

**A QUANTITATIVE STUDY OF THE RELATIONSHIP BETWEEN PERCEPTIONS OF
POLITICAL SKILL USE AND VIRTUAL TEAM LEADER CAREER SUCCESS**

by

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Abstract

Virtual teams are integral elements in today's organizations. Although the use of virtual teams is more beneficial now than ever, the challenges virtual team leaders face and the challenges that arise in association with the operation of these teams can reduce team leader satisfaction. Due to the geographic, time-bound, and often cultural differences among virtual team leaders and their team members, leader career satisfaction is often impacted. Since virtual teams are an integral part of business today, the researcher explored how political skill use can impact virtual team leader career success. Forward stepwise multiple linear regression (MLR) was used to assess the relationship between virtual team leader career success and political skill use constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity. In a sample of 129 virtual team leaders, this study explored relationships between virtual team leader career success and political skill, age, gender, educational level, education field of study/major, years of work experience, and years of work experience in the United States. Results indicated a significantly predictive regression model where networking ability and apparent sincerity were significant predictors of virtual team leader career success. Furthermore, networking ability accounted for 21% more of the variation in virtual team leader career success than any other independent variable.

Dedication

I dedicate my dissertation to my family, friends, and colleagues who were with me along this journey. I am thankful to God for blessing me with the ability, strength, and tenacity to achieve my goals. To my husband Kelvin, I appreciate your love, support, and encouragement. To my children, Kelseigh and KJ, I encourage you to follow your dreams and let God lead you to your purpose. To my parents, I appreciate you for allowing me to be me. To my best friends who always listened and encouraged me during the difficult times, you are sincerely appreciated.

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

Working remotely as part of a virtual team is a growing trend in today's workplace (Ebrahim, Ahmed, & Taha, 2009; Hoch & Kozlowski, 2014). A MIT Sloan research report identified an 80% growth in virtual workers from 2005 to 2012 (Hoch & Kozlowski, 2014). The demands of economic change, global expansion, and workplace evolution have contributed to the growth in virtual workers. In line with the increase in virtual employees has been an increase in virtual teams. Virtual teams are used to bring together the right individuals at the right time to accomplish specific organizational outcomes across geographical and time barriers. This increase in virtual team use has led to growth in research about whether these teams are actually meeting organizational needs (Cheshin, Rafaeli, & Bos, 2011; Martins & Shalley, 2011; Mesmer-Magnus, DeChurch, Jimenez-Rodriguez, Wildman, & Shuffler, 2011).

Working remotely has unique challenges and negatively affects leaders' ability to utilize political skill to influence team members to accomplish team goals (Quisenberry & Burrell, 2012). For this reason, organizations must understand the challenges and implement effective tools to facilitate outcomes that are more successful. Political skill use has been found to positively influence team success, effectiveness, and viability (Ferris & Treadway, 1989). In order to maximize the talents of team leaders who are virtual, the identification of key attributes of political skill use is justified.

Background of the Study

Team leaders have a vital role in both traditional and virtual teams. However, a virtual team leader's ability to utilize political skill is considerably more challenging due to loss of social interaction and face to face communication not experienced in traditional teams. Although virtual teams provide organizations with numerous benefits, there remains a gap in knowledge in understanding whether political skill has a relationship to virtual team leader success (Hoch & Kozlowski, 2014; Eissa, Fox, Webster, & Kim, 2012). Building on the 1980s work of Pfeffer and Mintzberg, Ferris and colleagues defined political skill as the ability to read and understand people and work situations, and to translate that knowledge into goal directed influence, which can lead to career success (Ferris et al., 2005). Political skill in leaders is appropriate and “deemed necessary, but not sufficient” to effectively achieve outcomes and desired results (Treadway, et al., 2013, p. 1536). Politically skilled leaders are able to benefit from their effective communication and interpersonal skills to present their desires in influential ways (Ferris et al., 2007). This ability is translated into greater perceptions of relational power in the work environment (Lee & Tiedens, 2001).

Leaders are expected to lead, guide, and direct successful outcomes from the teams they manage. Breland, Treadway, Duke, and Adams (2007) found that individuals working together in a common location who are high in political skill were more savvy at acquiring valued outcomes in the workplace. For example, the dynamics of a virtual team do not include the traditional informational cues a leader gathers from the face-to-face meetings of collocated teams; instead, virtual team leaders face unique communication and management challenges (Kayworth & Leidner, 2002). Additionally, political skill provides individuals with the requisite

knowledge and ability to read others and, more importantly, to use this information to help achieve valued goals.

The use of political skill involves individuals engaging in behaviors that are executed convincingly. The ability to convey needs and desires as intended, allows for personal and organizational goal attainment (Treadway et al., 2013). In order to be successful in this process, influencers need to possess personal resources, establish goals, strategically select appropriate behaviors for the situation, and execute the behaviors effectively (De Rosa, 2009). Politically skilled individuals not only formulate personal and organizational goals, but also select the most appropriate situations to demonstrate and ensure behavior is executed in influential ways (Treadway et al., 2013). The research in this area continues to progress in uncovering new strategies that improve virtual team success and reduce failure rates often associated with non-collocated or geographically dispersed teams (Quisenberry & Burrell, 2012).

Political skill is characterized by the ability to change one's situation by influencing others in the workplace with the overall objective of attaining valued goals from the situation (Ferris, Treadway, Perrewé, Brouer, Douglas, & Lux, 2007). Additionally, politically skilled individuals are more aware of their performance, are better able to present or transmit such execution in nonthreatening and influential ways, and thus are able to realize valuation from their key constituents and team members as a result of their career success (Kapoutsis, Papalexandris, Nikolopoulos, Hochwarter, & Ferris, 2011; Ferris et al., 2005). With the increasing trend in the use of virtual teams, organizational leaders have a responsibility to understand whether the success of virtual team leaders is impacted by political skill use.

Statement of the Problem

The career success of managers, supervisors, and team leaders is an important topic because leaders directly contribute to the profitability or failure of organizations and the teams that support the business' objectives (Vaccaro, Jansen, Van Den Bosch, & Volberda, 2012). The need for successful team leaders is beneficial to overall virtual team success. However, without an understanding of political skill's relationship to virtual team leader's career success, overall team outcomes and organizational profitability are diminished (Treadway et al., 2013). Although the work conducted through virtual teams provides organizational leaders with numerous benefits, virtual team leaders have challenges of competently utilizing political skill remotely to generate successful team outcomes as intended. Virtual teams are an essential and increasing component in many businesses and organizations. Virtual teams offer organizations flexibility and access to the expertise of talented individuals. This talent is needed to successfully manage the increased globalization and evolving economy. With reduced costs for internal meeting and physical office expenses, travel, and relocation expenses, virtual teams allow organizations significant cost savings (Maynard, Mathieu, Rapp, & Gilson, 2012).

Successful team leaders play a vital role in traditional and virtual teams. However, a virtual team leader's role is considerably more challenging than a traditional team leader due to the geographical and time barriers not experienced in conventional teams. In these challenges lay complexities associated with utilizing political skill in a non-traditional team environment (Todd, Harris, Harris, & Wheeler, 2009).

Several studies have validated the concept and measurement of political skill. Ferris and colleagues found that the political skill constructs are significantly associated with other social effectiveness constructs, such as emotional intelligence and self-monitoring (Ferris et al., 2005),

which can be challenging to convey in a virtual environment. Subsequent research has validated political skill's distinction from other self-monitoring concepts like agreeableness, assertiveness, and conscientiousness (Blickle et al., 2008; Semadar, Robins, & Ferris, 2006), making political skill unique. The current research will provide clarity regarding political skill use in a virtual team, which ultimately impacts organizational success. This study will specifically examine the relationship between political skill use and virtual team leader career success.

Purpose of the Study

The purpose of this study is to contribute to knowledge and solve the research problem in virtual team and political skill, as these topics relate to career success outcomes. Organization and Management scholars will benefit through a better understanding of political skill use and the relationship political skills and influencing behaviors have on the career success of virtual team leaders. This research will generate new perspectives in virtual team leader's influencing tactics as well as to extend the current body of knowledge of social influence theory. These approaches associated with political skill use in non-traditional team environments allow outlooks from an alternative view. In addition, the study will contribute to the identification of political skill constructs most relevant to virtual team leader success.

Practitioners will benefit through building organizational practices that transform work structures and career models into those that are more conducive to career success that ultimately leads to organizational success. In theory and as supported by organization and management research, team leaders significantly influence team performance (Eissa et al., 2012; Nagy, Kacmar, & Harris, 2011; Todd et al., 2009). Therefore, the political skill constructs that most influence a virtual team leader's success can be identified and used to build training and development programs. The research results will also contribute to talent acquisition, training,

development practices for human resource managers, and individual leaders' guides to their own career development.

As the research in the field of Organization and Management continues to evolve, adaptations to increasing globalization is necessary (Morris & Snell, 2010). Since virtual teams are often global, this study will not only help guide organizational strategy and talent performance in the United States, but also help globally. This study was conducted to determine whether a relationship exists between the perception of political skill use and career success of virtual team leaders. Dependent upon the findings, the study will also identify which perceived political skill constructs and influencing behaviors are most effective in obtaining the desired results virtual leaders need (Treadway et al., 2013) for their career success. The study contributes to and extends the current research in social influence theory, political skill, virtual teams, and the career literature.

