additionally, this consideration should include how individuals view themselves as leaders (Lisbona, Palaci, Salanova, & Frese, 2018). Felfe and Schyns (2014) incorporated the individual perceptions of leadership within their study through assessing the relationships of self-efficacy, personal initiative, RoL, affective–identity MTL, and the intention to apply for a leadership position.

Leadership Self-Efficacy

Self-efficacy "has been the most widely studied form of efficacy" in the social sciences field (Hannah, Avolio, Luthans, & Harms, 2008, p. 3). However, leadership self-efficacy has not received comparable attention either in regard to theory-building or empirical studies (Hannah, Avolio, Luthans, & Harms, 2008). Leadership self-efficacy is defined as "a person's judgment that he or she can successfully exert leadership by setting a direction for the work group, building relationships with followers in order to gain their commitment to change goals, and working with them to overcomes obstacles to change" (Paglis & Green, 2002, p. 217). Leadership self-efficacy is associated with effective leadership (Anderson, Krajewski, Goffin, & Jackson, 2008) as well as follower performance (Paglis, 2010). Additionally, Kim and Beehr (2017) concluded that leadership self-efficacy was a key mediator for leadership and employee behaviors because "[it is] motivational in nature" (p. 1). Cho, Harrist, Stelle, and Murn (2015) examined leadership self-efficacy as an intervening variable in the context of basic psychological needs satisfaction (Deci & Ryan, 2000) and MTL, and found that leadership self-efficacy was an appropriate mediator between psychological needs satisfaction and MTL. As well, the Big Five personality traits have been found to be statistically significantly related to leadership self-efficacy (Hendricks & Payne, 2007).

Furthermore, while extraversion was found to be a general antecedent to leadership self-efficacy, Chan and Drasgow (2001) found that openness to experience had an indirect effect on affective–identity MTL through the intervening variable of leadership self-efficacy. Although Felfe and Schyns (2014) evaluated general self-efficacy rather than leadership self-efficacy, the authors found self-efficacy to be a mediator between RoL and affective–identity MTL. Therefore, leadership self-efficacy is utilized as an intervening variable within the present study as it is not only consistent with the primary sources used for the IALP model (i.e., Chan & Drasgow, 2001; Felfe & Schyns, 2014), it has also been found as an effective intervening variable in prior leadership studies that examined leadership behaviors and MTL.

Personal Initiative

Personal initiative is "a behaviour (sic) syndrome resulting in an individual taking an active and self-starting approach to work and going beyond what is formally required in a given job. More specifically, personal initiative is characterized by the following aspects: (1) is consistent with the organization's mission, (2) has a long term [sic] focus, (3) is goal directed and action oriented, (4) is persistent in the face of barriers and setbacks, and (5) is self-starting and proactive" (Frese, Kring, Soose, & Zempel, 1996, p. 38). Or, more succinctly, personal initiative relates to having a self-starting, proactive, nature that is persistent in overcoming obstacles (Frese & Fay, 2001). As such, personal initiative has been found to be a predictor of work performance (Campos et al., 2017; Rooks, Sserwanga & Frese, 2016; Wihler, Blickle, Ellen, Hochwarter, & Ferris, 2017). As well, personal initiative has been found to be a desirable quality when considering potential hires as it is related to organizational citizenship behaviors (Frese, Fay,

Hilburger, Leng, & Tag, 1997) and organizational effectiveness (Motowidlo & Scotter, 1994). Additionally, personal initiative has been found to be impacted by self-efficacy (Lisbona, Palaci, Salanova, & Frese, 2018).

Within Felfe and Schyns's (2014) study, personal initiative had a high correlation with MTL and ITA. This finding suggests that individuals who are proactive and persistent despite adversity are more likely to be motivated to lead others, as well as exert effort in applying for a leadership role. Additionally, Felfe and Schyns (2014) found that the interaction effect between personal initiative and RoL was statistically significant for the student sample ($\beta = 0.07$, $p = 0.07$), however it was not found to have a statistically significant effect for employees. The authors concluded that employees may have past leadership experience that would impact the relationship between personal initiative and RoL (Felfe & Schyns, 2014).

Romance of Leadership

Romance of Leadership is defined as "the attributional phenomenon that people overemphasize the role of leadership and at the same time neglect situational factors when explaining the success or failure of organizations" (Felfe & Schyns, 2014, p. 851). As such, RoL is based on an individual's viewpoint, or opinion, of leadership, rather than a trait-based component that an individual possesses (Meindl, 1998a). Therefore, individuals with a positive opinion of leadership may have higher levels of RoL than those who believe that being in a leadership position may be burdensome (Meindl, Ehrlich, & Dukerich, 1985). Indeed, "this romanticized conception of leadership thus emphasizes the proactive efficacy of leadership, suggesting that leaders have the ability to control and influence the fates of the organizations in their charge, regardless of

external forces or situational conditions" (Bligh & Schyns, 2007, p. 344). Thus, RoL represents the perception, or bias, that a leader is solely responsible for an organization's outcomes (Meindl, Ehrlich, & Dukerich, 1985). As such, Felfe and Schyns (2014) hypothesized that an individual's viewpoint regarding RoL impacted their MTL and ITA. The authors found that RoL had a positive direct effect on affective–identity MTL. Additionally, the authors observed a positive direct effect between RoL with ITA, yet the effect was stronger with the student population than with employees. Furthermore, the authors found affective–identity MTL to be a mediator for ITA.

Research Hypotheses and Adapted Model to Be Tested

A total of eight research hypotheses were tested in this study. The hypotheses were presented in Chapter One and are expanded upon here. This study included intervening, or mediating, variables of leadership self-efficacy and past leadership experience as modeled by Chan and Drasgow (2001). Mediation studies evaluate "how, or by what means, an independent variable *(X)* affects a dependent variable *(Y)* through one or more potential intervening variables, or mediators *(M)*" (Preacher & Hayes, 2008, p. 879). Although the term *mediating* implies a causal relationship, it is important to note that research design is the only determining factor whether an intervening variable has a causal, or true mediating, relationship on a dependent variable (Kline, 2016).

Personality

The Big-Five personality trait of extraversion was found by Chan and Drasgow (2001) to have a direct effect on affective–identity MTL. Extraversion is often associated in the literature with being gregarious, talkative, and sociable (Barrick & Mount, 1991; Goldberg, 1992, 1999). In their meta-analysis of 117 studies evaluating the Big-Five

personality traits, Barrick and Mount (1991) found that extraversion was a predictor of assuming a managerial occupation. Although the authors did not define *manager* within their study, one may hypothesize that extraversion is a predictor of assuming a leadership position. In fact, Chan and Drasgow (2001) described their findings of a strong correlation between extraversion and affective–identity MTL ($r = 0.55$ for Singapore student sample, $r = 0.24$ for U.S. student sample) as being evident that individuals who generally like to lead have more outgoing and sociable personalities. Additionally, Felfe and Schyns (2014) found a high correlation between affective–identity MTL and intention to apply ($r = 0.61$).

Conscientiousness is described as the volition of being dependable, hardworking, and dedicated (Barrick & Mount, 1991). Although some scholars have described the trait as being more focused on the ability to be organized or thorough (Botwin & Buss, 1989), there is myriad evidence that the trait refers more to the voluntary nature of being achievement-oriented (Digman, 1990; Digman & Inouye, 1986; Peabody & Goldberg, 1989). Chan and Drasgow (2001) found that conscientiousness was indirectly related to affective–identity MTL (.13) through the intervening variable of leadership self-efficacy.

Chan and Drasgow (2001) found that openness to experience had an indirect effect on affective–identity MTL (.07) through the intervening variable of leadership self-efficacy. Openness to experience, refers to an individual's traits associated with being creative, broad-minded, and inquisitive (Barrick & Mount, 1991). George and Zhou (2001) and Lepine, Colquitt, and Erez (2000) found that individuals who were intellectual, curious, and artistic were more likely to adapt well to change.

Agreeableness is often referred to as being likable, friendly, and compliant (Digman & Takemoto-Chock, 1981; Guilford & Zimmerman, 1949; McCrae & Costa, 1985). This trait refers to being "courteous, flexible, trusting, good-natured, cooperative, forgiving, soft-hearted, and tolerant" (Barrick & Mount, 1991, p. 4). Although Chan and Drasgow (2001) did not find a relationship between agreeableness and affective–identity Motivation to Lead, it is unknown if a direct relationship between agreeableness and intention to apply exists. Additionally, Barrick and Mount (2005) found that agreeableness is important to relationships that involve cooperation and helping others.

Emotional stability, considered one of the more generalizable traits within the Big Five, refers to "the capacity to allocate resources to accomplish tasks" (Barrick & Mount, 2005, p. 360). This trait has been found to be associated with feelings of "getting along" and "getting ahead" (Hogan & Holland, 2003). Chan (1999) found that "emotional stability is unrelated to [affective–identity MTL]" (p. 49); however, Stiehl, Gatzka, Elprana, and Felfe (2015) found that "neuroticism and anxiety", attributes ascribed to emotional stability, had a negative relationship with affective–identity MTL. Yet, it is not known if a relationship exists between emotional stability and the intention to apply for a leadership position. Therefore, the following hypothesis was evaluated:

H1: Personality constructs are antecedents to intention to apply for a leadership position.

Values

The individual–collectivism (INDCOL) construct originated with Hofstede's (1980) cultural assessment of an individual's values. The individual–collectivism measure assesses values associated with autonomy and group norms (Robert, Lee, &

Chan, 2006). Triandis (1995) found that the INDCOL values could be assessed based on situations involving equality (horizontal) or those that concern a status hierarchy (vertical). Collective and individual values have been shown as important components within the leadership literature (Pillai & Meindl, 1998).

Vertical individualism refers to how one values autonomy while allowing for inequalities among ranks (Cukur, De Guzman, & Carlo, 2004). This value is associated with competition and self-reliance (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Chan and Drasgow (2001) found that vertical individualism had a direct effect on affective–identity MTL (.18). Felfe and Schyns (2014) found that affective–identity MTL had a positive effect on intention to apply.

Horizontal individualism is described as valuing autonomy while also placing a high emphasis on equality among peers and is associated with team-oriented social aspects. Individuals possessing this value see themselves as being part of a larger collective yet equal in status with others (Singelis, Triandis, Bhawuk, & Gelfand, 1995).

Vertical collectivism refers to the value of being within a group setting, yet from the perspective that everyone within the group has a different, or hierarchical, status. In fact, this type of value allows individuals to accept that they are part of a group yet unequal to their peers (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Although Chan and Drasgow (2001) did not find a relationship between vertical collectivism and affective–identity motivation to lead, it is not known if a relationship exists between vertical collectivism and intention to apply for a leadership position.

Horizontal collectivism is the value of being a member of an in-group and maintaining equality among group members. This type of value focuses on a unified and

equal sharing of responsibilities and status (Singelis, Triandis, Bhawuk, & Gelfand, 1995). Although Chan and Drasgow (2001) found no relationship between horizontal collectivism and affective–identity motivation to lead, a relationship between horizontal collectivism and intention to apply for a leadership position has not yet been evaluated. Therefore, the following hypothesis was assessed within the study:

> H2: Values constructs are antecedents to intention to apply for a leadership position.

Past Leadership Experience

Extraversion was found to have a positive indirect effect on affective–identity MTL through the intervening variable of past leadership experience. While Chan and Drasgow (2001) studied both the quantity and quality of past leadership experience within their Singapore student sample, they evaluated only the quantity of past leadership experience with their U.S. student sample. However, the authors did find that extraversion was inferentially related to affective–identity MTL through the intervening variable of past leadership experience. The authors supported this possible finding by explaining that individuals with more leadership experience may be more willing to put themselves into leadership positions, as illustrated by the sub-factor of affective–identity MTL, in the future (Chan & Drasgow, 2001). Additionally, although Felfe and Schyns (2014) did not evaluate the impact of past leadership within their model, the authors did speculate that the relationship between affective–identity MTL and the intention to apply for a leadership position could possibly be impacted by the amount of work experience an individual has. Openness to experience has been found to have an indirect effect on

affective–identity MTL through the intervening variable of past leadership experience (.06; Chan and Drasgow, 2001).

H3: Past leadership experience is an antecedent to intention to apply for a leadership position.

Perceptions of Leadership

Felfe and Schyns (2014) evaluated three components that may be categorized as perceptions of leadership. These components are: self-efficacy, personal initiative, and Romance of Leadership. It is important to note that although Felfe and Schyns (2014) studied general self-efficacy, Chan and Drasgow (2001) evaluated a specific type of self-efficacy—leadership self-efficacy—which was evaluated within the current study. In each of three perceptions of leadership components, a common thread emerges: the dynamic between how the individual views leadership roles and the barriers associated with becoming a leader (Bandura, 1982; Meindl, 1998a; Paglis & Green, 2002).

Personal Initiative. Within their study, Felfe and Schyns (2014) found that personal initiative had a significant path (β = .63) to affective–identity MTL, and a significant path (β = .23) to intention to apply. Understandably, personal initiative was highly correlated with affective–identity MTL (r = .54) and intention to apply (r = .24).

Romance of Leadership. Felfe and Schyns (2014) also found that RoL had a significant path (β = .13) to affective–identity MTL, and a significant path (β = .11) to intention to apply. Additionally, RoL was correlated with affective–identity MTL (r = .29) and intention to apply (r = .29).

Leadership Self-Efficacy. Leadership self-efficacy, that is, the strongest self-regulated motivation concept affecting behavior, describes the ability to persevere in

attaining one's goals (Bandura, 1997). Additionally, self-efficacy pertains to one's ability to persevere through obstacles (Barrick & Mount, 1991). General self-efficacy and leadership self-efficacy have been found to be mediating variables throughout many leadership studies (Gong, Huang & Farth, 2009; Ng, Ang, & Chan, 2008; Prussia, Anderson, & Manz, 1998; Salanova, Lorente, Chambel, & Martinez, 2011). Although Felfe and Schyns (2014) did not find general self-efficacy to have a significant effect on affective–identity MTL, the authors found a strong correlation between the two variables (r = 0.41). Furthermore, Chan and Drasgow (2001) found leadership self-efficacy to be a mediator between extraversion and affective–identity MTL where the indirect effect was higher (0.78) than the direct effect between extraversion and affective–identity MTL (0.13).

H4: Perceptions of leadership are antecedents to the intention to apply for a leadership position.

Motivation to Lead

Felfe and Schyns (2014) found a high correlation between affective–identity MTL and intention to apply (r = 0.61). The relationship between affective–identity MTL and the intention to apply for a leadership position was also confirmed within Stiehl, Gatzka, Elprana, and Felfe's (2015) mediation study. Therefore, the following hypothesis was evaluated:

H5: Affective–identity motivation to lead is an antecedent to intention to apply for a leadership position.

Data-Driven Modeling of Antecedents of Intention to Apply

Based on prior work conducted by Chan and Drasgow (2001), Felfe and Schyns (2014), and Stiehl, Gatzka, Elprana, and Felfe (2015), there is basis to assume that a mediated effect exists between the distal and proximal antecedents and the intention to apply for a leadership position. Consistent with Chan (1999), hierarchical multiple regression analysis will be conducted to evaluate the unique effects of each antecedent on the intention to apply for a leadership position. As such, alternative hypotheses were tested within the study to assess the possible role that the intervening variables may have within the model. Therefore, the following alternative hypotheses are presented:

H6a: There exist both direct and indirect paths (through affective–identity MTL) from distal antecedents to intention to apply for a leadership position.

H6b: There exist only direct paths (through affective–identity MTL) from distal antecedents to intention to apply for a leadership position.

H8c: There exist only indirect paths (through affective–identity MTL) from distal antecedents to intention to apply for a leadership position.

Chapter Three—Methodology

Introduction

Chapter Three describes the methodology and design of the present study. Components of this chapter include the purpose of the study, design of the study, research hypotheses, population and sample size, survey instrumentation, survey design, data collection procedures, data analysis procedures (including data cleaning, missing data, statistical assumptions, factor analyses at the instrument level, hierarchical regression analyses, and structural models), hypotheses testing, and descriptive statistics. A concluding summary completes the chapter.

Purpose of the Study

The purpose of this study was to test an adapted portion of Chan and Drasgow's (2001) model, which integrates additional constructs informed by Felfe and Schyns's (2014) model to examine the intention to apply for a leadership position (IALP). The IALP model (Figure 1) provides a framework with which to examine the relationships between the independent variables of personality (extraversion, conscientiousness, openness to experience, agreeableness, emotional stability), and values (vertical individualism, horizontal individualism, vertical collectivism, horizontal collectivism), as they relate to the intervening variables of past leadership experience, perceptions of leadership (leadership self-efficacy, personal initiative, and Romance of Leadership), and affective–identity motivation to lead with the dependent variable of intention to apply for a leadership position.

Design of the Study

A cross-sectional quantitative research design approach was used for this study. Data were collected using an online Qualtrics® survey for survey design, deployment, and data collection. Recruitment of participants was through the Amazon platform, Mechanical Turk (MTurk®). "Requestors" create Human Intelligence Tasks (HITs) within the MTurk® platform that allows "Workers" to locate and complete a survey. When creating a HIT, the "Requestor" has the ability to specify which qualifications "Workers" must meet. This specification limits those "Workers" who can view and complete the HIT to only the requested qualifications such as geographic location, education level, etc.

For the present study, qualifications for the MTurk® "Workers" were limited to individuals of at least 18 years of age who reside in the United States in order to adhere to the diversity of Chan and Drasgow's (2001) and Felfe and Schyns's (2014) samples. Furthermore, owing to the need for diversity among the sample frame, MTurk® has been revealed to be an appropriate sampling source for obtaining information from individuals with diverse backgrounds and from various countries, education levels, and work fields/experiences (Buhrmester, Kwang, & Gosling, 2011). Participants were assured anonymity of their responses and provided the instruction that they could quit the survey at any time. Validated instruments were used within the survey, and the survey also included a consent page, "bot" check, two instructional manipulation checks, and demographic questions.

Upon completion of collection, data were cleaned and reviewed in accordance with statistical assumptions. The demographics questions contained within the survey

were used to address sample representativeness in comparison with Chan's (1999) study as well as the U.S. population demographics. Analyses of the data included factor analysis at the instrument level, hierarchical regression analyses, and path analyses.

Research Hypotheses

Prior research (Chan and Drasgow, 2001) has found that both direct and indirect relationships exist between personality traits, values, past leadership experience, and leadership self-efficacy with affective–identity MTL. Additionally, it has been found that personality traits have a direct and indirect relationship with affective identity-MTL and the intention to apply for a leadership position (Stiehl, Gatzka, Elprana, & Felfe, 2015). Furthermore, a relationship between personal initiative, RoL, and affective–identity MTL has been found to exist with the intention to apply for a leadership position (Felfe & Schyns, 2014). However, to date, no study has evaluated all of these constructs within the same model. Therefore, the following research hypotheses were tested:

H1. Personality constructs are antecedents to the intention to apply for a leadership position.

H2. Values are antecedents to the intention to apply for a leadership position.

H3. Past leadership experience is an antecedent to the intention to apply for a leadership position.

H4. Perceptions of leadership are antecedents to the intention to apply for a leadership position.

H5. Affective–identity MTL is an antecedent to the intention to apply for a leadership position.

H6a. There exist both direct and indirect paths (through affective–identity MTL) from distal antecedents to the intention to apply for a leadership position.

H6b. There exist only direct paths from distal antecedents to the intention to apply for a leadership position.

H6c. There exist only indirect paths (through affective–identity MTL) from distal antecedents to the intention to apply for a leadership position.

Population and Sample

This section includes information regarding the targeted population, sample frame, and sample size of the current study. To best assess the IALP model, the population and sample frame were carefully considered with regard to the studies conducted by Chan and Drasgow (2001) and Felfe and Schyns (2014). Due to the diverse nature of the samples studied in the primary source articles, the targeted population and sample frame were selected with intentionality to include diverse demographics.

Population

The population for the study was individuals residing in the United States who are of at least 18 years of age. This is an important population to study in evaluation of the IALP model as both the studies conducted by Chan and Drasgow (2001) and Felfe and Schyns (2014) contained populations where the individuals were of at least 18 years of age. Although Felfe and Schyns (2014) did not include individuals residing in the United States within their population, Chan and Drasgow (2001) did. Within the targeted population of individuals living in the United States who are at least 18 years old, the sample frame (Fowler, 2014) for the study is individuals who have an Amazon MTurk® "Worker" account.