Rationale

Existing research on the topic of virtual teams has used survey research design to capture numeric descriptions of perceptions, opinions, attitudes, and trends of a population by studying a sample of that population and then generalizing the findings across a variety of organizations and industries across the U.S. (Madlock, 2012). In line with previous political skill studies, similar research questions as those for this study have been used for testing relationships between political skill behaviors and career success outcomes (Todd et al., 2009). In addition, a quantitative political skill study allows researchers to develop and test hypotheses objectively, also in line with a positivist perspective (Wester, 2011). Specifically, the outcomes are objective and can be tested in future studies or used by practitioners as an outline to develop virtual team leaders.

Research Question and Hypotheses

Research Question

The overall research question is: To what extent is the career success of virtual team leaders related to by political skill constructs (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity, and age, gender, educational level, education field of study/major, years of work experience, and years of work experience?

Hypotheses

H₀: There is not a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity, and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.

H_A: There is a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity, and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.

Significance of the Study

There is a need for virtual leaders to assess their current political skill use and adjust their influencing ability as necessary to improve overall team performance, which translates to career success (Nagy et al., 2011; Todd et al., 2009). Research indicates that, although the utilization of virtual teams is beneficial to the organization, challenges arise in association with the operation of these teams and the unique challenges virtual team leaders face (Kayworth & Leidner, 2000). Due to the physical, time-based, and often cultural dispersions among virtual team leaders and their team members, leadership plays a fundamental role. This study is timely in that the results

will assist organizational management in preparing and empowering virtual team leaders with the knowledge to uncover and strengthen skills and behaviors that will promote optimum team performance (Zaccaro & Bader, 2003).

Definition of Terms

This study is an exploration of the relationships between political skill use and virtual team leader career success. The following definitions are terms that are inherent to the study.

Career success. Career success is defined as the accumulated psychological outcomes and positive work resulting from one's employment experiences (Siebert, Kraimer, & Liden, 2008).

Collocated/Traditional team. A team that consists of individuals who work together in one physical location to accomplish a common task, goal, or project (Powell, Galvin, & Piccoli, 2006).

Objective career success. Objective career success is defined as objective, externally measurable things such as salary, organization tenure, and number of promotions (Ng, Eby, Sorensen, & Feldman, 2005).

Perception of political skill use. The overall opinion of how successful political skills are utilized in order to obtain desired results (Harris, Kacmar, Zivnuska, & Shaw, 2007).

Political skill. The ability to change one's situation by influencing others in the workplace with the overall objective of attaining valued goals and objectives from the situation (Ferris et al., 2007).

Social influence theory. A conceptual model structured to explain the actions or behaviors that arise out of the need for individuals to intentionally change the perceptions of others (Levy, Collins, & Nail, 1998).

Subjective career success. Subjective career success is defined as intrinsic, psychological factors, such as level of job satisfaction, perceived organizational support, development opportunities, and happiness (Ng et al., 2005).

Virtual/Non-located team. A team consisting of individuals who are not physically located in one location, but located diversely across geographical borders and timelines to accomplish common organizational tasks, goals, or projects (DeRosa, 2009). Interaction is predominantly based on electronic communication media, such as telephone, video conference, email, and fax (Hertel, Geister, & Konradt, 2005).

Virtual team leader. A person of management charged with the task of ensuring the virtual team accomplishes the assigned organizational task, goal, or project (Holton, 2001).

Assumptions

This study uses a quantitative methodology, which assumes that the findings can be generalized to all populations (Wester, 2011). This study assumes that the statistical analysis of data of the perceptions of virtual team leaders is representative of virtual team leaders in the U.S. This research takes place under the assumption that the answers provided by participants are truthful and accurate, and that respondents have a full understanding of their role as a virtual team leader.

Theoretical Assumptions. Social influence theory contributes to the findings that individual behavior arising out of a desire to intentionally create or change the perceptions of others does so in support of one's own goals (Nagy et al., 2011). Drawing from social influence theory, this study is based on the assumption that political skill more definitively explains the situational delivery and execution of successful influence efforts, in the workplace (Treadway et al., 2013).

Topical Assumptions. This study is based on the assumption that successful career outcomes for virtual team leaders are influenced by the perceived use of political skill.

Methodological Assumptions. Virtual team leaders will participate in the study voluntarily and answer questions honestly.

Limitations

The limitations present in this study are first, the population is limited to the number of virtual team leaders who have self-selected to participate in an on-line survey. Self-reporting data collection methods tend to introduce a positive response bias in empirical research (Paulhus, 1991). Participants are not from the same organization and therefore underlying variables may exist that impact the results of this study. The use of a quantitative approach allows the findings to be generalized across the population through objective measurement; however, there is no understanding of human interpretation. Therefore, motivational considerations are not addressed and there is no ability to ensure understanding or clarify meaning with anonymous participants. Finally, there is no ability to determine a causal relationship between variables.

Theoretical Framework

This study utilizes social influence theory, which states that the behavior of individuals who desire to achieve certain results, have demeanors that encourage and inspire others, and are influenced by their environments, may be explained by social influence theory (Levy, Collins, & Nail, 1998). In terms of workplace behavior, social influence theory describes behavior that arises out of the need to intentionally create or change the perceptions of others (Nagy et al., 2011).

In extending social influence theory, Treadway et al. (2013) suggested that political skill is a definitive, interrelated set of social competencies that manifest themselves emotionally,

cognitively, and behaviorally. These competencies or behaviors have been conceptualized in several contemporary studies (Ferris et al., 2007; Treadway, Ferris, Duke, Adams, & Thatcher, 2007) emphasizing political influence and power in organizations, which focuses on the operation of the political skill constructs. Social influence theory (Levy et al., 1998) has lead researchers to believe that those who are politically skilled are better equipped to influence others to achieve desired outcomes than are those who lack political skill. Social influence theory also suggests that individuals endeavor to cultivate important social relationships both within and outside of the workplace (Cialdini & Goldstein, 2004). Furthermore, individuals who are better at maintaining quality workplace relationships are more likely to be satisfied with their careers and lives in general (Todd et al., 2009). The use of political skill is an ability that will help virtual leaders to develop and continue those relationships.

Individuals who are politically skilled are able to influence others, come across as sincere, conduct themselves in ways that are socially savvy, and better develop networks. Each of these characteristics is important in developing social relationships and ultimately are related to higher career and life satisfaction (Ferris, Davidson, Perrewé, 2005). In addition, Ferris et al.'s (2007) social-political conceptualization of influence in organizations argued that, when effectively leveraged, past performance could lead to greater influence over one's stakeholders and work environment. This positioning offered further value that career outcomes and the development of interpersonal influence could be viewed as not only skillful, but teachable.

Organization of the Remainder of the Study

This chapter provided an introduction and the statement of the problem; the background, purpose and rationale of the study; the significance and the theoretical framework of the study; the definition of key terms; and the assumptions and limitations of the study.

Chapter 2 begins with an overview of the literature, research that has been conducted in the areas of social influence theory, political skill, virtual teams, and career success. Chapter 3 outlines the research question and hypotheses, research design, sampling procedure, instrumentation, statistical procedures, and limitations associated with this study. Chapter 4 presents the study findings including: the demographic characteristics of the sample, results from the forward stepwise multiple linear regression used to test the hypotheses, and a summary conclusion of the findings. Chapter 5 includes discussion of the results and recommendations for further research.

CHAPTER 2. LITERATURE REVIEW

In this chapter, the literature on social influence theory, political skill, virtual teams and virtual team leader challenges, career success, and organizational outcomes that are pertinent to this research study will be reviewed. The chapter is divided into five sections: social influence theory, political skill, virtual teams, career success, and the organizational outcomes that offer support relative to the importance of this study.

Social Influence Theory

According to Levy, Collins, and Nail (1998), social influence theory was developed as a theoretical guide in order to identify potential influencing behaviors that can relate to political skill. Social influence theory (also referred to as interpersonal influence theory) was introduced through the work of Erving Goffman in 1959. Goffman's research influenced theory and research in the areas of organizational politics, organizational behavior, and impression management (IM), and provides the foundation for social influence theory. Goffman (1959) posited that individuals would purposefully manage the impressions they conveyed while interacting with others. This argument, together with the idea that some situations encourage individuals to manage the impressions they make, offers a basis of social influence theory for the current study.

Social influence theory suggested that influencing behavior in the workplace often occurred out of the need for individuals to intentionally change the perceptions of others (Levy, Collins, & Nail, 1998). However, the source of the need to influence resulted from different goals or desires. For example, when individuals were aware of their own skill or behavior deficiencies, self-perception may have limited their career success (Nagy et al., 2011).

Alternatively, heightened levels of stress resulting from challenging goals or objectives may

have prompted behaviors that solicit assistance or sympathy from others (Higgins, Judge, & Ferris, 2002). In either example, social influence theory demonstrated that individual characteristics of the influencing individual could affect the effectiveness of impression management (IM) behaviors.

Impression Management

According to Rosenfeld, Giacalone, and Riordan (2002), impression management (IM) is the process by which individuals attempt to influence the image others have of them. The goal of influence utilizing impression management is achieved by intentionally exhibiting certain behaviors that will lead others to view the individual as desired. In addition, impression management is used to describe an individual who desires to create and maintain a specific identity (Rosenfeld, Giacalone, & Riordan, 2002). Research shows that impression management is a dynamic process that occurs continuously during interpersonal interactions (Roberts, 2005).

A variety of impression management (IM) tactics are employed to influence others' decisions and perceptions (Nagy et al., 2011). According to Bolino, Kacmar, Turnley, and Gilstrap (2008), the five most researched impression management (IM) tactics include: (a) ingratiation (i.e., complimenting others; flattery), (b) self-promotion (i.e., talking highly about oneself), (c) exemplification (i.e., serving as a role-model or example), (d) intimidation (i.e., acting in a threatening manner), and (e) supplication (i.e., acting helpless or extremely humble).

Ingratiation. Impression management through ingratiation is a means by which individuals utilize flattery, favor rendering, or opinion conformity for the maximum influence of others. Cialdini and Goldstein (2004) demonstrated that even subtle forms of ingratiation, such as remembering another individual's name, can shape that person's response to a request.

Individuals may engage in ingratiation as a strategy to find favor with those who have a strong

level of influence over their career progression. Additionally, Sibunruang, Capezio, and Restubog (2013) found ingratiation to be related to career-related outcomes such as positive performance evaluations and promotions. Astute individuals with high self-monitoring, extraversion, need for power, a desire to be liked, or low self-esteem (Bolino et al., 2008), are also more likely to engage in ingratiation.

Self-promotion. Designed to enhance one's attractiveness and status, self-promotion includes speaking directly about one's talents and strengths, pointing with pride to one's accomplishments, and bringing attention to one's achievements (Rudman, 1998). In the workplace, self-promotion is especially useful in situations in which an individual is competing for resources or is not well-known (Nagy et al., 2011). Behavior displays related to self-promotion include ambition, competence, and confidence and is displayed in an organizational environment. In fact, Rudman (1998) found that self-promotion positively affected both interpersonal and career success and was an important approach for any competitor, male or female.

Exemplification. The appearance of self-sacrifice to gain the attribution of dedication from others is defined as exemplification (Bolino et al., 2008). Exemplification strategies of impression management include arriving early for work, leaving late after the normal workday has ended, and working weekend hours to please others. Rosenfeld et al. (2002) found that individuals who displayed exemplification behaviors went beyond normal work expectations, would volunteer for stretch assignments, and became a martyr to help others in the organization. Although several studies (Bozeman & Kacmar, 1997; Wayne & Ferris, 1990) found exemplification to be beneficial to organizational outcomes, Rosenfeld et al. (2002) also

indicated that the same individuals could be viewed as needy, hypocritical, and insincere rather than dedicated or virtuous. Therefore the strategy could be disadvantageous to career success.

Intimidation. Intimidation is an impression management tactic in which individuals inform others, either directly or indirectly, that they will deal aggressively with others in the workplace who get in their way, use forceful behavior to get others to behave appropriately, or let others know that they can make things difficult for them if they are pushed too far (Bolino & Turnley, 2003). However, the principal goal of individuals using intimidation is to be seen by others as influential, strong, and determined (Jones & Pittman, 1982). Individuals who use intimidation as a strategy may also run the risk of being perceived unfavorably. Specifically, those who use force as a tactic may be viewed as strong; however, they may also generate dislike from others in the process. In fact, Bolino and Turnley (2003) found that individuals who relied on intimidation strategies achieved higher performance ratings, but also appeared less likeable by their colleagues for doing so. Since likeability was found to be relevant to team functioning and effectiveness, and to career success outcomes, the use of intimidation tactics was seen as a less effective impression management strategy (Rosenfeld, Giacalone, & Riordan, 2002).

Supplication. Bolino and Turnely (2003) defined supplication as the promotion of one's shortcomings in an attempt to be viewed as needy or helpless. Outcomes from supplication behavior include gaining assistance and sympathy from others, avoiding an unpleasant task or assignment, and bringing attention to oneself (Bolino et al., 2008). However, Jones and Pittman (1982) found that supplicants in the workplace were less likely to receive help from others, and were often viewed as lazy. There is little research finding supplication as a successful tool for influencing others and ultimately achieving career success.

While (a) ingratiation, (b) self-promotion, and (c) exemplification demonstrate the ability to reflect positively upon the individual exhibiting the behavior, (d) intimidation and (e) supplication often reflect the opposite effect (Jones & Pittman, 1982). The degree to which individuals are motivated to engage in impression management (IM) behaviors has been recognized as being affected by their support from others for valued outcomes or goals. When the dependence on others is greater, the individual is more motivated to use some form of impression management (IM). During workplace interactions, individuals typically look for signals or cues that indicate how others perceive them. However, Sibunruang, Capezio, and Restubog (2013) found that not all individuals who engaged in impression management (IM) successfully achieved outcomes as expected, indicating that a gap remained.

Although social influence theory has been the foundation defining influencing skills and impression management (IM) behaviors, Ferris et al. (2007) found political skill constructs to be more relevant for career success. In fact, the achievement of desired outcomes depended upon an individual's strategy or influence skill, as well as interpersonal style (Ferris et al., 2007). In addition, Treadway et al. (2013) posited that one missing piece of social influence theory was the fact that not all efforts of influence resulted in effective outcomes. Specifically, prior to an influence attempt, an individuals' situational diagnosis was needed to select an influence tactic or strategy, plus their own interpersonal style, savvy, and skill, to ensure desired outcomes. The skill that both studies referred to was political skill.

Political Skill

Political skill, as conceptualized by Ferris et al. (2005), is not the traditionally negative association with office politics or politicians. The use of political skill is not focused on negative behaviors, such as behind-the-scenes maneuvering, brown-nosing, and self-serving

pretentiousness (Ammeter, Douglas, Gardner, Hochwarter, & Ferris, 2002). Instead, political skill is further defined as the ability to network and influence effectively, being socially savvy, having the ability to read people and social situations correctly, and the power to influence others by building on that savviness and executing an appropriate influence strategy while maintaining a genuine and sincere appearance (Ferris et al., 2005).

This interpretation of political skill use differentiates itself from social influence theory and is simplified by two predominant characteristics of politically skilled individuals: heightened social awareness and a genuine and flexible execution of behaviors (Ferris et al., 2007). Specifically, politically skilled individuals are better able to understand organizational power, the social nature of the work environment (Ferris et al., 2007), and are able to easily recognize social indicators that accurately describe the motivations of others (Treadway et al., 2007).

Organizational Power

Interpersonal organizational power is seen as the potential influence that one individual employee has over another (Pfeffer, 1992). This attainment of power represents one of the most motivating aspects of organizational life (Treadway et al., 2011). Organizational power is a key factor in organizational group dynamics (Robbins, 2003). In the past, interpersonal power was simply given through the legitimate reporting relationships dictated by organizational hierarchy and position. Today, interpersonal power is established via informal relationships in which an individual's skill, expertise, genuine support, and behaviors matter. Therefore, power is not limited to the formal structures within an organization but is interwoven into the social structure of the organizational environment. Similarly, social network researchers have moved away from assumptions that power comes from filling a structurally strategic position to allowing for the influence of individual characteristics (Brass & Burkhardt, 1993).

With a focus on understanding and differentiating power within and throughout organizations, political skill distinguishes itself from interpersonal organizational power as a valued ability. Evident in many of the definitions of political skill is that the ability to influence others is based on the perception of an individual's power. This perception indicates that there is some level of skill and competence that leads to organizational power acquisition. Individuals with astuteness and understanding about their relational and social circumstances are often the ones with the most power. Consequently, those individuals high in power generally possess greater relational skills making them more proficient at relationship building. Political skill is often innate, but can also be learned and taught (Krackhardt, 1990).

Bosch-Sijtsema (2007) reviewed organizational structure and power, and their impact on organizational politics for teams. The use of political skill involved individuals engaging in behaviors executed convincingly in order to perceive issues as intended, allowing for personal and organizational goal attainment (Treadway et al., 2013). In order to obtain organizational power, individuals were successful in utilizing political skill. These same influencers possessed interpersonal organizational power, personal resources, establish goals, strategically select appropriate behaviors for a given situation, and execute those behaviors effectively (DeRosa, 2009). Politically skilled individuals not only formulated personal and organizational goals, but also selected the most appropriate situations to demonstrate and ensure behavior is executed in influential ways (Treadway et al., 2013); therefore gaining significant organizational power.

Political Skill Constructs

Mintzberg (1983) introduced the term political skill, which explained how individuals exercised influence through manipulation, negotiation, and persuasion. Pfeffer (1992) extended the research by defining conditions that created and enhanced political behaviors. He proposed

that in an organizational political arena, individuals needed to study the players, learn the rules, and understand the associated rewards and consequences. Additional studies followed, offering additional information on a variety of influencing strategies, outlining which skills were most appropriate for diverse situations. However, a gap remained concerning how an individual's influencing tactics impacted the success of the persuasion attempts (Ferris et al., 2005; Ferris et al., 2007).

The political skill constructs were introduced in the organizational sciences literature when Pfeffer (1992) advocated for a positive political perspective on organizational power. However, in-depth research to fill the remaining gaps for the specific tactics or constructs lay dormant until the late 1990s when a more informed understanding was formulated (Ferris et al., 1999; Ferris et al., 2005; Ferris et al., 2007). More specifically, Mintzberg (1983) characterized the overall construct as: "Political skill means the ability to use the bases of organizational power effectively – to convince those to whom one has access, to use one's resources, information, and technical skills to their fullest in bargaining, to exercise formal power with a sensitivity to the feelings of others, to know where to concentrate one's energies, to sense what is possible, to organize the necessary alliances" (p.26).