Sample

Data were collected using an online Qualtrics® survey for survey design, deployment, and data collection. Recruitment of participants was through the Amazon platform, Mechanical Turk (MTurk®), which requires all "Workers" to confirm that they are at least 18 years of age. MTurk® is considered a valuable method for data collection as MTurk® participants ("Workers") represent a more diverse sample than other convenience sampling strategies such as college sampling (Landers & Behrend, 2015). Diversity within the sample is important as Chan and Drasgow (2001) studied both military personnel and college student samples, whereas Felfe and Schyns (2014) evaluated the responses of high school and college students as well as employees. Additionally, data quality gathered from MTurk "Workers" has been found to be equal to those of other online sites such as SurveyMonkey (Berinsky, Huber, & Lenz, 2012). Data were reviewed for straight-line responses as well as for appropriate time constraints (as estimated by Qualtrics® with a completion time of 12–15 minutes).

After passing a "bot" check and providing informed consent, the participants were asked to complete the Qualtrics® online survey, which included items pertaining to demographic characteristics consistent with the demographics collected in the Chan (1999) study. Data were analyzed through the process detailed by Chan (1999). First, a factor analysis at the instrument level was conducted in IBM® AMOS® 24.0. For the Romance of Leadership Scale, an exploratory factor analysis was also conducted in IBM® SPSS® 24.0. Then, multiple linear regression analysis using the ordinary least squares (OLS) regression technique was performed in IBM® SPSS® 24.0. Finally, a path

analysis was created in AMOS®. Chi-square differences and global fit were tested across alternative models to assess model fit.

Sample Size

Sample size can affect not only statistical power (the probability of not making a Type II error) but also bias and model convergence (Wolf, Harrington, Clark, & Miller, 2013). Although many rules-of-thumb exist for determining sample size within SEM research, most rules are not model-specific and may over- or underestimate the needed sample size (MacCallum, Widaman, Zhang, & Hong, 1999). However, a common measure for determining sample size is to require at least 10 responses for each item within the survey (Henson & Roberts, 2006). As the survey contained 129 items, the targeted sample size was at least n = 1,290 (129 items* 10 responses per item).

Measurement Instrumentation

To evaluate the proposed IALP model (see Figure 1) nine sets of validated instruments were used. The Goldberg's public domain (Goldberg, 1999) measured the five personality traits of extraversion, conscientiousness, openness to experience, agreeableness, and emotional stability. The values (INDCOL) instrument (Singelis, Triandis, Bhawuk, & Gelfand, 1995) measured the independent variable of vertical individualism, horizontal individualism, vertical collectivism, and horizontal collectivism. Biographical questions regarding past leadership experience were used per the method detailed by Chan and Drasgow (2001) to assess the intervening variable of past leadership experience. The leadership self-efficacy (LSE) instrument (Chan, 1999) measured the intervening variable of leadership self-efficacy, as used by Chan and Drasgow (2001). The intervening variable of personal initiative was measured by the

instrument derived from Frese, Fay, Hilburger, Leng, and Tag (1997). Romance of Leadership (RoL) was measured by the Romance of Leadership Scale (Meindl, 1998b). The revised Motivation to Lead (MTL) Index (Bobbio & Manganelli Rattazzi, 2006) measured motivation to lead, and the Intention to Assume a Leadership Position (IALP) (Felfe & Schyns, 2014) measured intention to apply for a leadership position.

Concerning variable measurement, most of the instruments used in Chan and Drasgow's (2001) and Felfe and Schyn's (2014) studies were employed for this study. However, as the measurement instrument for past leadership experience varied across the student samples (Chan & Drasgow, 2001), the shortened 5-item version of RoL used by Felfe and Schyns (2014) could not be obtained, and a revised version of the MTL scale (Bobbio & Manganelli Rattazzi, 2006) was developed, justification for measurement changes in this study are detailed below.

Big-Five Personality Instrument (BFPI) (Goldberg, 1999)

The BFPI measure consists of five 10-item sub-scales, all of which were used in the study. All five sub-scales are measured on a five-point Likert-type scale, with *1= Very Inaccurate* and *5= Very Accurate*. A sample item for the extraversion subscale is *"Am the life of the party"*, a sample item for the conscientiousness subscale is *"Get chores done right away"*, a sample item for agreeableness is *"Take time out for others"*, a sample item for emotional stability is *"Seldom feel blue"*, and a sample item for the openness to experience subscale is *"Am full of ideas".* Cronbach's alpha coefficients across six data sets for Goldberg's (1992) validation study ranged .90 to .92 for extraversion, .88 to .94 for conscientiousness, and .82 to .94 for openness to experience ("intellect or imagination"). Cronbach's alpha coefficients for the student sample

populations within Chan and Drasgow's (2001) study concerning the predictor variable of extraversion were both above .80, with the U.S. student sample alpha coefficient being .90. Regarding the predictor variable conscientiousness, the Cronbach alphas were above .70 with the U.S. student sample alpha coefficient being .83. For openness to experience, the Cronbach alphas were above .70, with the U.S. student sample alpha coefficient being .81 (Chan & Drasgow, 2001). Additionally, discriminant and convergent validity of the Big-Five have been evaluated in recent empirical studies by utilizing correlation and regression models to establish differential relationships with external variables (Joshanloo, 2017) as well as via the percent of variance explained (Pérez-González & Sanchez-Ruiz, 2014). Although discriminant and convergent validity between the Big Five personality traits and the intention to apply for a leadership position have not been reported, Hong, Catano, and Liao (2010) found discriminant validity between the Big Five personality traits and affective–identity MTL. This finding was based on global fit indices of the CFA model.

Individualism-Collectivism (INDCOL) measure (Singelis, Triandis, Bhawuk, & Gelfand, 1995)

The INDCOL scale was designed to measure interpersonal values such as horizontal individualism, vertical individualism, horizontal collectivism, and vertical collectivism. The INDCOL measure contained four subscales with eight items each; however, Chan and Drasgow created item parcels to improve measurement validity. The instrument is based on a 9-point Likert-scale where *1= never* or *definitely no* and *9= always* or *definitely yes*. A sample item for vertical individualism is *"It is important that I do my job better than others."* A sample item for horizontal individualism is "*I often do*

"my own thing." A sample item for vertical collectivism is *"I usually sacrifice my self-interest for the benefit of my group."* A sample item for horizontal collectivism is *"I enjoy working in situations involving competition with others."* The Cronbach's alpha coefficient for vertical individualism was .75, for horizontal individualism was .60; for vertical collectivism was .65; and for horizontal collectivism, .69 (Singelis, Triandis, Bhawuk, & Gelfand, 1995). In the Chan and Drasgow (2001) study, the coefficients were above .75 in both student sample populations, with the U.S. sample coefficient alpha being .80. Using Hair's (2006) guidelines, a recent empirical study has shown convergent validity based on average variance extracted (AVE) above .50 and discriminant validity based on the "square roots of the AVE coefficients in the diagonal elements [being] larger than the inter-construct correlations" (Arpaci, Kesici, & Baloğlu, 2018, p. 300).

Past Leadership Experience measure (Chan & Drasgow, 2001)

Chan and Drasgow (2001) used two methods for assessing past leadership experience, which comprised the quantity of leadership experience (e.g., number of years in leadership positions throughout academic tenure) as well as a self-rating report concerning the quality of leadership. However, as only the latter was provided to the Singapore student sample, for the purposes of this research this variable was measured based on the 2-item measure used to assess quantity of leadership experience. The two items used to measure past leadership experience are *"In your past experience working in groups and teams, how often did you become the leader?"* and *"Looking at your work and school life to date, how would you rate the amount of leadership experience you have compared to your peers (i.e., people of the same age as you?"* This method is consistent with how Chan and Drasgow (2001) solely measured past leadership experience for the

U.S. student sample, as well as how they partially measured the variable for the Singapore student sample. The factor score alpha coefficients for Chan and Drasgow's (2001) student groups were .50 and .66 for the Singapore and U.S. samples, respectively. Convergent and discriminant validity were not assessed in Chan and Drasgow's (2001) study.

Leadership Self-Efficacy (LSE) measure (Chan, 1999)

The measure used by Chan and Drasgow (2001) to measure leadership self-efficacy was adapted from Feasel's (1995) general self-efficacy instrument. The instrument used by Chan and Drasgow (2001) consisted of a 6-item Likert-type scale (e.g., *"I feel confident that I can be an effective leader in most of the groups that I work with."*). The Cronbach's alphas among the student samples were .82 or above for both the U.S. and Singapore groups (Chan & Drasgow, 2001, p. 487). Regarding convergent validity, Chan (1999) found that items and composite indicators for the LSE measure were invariant across three sample sizes based on fit indicators (i.e., GFI, SRMR, NNFI, CFI, PNFI). Although Chan reported only discriminant validity of the LSE measure by examining local fit, Feasel (1995) reported inter-item correlations as evidence of discriminant validity. Feasel (1995) found that the LSE measure was discriminant with the Big Five personality traits (r = .27 [extraversion], r = .18 [conscientiousness], r = .-.09 [openness to experience], r = .02 [agreeableness], and r = .33 [emotional stability].

Personal Initiative measure (Frese, Fay, Hilburger, Leng, & Tag, 1997)

Personal initiative is a behavioral condition where an individual is self-starting and goal-oriented (Frese, Fay, Hilburger, Leng, & Tag, 1997). Self-reported personal initiative was measured in Felfe and Schyns's (2014) study with a 7-item Likert-type scale (e.g., *"I actively attack problems."*). The Cronbach's alpha for Frese, Fay, Hilburger, Leng, and Tag's (1997) study was .84, and for Felfe and Schyns's (2014) student and employee samples was .81. Frese et al. (1997) found that inter-item correlations for self-reported personal initiative did not contain discriminant validity when compared to interviewer evaluations of personal initiative. However, the authors evaluated only one self-reported measure within their study, which was the personal initiative measure, and deemed that this lack of discriminant validity was due to social desirability bias. Due to the survey design of this study being based on all self-reported measures, Frese et al.'s findings regarding discriminant validity were not expected to be a concern.

Romance of Leadership scale (Meindl, 1998)

Felfe and Schyns (2014) used a 5-item Likert-type scale to assess Romance of Leadership (e.g., "*A company is as good or as bad as the top management.")***.** Concerning reliability, the Cronbach's alpha coefficient for their student and employee samples was .76. However, the five items used in Felfe and Schyns's research were not identified, and so a 17-item version of the Romance of Leadership scale (RLS) was used (Schyns, Meindl, & Croon, 2007). The 17-item version not only contains the sample item provided by Felfe & Schyns, but it also was identified by Schyns, Meindl, and Croon

(2007) to be of interest in "organizational practice as well as research" compared to the other two sub-versions of the RLS (p. 40). Factor analysis of the RLS indicated construct validity (Felfe, 2005; Meindl, 1990; Schyns, Felfe, & Blank, 2007). Schyns and Hansbrough (2012) claimed evidence of discriminant validity based on the inter-correlations between RoL and perceptions of leadership (r = .22) and situational factors (r = -.11).

Affective–identity MTL (MTL Scale) (Bobbio & Manganelli Rattazzi, 2006)

Chan and Drasgow (2001) originally created a 27-item Likert-type scale instrument to measure the three sub-factors of MTL, with each sub-scale containing nine items. While the affective–identity MTL sub-scale had good internal consistency (Cronbach's alpha was .87 and .91 for the Singapore and U.S. student samples, respectively), Ozgen Noveli, Laginess, and Viswesvaran (2017) and Bobbio and Mangenelli Rattazi (2006) conducted further validity analyses on the instrument. Ozgen Noveli Laginess, and Viswevaran (2017) conducted a meta-analysis of 82 studies and found that affective–identity MTL had the highest sample-size weighted mean reliability coefficient (M = 0.85, SD = 0.05, K = 76) among the three subscales of MTL. Additionally, because Bobbio and Mangenelli Rattzi (2006) found that a parsimonious version of the affective–identity MTL scale could be validly and reliably utilized, the parsimonious scale was used in the proposed study.

Although Bobbio and Mangenelli Rattazzi (2006) changed the Likert-type scale to a 7-point scale (where 1= *totally in disagreement* and 7 = *absolutely in agreement*), the authors found through exploratory and confirmatory factor analysis, as well as total

disaggregation modeling and partial disaggregation modeling (cf. Bagozzi & Heatherton, 1994) that affective–identity MTL could be reduced to a 5-item sub-scale. In particular, the total disaggregation model allows for each individual item to measure its respective hypothesized factor, which allows for "the most detailed level of analysis of a scale because psychometric properties are provided for each individual item" (Bobbio & Mangenelli Rattazzi, 2006, p. 122). This process supplied evidence of both convergent and discriminant validity as all three subscales were evaluated. The authors found that affective–identity MTL had four items that cross loaded and had correlated measurement errors as evidenced by theta-delta modification indices (*MI* > 3.84), thereby affecting internal validity. As such, the four items were removed to create a more parsimonious and psychometrically valid scale. Additionally, their findings indicated that affective–identity MTL had the highest reliability coefficients (.81 or above) of the three subscales. This was conducive with Chan and Drasgow's (2001) prior validation of the MTL scale. A sample item of the affective–identity subscale is *"I usually want to be the leader in the groups that I work in."*

Intention to Assume a Leadership Position measure (Felfe & Schyns, 2014)

The intention to apply for a leadership position construct was measured by the 2-item scale created by Felfe and Schyns (2014). The items were evaluated on a five-point Likert-type scale (where 1= *do not agree* and 5= *totally agree*). Cronbach's alpha for the scale was 0.84, and the two items used to measure this construct were *"I am determined to assume a leadership position in my profession"* and "*I can well imagine applying for a leadership position in my profession."* As the authors used "assume a leadership position" rather than "apply for a leadership position", a substitution of the phrase "apply

for a leadership position" was used in both items for the study. Although Cronbach's alpha is often used to assess reliability with 2-item scales (cf. Cuijpers et al., 2009; Michael et al., 2010; Young et al., 2009), Eisinga, Grotenhuis, and Pelzer (2012) stated that "coefficient alpha almost always underestimates true reliability, sometimes rather substantially" (p. 641). Therefore, the authors suggest that the Spearman-Brown coefficient, which is a more accurate measure of reliability and was therefore considered within the study. Convergent and discriminant validity were not reported in Felfe and Schyns' (2014) study.

Attitudes Toward the Color Blue measure (Miller & Chiodo, 2008)

Although not evaluated within the present study, a marker variable was included within the study. As the study included affective items, the ATCB measure was selected as a marker variable (**S**immering, Fuller, Richardson, Ocal, & Atinc, 2015)**.** The marker variable used to test common method variance comprises eight items on a 7-point Likert-type scale (where 1= *strongly disagree* and 7= *strongly agree*). A sample item of the measure is, *"I prefer blue to other colors."* Reliability coefficients for the measure have ranged from above .70 to .85 (Simmering, Fuller, Richardson, Ocal, & Atinc, 2015).

Survey Design

In an attempt to decrease the prevalence of the common method bias of consistency motif (Podsakoff, MacKenzie, & Lee, 2012), the survey was designed to prevent participants from changing previous answers in order to achieve more consistent responses. As such, participants were not able to view or edit answers that were previously submitted within the survey. Additionally, in consideration of decreasing

common method bias, respondents' anonymity was protected, and evaluation apprehension was controlled by informing respondents that there was no wrong way to answer the questions. To decrease non-response rates, the presence of the University of Texas at Tyler logo on the survey screens conveyed official sponsorship to respondents, and topic salience was inherent. The occurrence of non-response was further diminished by the utilization of a forced response feature for each question, and the survey completion time was expected to be between 12 and 15 minutes (cf. Fan & Yan, 2010). Although a meta-analysis indicated that the presence of progress bars within a study do not have a statistically significant impact in reducing participant drop-off (Villar, Callegaro, & Yang, 2013), due to the length of the study, a progress bar was inserted into the bottom of each question page to assist participants.

Screening criterion was implemented through MTurk®, whereby participants must have been at least 18 years of age and residing within the United States. As well, a "bot" check and two instructional manipulation check (IMC) questions were included to assist in verifying responses (Rouse, 2015). Additionally, the survey design did not employ counterbalancing; rather, item order was based on test-taker fatigue, which is consistent with Chan and Drasgow (2001) and Felfe and Schyns (2014). Scales containing a greater number of items (e.g., Romance of Leadership, Big-Five) was placed at the front of the survey to diminish variance associated with test-taker fatigue and survey length on items positioned at the end of the survey (Marentette, Meyers, Hurtz, & Kuang, 2012). Items used to model a latent factor marker variable were also included but were not analyzed for the present study (Miller & Chiodo, 2008). Furthermore, questions pertaining to the respondent's demographics consistent with those collected by Chan and Drasgow (2001),

such as gender and race, were included at the end of the survey as the forced response feature ameliorated concerns of nonresponse rates detailed in recent literature (Teclaw, Price, & Osatuke, 2012).

Specifically, the demographic questions related to gender (male or female) and race (white, black or African American, American Indian or Alaska Native, Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Other Asian, Native Hawaiian; Guamanian or Chamorro; Samoan; Other Pacific Islander, Spanish/Hispanic/Latino: Mexican; Mexican American; Chicano; Puerto Rican; Cuban; Other Spanish/Hispanic/Latino, Other) were evaluated within the data analysis. Due to the diversity of the samples studied in Chan's (1999) and Felfe and Schyns's (2014) research, additional demographics were collected for possible ad-hoc analyses but were not used for the study. Those additional demographics were continent of residence (Africa, Antarctica, Asia, Europe, South America, North America, Australia), birth year range (1928-1945, 1946-1964, 1965-1980, 1981-2000, After 2000), education level (high school degree/GED, 4-year degree, master's degree, doctoral degree), employment status (yes, no), work industry (healthcare, education, real estate, industrial/manufacturing, retail, government, other), and work department (instruction/teaching, administration/management, administrative support, IT/IS, finance/accounting, marketing, HR, other).

Data Collection

Data were collected from participants using the MTurk® software system. MTurk® software offers a diverse sample population that provides responses at least at the equivalent quality of more traditional methods (Buhrmester, Kwang, & Gosling,

2011). The survey opened upon IRB approval in February 2018 and remained open for a period of 8 days, when a sufficient sample size above 1,290 was obtained. As Rouse (2015) found that reliability could be obtained across the same studies with reward range of values of $0.02, $0.10, and $0.50, and Buhrmester, Kwang, and Gosling (2011) found that the number of participants decreased at lower rates, participants for this study were compensated with a monetary payment of $0.35.

Data Assessment

This data assessment section of the study details the statistical analyses required for the study. The section includes the following subsections: data cleaning, sample representativeness, and the three statistical analyses that were conducted which are consistent with Chan (1999)'s research methodology. First, parceled indicators were created for the personality and values measures. Then, the three statistical analyses began with factor analysis at the instrument level, followed by multiple linear regression analysis using the ordinary least squares (OLS) regression technique, then concluded with path analysis as informed by the regression analysis.

Data Cleaning

Upon completion of the survey deployment period, data were downloaded from the Qualtrics® system onto the researcher's computer. To clean and analyze the data, IBM® SPSS® 24.0 software was used. The data were reviewed for any straight-lining responses, incorrect answer submissions for the IMC (Oppenheimer, Meyvis, & Davidenko, 2009), missing data, and range of values. Upon review, any non-random incomplete responses were removed in their entirety from the data set.

In the case of straight-lining, the data were reviewed to ensure no responses were removed for straight-line responses on reverse coded instruments. Specifically, the LSE measure and MTL scale contain reverse coded items; therefore, straight-lined responses were removed before the items were reverse coded to ensure valid straight-lined responses were not removed (Cole, McCormick, & Gonyea, 2012). Responses that fell outside of the Likert answer range were also removed, and any responses on categorical data that contained an invalid data point for the variable were also removed. The duration of each survey was estimated to take participants 12 to 15 minutes to complete. Therefore, survey completion times less than 10 minutes were removed. Upon completion of the data cleaning, responses were analyzed to produce descriptive statistics.

Sample Representativeness

Upon cleaning of the data, demographics were aggregated and compared. The sample demographics were compared to the demographics reported in Chan (1999, e.g., pp. 25-26). Additionally, sample representativeness was assessed further by comparing the study demographical data to data presented by the CIA World Factbook (2018), as presented in Table 1. Though Chan (1999) studied three samples, only the U.S. student sample was used for comparison. Furthermore, Chan (1999) reported an age range of 17-24, with mean age of 18.3, within this sample. Therefore, only gender and race were considered for demographic comparisons.

Table 1

Population Demographics

	U.S. Population Demographics (2017)		Chan (1999) U.S. Sample (n = 293)	
Characteristic	*n*	%	*n*	%
Gender				
Male	161,034,435	49.3	142	48.4
Female	165,591,356	50.7	149	50.9
Race				
White	236,477,072	72.4	252	86.0
Black or African American	41,154,849	12.6	7	2.4
American Indian or Alaska Native	2,939,632	0.9	n/a	n/a
Asian Indian	15,678,037	4.8	27	8.2
Native Hawaiian; Pacific Islander	653,251	0.2	n/a	n/a
Spanish/Hispanic/Latino	29,722,946	9.1	7	2.4

Note. U.S. demographics (Central Intelligence Agency, 2018). Two respondents in the Chan (1999) sample did not indicate gender.

Missing Data

The Qualtrics® survey utilized forced-answer responses in an attempt to reduce issues associated with missing data. Therefore, no random missing data was found within the responses. However, incomplete responses were removed using list-wise deletion.

Statistical Assumptions

For the hierarchical regression analyses, multicollinearity was evaluated by review of the tolerance statistic the Variance Inflation Factor (VIF) being above 10 (Meyers, 1990). Multivariate normality was also assessed, as the study contained path analysis, and a covariance matrix of composite scores was used. The data were assessed to ascertain if the assumption of multivariate normality was met (Byrne, 2010). As the data failed to meet the assumption (nonnormality occurs when critical ratio is greater than

5.00), comparison of the bootstrapped standardized regression weights and non-bootstrapped results were assessed (c.f. Byrne, 2010; Kline, 2016). Therefore, bootstrapping was performed busing a 2,000 case sampling procedure (c.f. Kline, 2016). Outliers were evaluated using the Mahalanobis D^2 procedure (Hair, Black, Babin, & Anderson, 2010). However, as the standardized regression weights of the bootstrapped and non-bootstrapped estimates were not substantively different (as assessed by standard error bias), the non-bootstrapped estimates were reported.

Factor Analyses at the Instrument Level

As with Chan's (1999) study, it was expected that a full measurement model with all 15 constructs created in IBM® SPSS® Amos 24.0 could not be analyzed due to software memory constraints. Therefore, consistent with procedures conducted by Chan (1999), the following steps were completed: Each instrument with three or more items were assessed in AMOS using a single-factor model; item-to-construct balance parceling (cf. Little, Cunningham, Shahar, & Widaman, 2002) was conducted for the Big-Five personality constructs and the INDCOL values constructs. As the personality and values instruments were the only instruments used within the current study that contained subscales, parceling was an option solely for these instruments.

Each of the personality constructs contained 10 items; therefore, three composite indicators were created for each of the five personality constructs (two indicators composed of three items, one composed of four). Each of the INDCOL constructs contained eight items, therefore three composite parcel indicators were created for each of the four INDCOL constructs (two indicators composed of three items, one composed of two). Although Chan (1999) used item-total correlation method for creating composite

scores, more recent scholars (Bandalos & Finney, 2001; Little, Cunningham, Shahar, & Widaman, 2002) have found that item-to-construct balance parceling is a more appropriate parceling method. However, standardized regression weights were evaluated to compare with the item-total correlation method to verify that the parceling outcomes were consistent with Chan's (1999) methodology. Following the methodology conducted by Chan (1999), to assess factor analyses at the instrument level, global model fit indicators were evaluated based on: (a) comparative fit index (CFI) ≥ .95, (b) standardized root mean square residuals (SRMRs) ≤ .08, and (c) the root mean squared error of approximation (RMSEA) ≤ .10 (Kline, 2016). Additionally, absolute residual correlations (>.1), Akaike information criterion (AIC), and Bayesian information criterion (BIC) were reviewed in consideration of global fit. As with Chan (1999), although chi-square was evaluated, the large sample size of the study was thought to impact statistical significance.

Regression Analyses

Consistent with Chan (1999), hierarchical regression analyses were conducted in IBM® SPSS® 24.0 to evaluate the factors that may be antecedents to the intention to apply for a leadership position construct. Specifically, OLS regression was utilized using the parceled composite scores that were created during the instrument factor analyses phase. For the regression analyses, factors were to be entered in groups or "blocks", starting with the most distal antecedents and adding the proximal antecedents last. This regression analysis allowed evaluation of the unique effects of each antecedent variable with the dependent variable of intention to apply for a leadership position. Therefore, "blocks" were entered as follows: demographic variables (gender, race), personality

(parceled), values (parceled), followed by the intervening factors of past leadership experience, and perceptions of leadership (leadership self-efficacy, personal initiative, and RoL) ending with affective–identity MTL. For each new factor entered in the regression analyses, zero-order correlation between the independent variables and the dependent variable, model fit (i.e. ΔR^2), and beta weights were examined. "If the beta weight for a distal construct that was large and significant when first entered into the equation decrease[s] in magnitude or significance when a more proximal construct [is] entered into the model, an inference [will be] made that the relationship between the distal construct and MTL [is] either mediated by the proximal construct or correlated with the proximal construct" (Chan, 1999, pp. 47-48).

Path Analyses

Upon completion of the hierarchical multiple regression analyses, the overall cumulative model statistics (*F* statistic) and variance explained by the model were assessed. The regression analyses informed the construction of the parsimonious model to be tested within the path analyses. Upon construction of the parsimonious IALP model, path analyses with completing models were assessed. In addition to the parsimonious IALP model derived from the regression analysis, the remaining three path models that were tested included a model with direct effects only, a model with indirect effects only, and a fully saturated model. Chi-square testing and global fit testing were conducted to assess the best fitting parsimonious model.

Summary

This chapter provided an outline for the design and methodology of the proposed study. The chapter began with a review of the purpose of the study, the design of the

study, research hypotheses, and information concerning the population and sample. Measurement instrumentation was then discussed along with details regarding survey design, data collection and analysis procedures, hypotheses testing, and descriptive statistics of the study.

Chapter Four - Results

Introduction

This chapter presents the resulting outcomes of the data analyses conducted within the study. As the purpose of this study concerns the antecedents to intention to apply for a leadership position, the findings discussed here followed the data analysis and the statistical analyses outlined in Chapter Three. First, the chapter begins with a discussion regarding the data cleaning process, as well as presents results of the participant demographics. Next, the process for conducting a factor analysis at the instrument level along with model fit is provided. Third, the chapter presents a discussion detailing the overall measurement model. Fourth, hierarchical multiple regression using the ordinary least squares (OLS) technique is detailed. Fifth, the testing of the research hypotheses via a path analysis is presented. The chapter concludes with a summary.

Data Cleaning

A total of 2,585 participants began the survey, with 1,774 MTurk® "Workers" having passed the screening questions and completed the entire Qualtrics® survey during an 8-day period in February 2018; thus the 811 incomplete surveys were removed from the dataset. As this number exceeded the needed sample size of 1,290, the data were then downloaded to the researcher's computer. Using SPSS® 24.0 the data were evaluated for straight-line responses prior to reverse coding the items on reverse coded instruments (i.e., the LSE and MTL scales), as well as evaluated for missing data and participant completion times. Although there were no missing data after the incomplete surveys were removed, there were 21 instances where straight-line responses were found, and thus list-

wise deletion was employed to remove the 21 responses. This was performed as the straight-line responses were found in the reverse-coded measures pertaining to LSE and MTL. Additionally, as the mean completion time for the survey was 10.17 minutes (SD = 2.59) any surveys completed in less than eight minutes were also deleted in their entirety. Three hundred and sixty-nine surveys were completed in less than eight minutes, and thusly deleted from the dataset. A total of 1,384 completed surveys remained after the data-cleaning process.

Demographics

Table 2 presents the demographic information of the study sample compared with the sample demographic information from Chan's (1999) study and the United States population demographics. Of the 1,384 retained sample respondents, 60% were female and 40% were male. Regarding race, the majority of respondents (78%) self-reported as being white, 8% were black or African American, 6% identified as being Asian Indian, 5% considered their race as being Spanish/Hispanic/Latino, less than 1% were American Indian or Alaska Native, and fewer than 1% of the respondents were Native Hawaiian/Pacific Islander. Note that almost 2% of the respondents identified their race as "Other", indicating that they did not identify with any of the race categories.

Regarding sample representativeness, Table 2 illustrates that the majority of the study respondents were white females, consistent with both Chan's (1999) U.S. sample and the U.S. population. The next largest representative races were Black or African American individuals, followed by Spanish/Hispanic/Latino individuals, also consistent with Chan's (1999) study and the U.S. population demographics.

Additionally, as indicated in Table 2, statistical significance was found between the study demographics related to gender as compared to the U.S. population demographics ($\chi^2 = 48.34$, $p < .001$, $df = 1$) and was also found when compared to Chan's study ($\chi^2 = 46.30$, $p < .001$, $df = 1$). Furthermore, a small practical significance (cf. Cohen, 1988) was found related to gender as compared to Chan's study ($w = 0.183$) and with the U.S. population demographics ($w = 0.187$). Regarding race, statistical significance was found compared to Chan's study ($\chi^2 = 224.12$ $p < .001$, $df = 3$), and statistical significance was found when compared to the U.S. population ($\chi^2 = 56.88$, $p = < .001$, $df = 5$). Additionally, moderate practical significance (cf. Cohen, 1988) was found for race demographics compared to Chan's study ($w = 0.408$ and a small practical significance was found for the U.S. population ($w = 0.204$).

Table 2

Demographics

			U.S. Population Demographics (2017)					Chan (1999) U.S. Sample (n = 293)				
	n = 1384											
Characteristic	n	%	n	%	x^2	p	w	n	%	x^2	p	w
Gender					48.34	<.001	0.187			46.30	<.001	0.183
Male	553	39.96	161,034,435	49.3				142	48.4			
Female	831	60.04	165,591,356	50.7				149	50.9			
Race					56.88	<.001	0.204			224.12	<.001	0.408
White	1,079	77.96	236,477,072	72.4				252	86.0			
Black or African American	112	8.09	41,154,849	12.6				7	2.4			
American Indian or Alaska Native	9	0.66	2,939,632	0.9				n/a	n/a			
Asian Indian	84	6.07	15,678,037	4.8				27	8.2			
Native Hawaiian; Pacific Islander	2	0.14	653,251	0.2				n/a	n/a			
Spanish/Hispanic/Latino	73	5.27	29,722,946	9.1				7	2.4			
Other	25	1.81	n/a	n/a				n/a	n/a			

Note. U.S. demographics (Central Intelligence Agency, 2018). Two respondents in the Chan (1999) sample did not indicate gender.

Factor Analysis at the Instrument Level

All measured items were analyzed to ascertain whether they loaded to the correct theoretical latent constructs (Hair et al., 2010). Initially, a measurement model with all 15 constructs was created in IBM® SPSS® AMOS® 24.0. However, as was the case with Chan's (1999) study, the model was too large to be analyzed in the software program due to memory constraints. Therefore, consistent with procedures conducted by Chan (1999), each instrument (excluding the personality and values measures) with three or more items was assessed in AMOS® using a single-factor model. For the Big-Five personality constructs and INDCOL values constructs, item-to-construct balance parceling (cf. Little, Cunningham, Shahar, & Widaman, 2002), and a correlated-factor model were conducted. As the personality and values instruments were the only instruments used within the survey that contained subscales, parceling was an option for these instruments. Please note that as the measurements for past leadership experience and intention to apply for a leadership position contained fewer than three items, both of those measures were not included in the factor-analysis at the instrument level. For each factor-analysis at the instrument level, the covariance matrix was positive definite, and the estimation technique used was maximum likelihood. Consistent with Chan (1999), bootstrapping was not conducted for the factor analysis at the instrument level but was assessed for the overall measurement model to assess for multivariate normality.

To determine the global goodness of fit for each instrument model, the following criteria were used: (a) comparative fit index (CFI) $\geq .92$, (b) standardized root mean square residuals (SRMRs) $\leq .08$, and (c) the root mean squared error of approximation

(RMSEA) ≤ .07 (Hair, Black, Babin, & Anderson, 2010). Specifically, the criteria used were based off the fit cut-offs described by Hair, Black, Babin, and Anderson (2010) for a sample size larger than n = 250 with 12 or more but less than 30 indicators was used for the Big Five, INDCOL, and ROL measures. Although, the measures for LSE, PI, and MTL contained less than 12 indicators; therefore, Hair, Black, Babin, and Anderson's (2010) criteria for a sample with more than 250 participants but fewer than 12 indictors were used. Therefore, the criteria used for models with consideration of a model with 12 or fewer indicators were: (a) comparative fit index (CFI) ≥ .95, and (b) the root mean squared error of approximation (RMSEA) ≤ .07 with a CFI of .97 or higher (Hair, Black, Babin, & Anderson, 2010). Hair, Black, Babin, and Anderson's (2010) suggestion that complex models with larger samples should have less strict fit evaluation was taken into consideration. Additionally, absolute residual correlations (>.1), Akaike information criterion (AIC), and Bayesian information criterion (BIC) were reviewed in consideration of global fit. As Chan (1999) pointed out, the large sample size within the study may impact statistical significance regarding the chi-square metric. Additionally, Rigdon's (1996) suggestion that RMSEA is a better assessment of fit for confirmatory studies with large sample size and Kenny (2005)'s advice that CFI is affected by the complexity of a model, were taken into consideration.

Concerning local fit, the pattern and structure coefficients were analyzed to confirm that each of the individual items loaded on their respective theoretical construct (Graham, Guthrie, & Thompson, 2003). A minimum factor loading of .5 is acceptable (Bagozzi & Yi, 1988), although Kline (2016) recommended convergent validity be assessed based on factor loadings above .7. For this study, the .5 loading was used for

determining removal of an indicator to improve local fit. Composite reliability (CR ≥ .6) and average variance explained (AVE ≥.5) to evaluate convergent validity were also assessed based on the criteria set forth by Bagozzi and Yi (1988). Discriminant validity was assessed for the personality and values correlated models by comparing the square root of the AVE to the correlations for each individual factor. If the square root of the AVE value was greater than the correlations for each individual factor, then discriminant validity was evidenced (Bagozzi & Yi, 1988).

Personality

All personality items loaded on their theoretical construct, and no items loaded with less than the minimum required .5 factor loading. Each of the five personality subscales consisted of 10 items; therefore, three composite indicators for each of the five personality constructs (two indicators composed of three items, one composed of four) were created. Adhering to the method detailed by Little et al., 2002, standardized regression weights were evaluated for each scale. For example composite EXP1 was formed by identifying the item with the highest regression weight (EX10R= .789), the item with the lowest regression weight (EX8R = .578), and the item with the middle regression weight (EX3 = .683) and then averaging the responses of those three items That process was then continued to create EXP2 with the next highest weight (EX4R = .769), the next lowest weight (EX9 = 0.62), and the next middle weight (EX2R = .75). To create EXP3, the remaining middle weights (EX1 = .661, EX6R = .666, EX5 = .757, and EX7 = .768) were used to identify the four items whose responses would be averaged to make the final parceled indicator. This process was continued for the remaining four subscales within the personality instrument. Table 3 provides the regression weights for

each of the personality items. Once a correlated five-factor analysis was conducted on the parceled personality scales, an adequate global fit was obtained (see Table 4). Although three residual correlations >.10 remained in the retained parceled model, which is an indicator of possible poor local fit (Kline, 2016), the pattern coefficients for each indicator (Table 5) were above Kline's stringent recommendation of .7. Indeed, "nuisance variance is not totally eliminated even when the item is placed with other items that do not have a dual loading or a correlated residual" (Little, Rhemtulla, Gibson, & Schoemann, 2013, p.285). However, because the number of correlated residuals was substantively reduced in the parceled model, it is likely that the parceled model is an appropriate representation of the data (Little, Rhemtulla, Gibson, & Schoemann, 2013). Furthermore, the residual correlations that were >.10, were only slightly larger than the required cutoff (e.g., EXP1 and ESP1 had a residual correlation of .104, and COP1 and OEP2 had a residual correlation of .105, and AGP3 and EXP3 had a residual correlation of 0.106). Therefore, based on the local and global fit indicators, the sizable reduction of residual correlations between Model 1 and Model 2 (Table 4), and that Kline (2016) states there is no cut-off for the number of residual correlations that are "too many" (p.240), the parceled correlated model was retained.

A review of the structure coefficients in Table 5 conveys that each indicator loaded on the appropriate theoretical factor. Table 6 illustrates that composite reliability was met for each factor (CR ≥ .6), and that the average variance extracted for each factor was above .5, indicating convergent validity. Additionally, discriminant validity was apparent for all five factors as the square root of each factor's AVE statistic was higher than the respected correlations of the factor.

Table 3

Factor Loadings for Personality Parcels

Item	Factor Loading	Parcel	Item	Factor Loading	Parcel
EX10R	0.789	EXP1	CO4R	0.753	COP1
EX4R	0.769	EXP2	CO6R	0.738	COP2
EX7	0.768	EXP3	CO2R	0.694	COP3
EX5	0.757	EXP3	CO5	0.643	COP3
EX2R	0.750	EXP2	CO8R	0.610	COP2
EX3	0.683	EXP1	CO1	0.588	COP1
EX6R	0.666	EXP3	CO7	0.566	COP3
EX1	0.661	EXP3	CO9	0.537	COP3
EX9	0.620	EXP2	CO3	0.476	COP2
EX8R	0.578	EXP1	CO10	0.425	COP1
OE10	0.798	OEP1			
OE5	0.700	OEP2			
OE3	0.661	OEP3			
OE6R	0.615	OEP3			
OE2R	0.582	OEP2			
OE4R	0.558	OEP1			
OE1	0.544	OEP3			
OE7	0.521	OEP3			
OE9	0.490	OEP2			
OE8	0.411	OEP1			
ES6R	0.849	ESP1			
ES9R	0.825	ESP2			
ES1R	0.812	ESP3			
ES8R	0.790	ESP3			
ES7R	0.775	ESP2			
ES10R	0.736	ESP1			
ES3R	0.725	ESP3			
ES5R	0.715	ESP3			
ES2	0.654	ESP2			
ES4	0.555	ESP1			
AG7R	0.754	AGP1			
AG4	0.746	AGP2			
AG8	0.711	AGP3			
AG2	0.680	AGP3			
AG5R	0.677	AGP2			
AG9	0.650	AGP1			
AG6	0.603	AGP3			
AG10	0.533	AGP3			
AG1R	0.486	AGP2			
AG3R	0.383	AGP1			

Table 4

Personality Measure Fit Indices

	Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# | RC | >.10
1.	Personality (Ex, Es, Co, Oe, Ag) (10 items each)	9160.59	1166	0.77	0.07	9378.59	9948.96	0.09	638
2.	**Personality Parceled (3 parcels per subscale= 15 total indicators)**	**783.88**	**80**	**0.95**	**0.08**	**864.82**	**1073.19**	**0.05**	**3**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 5

Pattern (P) and Structure (S) Coefficients for Five-Factor Correlated Model

	Extraversion		Openness		Emotion		Agreeableness		Conscientiousness	
Construct Variable	P	S	P	S	P	S	P	S	P	S
Extraversion										
EXP1	0.834	0.834		0.207		0.229		0.234		0.137
EXP2	0.866	0.866		0.215		0.238		0.243		0.143
EXP3	0.867	0.867		0.215		0.238		0.243		0.143
Openness										
OEP1		0.199	0.803	0.803		0.096		0.268		0.154
OEP2		0.191	0.771	0.771		0.092		0.258		0.148
OEP3		0.188	0.759	0.759		0.091		0.254		0.146
Emotion										
ESP1		0.233		0.102	0.849	0.849		0.219		0.373
ESP2		0.242		0.105	0.881	0.881		0.227		0.387
ESP3		0.247		0.108	0.901	0.901		0.232		0.396
Agreeableness										
AGP1		0.236		0.282		0.217	0.843	0.843		0.281
AGP2		0.214		0.255		0.197	0.764	0.764		0.255
AGP3		0.214		0.255		0.197	0.763	0.763		0.254
Conscientiousness										
COP1		.0132		0.154		0.353		0.268	0.804	0.804
COP2		0.135		0.157		0.359		0.272	0.817	0.817
COP3		0.121		0.141		0.324		0.246	0.737	0.737

Table 6

Implied Correlations, Average Variance Extracted (AVE), and Composite Reliability (CR)

Variable	1	2	3	4	5
1. Extraversion	.86				
2. Openness	.25	.78			
3. Emotion	.27	.12	.88		
4. Agreeableness	.28	.33	.56	.79	
5. Conscientiousness	.17	.19	.44	.33	.79
CR	.89	.82	.91	.83	.83
AVE	.73	.61	.77	.63	.62

Note. Square root of AVE along the diagonal

Values

Although Chan (1999) deleted one item from each of the four values subscales due to low factor loadings, the deleted items were not reported. As with the personality measure, parceling was conducted for the values instrument and therefore no items were deleted due to low factor loadings. Each construct contained eight items; therefore, three composite parcel indicators were created for each of the four constructs (two indicators composed of three items, one composed of two). For example, HIP1 was created by identifying the item with the largest factor loading (HI5 = .688), the item with the lowest factor loading (HI2 = .421), and the item with the middle weight (HI1 =.617) and then averaging the responses for those items. Table 7 provides the factor loadings for each of the values items. Once parceled, the correlated-factor analysis for the values measure yielded an adequate global fit consistent with Kline's (2006) guidelines (see Table 8).