To further understand and conceptualize the effectiveness of political skill and the constructs, Ferris et al. (1999), conceived the Political Skill Inventory (PSI). Through this survey tool, the researchers visualized political skill as a multidimensional concept. The research resulted in the development and validation of four factors or constructs, which are social astuteness, interpersonal influence, networking ability, and apparent sincerity. Politically skilled individuals possess the ability to be socially astute. According the Ahearn, Ferris, Hochwarter, Douglas, and Ammeter (2004), a socially astute individual understands the intricacies of their

surroundings, as well as the motivations of themselves and others. Those individuals who are strong observers of their social environment are said to be astute socially (Ahearn et al., 2004). Socially astute individuals have great self-awareness and can appropriately interpret the behavior of others (Pfeffer, 1992).

Politically skilled individuals are characterized by an ability to interpersonally influence those around them in a subtle manner (Pfeffer, 1992). These individuals' communication style is effective in that their perceptive behavior places others at ease (Ferris, Treadway, Brouer, Munyon, 2012). This ability to influence in a more personable manner equips politically skilled individuals with the dexterity to adapt to an environment in ways that cause desired responses from others. Pfeffer (1992) labeled this as flexibility and deemed the skill important in achieving one's goals.

Politically skilled individuals are proficient relationship builders and networkers; able to build strong alliances, coalitions, and bonds (Pfeffer, 1992). This networking ability allows the politically skilled to acquire and sustain associations of individuals who can help them achieve their goals. Those who are politically skilled have the ability to leverage these networks by ensuring a connection to others who are influential (Pfeffer, 1992). Therefore, these individuals are in a position to generate and receive opportunities. In addition, the politically skilled are able to manage negotiations and conflict well, which reinforces the connections these individuals are able to form with others.

Politically skilled individuals are seen by others as being truthful and genuine in their actions and words. These individuals are described as being apparently sincere, honest, and open (Pfeffer, 1992). Therefore, when a politically skilled individual is trying to influence someone, the attempt comes across as trustworthy. This trait is vital to the success of influence, allowing

the politically skilled not to be seen as manipulative (Jones, 1990). Based on the findings, the four political skill constructs have become the standard for political skill studies and are referenced in research today.

Political Skill and Performance

One of the most widely researched areas of political skill has been the four constructs and their impact on individual performance (Harris, Kacmar, Zivnuska, & Shaw, 2007; Kolodinsky, Treadway, & Ferris, 2007; Treadway et al., 2007). However, much of this work has been built on the assumption that a high level of job performance is a fundamental career objective. This idea disregards the fact that individuals have numerous reasons for exhibiting above average levels of performance. For example, individuals may seek to improve their performance to achieve promotion, favorable reputation, or power in the workplace.

Although there are numerous studies that have empirically tested political skill and the relationship to job performance, findings indicate that politically skilled individuals leverage performance into broader influence over their careers (Pfeffer, 2010), not necessarily improving performance. Hung, Yeh, and Shih, (2012) found that political savvy, the understanding of organizational politics, power, and political dynamics, specifically, allowed individuals the ability to benefit from one's resources such as past performance. However, past performance was used as leverage for personal objectives and to advance their reputation and careers. The benefits of a positive reputation includes possessing a higher level of status than others, as well as being seen as trustworthy, competent, and more legitimate (Munyon, Summers, Thompson, & Ferris, 2014). As a result, perceptions of a positive reputation allow individuals to accumulate more influence and power over others in the workplace (Pfeffer, 1992). Consequently, politically skilled individuals are more likely to benefit from a favorable personal reputation at work.

Research has found that social factors such as reputation have contributed to overall performance and career success more than actual performance itself (Ferris & Judge, 1991; Zajac & Westphal, 1995). More specifically, reputation is been related to compensation, promotions, career mobility, and positive performance evaluations (Ferris & Judge, 1991). Several other studies also supported the work performance – reputation link. Gioia and Sims (1983) found that individual reputation significantly influenced perceptions of organizational power, both legitimate and interpersonal. Pfeffer (1992) also linked personal reputation to power, stating that politically skilled individuals who hold a reputation for being influential often become more influential as their reputation perpetuates. The relationship between reputation and job performance further strengthens the link to career success for politically skilled individuals.

In a recent study, Munyon, Summers, Thompson, and Ferris (2015) found that because politically skilled individuals are able to secure necessary workplace resources they often shield themselves against negative stressors, resulting in better work performance and reduced strain. Alternatively, individuals who possess lower levels of political skill are more likely to have adverse performance outcomes in stressful environments since they do not have the same ability to secure resources. Greater job tension and general anxiety have been related to low levels of political skill (Ferris, Kane, Summers, & Munyon, 2011). Furthermore, individuals with low political skill perceive less control, lower job security, and more threats in their work environments, resulting in lower performance.

Political Skill and Career Outcomes

Within traditional social exchanges, individuals send signals to one another in order to provide information and influence others' behavior and attitudes (Spence, 1974). Ferris, Blass, Douglas, Kolodinsky, and Treadway (2003) found that individuals attempt to affect others'

perspectives resulting from indications characteristic of their past accomplishments. Because of their enhanced social awareness, politically skilled individuals are found to be highly conscience of the leverage that resides in their favorable performance and engage in carefully executed image management behaviors that are consistent with this reputation (Ferris et al., 2003; Ferris, Davidson, & Perrewé, 2005). Therefore, these behaviors have been linked to and continue to perpetuate successful career outcomes, especially when success has occurred previously.

Additional evidence indicating a relationship between political skill use and managerial performance appears in the contemporary research. In one example, Jawahar, Meurs, Ferris, and Hochwarter (2008) found that political skill use had a stronger relationship to contextual performance than to task performance. Similar studies have shown a relationship between the use of political skill and positive job performance ratings (Douglas & Ammeter, 2004; Harris et al., 2007; Kolodinsky, 2002). The networking ability dimension in particular positively predicted direct reports' ratings of their leader's effectiveness as well as supervisor's ratings of managerial success (Moss, 2006). When compared with other social skill constructs, Blickle, Wendel, and Ferris (2010) found that political skill use was the best predictor of managerial job performance.

Recently, researchers found that team leaders globally who had higher levels of political skill had higher performance ratings and were said to be more promotable from their direct reports, peers, and managers (Gentry, Gilmore, Shuffler, & Leslie, 2012). In an extensive study of the relationship between political skill use and job performance, Semadar et al. (2006) found that political skill was the greatest predictor of the highest managerial performers within a motor manufacturing company.

Utilizing the political skill constructs, Todd et al. (2009) were able to further investigate political skill use and the relationship to five career-related outcomes (total compensation,

promotions, career satisfaction, life satisfaction, and perceived external job mobility). The results revealed that the overall political skill construct overall was associated with four of the five career success outcomes. In addition, the four subscales of political skill were examined and Todd et al., (2009) determined that the networking ability dominated the relations with the examined outcomes, indicating that some form of networking has the potential to be utilized in virtual environments as well. However, there is no study looking at the four individual subscales of political skill as these constructs relate to the virtual leader career success outcomes.

Often the concept of political skill would fit into the category of "social effectiveness" in many organizations (Todd et al., 2009). This category of constructs is broad and includes variables related to functioning well in interpersonal situations. Ferris, Perrewé, and Douglas (2002) reviewed this direction of literature and identified several conceptions within the category, including social intelligence, practical intellect, self-monitoring, social ability, political skill, and social proficiency, suggesting that although these characteristics may be related in certain ways, each are all separate constructs (Todd et al., 2009). The list of concepts is by no means complete, as other variables including social influence, social savvy, and emotional intelligence were also found to be related (Ferris et al., 2005). However, one thing that differentiates political skill from the aforementioned related variables is the fact that political skill specifically denotes understanding in workplace communications. Additionally, previous research has shown political skill to be empirically separate from other social effectiveness constructs (Ferris et al., 2005) and to be the strongest predictor of successful job performance and career success (Semadar et al., 2006). Seemingly, these findings need to be tested against leaders of virtual team leaders.

Virtual Teams

Virtual teams are teams composed of individuals across international and domestic geographical borders and time zones who assemble fundamentally to complete assigned tasks and projects via advanced computer and telecommunication innovations. Rice, Davidson, Danneffer, and Gay (2007) noted virtual teams have become critical components to meet the evolving demands of organizational needs.

Virtual Teams Versus Traditional Teams

Virtual teams possess characteristics that distinguish them from traditional, face-to-face teams. One of the most important and easy to distinguish differences between virtual and collocated teams is that virtual team interactions are usually facilitated by various forms of electronic communication and technology (Berry, 2011). However, the tasks, goals, or projects virtual teams are designed to accomplish are not significantly different from those of conventional teams (Bell & Kozlowski, 2002). The differentiating factor between the two types of teams is the way virtual teams go about accomplishing those tasks, and the unique challenges faced.

According to Schweitzer and Duxbury (2010), defining a virtual team involves first defining a team and then distinguishing which characteristics make the team virtual. Teams, in general, represent people who work collaboratively toward common goals in which each member is accountable jointly. Virtual teams are empowered by technology, using technology to communicate, interact, influence, make decisions, and carry out other tasks. Virtual teams are most often geographically separated. Virtual teams are boundary spanning, meaning that a collaborative effort is required by individuals of similar and diverse functions, groups, or organizational units (Gandal & Stettner, 2014). Virtual teams are asynchronous; which ranges

significantly from individuals located together with different hours, to individuals across multiple time zones. Another characteristic associated with virtual teams is temporality; meaning that virtual teams are often only together for a specific timeframe (Nemiro, 2004). Another characteristic of virtual teams is interdependence (Curseu, Schalk, & Wessel, 2008).