As with the personality parceled model, there were several correlated residuals with an absolute value above .10 in the values parceled model. Those correlated residuals were related to the parcels created for horizontal collectivism and vertical collectivism. This is not unexpected as Chan and Drasgow (2001) stated that they collapsed the two

subscales into a single collectivism scale due to horizontal collectivism and vertical collectivism having high correlations within their study. However, a review of the structure coefficients in Table 9 indicate that all indicators within this study loaded on their respective factor. As well, since adequate global fit was obtained (Table 8), a decision was made to not collapse the subscales so that the subscales could be independently analyzed in the subsequent regression analysis. Additionally, the composite reliability ($CR \geq .6$) of each factor met the required guidelines, the average variance extracted for each factor was greater than .5, and discriminant validity was evident for each factor as detailed in Table 10.

Table 7

Factor Loadings for Values Parcels

Item	Factor Loading	Parcel
HI5	0.688	HIP1
HI8	0.682	HIP2
HI7	0.633	HIP3
HI1	0.617	HIP1
HI4	0.525	HIP2
HI6	0.511	HIP3
HI7	0.489	HIP2
HI2	0.421	HIP1
VI4	0.731	VIP1
VI5	0.731	VIP2
VI2	0.723	VIP3
VI6	0.722	VIP1
VI7	0.696	VIP2
VI3	0.615	VIP3
VI1	0.529	VIP2
VI8	0.475	VIP1
HC1	0.761	HCP1
HC6	0.734	HCP2
HC2	0.711	HCP3
HC4	0.651	HCP1
HC5	0.613	HCP2
HC3	0.570	HCP3
HC8	0.544	HCP2
HC7	0.437	HCP1
VC1	0.806	VCP1
VC2	0.799	VCP2
VC4	0.680	VCP3
VC3	0.613	VCP1
VC8	0.601	VCP2
VC6	0.406	VCP3
VC5	0.297	VCP2
VC7	0.290	VCP1

Table 8

Values Measure Fit Indices

Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# | RC | >.10
1. Values (HI, VI, HC, VC) (8 items each)	4022.87	428	0.77	0.08	4158.87	4514.69	0.08	297
2. Values Parceled (3 per subscale)	**783.88**	**48**	**0.95**	**0.08**	**864.82**	**1073.19**	**0.05**	**10**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 9

Standardized Path (P) and Structure (S) Coefficients for Four-Factor Correlated Model

Construct	Horizontal Individualism		Vertical Individualism		Horizontal Collectivism		Vertical Collectivism	
Variable	P	S	P	S	P	S	P	S
Horizontal Individualism								
HIP1	0.788	0.788		0.096		0.208		-0.071
HIP2	0.821	0.821		0.100		0.217		-0.074
HIP3	0.545	0.545		0.066		0.144		-0.049
Vertical Individualism								
VIP1		0.097	0.795	0.795		-0.053		0.127
VIP2		0.109	0.899	0.899		-0.060		0.143
VIP3		0.099	0.815	0.815		-0.054		0.130
Horizontal Collectivism								
HCP1		0.210		-0.053	0.796	0.796		0.462
HCP2		0.201		-0.051	0.762	0.762		0.443
HCP3		0.179		-0.045	0.679	0.679		0.395
Vertical Collectivism								
VCP1		-0.074		0.130		0.475	0.818	0.818
VCP2		-0.062		0.109		0.396	0.682	0.682
VCP3		-0.060		0.106		0.106	0.665	0.665

Table 10

Implied Correlations, Average Variance Extracted (AVE), and Composite Reliability (CR)

Variable	1	2	3	4
1. Horizontal Individualism	.73			
2. Vertical Individualism	.12	.84		
3. Horizontal Collectivism	.26	-.10	.75	
4. Vertical Collectivism	-.10	.16	.58	.73
CR	.77	.88	.79	.77
AVE	.53	.70	.56	.53

Note. Square root of AVE along the diagonal

Leadership Self-Efficacy

For the LSE scale, no items loaded below the minimum required .5 factor loading. However, the model fit continued to have poor global fit as the RMSEA value was above .07. Therefore, a decision was made to evaluate the absolute residual correlations and modification indices, which indicated that the reverse-coded items, LSE1, LSE4, and LSE6 were problematic as each indicator yielded covariances with all other remaining items. Thus, the decision was made to correlate the errors associated with the reverse-coded items (cf. Johnson, Bormann, & Glaser, 2015). Table 11 depicts the resulting adequate global fit for the measure. The correlated residuals, indicative of local fit (Kline, 2016) were reduced in the retained model (see Table 11). Table 12 displays the pattern coefficients for the retained LSE model, which indicates that LSE1R had a factor loading below the required .5. However, because the other two negatively worded items within the measure were correlated with LSE1R and above .5 (cf. Brown, 2014), the item was retained. Additionally, the composite reliability (CR = .79) and average variance explained (AVE = .62) met the required guidelines.

Table 11

Leadership Self-Efficacy Measure Fit Indices

Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# RC >.10
1. Leadership Self-Efficacy (LSE) (6 items)	471.07	9	0.93	.193	495.07	557.87	0.06	5
2. LSE with correlated error for reverse-coded items (LSE1, LSE4, LSE6)	**15.98**	**6**	**0.99**	**0.03**	**44.98**	**123.47**	**0.01**	**0**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 12

Pattern Coefficients for Single-Factor, Correlated Error Model

Item	Coefficient
LSE1R	0.463
LSE2	0.904
LSE3	0.909
LSE4R	0.758
LES5	0.901
LSE6R	0.682

Personal Initiative

Of the seven items contained within the Personal Initiative scale, no items had a factor loading below .5; however, the RMSEA index of the full model was high (.12). Utilizing Kenny's (2005) advice, the modification indices were evaluated, and a high value existed between PI1 and PI2 (70.73). Additionally, the residual correlation for the full model was greater than .10 for PI1 and PI2. A review of the two items showed common themes pertaining to problem solving (PI1 = *"I actively attack problems.",* PI2 = *"Whenever something goes wrong, I search for a solution immediately."*). Therefore, the errors for PI and PI2 were correlated to test for shared variation between the errors (cf. Kline, 2016), which resulted in adequate global fit as detailed in Table 13 below.

This correlation method was consistent with the guidelines supplied by Kenny, Kashy, and Bolger (1998) that state the errors of two indicators can be correlated, provided that there are at least two other indicators within the model that are not correlated.

The pattern coefficients for the retained model indicate that all factors loaded above the required .5 factor loading, with all but one factor loading above the more stringent .7 requirement (see Table 14). The composite reliability for the model was above the required .6 (.64), and the average variance extracted was above .5 (.77).

Table 13

Personal Initiative Measure Fit Indices

	Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# RC >.10
1.	Personal Initiative (PI) (7items)	268.91	14	0.96	0.12	296.91	370.17	0.04	1
2.	**PI with correlated errors (PI1/PI2)**	**102.97**	**13**	**0.98**	**0.07**	**132.97**	**211.46**	**0.02**	**0**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 14

Pattern Coefficients for Single-Factor, Correlated Error Model

Item	Coefficient
PI1	0.748
PI2	0.713
PI3	0.800
PI4	0.842
PI5	0.826
PI6	0.695
PI7	0.741

Romance of Leadership

Concerning the 17-item ROL scale, no items loaded below a .5 factor loading. However, the full model yielded a poor global fit with a high RMSEA value and low CFI value (see Table 15). Therefore, as was the case with the Personal Initiative measure, absolute residual correlations and modification indices were evaluated. From the full model, a large residual correlation (.113) value was observed between ROL3 and ROL4. However, after reviewing the items, there was no theoretical explanation to correlate the errors (e.g., no reverse-coded items, no shared theme). Further investigation of the absolute residual correlations indicated residual correlations among several dissimilar items (ROL2, ROL3, ROL4, ROL11, and ROL13). Thus, to evaluate construct validity for this self-reported scale (cf. Williams, Onsman, & Brown, 2010), an exploratory factor analysis (EFA) was conducted using the principal axis factoring extraction method and oblimin with Kaiser rotation method in SPSS® 24.0. In accordance with Schyns, Meindl, and Croon (2007), it was expected that a single factor structure would remain from the EFA. However, the resulting factor structure indicated that two-factor structures existed with the first unretained factor, factor three, having an eigenvalue of .848. The

two retained factors had eigenvalues above 1.0 and combined explained 55% of the total variance. The determinant of the matrix was greater than 0, the KMO measure was above the .60 value recommended by Huck (2012) as it was .951, and the *p*-value of the Bartlett test of sphericity was less than .001. Table 16 displays the pattern and structure coefficients for the two factors.

However, as noted in Table 16, ROL12 cross loaded on both factor 1 (.36) and factor 2 (.37), and as Costello and Osborne (2005) stated that "a 'cross loading' item is an item that loads at .32 or higher on two or more factors" (p. 4), ROL12 was excluded from the two-factor model. Per Costello and Osborne's (2005) recommendation, excluding a cross loaded item is advisable provided that there are other items within the model that have high pattern coefficients (.50 or better), which Table 16 indicates is the case in this situation. Therefore, another EFA was performed with ROL12 removed from the analysis, and Table 17 details that all remaining items loaded appropriately on either factor 1 or factor 2 above the .32 requirement (Costello & Osborn, 2005).

Next a confirmatory factor analysis was conducted in AMOS® with the retained two-factor correlated model that excluded ROL12 (factor 2 contained ROL2, ROL3, ROL4, ROL11, and ROL13), and Table 18 provides the pattern and structure coefficients of the remaining items on the two factors. However, as indicated by Table 19, the retained model lacked discriminant validity for either factor as the square root of the AVE values were less than the intercorrelations of the factors, and factor 1 lacked convergent validity as the AVE was less than .5 at .48. As the overarching statistical analysis within this study was to test the IALP model (Figure 1) through path analysis, it was imperative that validity be evidenced within the variables (cf. Kline, 2016).

Therefore, a decision was made to remove the ROL construct from further analysis testing of the IALP model (i.e., regression analyses, path analyses) due to a lack of instrument validity.

Table 15

Romance of Leadership Measure Fit Indices

	Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# RC >.10
1.	Romance of Leadership (ROL) (17 items)	1795.32	119	0.85	0.10	1897.32	2041.23	0.06	27
2.	**ROL two-factor correlated model with ROL12 removed**	**805.12**	**103**	**0.93**	**0.07**	**871.12**	**1043.80**	**0.04**	**6**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 16

Standardized Path (P) and Structure (S) Coefficients for ROL

	Factor 1		Factor 2	
Item	P	S	P	S
ROL1	0.**45**	0.61	0.24	0.54
ROL2	0.15	0.56	0.**62**	0.72
ROL3	0.05	0.54	0.**75**	0.78
ROL4	-0.12	0.42	0.**80**	0.73
ROL5	0.**55**	0.63	0.13	0.50
ROL6	0.**64**	0.65	0.20	0.45
ROL7	0.**76**	0.78	0.04	0.55
ROL8	0.**64**	0.70	0.09	0.52
ROL9	0.**63**	0.63	0.01	0.43
ROL10	0.**41**	0.58	0.25	0.52
ROL11	0.04	0.51	0.**71**	0.73
ROL12	0.**36**	0.61	0.**37**	0.61
ROL13	0.11	0.54	0.**64**	0.71
ROL14	0.**70**	0.74	0.06	0.53
ROL15	0.**81**	0.79	-0.03	0.51
ROL16	0.**74**	0.67	-0.09	0.40
ROL17	0.**77**	0.69	-0.12	0.40
Eigenvalues		7.87		1.48
% of variance		46.31		8.72

Note. Principal Axis Factoring using oblimin with Kaiser Normalization rotation method.

Table 17

Standardized Path (P) and Structure (S) Coefficients for ROL with ROL12 removed

	Factor 1		Factor 2	
Item	P	S	P	S
ROL1	**0.47**	0.63	0.28	0.55
ROL2	0.14	0.54	**0.69**	0.77
ROL3	0.06	0.52	**0.80**	0.82
ROL4	-0.13	0.38	**0.88**	0.80
ROL5	**0.58**	0.67	0.15	0.48
ROL6	**0.69**	0.70	0.05	0.41
ROL7	**0.76**	0.80	0.07	0.51
ROL8	**0.67**	0.73	0.10	0.50
ROL9	**0.69**	0.68	-0.02	0.38
ROL10	**0.43**	0.59	0.28	0.53
ROL11	0.03	0.47	**0.76**	0.78
ROL13	0.10	0.51	**0.71**	0.77
ROL14	**0.72**	0.76	0.07	0.49
ROL15	**0.81**	0.81	-0.01	0.47
ROL16	**0.80**	0.73	-0.11	0.35
ROL17	**0.82**	0.74	-0.14	0.34
Eigenvalues	7.43		1.47	
% of variance	46.46		9.20	

Note. Principal Axis Factoring using oblimin with Kaiser Normalization rotation method.

Table 18

Pattern (P) and Structure (S) Coefficients for Two-Factor Correlated Model

	Factor 1		Factor 2	
Construct Variable	P	S	P	S
Factor 1				
ROL1	0.631	0.631		0.466
ROL5	0.648	0.648		0.479
ROL6	0.655	0.655		0.484
ROL7	0.788	0.788		0.582
ROL8	0.704	0.704		0.520
ROL9	0.631	0.631		0.466
ROL10	0.584	0.584		0.431
ROL14	0.736	0.736		0.544
ROL15	0.780	0.780		0.576
ROL16	0.659	0.659		0.487
ROL17	0.670	0.670		0.495
Factor 2				
ROL2		0.536	0.726	0.726
ROL3		0.582	0.788	0.788
ROL4		0.515	0.697	0.697
ROL11		0.528	0.714	0.714
ROL13		0.543	0.735	0.735

Table 19

Implied Correlations, Average Variance Extracted (AVE), and Composite Reliability (CR)

Variable	1	2
1. Factor 1	.68	
2. Factor 2	.74	.73
CR	.90	.85
AVE	.47	.54

Note. Square root of AVE along the diagonal.

Motivation to Lead

The 5-item MTL scale included two reverse-coded items, MTL2 (.514) and MTL4 (.569), which both loaded below .6 within the full model. Although this is acceptable under Bagozzi and Yi's (1988) guideline of .5, in instances where a reverse-coded scale has been used, it is possible that the errors associated with the reverse-coded items will need to be correlated to improve model fit (cf., Johnson, Bormann, & Glaser, 2015). As with the LSE and Personal Initiative scales, the modification indices were assessed. Therefore, the errors between MTL2 and MTL4 were correlated, thereby resulting in an adequate global fit as depicted in Table 20. However, it is important to note that as the χ^2 is close to the number of degrees of freedom, the model "may not remain stable in future samples" (Jöreskog, 1969, p. 201). Table 21 displays that all items for the retained model loaded above the .5 threshold, except for MTL2R. However, as was the case with the LSE and ROL retained models, the decision was made to keep MTL2R within the model as it had a correlated error with MTL4R. Table 22 shows the composite reliability (>.6) at .86 and average variance extracted (>.5) at .56 are evidence of convergent validity.

Table 20

Motivation to Lead Measure Fit Indices

	Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# | RC | >.10
1.	Motivation to Lead (MTL) (5 items)	271.71	5	0.93	0.19	291.71	344.03	0.08	1
2.	**MTL with correlated errors for MTL2 and MTL4**	**3.752**	**4**	**1.00**	**0.00**	**25.75**	**83.31**	**0.00**	**0**

Note. RC = residual correlations. The estimation for all models converged and the solutions for all models were admissible. Retained model is indicated in bold.

Table 21
Pattern Coefficients for Single-Factor, Correlated Error Model

Item	Coefficient
MTL1	0.902
MTL2R	0.488
MTL3	0.888
MTL4R	0.547
MTL5	0.823

Table 22

Implied Correlations, Average Variance Extracted (AVE), and Composite Reliability (CR)

Variable	1	2	3	4	5
1. MTL1	1				
2. MTL2R	.44	1			
3. MTL3	.80	.43	1		
4. MTL4R	.49	.58	.49	1	
5. MTL5	.74	.40	.73	.45	1
CR	.86				
AVE	.56				

Data-driven Modeling of Antecedents of IALP

Consistent with the method used by Chan (1999), hierarchical multiple regression using ordinary least squares regression analyses was employed to evaluate the antecedent structure of the IALP model (see Figure 1). Consistent with Chan (1999), composite scores, and not parcel scores, were created to conduct the regression analysis. Item scores were inputted into SPSS® 24.0 to create composite scores using the mean average of items associated with each construct. Table 23 contains the correlation matrix used for the regression analysis.

Table 23
Correlation Matrix of Composite Scores

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1. Gender	0.89															
2. Race	-0.06*	0.92														
3. Extraversion	-0.02	0.01	0.91													
4. Emotion	-0.17**	0.05	0.27**	0.93												
5. Conscientiousness	0.06*	-0.03	0.14**	0.39**	0.86											
6. Agreeableness	0.25**	-0.03	0.28**	0.22**	0.26**	0.86										
7. Openness	-0.01	-0.07**	0.24**	0.11**	0.14**	0.29**	0.84									
8. Horizontal Collectivism	0.18**	0.02	0.28**	0.13**	0.17**	0.61**	0.19**	0.83								
9. Horizontal Individualism	-0.00	0.06*	0.11**	0.14**	0.22**	0.14**	0.41**	0.23**	0.79							
10. Vertical Collectivism	0.02	0.04	0.06*	0.02	0.10**	0.23**	-0.15**	0.47**	-0.06*	0.76						
11. Vertical Individualism	-0.19**	0.04	0.17**	-0.12**	-0.03	-0.24**	-0.01	-0.07**	0.13**	0.12**	0.86					
12. Past Leadership Experience	-0.04	-0.05	0.42**	0.20**	0.15**	0.13**	0.31**	0.17**	0.22**	0.01	0.23**	0.84				
13. Leadership Self-Efficacy	-0.06*	0.01	0.44**	0.33**	0.27**	0.20**	0.36**	0.19**	0.30**	-0.04	0.18**	0.63**	0.91			
14. Personal Initiative	0.03	-0.00	0.41**	0.28**	0.42**	0.30**	0.41**	0.37**	0.48**	0.13**	0.20**	0.44**	0.55**	0.91		
15. Motivation to Lead	-0.09**	-0.02	0.48**	0.17**	0.13**	0.07**	0.29**	0.08**	0.20**	-0.08**	0.30**	0.63**	0.67**	0.44**	0.86	
16. Intention to Apply	-0.13**	0.06*	0.42**	0.19**	0.11**	0.07**	0.27**	0.17**	0.19**	0.05*	0.33**	0.57**	0.65**	0.44**	0.69**	0.93

Note. $n = 1384$. * $p < 0.05$, ** $p < 0.01$. Coefficient alpha are on the diagonal.

A review of Table 24 reveals that extraversion, vertical individualism, past leadership experience, leadership self-efficacy, personal initiative, and MTL all had at least a moderate effect size (.30 or greater) with intention to apply for a leadership position based on Cohen's (1988) guidelines for correlation coefficient values. In fact, past leadership experience, leadership self-efficacy, and MTL had a strong (.50 or greater) effect size with intention to apply for a leadership position per Cohen's (1988) guidelines.

Once composite scores were created, constructs were then examined within the SPSS® 24.0 regression analysis following Chan's (1999) method of starting with the most distal constructs (personality, values), then the intervening constructs (past leadership experience, perceptions of leadership, and MTL) were entered in three separate blocks. For each new construct entered in the regression analysis, model fit and beta weights were examined. "If the beta weight for a distal construct that was large and significant when first entered into the equation decreased in magnitude or significance when a more proximal construct was entered into the model, an inference was made that the relationship between the distal construct and MTL was either mediated by the proximal construct or correlated with the proximal construct" (Chan, 1999, pp. 47-48).

Table 24 displays the results of the hierarchical regressions for the theoretical IALP structure including zero-order correlations, beta weights, and collinearity statistics. The *F* statistic (127.836) for the full model was statistically significant with $p < .001$. Additionally, the adjusted R^2 for the full model was 0.58 indicating that the model provides adequate specification of antecedents to

IALP (cf. Chan, 1999). Multicollinearity was not a concern as none of the Variance Inflation Factor (VIF) values were above 10 (Meyers, 1990).

Following Chan's (1999) basis of selection, variables were analyzed for statistical significance and magnitude of the beta weights, but also based on the statistical significance of the variables at the $p = .001$ level when first entered into the regression analysis. Therefore, as shown in Table 24, the variables which met this criteria in regard to having a direct effect on intention to apply for a leadership position were gender, vertical individualism, past leadership experience, leadership self-efficacy, and motivation to lead.

It is important to note here that the variables with a direct effect on intention to apply for a leadership position, excluding motivation to lead, also had indirect effects with the intention to apply for a leadership position. Although several beta weights decreased in statistical significance as blocks were entered throughout the regression analysis, it was also observable that the magnitude of the beta weights among each of the constructs decreased as new blocks were entered. Using the criteria outlined by Chan (1999), Table 24 shows how the addition of block four (the proximal construct of past leadership experience) lowered the beta weights of the distal construct of vertical individualism (Δ .07). When block five (perceptions of leadership) was entered into the regression it was noted that the beta weight for past leadership experience decreased (Δ .20). This suggests that the two constructs comprising perceptions of leadership (leadership self-efficacy and personal initiative) mediate the relationship between past leadership and the intention to apply for a leadership position. However, because

personal initiative was not statistically significant at the $p = .001$ level when entered into the regression (block five), personal initiative was no longer evaluated for mediating effects within the regression analyses. Entering motivation to lead in block six revealed that the beta weight decreased for past leadership experience (Δ .11) and leadership self-efficacy (Δ .14). This suggests that motivation to lead mediates the relationships between past leadership experience and leadership self-efficacy with intention to apply for a leadership position.

Table 24

Hierarchical Multiple Regression Results Using Composite Scores

Predictor	r	Standardized Betas by Block Entered						Collinearity	
		1	2	3	4	5	6	Tolerance	VIF
Gender	-0.13	-0.13***	-0.09**	-0.05*	-0.06*	-0.05*	-0.05*	0.84	1.20
Race	0.06	0.05	0.06**	0.05*	0.07**	0.06**	0.06**	0.97	1.03
Extraversion	0.42		0.38***	0.28***	0.16***	0.09***	0.03	0.63	1.58
Emotion	0.19		0.06*	0.12***	0.07**	0.01	0.03	0.69	1.46
Conscientiousness	0.11		0.04	0.01	-0.00	-0.07**	-0.06**	0.71	1.42
Agreeableness	0.07		-0.09**	-0.07*	-0.05	-0.07**	-0.06*	0.51	1.98
Openness	0.27		0.20***	0.20***	0.12***	0.06*	0.05*	0.65	1.53
Horizontal Collectivism	0.17			0.10**	0.08**	0.06*	0.07**	0.56	2.19
Horizontal Individualism	0.19			0.01	-0.02	-0.07**	-0.05*	0.67	1.50
Vertical Collectivism	0.05			-0.00	0.01	0.03	0.06**	0.66	1.52
Vertical Individualism	0.33			0.28***	0.21***	0.16***	0.12***	0.72	1.40
Past Leadership Experience	0.57				0.40***	0.20***	0.09***	0.50	1.99
Leadership Self-Efficacy	0.65					0.42***	0.28***	0.40	2.49
Personal Initiative	0.44					0.08**	0.05	0.45	2.23
Motivation to Lead	0.69						0.37***	0.42	2.37
		Culminative Block Statistics							
Multiple *R*		0.14	0.49	0.56	0.65	0.73	0.77		
R^2		0.02	0.24	0.31	0.43	0.53	0.58		
Adjusted R^2		0.02	0.23	0.31	0.42	0.52	0.58		
Change in R^2		0.00	0.22	0.07	0.12	0.10	0.05		

Concerning specifically the intervening variables, or the variables that present only an indirect effect on intention to apply, Table 24 provides an inference of many relationships. The beta weight for gender decreased in statistical significance when past leadership experience was entered in the regression in block four. Likewise, for extraversion, the beta weight decreased by .12 when past leadership experience was entered in the regression. Additionally, the beta weight magnitude for extraversion decreased by .07 when leadership self-efficacy was entered in block five and decreased in statistical significance when motivation to lead was entered in block six. Additionally, the beta weight for openness to experience decreased by .08 when past leadership was entered into the regression and decreased in statistical significance when leadership self-efficacy was entered into the regression.

Vertical individualism was found to have an indirect effect on intention to apply for a leadership position through past leadership experience (Δ .07) and also had an indirect effect on intention to apply through MTL as the beta weight was reduced substantively in magnitude when MTL was entered into the regression (Δ .09). However, past leadership experience was also found to have an indirect effect on the intention to apply for a leadership position as the beta weight decreased in magnitude when leadership self-efficacy (Δ .20) and when MTL (Δ .11) were entered into the regression. As well, leadership self-efficacy was found to have an indirect effect on intention to apply for a leadership position through MTL as the beta weight decreased in magnitude when MTL was entered into the regression (Δ .14).

Based on the information gathered in Table 24, Figure 2 was created to display the direct (vertical individualism, past leadership experience, leadership self-efficacy and

MTL) and indirect (gender, vertical individualism, extraversion, openness to experience, past leadership experience, leadership self-efficacy, and motivation to lead) effects on the intention to apply for a leadership position.

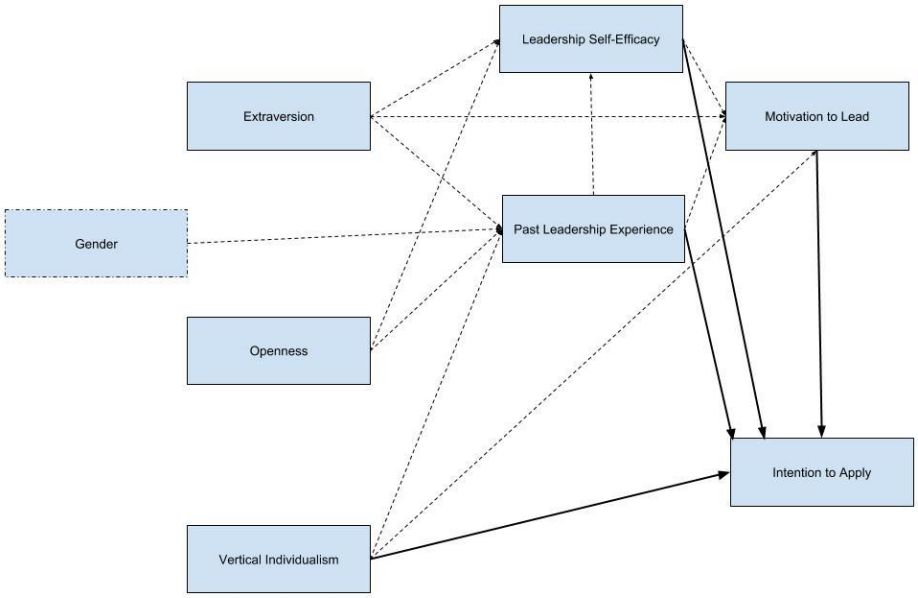

Figure 2. Parsimonious IALP Model. The dotted lines represent indirect effects, and the bold lines represent direct events on the dependent variable of intention to apply for a leadership position.

Path Model

Upon completion of the regression analyses, data were fitted to the parsimonious model of antecedents to IALP (see Figure 2) for confirmatory path analysis within AMOS® 24.0. Variables retained from the regression analysis (gender, extraversion, openness, vertical individualism, past leadership experience, leadership self-efficacy, motivation to lead, and intention to apply) were used for the path analysis, as were the composite scores that were used within the regression analysis. It is important to note that the retained variables from the regression analysis confirm hypotheses 1–5 as personality

(H1), values (H2), past leadership experience (H3), perceptions of leadership (H4), and affective–identity MTL (H5) were all found to be antecedents to intention to apply for a leadership position.

However, to assess the remaining three hypotheses (H6a–H6b), direct and indirect paths from the antecedents to intention to apply for a leadership position were examined. Consistent with the structural modeling conducted by Chan (1999), four path models were constructed. It is important to note that while Chan tested only three models (a restricted model that contained direct and indirect paths as informed by the hierarchical regression analysis, a model with only direct paths, and a fully saturated model), a fourth model was employed in this study to evaluate the fit of a model with only indirect paths to the dependent variable.

First, a restricted model with both direct and indirect paths as informed by the hierarchical linear regressions was tested (Model 1, Figure 3), next a model with only the direct paths was examined (Model 2, Figure 4), then a model with only indirect paths was tested (Model 3, Figure 5), and finally, a fully saturated model was evaluated (Model 4, Figure 6). Table 25 displays the model fit indices of the IALP path analyses. The criterion by Hair, Black, Babin, and Anderson (2010) for models containing less than 12 observed variables was used to evaluate the fit indices in Table 23 (i.e., (a) comparative fit index (CFI) $\geq .97$, and (b) the root mean squared error of approximation (RMSEA) $\leq .08$).

Table 25

IALP Path Analysis Measure Fit Indices

	Model	χ^2	*df*	CFI	RMSEA	AIC	BIC	SRMR	# RC >.10
1.	Restricted	23.80	7	0.99	0.04	81.80	233.54	0.02	0
2.	Direct Paths Only	14.54	3	0.99	0.05	80.54	253.22	0.01	0
3.	Indirect Paths Only	280.94	10	0.93	0.14	332.94	333.28	0.05	0
4.	Fully Saturated	0.00	0	1.00	0.31	72.00	260.38	0.00	0

Note. RC = residual correlations. The estimation for the model converged.

As evidenced by the fit indices in Table 25, the indirect paths only model (Model 3) and the fully saturated model (Model 4) did not meet the RMSEA fit criteria. A chi-square difference test (cf. Klein, 2016) was performed to assess the better fitting model between the remaining models and found that the $\Delta\chi^2/\Delta df$ between Model 1 and Model 2 was 9.24 with 4 degrees of freedom, which was not statistically significantly different (p = .055). Therefore, Figure 3 (Model 1), the restricted model that was derived from the hierarchical regression analyses, best fits the data. This finding was further supported by the parsimonious indicator where Model 1 had a smaller BIC value than Model 2, and thus indicated that hypothesis 6a could be supported as the model with both direct and indirect paths best fitting the data. Therefore, hypothesis 6b which states that only direct paths exist between the distal antecedents to intention to apply for a leadership position, was rejected; this is supported by Model 2. Table 26 presents the standardized regression weights for each of the 15 paths included in Model 1. All unstandardized paths were statistically significant at the p = .001 level except for gender, which was not statistically significant.

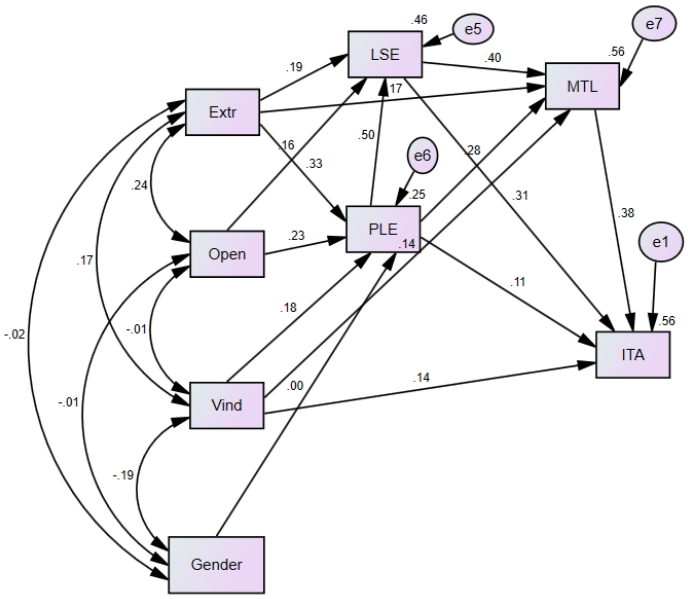

Figure 3. IALP path analysis Model 1. Standardized regression weights shown.

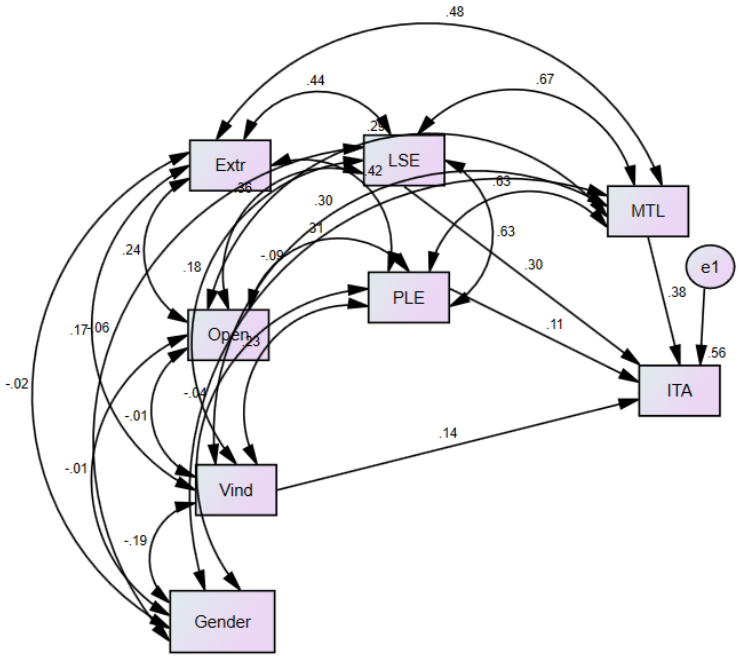

Figure 4. IALP path analysis Model 2. Standardized regression weights shown.

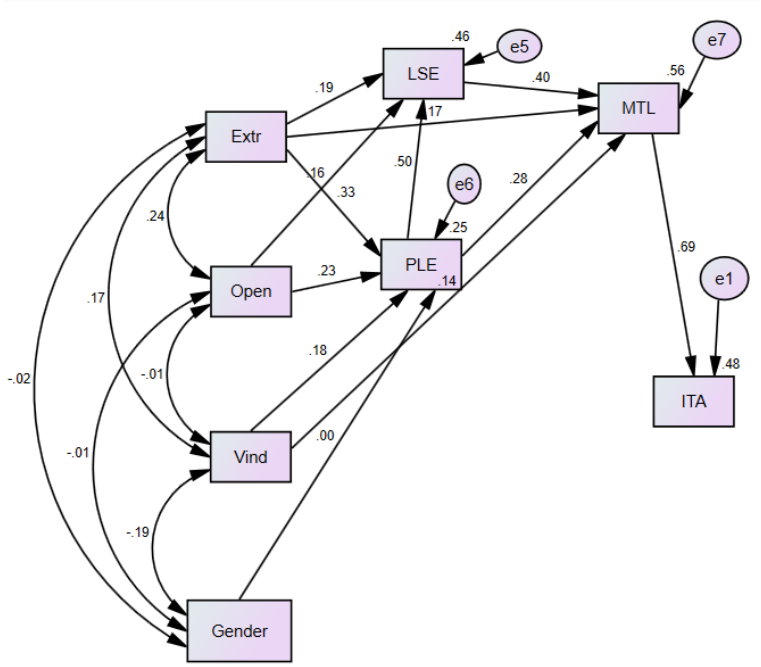

Figure 5. IALP path analysis Model 3. Standardized regression weights shown.

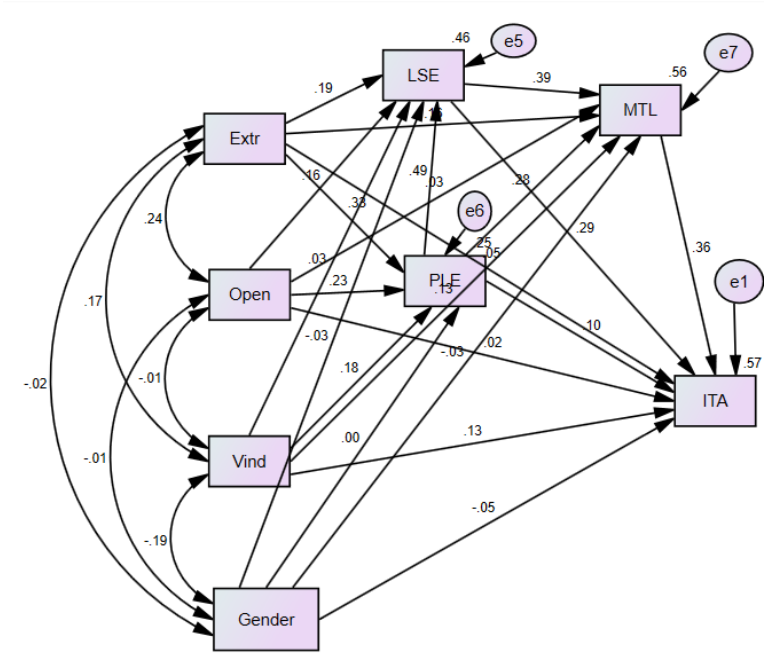

Figure 6. IALP path analysis Model 4. Standardized regression weights shown.

Table 26
Coefficients for Retained Parsimonious Model (Model 1)

Path	Coefficient	*b* weights	*S.E.*	*p*-value
Extr->PLE	0.335	0.335	0.024	<.001
Open->PLE	0.231	0.231	0.024	<.001
Vind->PLE	0.176	0.176	0.024	<.001
Gender->PLE	0.002	0.002	0.024	0.918
Extr->LSE	0.192	0.192	0.022	<.001
PLE->LSE	0.500	0.500	0.022	<.001
Open->LSE	0.159	0.159	0.021	<.001
Extr->MTL	0.165	0.165	0.020	<.001
LSE->MTL	0.398	0.397	0.024	<.001
PLE->MTL	0.280	0.279	0.024	<.001
Vind->MTL	0.137	0.136	0.018	<.001
Vind->ITA	0.138	0.137	0.019	<.001
PLE->ITA	0.110	0.110	0.025	<.001
LSE->ITA	0.305	0.304	0.026	<.001
MTL->ITA	0.376	0.376	0.026	<.001

Summary

Chapter Four described the results of the study. The myriad quantitative analyses conducted resulted in deriving a parsimonious IALP model, and the hypotheses were narratively discussed in consideration of the findings. Chapter Five will provide a discussion of the findings as well as recommendations for future research, as well as the implications for theory and practice.

Chapter Five—Discussion

Introduction

This chapter is segmented into five sections. The first section discusses the study findings as derived from Chapter Four with consideration to relevant literature, and the second section provides implications for leadership development and HRD theory, practice, and research. In the third section, a discussion regarding the limitations of the study is presented. The fourth section provides suggestions for future research, and the fifth section contains a summary of the chapter.

Discussion of the Results

Within this section, the eight hypotheses (H1–H6c) is discussed and compared to the prior studies conducted Chan and Drasgow (2001) (cf. Figure 3 for affective–identity MTL) and Felfe and Schyns (2014), all of which informed the present study. The antecedents to intention to apply for a leadership position are discussed regarding H1–H5. This section also includes the distal and proximal antecedents to intention to apply for a leadership position. For review of the direct and indirect path effects on intention to apply for a leadership position within the IALP model, H6a–H6c are discussed. The overall findings of the study are also narratively discussed. To assist the reader, a revised parsimonious IALP model derived from the path analysis is presented in Figure 7.

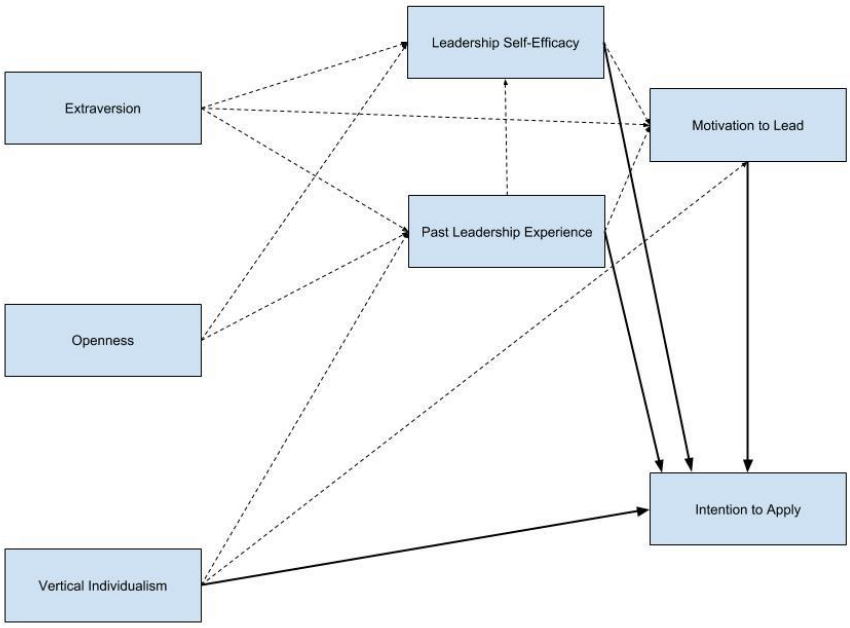

Figure 7. Revised, parsimonious IALP Model. The dotted lines represent indirect effects, and the bold lines represent direct events on the dependent variable of intention to apply for a leadership position.