Beyond fundamental definitions, virtual teams are diverse adding to the complications in utilizing political skill. Curseu, Schalk, and Wessel (2008) grouped virtual team differences into four dimensions as illustrated in Figure 1.

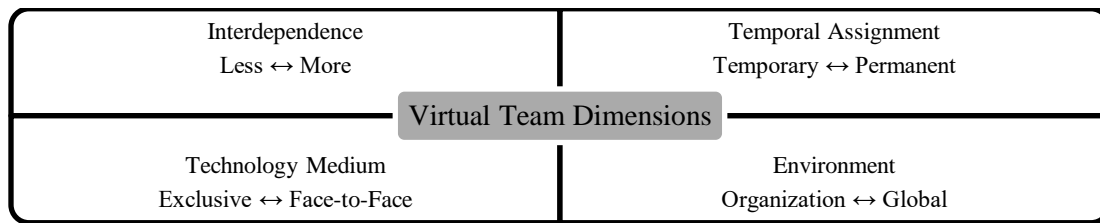


Figure 1. Virtual team dimensions. This figure depicts differences in virtual team function and terminology. Interdependence is the degree to which members of the group are mutually dependent on the others. Temporal assignment is the extent in which teams are formed to accomplish a task. Technology medium is the extent teams depend on technology to interact. Environment is the degree to which individuals are exposed to other members (i.e., cross functional vs. functional teams; global v. local virtual teams). Adapted from “How do virtual teams process information? A literature review and implications for management,” by P.L. Curseu, R. Schalk, and I. Wessel, 2008, *Journal of Managerial Psychology*, 23(6), p. 628.

While some researchers highlight the degree of virtuality (i.e., ideal, real, possible, or potential) of virtual teams, others focus on the technology mediums and time in assignment (Ahuja, 2010). Virtuality ranges from teams within a single organization who have limited face-to-face meetings in addition to their electronic communications, to globally dispersed teams across multiple time zones, whose members speak different languages (Ahuja, 2010) and never meet face to face. Dixon and Panteli (2010) also support the idea of defining virtual teams’

virtuality in terms of discontinuities, which focuses on the additional and concurrent challenges such as level of interdependence and environment, or technology medium and temporal assignment, involved in successfully reaching the team's objectives as outlined.

In today's virtual teams, several interrelated discontinuities may be experienced simultaneously. For example, a globally dispersed team is likely to experience language, cultural, and time zone challenges together with discontinuities due to the lack of physical proximity. Therefore, these virtuality discontinuities have been expressed as the increased skills, abilities, and efforts needed to accomplish virtual team objectives (Dixon & Panteli, 2010).

Siebdrat, Hoegl, and Ernst (2008) warn against underestimating the impact of even a small distance between team members, noting that a team's ability to accomplish tasks as assigned is actually lower for teams whose members are located on different floors within an organization. However, Siebdrat et al. (2008) also found that virtual teams can surpass traditional team performance, when their leader possesses skills in networking and influencing. Similarly, Nydegger and Nydegger (2010) make a similar point, maintaining that virtual teams are just as and often more productive than traditional teams when team leaders are equipped to manage in a virtual environment.

Within teams, processes, procedures, and goals must be clear so that team members know how they are to operate and what their objectives are. In collocated teams, unclear or vague expectations can be clarified through casual conversation in the hallway. However, virtual teams need more structure because similar opportunities do not exist. The how of collaboration and interaction is more infrequent and must be clarified (Berry, 2011). Virtual teams function through normal stages of team process and project timelines just as collocated teams do. However, the virtual team progressions of forming, norming, performing, and storming develop

differently or are ignored (Berry, 2011). Because virtual teams have more of a focus on task instead of personality or style, the storming phase in many teams is often disregarded. Each of these virtual team dimensions and stages described, in combination or separate, offer another level of understanding in how virtual teams differ from traditional teams.

Virtual Team Benefits

As already noted, virtual teams have strategic advantages (Hertel, Geister, & Konradt, 2005). For example, virtual teams can be formed based on individual talent's expertise instead of the talent that is local. Teams grow more rich as they are assembled, based on the respective team members' skills and knowledge as opposed to their physical location. Virtual team members can work before, after, and during normal business hours since team members can be in different time zones and geographies.

Flexibility and speed in response to market demands is increased (Hertel, Geister, & Konradt, 2005) and traveling expenses and office space can be reduced to a minimum. Virtual teams are able to reduce overall costs associated with traditional face-to-face meetings. Team members are involved that otherwise would not be able to pool their expertise, thus bringing the best talent together by taking advantage of scarce and variable resources available in different locations. In line with reductions, environmental tensions, commuting traffic, and air pollution will all experience a decrease based on the increase in the number of virtual teams (Hoch & Kozlowski, 2014). Some virtual teams provide benefit to customers by being available whenever a need arises. In addition, individuals with low mobility due to disability or family care obligations have the ability to contribute from a distance. However, the reasons that makes a virtual team beneficial also allows for challenges.

Virtual Team Challenges

According to Cascio and Shurygailo (2003) and consistent with much of the research done on this topic, there are disadvantages to a virtual team such as a lack of physical interaction, loss of face to face synergies or communication, lack of trust, and lack of social interaction (DeRosa, 2009; Cascio & Shurygailo, 2003). Virtual teams also present greater complexity due to expanded geographies and time zones, new cultures, different laws, regulations, asynchronous communication, and business processes (Hoch & Kozlowski, 2014). In addition to the complexity includes supplemental costs for appropriate technology and issues of data security. For many of these reasons, the act of influence and persuasion are necessary in order to acquire resources, reach goals, and leverage the skills that increase virtual team support (Hertel, Geister, & Konradt, 2005).

Olson and Olson (2012) designed an experiment that used both face-to-face and on-line methods to test virtual team leader style, trust and communication. The foundation for the study used adaptive structuration theory, a model of leader trust, and social presence theory, a model of communication, as the basis to test a virtual team's ability to trust quickly and communicate effectively, based on the team leader's style. In this study, 22 participants from a newly formed work group completed both a simple and complex project in person and a simple and complex project virtually or on-line. The control group received additional information from the virtual team leader that was not made available to the others. Additionally, Olson and Olson (2012) utilized the validated Jarvenpaa-Knoll-Leidner trust model to assess participant's perceptions of trust in leader ability. A significant relationship was found between the variables communication media and leader trust, both independent variables. In situations like this one where trust had to be developed quickly, additional efforts were made by team leaders. Choosing the right medium

(email, text messaging, on-line chat, and conference calls) to influence helped establish leader trust and was important in achieving the overall desired team outcome or dependent variable (Olson & Olson, 2012).

In another study, Baruch and Lin (2012) also found that the right leader influence and apparent sincerity fostered team collaboration and knowledge sharing. Distributing questionnaires to over 800 team members across 152 virtual teams, with a 98% return rate, allowed for generalizability across industries. More specifically, although high levels of competition were found between team members on the same virtual team, team members' trust levels, understanding of the vision, relation to the team socially, and overall success depended greatly upon the influencing skills of the virtual team leader. Trust, an aspect of apparent sincerity, plays an essential role in interaction between individuals and virtual team leaders (Baruch & Lin, 2012).

Related to the findings on trust between virtual team members is that of cohesiveness (Nydegger & Nydegger, 2010), which is the extent to which individuals feel connected to a group. Cohesiveness was established as very important in determining how well a team works together and accomplished goals, although virtual teams typically demonstrate lower levels of cohesiveness and feel less connected than their collocated counterparts (Nydegger & Nydegger, 2010). This factor depends upon individuals' level of trust in their team leader, which ultimately depends upon the leader's ability to sincerely influence in a manner that instills acceptance and support (McKenna, 2008).

Similarly, Roberts and O'Reilly (2001) studied the interactions between leaders and their direct reports across four organizations. The researchers found that when a team leader demonstrates apparent sincerity, team members were more likely to trust and communicate

better. Individuals with high levels of trust in their team leader also stated that information was presented more accurately. When team members had low trust in their team leader, ineffective communication behaviors such as having a tendency to block or withhold information was shown. There is strong evidence that team performance increased due to different aspects of effective leader communication, including consistency, sincerity, and adequacy of information (Roberts & O'Reilly, 2001). Although there is potential for greater disconnect on a virtual team, the evidence found in the study can be adequately utilized remotely through electronic methods.

Avolio and Kahai (2003) found that although methods of electronic communication among virtual teams offered better opportunities to interact with all team members simultaneously and individually, there was potential for misinterpreting information from the leader's desired intent. However, depending upon the level of perceived leader support, ability to build community, and to positively instill trust and appear sincere, increased understanding and positive outcomes. These examples support the use of political skill and demonstrate the significant impact on virtual teams and therefore virtual team leader success.

Virtual Team Leader Challenges

To understand the competencies required by virtual team leaders, organizational leadership must understand how a virtual leader's role differs from that of a traditional leader, who operates in close proximity to his or her team. Some may question whether a difference exists at all, but the research suggests that virtual roles are more challenging (DeRosa, 2009). Even as virtual teams have greatly increased, organizations have offered mostly abstract, functional requirements for team leaders (Bell & Kozlowski, 2002). Furst, Reeves, Rosen, and Blackburn (2004) proposed the reasons for such barriers in education, as well as knowledge gaps in virtual team leadership, is obvious since virtual team leadership remains an infantile

component in the literature. Similarly, the increased distance between team members gives rise to a host of new issues.