Antecedents (H1–H5)

H1 postulated that the personality constructs (extraversion, conscientiousness, openness to experience, agreeableness, and emotional stability) are antecedents to intention to apply for a leadership position. Through the factor analysis at the instrument level for the Big Five personality instrument, all five constructs were found to have good global and local model fit. However, during the regression analysis, it was discovered that only extraversion and openness to experience had a statistically significant beta weight (p = .001) on intention to apply for a leadership position after controlling for gender and race and the other personality measures. The path analysis confirmed that

extraversion and openness to experience are antecedents to intention to apply for a leadership position. Specifically, extraversion was found to have an indirect effect (cf. Baron & Kenny, 1986) on intention to apply for a leadership position through: (a) past leadership experience, (b) leadership self-efficacy, (c) motivation to lead, (d) leadership self-efficacy and motivation to lead, (e) past leadership experience and motivation to lead, and (f) past leadership experience, leadership self-efficacy, and motivation to lead. Openness to experience was found to have an indirect effect on intention to apply for a leadership position through: (a) leadership self-efficacy, (b) past leadership experience, (c) leadership self-efficacy and motivation to lead, (d) past leadership experience and motivation to lead, and (e) past leadership experience, leadership self-efficacy, and motivation to lead. This finding supports those uncovered by Chan and Drasgow (2001) in regard to the partial indirect effect between extraversion and motivation to lead as well as the indirect effect between openness to experience and motivation to lead. Although, this finding diverges from Chan and Drasgow's (2001) study in that an indirect effect between conscientiousness and motivation to lead through leadership self-efficacy was not found within this study.

H2 predicted that the values constructs (vertical individualism, horizontal individualism, vertical collectivism, horizontal collectivism) are antecedents to intention to apply for a leadership position. The factor analysis at the instrument level for the INDCOL instrument found that the instrument retained adequate global and local fit. However, during the regression analysis, it was found that only vertical individualism had a statistically significant beta weight at p =.001 with intention to apply for a leadership position controlling for gender, race, personality, and the other values measures.

Specifically, vertical individualism has a partial, or complementary mediation (Zhao, Lynch, & Chen, 2010) on intention to apply. This is because vertical individualism not only had a direct effect on intention to apply for a leadership position, but also an indirect effect on intention to apply for a leadership position through (a) past leadership experience, (b) motivation to lead, (c) past leadership and motivation to lead, and (d) past leadership experience, leadership self-efficacy, and motivation to lead. This finding was then confirmed with the path analysis. The direct effect found between vertical individualism and affective–identity motivation to lead supports the finding of Chan and Drasgow's (2001) study. However, the findings of the present study diverge from Chan and Drasgow's (2001) study as the indirect effects from vertical individualism to affective–identity motivation to lead found within this study were not found in Chan and Drasgow's (2001). This is an important finding to note as Zhao, Lynch, and Chen (2010) point out that when partial mediation is present, as is the case here, the direct path is "often [a] result from omission of one or more mediators from the model" (p. 199). As such, this finding of partial mediation "[has] the potential of enriching both theory and practice" (Shrout & Bolger, 2002, p. 434), which will be discussed later within this chapter.

H3 pertained to past leadership experience as an antecedent to intention to apply for a leadership position. Although the instrument could not be analyzed by factor analysis at the instrument level because it contained only two items, the regression analysis revealed that past leadership had a statistically significant direct effect at the p =.001 level with the intention to apply for a leadership position after controlling for gender, race, personality, and values measures. Specifically, past leadership experience

was found to have a partial indirect effect on intention to apply for a leadership position through: (a) leadership self-efficacy, (b) through motivation to lead, and (c) through leadership self-efficacy and motivation to lead. This finding was confirmed through the path analysis, and also is consistent with the findings of Chan and Drasgow (2001) with regard to the relationship between past leadership experience and motivation to lead. Additionally, this finding answers the query introduced by Felfe and Schyns (2014) in their recommendation to evaluate the relationship between past leadership experience and the intention to apply for a leadership position. As past leadership experience has a partial indirect effect on intention to apply for a leadership position, Felfe and Shcyns' (2014) hypothesis that leadership experience may influence intention to apply for a leadership position was supported within this study.

H4 predicted that the perceptions of leadership (leadership self-efficacy, personal initiative, and Romance of Leadership) are antecedents to intention to apply for a leadership position. During the factor analysis at the instrument phase, it was discovered that Romance of Leadership did not meet the global fit criteria, even after conducting an exploratory factor analysis. Therefore, the Romance of Leadership construct was not included in the subsequent hierarchical regression analysis. Additionally, during the regression analysis, it was also discovered that personal initiative did not have a statistically significant beta weight with intention to apply for a leadership position at the p =.001 level. As such, only leadership self-efficacy remained for evaluation as an antecedent to intention to apply for a leadership position and was confirmed by the path analysis. Specifically, leadership self-efficacy has a partially indirect effect on intention to apply through motivation to lead. The effect of leadership self-efficacy on motivation

to lead supports the findings of Chan and Dragow (2001) where leadership self-efficacy was found to have a direct effect on motivation to lead. As well, the finding of this study supports Felfe and Schyns (2014) where general self-efficacy was found to have a partial indirect effect on the intention to apply for a leadership position through motivation to lead. Furthermore, the lack of statistically significant effects observed from personal initiative, which was also an antecedent to intention to apply for a leadership position in Felfe and Schyns' (2014) study, indicates that the present study's findings diverge from past research.

H5 postulated that affective–identity MTL is an antecedent to intention to apply for a leadership position. The factor analysis at the instrument level showed that the motivation to lead instrument had adequate global and local fit. The regression analysis found a statistically significant beta weight at the $p = .001$ level between MTL and the intention to apply for a leadership position, which was confirmed by the path analysis. Specifically, a direct path was found to exist between MTL and intention to apply for a leadership position. This finding supports that of Felfe and Schyns (2014) that affective–identity MTL is an antecedent to the intention to apply for a leadership position.

Direct and Indirect Paths (H6a–H6c)

Regarding H6a–H6c, direct and indirect paths from the antecedent constructs to intention to apply for a leadership position were evaluated. H6a, a hypothesis pertaining to the findings of the regression analysis, predicted that both direct and indirect paths (through affective–identity MTL) existed from distal antecedents to the intention to apply for a leadership position. The hierarchical regression indicated that vertical individualism, past leadership experience, leadership self-efficacy, and affective–identity MTL all had

direct paths to the intention to apply for a leadership position. Additionally, the regression analysis indicated that gender, extraversion, openness to experience, vertical individualism, past leadership experience, and leadership self-efficacy all had indirect paths to the intention to apply for a leadership position through affective–identity MTL. These findings of both direct and indirect paths were then confirmed by the path analysis (Model 1) and found to fit the data better than the other path models.

Regarding the alternative hypothesis H6b, it was predicted that only direct paths existed from the distal antecedents to the intention to apply for a leadership position. Although Chan and Drasgow (2001) found a direct path from extraversion to affective–identity MTL, which was confirmed in this study, no direct path was found from extraversion to intention to apply for a leadership position. Therefore, the only direct paths to intention to apply for a leadership position in the path analysis were from vertical individualism, past leadership experience, leadership self-efficacy, and affective–identity MTL. However, the path analysis for this model (Model 2) did not fit better than the competing path models, and therefore H6b was rejected.

H6c pertained to only indirect paths existing from the distal antecedents to the intention to apply for a leadership position through affective–identity MTL. The regression analysis indicated that gender, extraversion, openness to experience, vertical individualism, past leadership experience, and leadership self-efficacy all had indirect paths to the intention to apply for a leadership position through affective–identity MTL. However, the results of the path analysis indicated that this model (Model 3) did not fit the data as well as Model 1, which contained both direct and indirect paths. As such, H6c could not be supported within the study.

Therefore, of the eight hypotheses, only two hypotheses (H6b and H6c) were rejected. As such, the path model informed by the regression analysis, Model 1, containing both direct and indirect paths (through affective–identity MTL) from the antecedents to the intention to apply for a leadership position was found to be the best fitting model. This finding is consistent with prior literature from Chan and Drasgow (2001) as the model informed by the regression analysis was the best fitting model.

Overall Remarks

This study found that extraversion, openness to experience, vertical individualism, past leadership experience, leadership self-efficacy, and motivation to lead have an impact, either directly or indirectly, on the intention to apply for a leadership position. These findings largely support the groundwork laid by Chan and Drasgow (2001) with their parsimonious model of antecedents for affective–identity motivation to lead, which was found to be an antecedent to intention to apply for a leadership position. Additionally, the findings of this study show that of the three perceptions of leadership predictor variables within Felfe and Schyns' (2014) study, leadership self-efficacy was the only predictor variable retained within the final model. This finding may indicate that the addition of the predictor variables (i.e., personality, values, past leadership experience) from Chan and Drasgow's (2001) study within the same model as the predictor variables (Romance of Leadership, personal initiative, and self-efficacy) of Felfe and Schyns' (2014) study, shared variance which caused personal initiative to have a weak effect within the model. It is unknown the effect that Romance of Leadership may have had within the model as validity within the measure could not be obtained to evaluate the variable within the regression or path analyses. Importantly, however, the

partial indirect effect of leadership self-efficacy with intention to apply for a leadership position through motivation to lead supports the finding of Felfe and Schyns (2014), although their study included general self-efficacy and not the more specific leadership self-efficacy as evaluated in Chan and Drasgow (2001) and the present study.

Although important effects were found within this study that diverged from prior literature as discussed in the preceding section, an important contribution of this study is the partial indirect effects found within the revised parsimonious IALP model. The presence of the partial indirect effects indicated that there are omitted intervening variables (cf. Zhao, Lynch, & Chen, 2010) between values and intention to apply, past leadership experience and intention to apply, and leadership self-efficacy and intention to apply. Although partially indirect effects were found within both Chan and Drasgow's (2001) and Felfe and Schyns' (2014) studies, the authors did not discuss how the partial indirect effects represent the need for further investigation regarding intervening variables that contribute to motivation to lead and the intention to apply for a leadership position. Therefore, an important contribution of the present study is that even though variables were combined in the IALP model from both models evaluated by Chan and Drasgow (2001) and Felfe and Schyns (2014), partial indirect effects remained, indicating that other variables yet to be examined influence motivation to lead and intention to apply. As such, the next section will discuss how this contribution impacts theory, practice, and research.

Implications

As pointed out in Chapter One, the findings of this study have implications and significance for leadership theory, practice, and research. Although the field of leader

development has been a growing area of interest for theory and research (Day, Harrison, & Halpin, 2009; Zigarmi, Zigarmi, Roberts, & Roberts, 2017), the impact that leader development has for practical application is also paramount (Northouse, 2018; Quatro, Waldman, & Galvin, 2007). Therefore, this study's findings contribute holistically to the leader development realm, as will be detailed in the following sections.

Theoretical Implications

Both the Motivation to Lead Theory (Chan & Drasgow, 2001) and the Theory of Planned Behavior (Ajzen, 1985) underpinned this study. The findings of the study provide an extension of the Motivation to Lead theory as intention is no longer assumed within the theoretical framework but is evidenced as being influenced by different variables than motivation to lead. For example, within the present study, extraversion has a direct effect on motivation to lead, but does not have a direct effect on intention to apply. However, motivation to lead has a direct effect on intention to apply. This indicates that motivation to lead and intention to apply are being impacted by different predictors, yet the two variables have a high correlation. Therefore, this research provides evidence for the intention to apply for a leadership position to be included within the Motivation to Lead theoretical framework. Indeed, as supported by the Theory of Planned Behavior, motivation is found to be an antecedent of intention. Interestingly, where Ajzen (1991) suggested that personality traits may have an indirect effect on behavior, this study supplies evidence that there are in fact intervening components (past leadership experience, leadership self-efficacy, affective–identity MTL) that can impact an individual's intention to carry out a behavior. Thus, the findings of this study also contribute to the Theory of Planned Behavior.

The presence of partial indirect effects within the present study "can inform theorizing about other mediators" (Zhao, Lynch, & Chen, 2010, p. 198). It is possible that an individual's career aspirations may explain variance associated with vertical individualism, past leadership experience, leadership self-efficacy, motivation to lead, and intention to apply that is not explained within the revised parsimonious IALP model (Figure 7). Indeed, Chan et al. (2012) found that career aspirations impacted an individual's affective–identity motivation to lead, although they did not evaluate career aspirations within the same model as personality, values, past leadership experience, or the intention to apply for a leadership position (although, it is important to note that Chan et al. 2012 refers to intentions and aspirations interchangeably).

Another potential intervening variable that could be included within the revised parsimonious IALP model may be a biographical indicator of leadership training. Although the IALP model contains evaluation of past leadership experience, it does not specifically evaluate past leadership training. This is an important distinction, particularly since Chan (1999) predicated his theory of Motivation to Lead on the assumption that individuals can be taught or trained how to lead. Yet the biographical indicators contained within Chan's (1999) study, as well as the present study, only evaluate if the participant has had leadership experience. It may be argued that an individual could have acquired leadership training, but not yet held a formal leadership role.

Practice Implications

Perhaps one of the most pertinent aims of this research was to provide practitioners with a model to assess the components that compel an individual to apply for a leadership position. As Dries and Peppermans (2012) and Wells (2003) found that

as few as a third and as much as 55% of all organizations within the United States lack a clear method for identifying leadership potential, this research allows organizations to evaluate the factors that contribute to an individual applying for a leadership position. With organizations considering their potential return on investment (ROI) from creating career pathways or processes for identifying leadership potential, this study allows for practitioners to narrow their leadership development programs targeted at not just individuals with the potential to lead, but the actual intention to lead. This is an important contribution as organizations may be spending portions of their leadership training budget investing in leadership development for individuals who have no intention to apply for a leadership position. Therefore, the ROI of an organization's efforts to identify potential leaders with the intention of applying for a leadership position is important to consider.

As extraversion and openness to experience were found to have an indirect effect on intention to apply for a leadership position, practitioners may benefit from assessing the personality traits of potential leaders. This means that individuals who are sociable, outgoing, and open to creative opportunities or ways of thinking, are more likely to intend to apply for a leadership position. To take that line of thought further, practitioners wanting to use leadership training dollars more effectively may consider evaluating the personality traits of potential leadership training beneficiaries. Individuals scoring high on extraversion and openness to experience could be a more judicious investment of the organization's training budget.

Practitioners can also benefit from considering how potential leaders view autonomy and their status in relationship to others. Vertical individualism was found to

have a partially indirect effect on intention to apply for a leadership position which means that individuals who are willing to sacrifice for the organization's goals, as well as accept the organizational hierarchy, are more likely to intend to apply for a leadership position than those who value status equality and group work. In many ways, vertical individualism may speak to the self-sufficiency of an individual in that it describes an individual who values autonomy and their unique contribution within an organization (Cuker, de Guzman, & Carlo, 2004). Therefore, although many researchers encourage practitioners to seek a group-oriented individual for leadership roles (cf. Carson, Tesluk, & Marrone, 2007; Lorinkova, Pearsall, & Sims, 2013), this study, as well as Chan and Drasgow's (2001) study, found that organizations may be better served by seeking leaders who value vertical individualism.

Past leadership experience was found to have a partially indirect effect on intention to apply for a leadership position. This finding may assist practitioners as organizations can benefit from identifying individuals with past leadership experience when considering potential candidates for leadership roles. Likewise, leadership self-efficacy was found to have a partially indirect effect on intention to apply for a leadership position. Practitioners considering investment in potential leaders would do well to assess how confident the individual is in their leadership capabilities. This is particularly important as leadership self-efficacy has been found to result in effective leader (Anderson, Krajewski, Goffin, & Jackson, 2008) and follower performance (Paglis, 2010). Therefore, organizations which identify potential leaders who have high levels of efficacy in setting goals and overcoming obstacles are more likely to not only be

investing in an individual who will apply for a leadership position, but also investing in an individual who can positively impact performance.

Lastly, affective–identity motivation to lead was found to have a direct effect on intention to apply for a leadership position. Therefore, practitioners can benefit from assessing the motivation of potential leaders. Chan, Rounds, and Drasgow (2000) defined affective–identity MTL as individuals who identified themselves as leaders. These individuals "tend to be outgoing and sociable (i.e., are extraverts), value competition and achievement (i.e., are vertical collectivists), have more past leadership experience than their peers, and are confident in their own leadership abilities (i.e., have high self-efficacy)" (p. 228). Therefore, organizations seeking to develop individuals for leadership roles would benefit from identifying those individuals with affective–identity motivation to lead as those individuals are also more likely to intend to apply for a leadership position.

Research Implications

Chan's (1999) study answered a call from Lord and Hall (1992) to provide a general theory that evaluated the process of leader development. Although the theoretical framework crafted by Chan (1999) answered that call, it can also be argued that the resulting research pertaining to leader development has contributed to the fields of leadership and HRD as well (Hutchins & Rainbolt, 2017). Specifically, this research provides an understanding of the antecedents contributing to an individual's intention to apply for a leadership position. The work conducted by Felfe and Schyns (2014) sought to contribute knowledge regarding how the motivation to lead and the intention to apply for a leadership position were related. This study contained a similar aim as Felfe and

Schyns (2014); however, it also tied prior research of antecedents of motivation to lead to the intention to apply for a leadership position. Therefore, this research is an amalgamation of the work previously conducted by Chan (1999) and Felfe and Schyns (2014) to examine a robust process of leader development.

This study also answered a call by Day et al. (2014) to understand how leader development may occur simultaneously with adult development in that past leadership experience was evaluated within the study. The findings that resulted from the study allow researchers to identify how traits, values, experience, and perception have an influence on one's intention to apply for a leadership position, independent of the assumption that intention and motivation are one construct. From the present study, it is now known that the antecedents of motivation to lead, as well as motivation to lead itself, have an impact on an individual's intention to apply for a leadership position. Although, there is still work yet to be done in fully understanding all the antecedents that contribute to intention to apply for a leadership position, as evidenced by the presence of partially indirect paths.

Limitations

As with any study, there are limitations within the present study. Although the "ballot-stuffing" feature was employed within Qualtrics®, there is no guarantee that a "Worker" could not take the survey on various devices, thereby introducing concerns associated with duplicate data. Additionally, although the MTurk® population represents diverse demographics, it is still important to note that the individuals participating within the survey were required to have internet access and an MTurk® "Worker" account.

Therefore, researchers should practice caution in generalizing the results across all demographics. Furthermore, the responses on the survey instrument were self-reported by the participants contributing to an inability to independently verify the responses.

Another limitation of this study is the inability to evaluate Romance of Leadership within the IALP model. Due to a lack of validity for the measure, the variable was excluded from the regression analysis. This exclusion meant that no comparisons with prior literature could be evaluated to assess how Romance of Leadership impacts the overall IALP model.

It is also important to note that although a confirmatory path analysis was conducted on the parsimonious IALP model derived from the hierarchical regression analysis, the same data set was used for both analyses. Whereas Chan (1999) had a large enough sample size to split the data in order to conduct a regression analysis on one portion of the data and confirm with a second portion, that was not possible with this study. Therefore, it is unknown if the derived model would be confirmed with a different data set. Lastly, discriminant validity was not assessed within this study, and is recommended to be evaluated in future studies. As well, no statistical or practical assessment of indirect effects were conducted within the study.

Recommendations

Upon the conclusion of this study, several recommendations for future research are suggested. First, it is recommended that future research be conducted to confirm the parsimonious IALP model derived from the regression analysis with a different data set. This recommendation is based on the precedent set by Chan (1999) where the data-driven model derived from the regression analysis was confirmed using a second data set. As

this study did not yield a large enough sample size to split the data for model construction and for confirmatory analysis, it is suggested that a secondary data set be used to confirm the parsimonious model derived from this study.

Secondly, perhaps future researchers could field test the study within a U.S. organization to assess whether similar findings can be observed. Studying employees within a U.S. organization may be able to provide additional insight regarding the factors that compel an individual to apply for a leadership position. This would be an important area to study as Chan (1999) stated that the MTL framework is predicated on the assumption that people can be taught-or trained- to become leaders. Therefore, a possible area of interest for future researchers would be to assess how past leadership training, or career planning, impacts the intention to apply for a leadership position. This recommendation is a result of the finding of partial mediation, which suggests that intervening variables have been omitted from the IALP model (cf. Zhao, Lynch, & Chen, 2010). Another potential intervening variable within the IALP model to consider would be career aspirations (cf. Chan et al., 2012).

Furthermore, it may be beneficial to test the parsimonious model within other cultural environments. Where Chan (1999) used a sample comprised of U.S. and Singaporean students as well as Singaporean military service members, and Felfe and Schyns conducted their study with a sample comprised of students and employees, this study's sample consisted of MTurk® "Workers" who resided in the U.S. and who were of 18 years of age. Future researchers may be able to assess the diversity and cultural impacts to the intention to apply for a leadership position by studying a different target population.