According to Beer, Walton, and Spector (1985), the implementation of virtual teams and team leader roles should be developed and evaluated, similar to other organizational policies and practices. For individual leaders, the advantages of a virtual role might include more flexibility and time control in conjunction with greater work motivation, responsibilities, and empowerment of the team members. Challenges however, may be decreased interpersonal contact and feelings of isolation. In addition, there are increased chances of misunderstandings and conflict escalation, with increased opportunities for goal conflicts.

For example, virtual team leaders must modify their ways of interaction with team members on both interpersonal and professional levels. Since virtual team leaders rely on electronic technology to communicate, modifications from traditional team interactions are needed for ways in which to provide feedback and gather data. In the virtual arena even the sensory cues that traditionally indicate leadership status, like eye contact, body language, verbal intonation, or even manner of attire, are absent (Ruggieri, 2009). Four foundational competencies for virtual team leaders include modeling desired behaviors, establishing expectations early on, effective communication, and appropriate resource allocation (Duarte & Snyder, 2001), all done remotely. These basic leader proficiencies mirror effective competencies found in traditional team leaders and should be exhibited while reinforcing that the work itself is important.

Another challenge for virtual team leaders that is often disregarded is the fact that many of them are unable to translate their current skill set to a non-collocated environment (Bjørn & Ngwenyama, 2009). Potential challenges include difficulties in managing team members' activities from a distance and the inability to prevent unproductive work time. Consequently, an

understanding and training is important for a virtual team leader to obtain these specific abilities. Building shared meaning and understanding amongst team members requires virtual leaders to possess skills in influencing and sincerity that occurs outside of traditional face-to-face interaction (Hertel, Geister, & Konradt, 2005).

Some virtual team leaders have indicated that their role, responsibilities, and authority, are unclear in this new setting (Bjorn & Ngwenyama, 2009). Furthermore, another group of virtual team leaders reported feeling loss of status and esteem due to less control over the work they are responsible for (Wiessenfeld, Raghuram, & Garud. 1999). While plausible that these team leaders have difficulty adjusting to a virtual work environment, organizational leaders have an obligation to equip their virtual leaders for the transition to this type of setting.

To address the concern of transitioning to lead a virtual team, Hertel et al. (2005) recommend that virtual team leaders understand the cycle of teams as manifesting in five distinct phases. These stages are: (a) preparation, where the mission statement, team composition and membership, the fundamental task design, reward systems, relevant technology, and organizational integration are founded; (b) launch, where there is an initial session where team members are introduced to one another, goals are clarified, and the team rules and expectations are established; (c) performance management, where leadership expectations are established, communication is developed, emotional and motivational areas are made relevant, and methods of knowledge management are agreed upon; (d) team development, which assesses needs, utilizes training opportunities, and evaluates the effectiveness of the training; and (d) disbanding, if the team was established for a short-term goal, specific reason, or task.

De Rosa (2009) found that the effectiveness of virtual leaders correlated positively with the success of virtual teams, in addition to providing evidence that effective virtual team leaders

possessed qualities similar to those of traditional collocated leaders. The study also determined that successful leaders of virtual teams were able to effectively utilize influencing skills, an aspect of political skill, to engage and communicate with team members (DeRosa, 2009; Whited, 2007) which led to career success.

Career Success

Schein (1971) defined a career as an organized path taken by an individual across time and space. Although this definition does not imply failure or success, the term is often viewed as indicating an individual's advancement in a specific occupation or career field or occupation (Hall, 1976). Research in upward mobility or career success has found that those who are able to progress forward in organizational hierarchy or societal corporate structures are perceived as successful (Ng et al., 2005). Career success is described as both perceived and subjective achievements, as well as real and objective, in the work lives of individuals (Judge et al., 1995). Traditionally, the fortitude of career success has relied upon objective measures like salary, years in position, and hierarchical level of their role in the organization. However, as the workplace and careers have evolved, determining one objective measurement for career success is more difficult.

Customarily, a career was limited to progressing through one organization's hierarchy; today a career is more commonly considered a lifelong sequence of role-related experiences (Cesinger, 2011). Research suggests that career success is multidimensional; reflecting both objective and subjective measures (Breland et al., 2007) as well as internal and external incentives (Semadar et al., 2006). Scholars have used various approaches to measure career success, including objective, fact-based indicators, such as salary and number of promotions

(Semadar et al, 2006), and subjective, interpersonal measures, such as job and life satisfaction (Ng et al., 2005).

Objective Career Success

Objective career success refers to the accomplishments within an individual's career assessed by means of external or objective criteria, utilizing organizational definitions of success or failure (Gattiker & Larwood, 1986). These factors include indicators of career success that can be observed and evaluated objectively by others, including base pay, bonus pay, and the number of promotions in one's career (Judge et al., 1995).

To demonstrate the benefits of using objective career success, Kirchmeyer (2006) looked at the gender gaps in achieved rank and salary between men and women. Because of the attributions, gender contributes toward different family roles and responsibilities, the use of objective benchmarks of personal choice, children, and employed or non-employed spouses, offered significant, practical outcomes. Additional research has established that objective career success has an overall positive influence on job satisfaction (Cable & DeRue, 2002). Specifically, Eddleston and Veiga (2002) as well as Judge et al., (1995), determined that status, income, and promotions were able to predict career satisfaction.

However, other studies found that the use of objective career success criteria only, was tainted since these factors were beyond an individual's control (Heslin, 2005). Examples of such shortcomings include countries that differ in their economic stratification, salary structures, taxation systems, status markers, and saving norms (Heslin, 2003). Even within similar economic societies, objective success is strongly impacted by factors such as industry-specific pay norms, competition, and market conditions. In addition, objective criteria have limited meaning in the jobs where pay and promotions are uniquely institutionalized, such as the military. Similarly,

some academicians have framed their career success in terms of their students' attainments or drivers who conceivably base their career success on years of driving without an accident (McGrath, 2003). Even when continual attainment of such objective outcomes do not lead to pay, rank, or status increases or promotions, objective indicators of career success are not necessarily reduced. Although fundamentally different, objective career success is not necessarily mutually exclusive from subjective career success; meaning that many organizations may use one or the other or a combination of both to measure career success overall.

Subjective Career Success

Subjective career success refers to an individual's own internal assessments of their career accomplishments (Gattiker & Larwood, 1986). This includes less tangible and more personal signs of career success such as career satisfaction, career commitment, job satisfaction, and interpersonal success. Gattiker and Larwood (1986) asserted that unlike objective success measures, subjective career success measures identify important career outcomes that are not quantifiable through performance appraisals and personnel records. There have been several studies that have examined the topic of subjective career success and the associated dimensions (Heslin, 2005; Nabi, 2001; Sturges, 1999; Parker & Chusmir, 1991), as opposed to the research studies using operationalized variables such as base salary, number of promotions, and variable pay (Dries, Pepermans, & Carlier, 2008).

In an effort to understand what caused employee success as individuals moved through the various phases of a career over time, Dix and Savickas (1995) looked at measures such as job satisfaction as an important consideration. In the study, individuals described experiences such as making quality connections with others within the organization, honesty, listening to advice, appreciating others, and expressing approval of others, as responses used to indicate satisfaction

and success in their careers. These idiosyncratic descriptions supported the findings of subjective career success study outcomes. Therefore, subjective career success was expressed as the achievement of desirable work-related outcomes at any point in an individual's work occurrences over time (Breland et al., 2007).

As with objective career success, there are limitations to subjective career success measurements as well. For example, Heslin (2005) found that individuals who believe they have a highly successful career may not necessarily consider their career to be less successful when they start a new job that is dissatisfying. The overall career is still considered highly successful in the grand scheme. However, Heslin (2005) also found some individuals who were highly satisfied with their current job, though dissatisfied with their past career attainments but indicated that their overall career was successful. Furthermore, the use of subjective career success can be misleading when defining a rewarding role with limited future career opportunities and has the potential of limiting future career success (Heslin, 2005).

Conversely, another individual may hate their current job, but be happy with their overall career success due to the current jobs' potential for future opportunities (Heslin, 2003). Specifically, Heslin (2003) described graduate students who often postpone job enjoyment by working long hours for little compensation, in anticipation of being well rewarded with a significantly better job following graduation. Finally, high job satisfaction does not necessarily lead to subjective career success when the high level of satisfaction takes a toll in terms of health, family relationships, or other salient personal values. The present study utilizes subjective career success because the overall measurement is a good assessment of an individual's perception of their own career success based on a validated five-factor measure introduced by Gattiker in 1985.

Five-Factor Subjective Career Success Model

Gattiker (1985) used open-ended questions to elicit perceptions from support staff and managers regarding their career success. The results revealed that individuals characterize career success as both within and outside of an organization. Their responses revealed an obvious overlap between life success and career success. According to Gattiker (1985), career success and external organizational success are interrelated. Therefore, a successful individual considers him or herself to be mutually successful.

In continuing the research, Gattiker and Larwood (1986) used an open-ended questionnaire and compiled a measure of subjective career success consisting of five factors: job success, interpersonal success, financial success, hierarchical success, and life success. The overall measure is intrinsic and depends on what individuals perceive the criteria of success to be. Using personal perceptions and self-referent standards of success, across several dimensions, measures were determined based on what was important to an individual (Gattiker & Larwood, 1988; Miguel, 1993).