A fourth recommendation for future researchers seeking to build upon the findings of the present study is to conduct a longitudinal study to assess how the intention to apply for a leadership position may affect actual behavior of applying for a leadership position. This type of study would be beneficial in that it would fully assess the factors contributing to an individual ascending into a leadership role. Where the present study has provided a parsimonious model of antecedents for the intention to apply for a leadership position, it is suggested that other researchers could further this research by assessing how those factors impact an individual's behavior.

It is also important for future researchers to consider assessing discriminant validity between motivation to lead and the intention to apply for a leadership position. This is suggested due to the high correlation that was found in the study between motivation to lead and intention to apply for a leadership position. Another consideration would be to conduct construct validity on the measures as well.

Finally, future researchers may also consider evaluating leader performance as a possible antecedent to the intention to apply for a leadership position. It is possible that although an individual has past leadership experience, their performance may have an impact on their desire to pursue, and intend to apply for, a leadership position. The integration of leader development and leadership performance would further benefit practitioners by not only identifying those individuals intending to apply for a leadership position, but also those individuals with a history of performance outcomes.

Summary

This chapter contained five sections beginning with a discussion of the study findings in consideration of relevant literature. The second section of the chapter

contained a discussion of how the present study contributes to leadership development and HRD theory, practice, and research. The third section provided limitations associated with the study, and the fourth section included recommendations for future research. The chapter concludes with a summation of Chapter Five.

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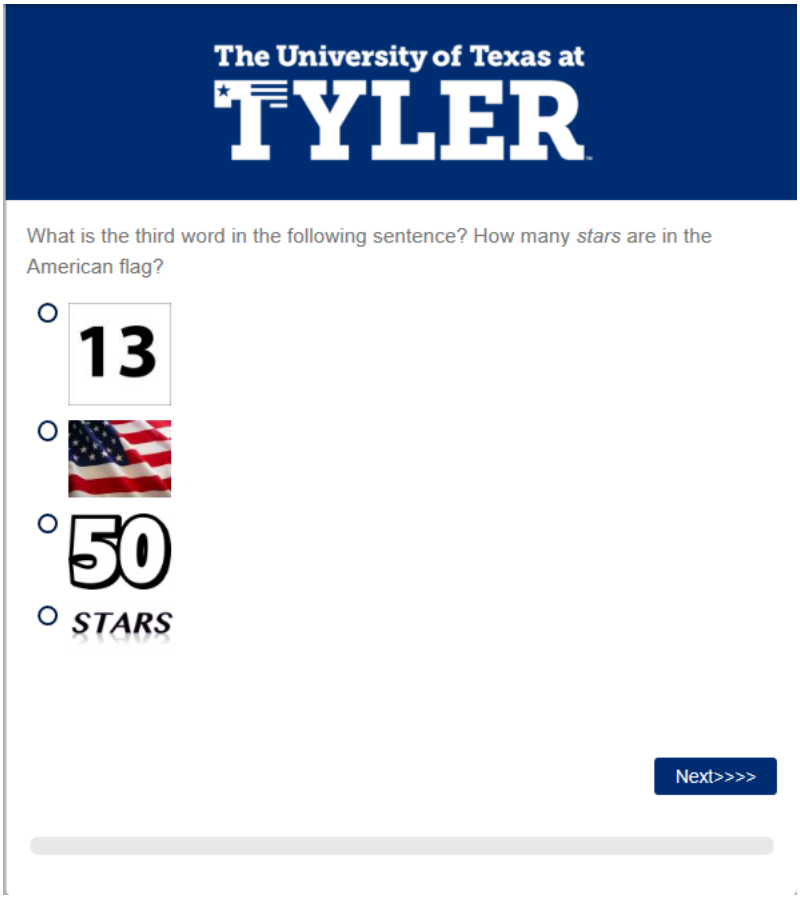
Appendix A. Survey

Survey Link:
https://uttyler.az1.qualtrics.com/jfe/preview/SV_0j6KUjp2bDywFgx?Q_SurveyVersionID=current&Q_CHL=preview



The University of Texas at TYLER

Welcome to this survey for graduate students within the College of Business. The first step is to make sure you understand the purpose of this survey and to seek your consent to participate. The purpose of this research project is to examine the motivations and intentions of leaders. This is a research project conducted by a doctoral student as a requirement for the dissertation component at the University of Texas at Tyler.

Your participation in this research study is completely voluntary. You may choose not to participate. If you begin participation and choose to not complete it, you are free to not continue without any adverse consequences.

If you agree to be in this study, we will ask you to do the following things:

- Complete an online survey with multiple choice questions about your perceptions related to leadership.
- The survey will take approximately 12-15 minutes to complete.
- After you read each question or statement, select the button that best corresponds to your response. You may need to scroll down the page to answer all the questions. Select the arrow at the bottom right-side of the screen to continue after each page.

We know of no known risks to this study, other than becoming a little tired of answering the questions, or you may even become a little stressed or distressed when answering some of the questions. If this happens, you are free to take a break and return to the survey to finish it, or, you can discontinue participation without any problems. Potential benefits to this study are: contributing to leadership scholarship and practice.

I know my responses to the questions are anonymous. If I need to ask questions about this study, I can contact the principle researcher, amull@patriots.uttyler.edu, or, if I have any questions about my rights as a research participant, I can contact Dr. Gloria Duke, Chair of the UT Tyler Institutional Review Board at gduke@uttyler, or 903-566-7023.

I have read and understood what has been explained to me. If I choose to participate in this study, I will click "Yes" in the box below and proceed to the survey. If I choose to not participate, I will click "No" in the box.

- ○ I agree
- ○ I disagree

Next>>>>

The University of Texas at TYLER

The following phrases describe people's behaviors. Describe yourself as you generally are now, not as you wish to be in the future. Describe yourself as you honestly see yourself, in relation to other people you know of the same sex as you are, and roughly your same age. So that you can describe yourself in an honest manner, your responses will be kept in absolute confidence. Please read each statement carefully, and indicate your response below.

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Am the life of the party.	○	○	○	○	○
Feel little concern for others.	○	○	○	○	○
Am always prepared.	○	○	○	○	○
Get stressed out easily.	○	○	○	○	○
Have a rich vocabulary.	○	○	○	○	○
Don't talk a lot.	○	○	○	○	○
Am interested in people.	○	○	○	○	○
Leave my belongings around.	○	○	○	○	○
Am relaxed most of the time.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Have difficulty understanding abstract ideas.	○	○	○	○	○
Feel comfortable around people.	○	○	○	○	○
Insult people.	○	○	○	○	○
Pay attention to details.	○	○	○	○	○
Worry about things.	○	○	○	○	○
Have a vivid imagination.	○	○	○	○	○
Keep in the background.	○	○	○	○	○
Sympathize with others' feelings.	○	○	○	○	○
Make a mess of things.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Seldom feel blue.	○	○	○	○	○
Am not interested in abstract ideas.	○	○	○	○	○
Start conversations.	○	○	○	○	○
Am not interested in other people's problems.	○	○	○	○	○
Get chores done right away.	○	○	○	○	○
Am easily disturbed.	○	○	○	○	○
Have excellent ideas.	○	○	○	○	○
Have little to say.	○	○	○	○	○
Have a soft heart.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Often forget to put things back in their proper place.	○	○	○	○	○
Get upset easily.	○	○	○	○	○
Do not have a good imagination.	○	○	○	○	○
Talk to a lot of different people at parties.	○	○	○	○	○
Am not really interested in others.	○	○	○	○	○
Like order.	○	○	○	○	○
Change my mood a lot.	○	○	○	○	○
Am quick to understand things.	○	○	○	○	○
Don't like to draw attention to myself.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Take time out for others.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Take time out for others.	○	○	○	○	○
Shirk my duties.	○	○	○	○	○
Have frequent mood swings.	○	○	○	○	○
Use difficult words.	○	○	○	○	○
Don't mind being the center of attention.	○	○	○	○	○
Feel others' emotions.	○	○	○	○	○
Follow a schedule.	○	○	○	○	○
Get irritated easily.	○	○	○	○	○
Spend time reflecting on things.	○	○	○	○	○

	Very Inaccurate	Moderately Inaccurate	Neither Inaccurate nor Accurate	Moderately Accurate	Very Accurate
Am quiet around strangers.	○	○	○	○	○
Make people feel at ease.	○	○	○	○	○
Am exacting in my work.	○	○	○	○	○
Often feel blue.	○	○	○	○	○
Am full of ideas.	○	○	○	○	○

Next>>>>

The University of Texas at TYLER

We want to know if you strongly agree or disagree with some statements. There are no right or wrong answers. Please try your best to use the entire range of answers from "Strongly Disagree" to "Strongly Agree", and not only "Strongly Disagree", "Unsure", and "Strongly Agree", or only a few options.

	Strongly Disagree	Disagree A Lot	Disagree	Slightly Disagree	Unsure	Slightly Agree	Agree	Agree A Lot	Strongly Agree
I often do "my own thing".	○	○	○	○	○	○	○	○	○
One should live one's life independently of others.	○	○	○	○	○	○	○	○	○
I like my privacy.	○	○	○	○	○	○	○	○	○
I prefer to be direct and forthright when discussing issues with people.	○	○	○	○	○	○	○	○	○
I am a unique individual.	○	○	○	○	○	○	○	○	○
What happens to me is my own doing.	○	○	○	○	○	○	○	○	○
When I succeed, it is usually because of my abilities.	○	○	○	○	○	○	○	○	○

	Strongly Disagree	Disagree A Lot	Disagree	Slightly Disagree	Unsure	Slightly Agree	Agree	Agree A Lot	Strongly Agree
I enjoy being unique and different from others in many ways.	○	○	○	○	○	○	○	○	○
It annoys me when other people perform	○	○	○	○	○	○	○	○	○

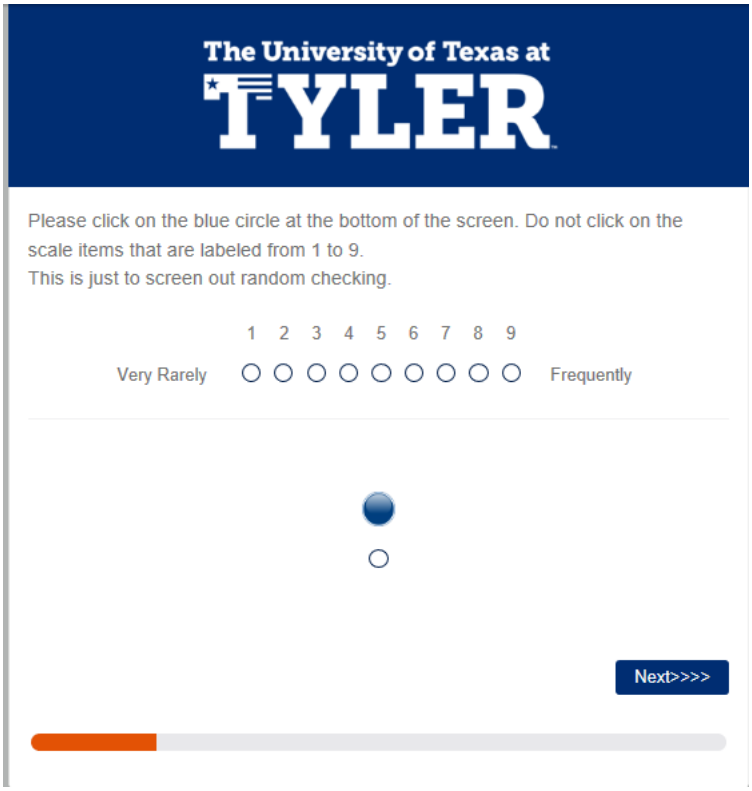
Competition is the law of nature.	○	○	○	○	○	○	○	○	○
When another person does better than I do, I get tense and aroused.	○	○	○	○	○	○	○	○	○
Without competition, it is not possible to have a good society.	○	○	○	○	○	○	○	○	○
Winning is everything.	○	○	○	○	○	○	○	○	○
It is important that I do my job better than others.	○	○	○	○	○	○	○	○	○

	Strongly Disagree	Disagree A Lot	Disagree	Slightly Disagree	Unsure	Slightly Agree	Agree	Agree A Lot	Strongly Agree
I enjoy working in situations involving competition with others.	○	○	○	○	○	○	○	○	○
Some people emphasize winning; I'm not one of them.	○	○	○	○	○	○	○	○	○
The well-being of my co-workers is important to me.	○	○	○	○	○	○	○	○	○
If a co-worker gets a prize, I would feel proud.	○	○	○	○	○	○	○	○	○
If a relative were in financial difficulty, I would help within my means.	○	○	○	○	○	○	○	○	○
It is important to maintain harmony within my group.	○	○	○	○	○	○	○	○	○
I like sharing little things with my neighbors.	○	○	○	○	○	○	○	○	○

	Strongly Disagree	Disagree A Lot	Disagree	Slightly Disagree	Unsure	Slightly Agree	Agree	Agree A Lot	Strongly Agree
I feel good when I cooperate with others.	O	O	O	O	O	O	O	O	O
My happiness depends very much on the happiness of those around me.	O	O	O	O	O	O	O	O	O
To me, pleasure is spending time with others.	O	O	O	O	O	O	O	O	O
I would sacrifice an activity that I enjoy very much if my family did not approve of it.	O	O	O	O	O	O	O	O	O
I would do what would please my family, even if I detested that activity.	O	O	O	O	O	O	O	O	O
Before taking a major trip, I consult with most members of my family and many friends.	O	O	O	O	O	O	O	O	O
I usually sacrifice my self-interest for the benefit of my group.	O	O	O	O	O	O	O	O	O

	Strongly Disagree	Disagree A Lot	Disagree	Slightly Disagree	Unsure	Slightly Agree	Agree	Agree A Lot	Strongly Agree
Children should be taught to place duty before pleasure.	O	O	O	O	O	O	O	O	O
I hate to disagree with others in my group.	O	O	O	O	O	O	O	O	O
We should keep our aging parents with us at home.	O	O	O	O	O	O	O	O	O
Children should feel honored if their parents receive a distinguished award.	O	O	O	O	O	O	O	O	O

Next>>>>


The University of Texas at
TYLER
Please click on the blue circle at the bottom of the screen. Do not click on the scale items that are labeled from 1 to 9.
This is just to screen out random checking.
1 2 3 4 5 6 7 8 9
Very Rarely
Frequently
Next>>>>

The University of Texas at TYLER

The following statements will ask you to make some generalizations about organizational leaders and leadership. Each of the statements below describes a general opinion of this topic. Please use the following scale to express the extent to which you agree or disagree with each of the statements.

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
When it comes right down to it, the quality of leadership is the single most important influence on the functioning of an organization.	O	O	O	O	O	O	O
Anybody who occupies the top-level leadership positions in an organization has the power to make or break the organization.	O	O	O	O	O	O	O
The great amount of time and energy devoted to choosing a leader is justified, because of the important influence that person is likely to have.	O	O	O	O	O	O	O
Sooner or later, bad leadership at the top will show up in decreased organizational performance.	O	O	O	O	O	O	O
High versus low quality leadership has a bigger impact on a firm than a favorable versus unfavorable business environment.	O	O	O	O	O	O	O
It is impossible for an organization to do well unless it has high quality leadership at the top.	O	O	O	O	O	O	O

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
A company is only as good or as bad as its leaders.	O	O	O	O	O	O	O
With a truly excellent leader, there is almost nothing that an organization can't accomplish.	O	O	O	O	O	O	O
Even in a bad economy, a good leader can prevent a company from doing poorly.	O	O	O	O	O	O	O
Top-level leaders make life-and-death decisions about their organizations.	O	O	O	O	O	O	O
It's probably a good idea to find something out about the quality of top-level leaders before investing in a firm.	O	O	O	O	O	O	O
When a company is doing poorly, the first place one should look to is its leaders.	O	O	O	O	O	O	O

	Strongly Disagree	Disagree	Slightly Disagree	Neither Agree nor Disagree	Slightly Agree	Agree	Strongly Agree
The process by which leaders are selected is extremely important.	O	O	O	O	O	O	O
When the top leaders are good, the organization does well; when the top leaders are bad, the organization does poorly.	O	O	O	O	O	O	O
There's nothing as critical to the 'bottom-line' performance of a company as the quality of its top-level leaders.	O	O	O	O	O	O	O
Leadership qualities are among the most highly prized personal traits I can think of.	O	O	O	O	O	O	O
No expense should be spared when searching for and selecting a leader.	O	O	O	O	O	O	O

The following phrases pertain to a person's initiative. Please indicate your answer for each statement below.

	Strongly Disagree	Disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Agree	Strongly agree
I actively attack problems.	○	○	○	○	○	○	○
Whenever something goes wrong, I search for a solution immediately.	○	○	○	○	○	○	○
Whenever there is a chance to get actively involved, I take it.	○	○	○	○	○	○	○
I take initiative immediately even when others don't.	○	○	○	○	○	○	○
I use opportunities quickly in order to attain my goals.	○	○	○	○	○	○	○
Usually I do more than I am asked to do.	○	○	○	○	○	○	○
I am particularly good at realizing ideas.	○	○	○	○	○	○	○

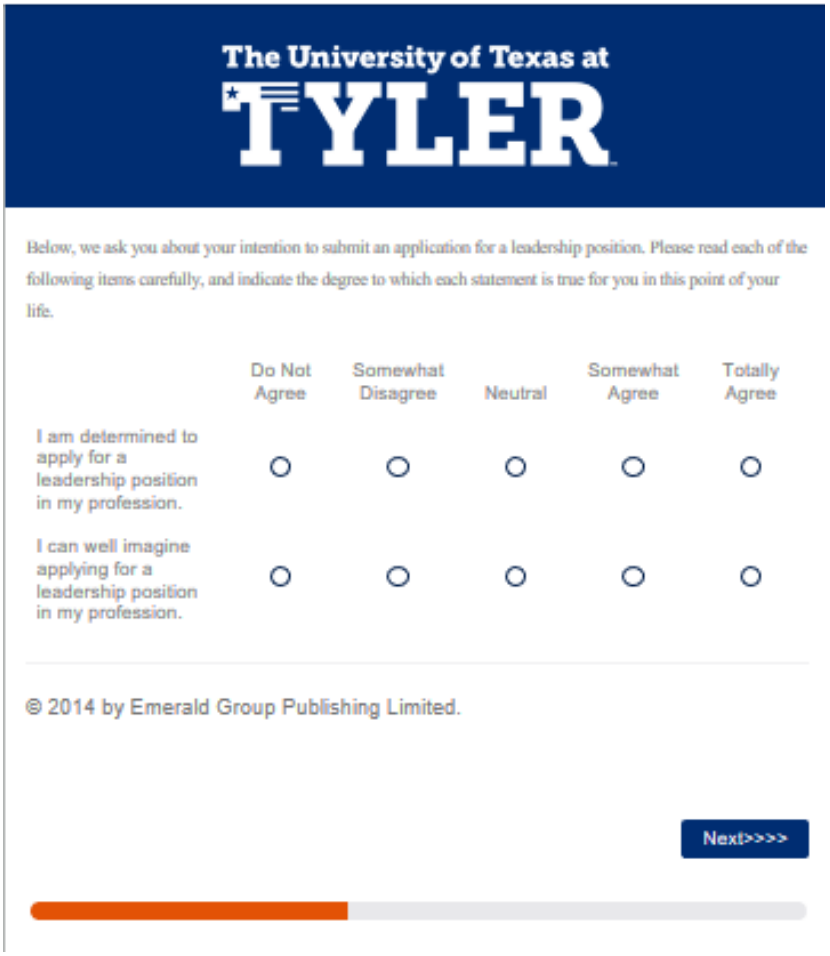
Next>>>>

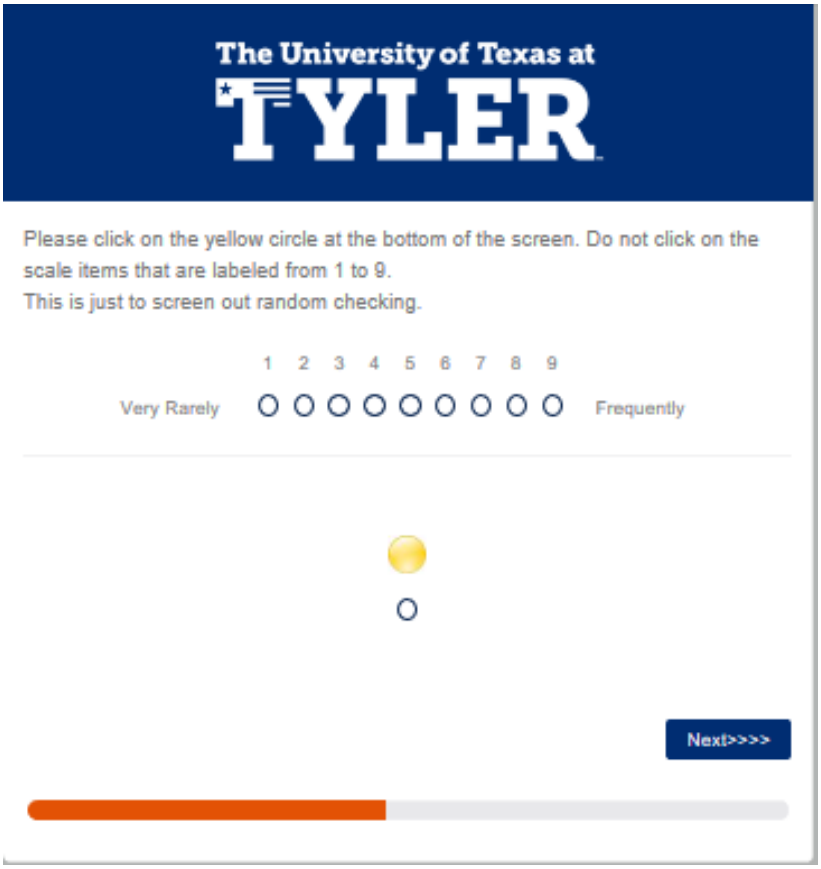
The University of Texas at TYLER

How well do the following statements describe how you feel? Imagine a typical work or school situation where you are working in a group or team, and the question is raised if someone should be appointed as a group leader. Assume for now that everyone in the group has roughly the same level of training, knowledge, and experience on the job. Please read each statement carefully and choose the one answer that best describes your agreement or disagreement using the scale below. There are no right or wrong answers. Please answer honestly and frankly. Indicate your answer below.