The five factors in more detail are job success, which means the extent to which individuals perceive that their jobs offer opportunities for achievement, satisfaction, learning and development (Gattiker & Larwood, 1988). Interpersonal success refers to the degree in which individuals perceive themselves to be respected and accepted by their work colleagues (Gattiker & Larwood, 1988). Financial success examines fair compensation, level of income, and earning potential as compared to one's peers (Gattiker & Larwood, 1988). Hierarchical success is the extent to which individuals are satisfied with their up-to-date hierarchical advancement and their prospects for future advancement (Gattiker & Larwood). Life success refers to levels of satisfaction and enjoyment outside of the organization. As a result of the study, the subjective

career success survey was developed, validated, and will be used in the current study. The five-factor model including both individual and organizational outcomes continues to be the subject of much theoretical and empirical inquiry.

Organizational Outcomes

The literature reviewed offers an understanding of the research linking social influence theory to political skill. In addition, the literature on political skill is related to career outcomes and demonstrates the importance of political skill use in leaders. Over the last few decades, organizational leadership has become more interested in the careers of their talent and their career development processes (Crawshaw, van Dick, & Brodbeck, 2011), especially for virtual teams (Cogliser et al., 2013). This interest has arisen because organizations not only desire ways to reduce expenses, but to build organizational success, which is accomplished through building individual career attainment (Berry, 2011). Organizational research on positive career outcomes suggests that upward career progression is a function of both individual and organizational attributes (Laud & Johnson, 2012). Positive career outcomes are of concern not only to individuals but also to organizational leadership since individual success contributes to and predicts organizational success (Belbin, 2011; Davenport, Thomas, & Cantrell, S., 2012).

Although scholars have identified a number of important variables for career success, there is no agreement as to the most effective combination of the variables (Harris & Ogbonna, 2006). In reality, the defining feature of successful career management may be that “it depends on the situation.” However, political skill use is believed to have developmental influences and is theorized as a skill that can be substantially developed through training, mentoring, and socialization leading to positive career outcomes (Ferris et al., 2008; Pfeffer, 2010). The idea of

career success in virtual team leaders furthers the benefits of training, developing, and rewarding virtual team leaders for political skill use.

Summary

The review of the literature on social influence theory, political skill, virtual teams, and career success, indicates an opportunity for further exploration into the relationship between political skill use and team leader career success; specifically for those who lead virtual teams. Virtual teams are increasingly common in most organizations. Organizational leadership that is unable or unwilling to utilize virtual teams has the potential for losing out to their competitors in a rapidly changing social and global economic environment. The skill sets required to lead virtual teams are more complex than the skills utilized for collocated teams. Research indicated that political skill use is beneficial to team leaders although the skills do not operate in exactly the same manner for virtual teams as they do in traditional teams (Berry, 2011).

Huczynski and Buchanan (2013) argue that political skill use is more important now than ever due to increasingly turbulent and evolving workplace environments. According to Elron and Vigoda-Gadot (2006), political skill use is one of the most critical determinants of being an effective leader with a successful career. The ability to influence, share knowledge, communicate, and execute desired outcomes have shown success in virtual teams. Without an understanding of the relationship between political skill use and virtual team leader career success, organizational leaders will have missed opportunities to provide better support toward the development and training of their leaders. The use of virtual team leader political skill is anticipated to impact not only virtual team's successful objective completion, but more importantly enable greater levels of career success for the leaders themselves. Therefore, the following methodology outlines the approach to empirically test the relationship.

CHAPTER 3. METHODOLOGY

Organizations' use of virtual teams to increase profitability, lower internal office space and meeting expenses, reduce employee travel and relocation expenses, expand access to global markets, increase employee productivity, provide better customer service, benefit the environment, and provide flexibility to knowledge workers has increased significantly over the past decade (Furst et al., 2004; Kirkman & Mathieu, 2004). However, Huczynski and Buchanan (2013) and Todd et al. (2009) found that the career success of virtual team leaders was limited. Limitations to career success for virtual team leaders included feelings of isolation and detachment, limited use of interpersonal and networking skills, and inability to build rapport. Each limitation was found to be the result of working outside of the traditional office environment, which was further impacted by geographically dispersed locations and time constraints (Huczynski & Buchanan, 2013; Cogliser et al., 2012; Kirkman & Mathieu, 2004). In order to determine the key factor(s) that impact the career success of virtual team leaders, a strong relationship between the use of political skill and virtual team leader career success must be established. The purpose of this study was to further the findings of Huczynski and Buchanan (2013) regarding the relationship between career success of virtual team leaders and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.

The following areas of this study covered in Chapter 3 are (a) the research question and hypotheses (b) the research design, (c) the population and sampling procedure, (d) the

instrumentation and measures used for collecting the data, (e) testing model assumptions, and (f) data analysis. The current study utilized a quantitative, non-experimental, multivariate design. The multivariate design offers testing of the influence of variable relationships with predictive validity based on the use of forward stepwise multiple linear regression analysis (Creswell, 2014).

Research Question and Hypotheses

This study investigated an omnibus research question studying the relationships between career success of virtual team leaders and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of work experience in the United States.

Omnibus Research Question

RQ: To what extent is the career success of virtual team leaders (dependent variable) related to political skill constructs: (a) networking ability (independent variable), (b) interpersonal influence (independent variable), (c) social astuteness (independent variable), and (d) apparent sincerity (independent variable); and age (control variable), gender (control variable), educational level (control variable), education field of study/major (control variable), years of work experience (control variable), and years of virtual team work experience (control variable)?

Hypotheses

H₀: There is not a statistically significant relationship between virtual team leader career success (dependent variable) and political skill constructs: (a) networking ability (independent variable), (b) interpersonal influence (independent variable), (c) social astuteness (independent

variable), and (d) apparent sincerity (independent variable); and age (control variable), gender (control variable), educational level (control variable), education field of study/major (control variable), years of work experience, and years of virtual team work experience (control variable).

H_A: There is a statistically significant relationship between virtual team leader career success (dependent variable) and political skill constructs: (a) networking ability (independent variable), (b) interpersonal influence (independent variable), (c) social astuteness (independent variable), and (d) apparent sincerity (independent variable); and age (control variable), gender (control variable), educational level (control variable), education field of study/major (control variable), years of work experience, and years of virtual team work experience (control variable).

Variable Relationships for Study

Figure 2 shows the relationship among the dependent variable (DV), independent variables, and the control variables (CVs) for this research study.

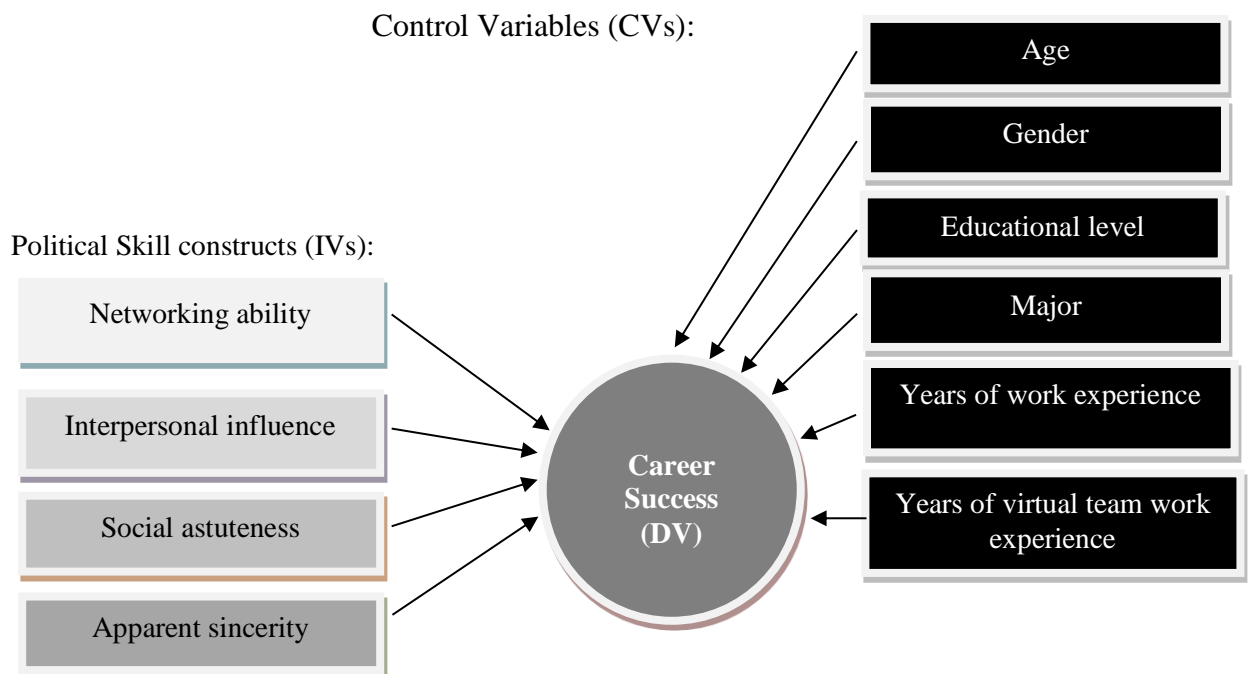


Figure 2. Variable relationships

Research Design

The current study utilized a quantitative, non-experimental, explanatory, cross-sectional, survey research design, which is in line with positivist philosophical assumptions (Creswell, 2014). Non-experimental, quantitative research focuses on the use of numeric and quantifiable data. Quantifiable data offers objective measurements and a systematic process that allows the findings to be generalized across groups of people. Quantitative research is appropriate for studying the relationship between two or more variables using statistical data (Creswell, 2014). Therefore, studying the relationships between virtual team leader career success (DV) and political skill constructs: (a) networking ability (IV), (b) interpersonal influence (IV), (c) social astuteness (IV), and (d) apparent sincerity (IV); and control variables, age (CV), gender (CV), educational level (IV), education field of study/major (IV), years of work experience (IV), and years of virtual team work experience (IV) in the United States, is appropriate based on Creswell's (2014) conclusion.