	Strongly Disagree	Disagree	Neither Agree nor Disagree	Agree	Strongly Agree
Most of the time I prefer being a leader rather than a follower when working in a group.	○	○	○	○	○
I believe I can contribute more to a group if I am a follower rather than a leader.	○	○	○	○	○
I usually want to be the leader in the groups that I work in.	○	○	○	○	○
I am the type who would actively support a leader but prefers not to be appointed as a leader.	○	○	○	○	○
I have a tendency to take charge in most groups or teams that I worked in.	○	○	○	○	○

Next>>>>


The University of Texas at
TYLER
Below, we ask you about your intention to submit an application for a leadership position. Please read each of the following items carefully, and indicate the degree to which each statement is true for you in this point of your life.
Do Not Agree
Somewhat Disagree
Neutral
Somewhat Agree
Totally Agree
I am determined to apply for a leadership position in my profession.
I can well imagine applying for a leadership position in my profession.
© 2014 by Emerald Group Publishing Limited.
Next>>>>


The University of Texas at
TYLER
Please click on the yellow circle at the bottom of the screen. Do not click on the scale items that are labeled from 1 to 9.
This is just to screen out random checking.
1 2 3 4 5 6 7 8 9
Very Rarely
Frequently
Next>>>>

The University of Texas at TYLER

Use the response scale below from Strongly Disagree to Strongly Agree to indicate your level of agreement or disagreement with each statement. Please click the button corresponding with your response.

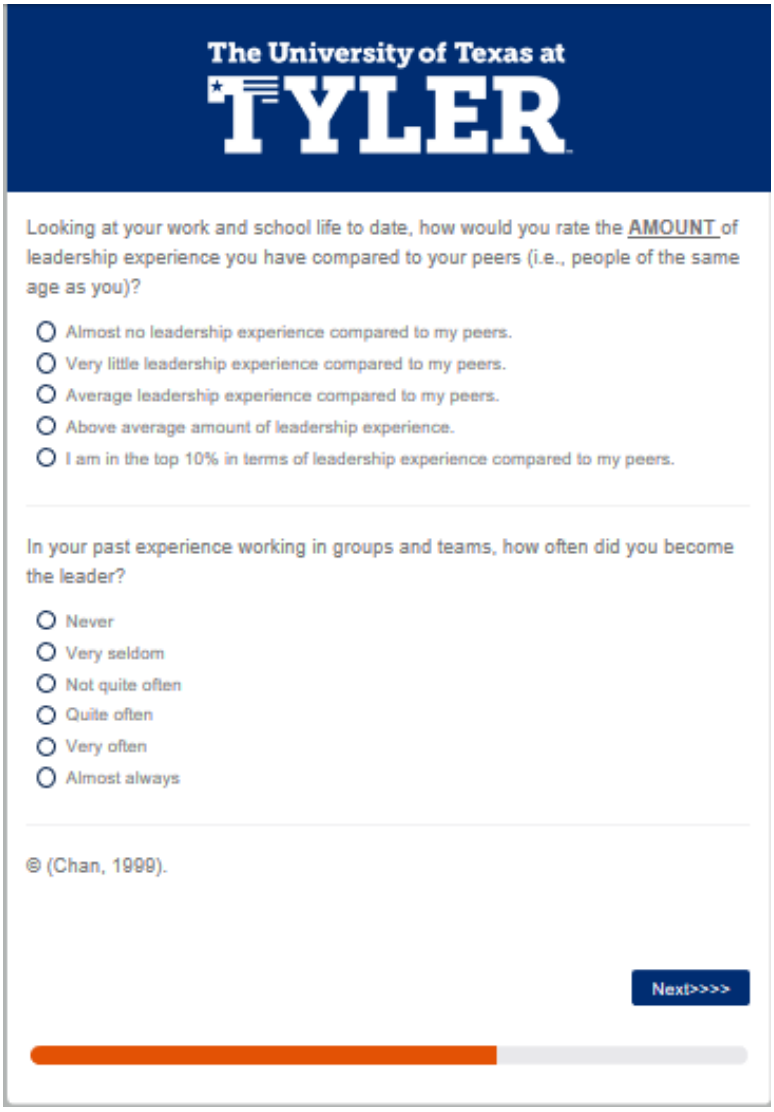
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neither Agree nor Disagree	Somewhat Agree	Agree	Strongly Agree
I prefer blue to other colors.	○	○	○	○	○	○	○
I think blue cars are ugly.	○	○	○	○	○	○	○
I like the color blue.	○	○	○	○	○	○	○
I don't think blue is a pretty color.	○	○	○	○	○	○	○
I like blue clothes.	○	○	○	○	○	○	○
I don't like blue clothes.	○	○	○	○	○	○	○
I hope my next car is blue.	○	○	○	○	○	○	○
I really don't like the color blue.	○	○	○	○	○	○	○

Next>>>>

The following statements deal with how you feel about your abilities. Using the scale below, please write the number that best indicates the extent to which you agree or disagree with each statement. Please answer in an honest fashion. We want to know how you honestly feel about your abilities.

	Strongly Disagree	Disagree	Slightly Disagree	Neither	Slightly Agree	Agree	Strongly Agree
I am not confident that I can lead others effectively.	○	○	○	○	○	○	○
Leading others effectively is probably something I will be good at.	○	○	○	○	○	○	○
I believe that leading others effectively is a skill that I can master.	○	○	○	○	○	○	○
I do not expect to become very effective at leading.	○	○	○	○	○	○	○
I feel confident that I can be an effective leader in most of the groups that I work with.	○	○	○	○	○	○	○
It probably will not be possible for me to lead others as effectively as I would like.	○	○	○	○	○	○	○

Next>>>>


The University of Texas at
TYLER
Looking at your work and school life to date, how would you rate the AMOUNT of leadership experience you have compared to your peers (i.e., people of the same age as you)?
Almost no leadership experience compared to my peers.
Very little leadership experience compared to my peers.
Average leadership experience compared to my peers.
Above average amount of leadership experience.
I am in the top 10% in terms of leadership experience compared to my peers.
In your past experience working in groups and teams, how often did you become the leader?
Never
Very seldom
Not quite often
Quite often
Very often
Almost always
© (Chan, 1999).
Next>>>>

Please answer the following general questions about yourself. Remember, *none* of this information is tied to your identity.

What is your gender?

- ○ Male
- ○ Female

Please select your continent of residence.

- ○ Africa
- ○ Antartica
- ○ Asia
- ○ Europe
- ○ South America
- ○ North America
- ○ Australia

Please select your race:

- ○ White
- ○ Black or African American
- ○ American Indian or Alaska Native
- ○ Asian Indian; Chinese; Filipino; Japanese; Korean; Vietnamese; Other Asian
- ○ Native Hawaiian; Guamanian or Chamorro; Samoan; Other Pacific Islander
- ○ Spanish/Hispanic/Latino: Mexican, Mexican American, Chicano; Puerto Rican; Cuban; Other Spanish/Hispanic/Latino
- ○ Other

When were you born?

- ○ 1928-1945
- ○ 1946-1964
- ○ 1965-1980
- ○ 1981-2000
- ○ After 2000

Please select the highest educational level that you have completed.

- ○ 4 year degree
- ○ Master's Degree
- ○ Doctoral Degree

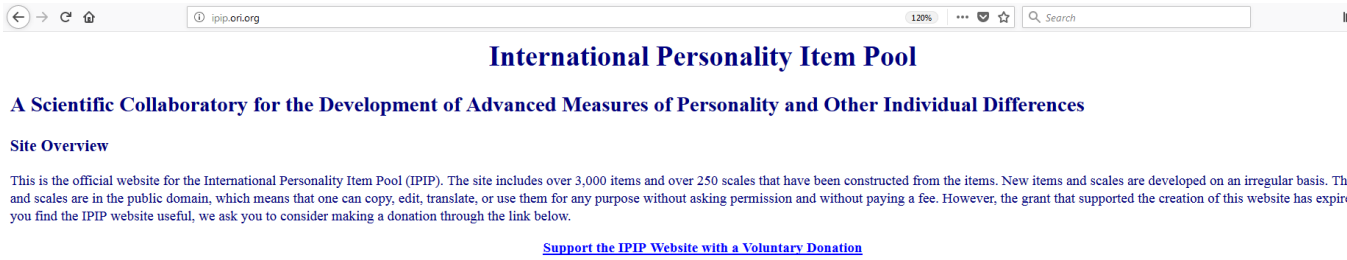
Are you currently employed?

- ○ Yes
- ○ No

Next>>>>

Appendix B. Permissions Documentation

Big-Five Personality Instrument (BFPI); Extraversion, Conscientiousness, and Openness to Experience subscales (Goldberg, 1992, p.42).



ipip.ori.org

120%

Search

International Personality Item Pool

A Scientific Collaboratory for the Development of Advanced Measures of Personality and Other Individual Differences

Site Overview

This is the official website for the International Personality Item Pool (IPIP). The site includes over 3,000 items and over 250 scales that have been constructed from the items. New items and scales are developed on an irregular basis. Th
and scales are in the public domain, which means that one can copy, edit, translate, or use them for any purpose without asking permission and without paying a fee. However, the grant that supported the creation of this website has expir
you find the IPIP website useful, we ask you to consider making a donation through the link below.

Support the IPIP Website with a Voluntary Donation

Individualism-Collectivism (INDCOL); Vertical Individualism subscale (Singelis, Triandis, Bhawuk & Gelfand, 1995, p. 255).

1. Cross-Cultural Research

JOURNAL

ISSN: 1069-3971
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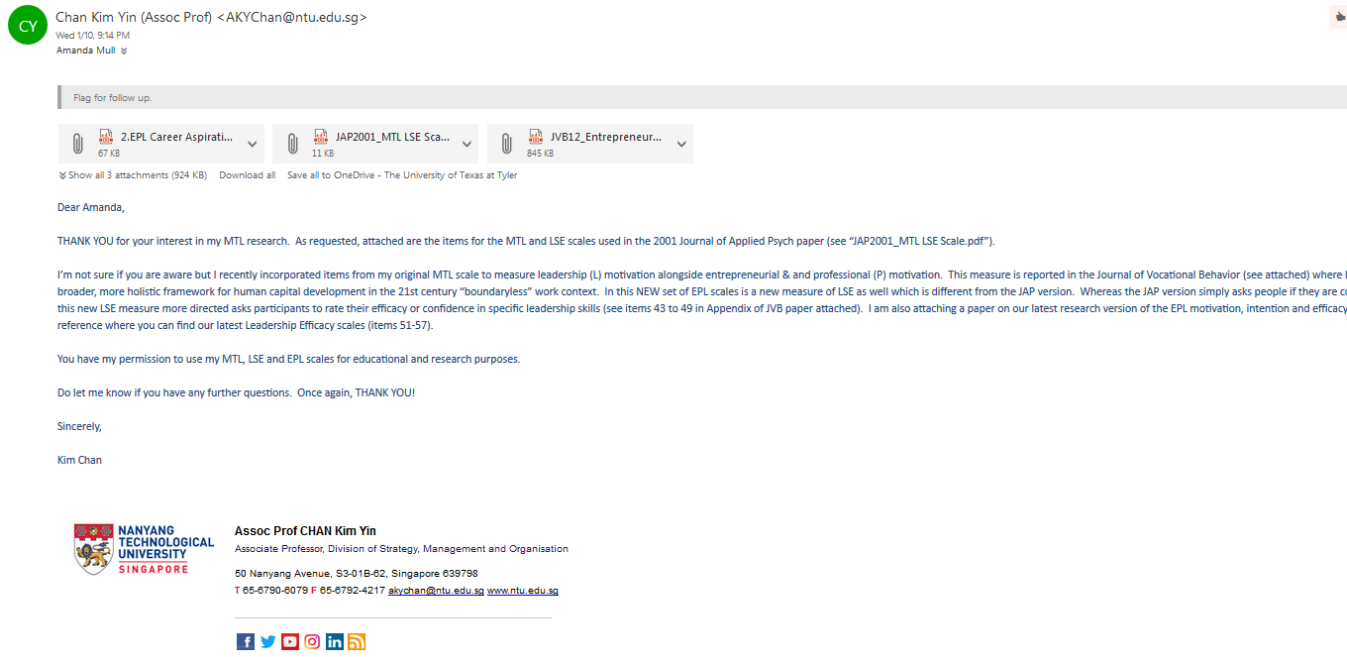
Leadership Self-Efficacy (LSE) measure (Chan & Drasgow, 2001).



CY

Chan Kim Yin (Assoc Prof) <AKYChan@ntu.edu.sg>
Wed 1/10, 9:14 PM
Amanda Mull

Flag for follow up.

2.EPL Career Aspirati... 67 KB
JAP2001_MTL LSE Sca... 11 KB
JVB12_Entrepreneur... 845 KB

Show all 3 attachments (924 KB) Download all Save all to OneDrive - The University of Texas at Tyler

Dear Amanda,

THANK YOU for your interest in my MTL research. As requested, attached are the items for the MTL and LSE scales used in the 2001 Journal of Applied Psych paper (see "JAP2001_MTL LSE Scale.pdf").

I'm not sure if you are aware but I recently incorporated items from my original MTL scale to measure leadership (L) motivation alongside entrepreneurial & and professional (P) motivation. This measure is reported in the Journal of Vocational Behavior (see attached) where I
broader, more holistic framework for human capital development in the 21st century "boundaryless" work context. In this NEW set of EPL scales is a new measure of LSE as well which is different from the JAP version. Whereas the JAP version simply asks people if they are c
this new LSE measure more directed asks participants to rate their efficacy or confidence in specific leadership skills (see items 43 to 49 in Appendix of JVB paper attached). I am also attaching a paper on our latest research version of the EPL motivation, intention and efficacy
reference where you can find our latest Leadership Efficacy scales (items 51-57).

You have my permission to use my MTL, LSE and EPL scales for educational and research purposes.

Do let me know if you have any further questions. Once again, THANK YOU!

Sincerely,

Kim Chan

NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

Assoc Prof CHAN Kim Yin
Associate Professor, Division of Strategy, Management and Organisation

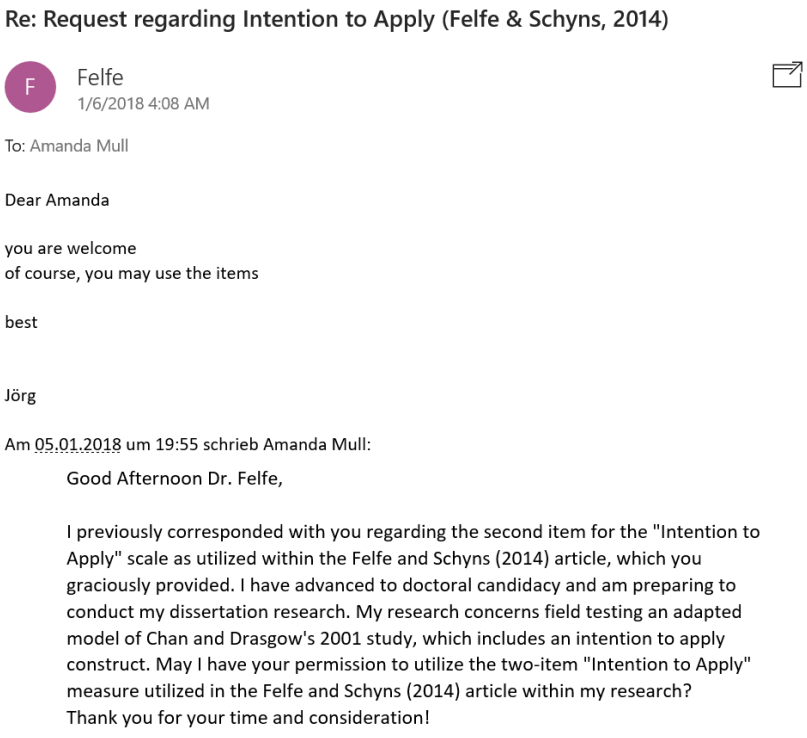
50 Nanyang Avenue, S3-01B-62, Singapore 639798
T 65-6790-6079 F 65-6792-4217 akychan@ntu.edu.sg www.ntu.edu.sg

Romance of Leadership Scale (Meindl, 1998, p. 299). (*17 core items as identified in Factor 1 of* Schyns, B., Meindl, J. R., & Croon, M. A. (2007). The romance of leadership scale: Cross-cultural testing and refinement. *Leadership*, *3*(1), 29-46.)

Personal Initiative (Frese, Fay, Hilburger, Leng & Tag, 1997, p. 62).

Affective–identity MTL (MTL Scale) (Bobbio & Manganelli Rattazzi, 2006, p. 122).

Intention to Assume a Leadership Position measure (Felfe & Schyns, 2014, p. 856).



Re: Request regarding Intention to Apply (Felfe & Schyns, 2014)

F Felfe
1/6/2018 4:08 AM

To: Amanda Mull

Dear Amanda

you are welcome
of course, you may use the items

best

Jörg

Am 05.01.2018 um 19:55 schrieb Amanda Mull:

> Good Afternoon Dr. Felfe,
>
> I previously corresponded with you regarding the second item for the "Intention to Apply" scale as utilized within the Felfe and Schyns (2014) article, which you graciously provided. I have advanced to doctoral candidacy and am preparing to conduct my dissertation research. My research concerns field testing an adapted model of Chan and Drasgow's 2001 study, which includes an intention to apply construct. May I have your permission to utilize the two-item "Intention to Apply" measure utilized in the Felfe and Schyns (2014) article within my research?
> Thank you for your time and consideration!

Appendix C: IRB Approval

THE UNIVERSITY OF TEXAS AT TYLER
3900 University Blvd. • Tyler, TX 75799 • 903.565.5774 • FAX: 903.565.5858

Office of Research and Technology Transfer

Institutional Review Board

February 15, 2018

Dear Ms. Mull,

Your request to conduct the study: *Testing an Adapted and Integrated Model of Motivation to Lead and Intention to Apply*, IRB #Sp2018-74 has been approved by The University of Texas at Tyler Institutional Review Board as a study exempt from further IRB review. This approval includes a waiver of signed, written informed consent. In addition, please ensure that any research assistants are knowledgeable about research ethics and confidentiality, and any co-investigators have completed human protection training within the past three years, and have forwarded their certificates to the IRB office (G. Duke).

Please review the UT Tyler IRB Principal Investigator Responsibilities, and acknowledge your understanding of these responsibilities and the following through return of this email to the IRB Chair within one week after receipt of this approval letter:

- Prompt reporting to the UT Tyler IRB of any proposed changes to this research activity
- **Prompt reporting to the UT Tyler IRB and academic department administration will be done of any unanticipated problems involving risks to subjects or others**
- Suspension or termination of approval may be done if there is evidence of any serious or continuing noncompliance with Federal Regulations or any aberrations in original proposal.
- Any change in proposal procedures must be promptly reported to the IRB prior to implementing any changes except when necessary to eliminate apparent immediate hazards to the subject.
- Exempt with waiver

Best of luck in your research, and do not hesitate to contact me if you need any further assistance.

Sincerely,

Gloria Duke, PhD, RN
Chair, UT Tyler IRB

EQUAL OPPORTUNITY EMPLOYER