Survey Research Design Rationale

Survey research is one of the most widely used methods of non-experimental design based on Creswell's (2014) outline. The non-experimental, survey design methodology is defined as a data collection method in which the researcher validates or employs previously validated instruments to measure attitudinal constructs (Wester, 2011). The current study used a non-experimental design with a survey research methodology. Survey research allows the capture of quantitative measures of perceptions, opinions, attitudes, and trends of a population by studying a sample of that population and then generalizing the findings. Inferences can be made from the findings about behaviors, attitudes and characteristics of a sample and then generalized to the population.

Another advantage in using survey design is based on time and cost limitations (Reading, 2013). One of the main benefits of using on-line survey research for the current study includes a specified time to completion. Time is limited. In addition, on-line survey research cost is more economical in comparison to telephone, face-to-face, and regular mail survey distribution (Reading, 2013). Furthermore, survey research design is convenient for participants who have limited time due to their work commitments. Another advantage of using an online survey is participants take the time to read the survey items carefully. Conducting the self-administered surveys online allowed participants to respond to the survey questions from a setting that worked well with their daily schedule. Online surveys are completed electronically, which is convenient for virtual team leaders who are geographically dispersed.

Additional benefits of using online survey research include speed of administration and the flexibility of distribution. The self-administered survey for this study was appropriate for political skill use because the instrument was designed to measure the constructs via self-identification. The current study also utilized closed-ended questions to limit variability among responses and to enhance the accuracy and speed of data analysis. According to Fowler (2009), return rates are potentially higher with self-administered survey instruments. The current study used validated surveys – the Political Skill Inventory (PSI) questionnaire, designed by Ferris et al. in 2005, and the Subjective Career Success questionnaire, designed by Gattiker and Larwood, in 1986. The PSI was used to measure each construct of political skill and the researcher does not anticipate that the disadvantages noted will impact the outcome of the study. Disadvantages to the use of surveys include the lack of flexibility in terms of questions asked and feedback given to respondents. In addition, standardized questions must be asked of all participants and the

questions may or may not meet the exact needs of the researcher or the participants (Wester, 2011).

Population, Sample Frame, and Sample

Population

The population for this study consisted of virtual team leaders in the United States, with a minimum of a bachelor's degree. According to GlobalWorkplaceAnalytics.com (2015), a research firm that develops business strategies promoting workplace flexibility, over 3.3 million U.S. employees or 20% of the workforce, worked virtually in 2013. Of the 3.3 million U.S. employees, the total number possessing a bachelor's degree was not captured. However, thirty-seven percent of those virtual workers surveyed were leaders or managers.

Sample Frame

The sample frame for this study consisted of SurveyMonkey audience members who were virtual team leaders in the U.S. with a minimum of a bachelor's degree. Participants with no virtual team leader experience were excluded. Two prescreening questions were used to determine whether potential participants held a bachelor's degree and also possessed virtual team leader experience.

Sample Size

G*Power 3.1.10 was used to calculate the minimum sample size for this study. The test family used was F tests and multiple linear regression (see Table 1). The sample size analysis was conducted using ten independent variables. Based on F tests for multiple linear regression using a fixed model, R^2 deviation from zero, with an effect size of .15, a power level of .95, and ten predictor variables, the minimum calculated sample size was 129 participants. This sample

size ensured with 95% confidence that results did not occur due to random chance alone (Field, 2013).

Table 1. *G*Power 3.1.10: Sample Size and Power Calculation*

Protocol of Power Analysis	
Test Family: F tests	Statistical Test: Multiple linear regression: Fixed model R2 deviation zero
Type of Power Analysis	A priori: Compute required sample size – given α , power, and effect size
Input Parameters	Effect size $f^2 = 0.15$ α err prob = 0.05 Power ($1 - \beta$ err prob) = 0.95
Output Parameters	Number of predictors = 10 Noncentrality parameter $\lambda = 24.9000000$ Critical F = 2.44 Numerator df = 10 Denominator df = 124 Total sample size = 129 Actual power = 0.9500973

Figure 3 exemplifies the central and non-central distribution plot of the sample power analysis for the current study.

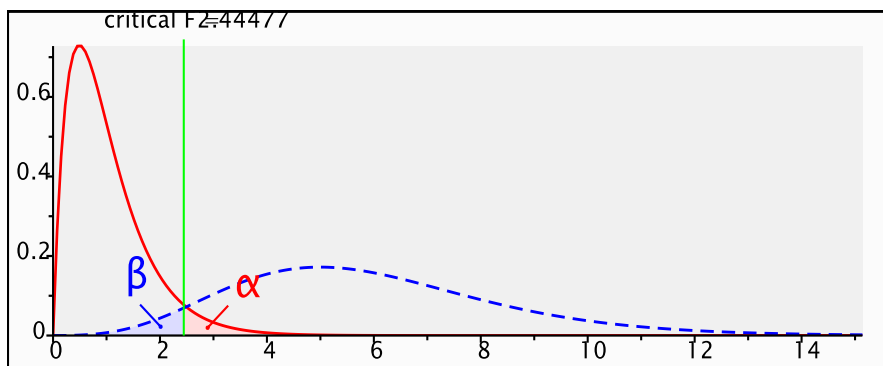


Figure 3. Sample central and non-central distribution

Sampling Procedure

An electronic invitation to participate in the survey was sent to a simple random sample of SurveyMonkey audience members that met the inclusion criteria for the sample frame. Upon receipt of the electronic invitation to participate, two prescreening questions were presented. The first question asked was: Are you currently or have you been a manager, supervisor, or leader of a virtual team? The second question asked was: Do you have a minimum of a bachelor's degree? If respondents answered "no" to either question, they were disqualified from participating in the survey and directed to a "thank you" screen. If respondents answered "yes" to both questions, they were offered an opportunity to review the study informed consent form. Once the informed consent form was reviewed, the participant was able to complete the survey and submit data electronically.

The informed consent form included a brief description of the study, number of people in the study, reason for being invited to participate in the study, ability to opt out of the survey at any time, and a statement related to confidentiality. Contact information for the researcher was provided in case participants had questions or concerns during the study. Participant completion of the survey instrument took less than five minutes.

Sampling Strategy

Weiss and Weiss (2012) recommended a simple random sampling strategy as one of the most straightforward sampling methods to ensure each possible sample of the desired size has the potential of being chosen. Simple random sampling was utilized for this study because of the equal chance for each member of the virtual team leader population to participate in a study without bias in selection (Patten, 2012). In addition, when data is generated by random sampling from a clearly defined population, statistical inference can be relatively straightforward.

The selection procedure for the participant sample is consistent with the research question because the procedure directly targets virtual team leaders with the desire to understand what relationship exists between their career success and political skill use. To avoid sampling errors, Wester (2011) recommended that researchers using quantitative methods should determine if the sample includes participants who represent those who actually are involved in the real-world application of the topic under study to generalize the findings to a larger population. The current study is representative of real-world application of the subject matter, based on the requirement of participants to lead or manage a virtual team, which was established in the prescreening questions.

Instrumentation and Measures

This study utilized two validated self-reported survey instruments. The Political Skill Inventory (PSI) questionnaire, designed by Ferris et al. in 2005, measured perceived political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity. The Subjective Career Success questionnaire, designed by Gattiker and Larwood in 1986, measured career success. Neither instrument was modified for the purposes of this study.

Validity

In quantitative research, a study instrument that is able to answer scientifically the question or questions as intended is considered valid (Patten, 2012). Internal validity is determined by how correctly each operationalization accurately reflects the instrument's construct. External validity refers to the degree to which the results of a study can be generalized from a sample to other cases with different people, in different places, and at other times (Patten,

2012). In addition, the participants in the research study should be representative of the population relevant to the study.

Reliability

According to Patten (2012), whether a survey instrument consistently measures what the instrument is designed to measure is defined as reliability. This includes the consistency of results across items, the degree to which participants give consistent responses, and the consistency of a measure evaluated over time (Trochim & Donnelly, 2008). To minimize reliability as an area of concern, clear, measurable operational definitions must be utilized, which was done prior to the current study.

Coefficient alpha, also known as “Cronbach’s alpha,” is one of the most widely used reliability coefficient and statistical test used in determining the internal consistency or average correlation of items in a survey instrument (Rao & Sinharay, 2006, p. 1). Cronbach’s alpha was calculated for both the PSI and the Subjective Career Success survey instruments utilized in the current study. The specific outcomes were discussed in more detail for each. In addition, Weisberg (2010) recommended researchers use survey questions with known, acceptable validity and reliability from other studies whenever possible, as was done in the current study.

Political Skill Inventory (PSI) Reliability

The first section of the participant survey instrument for this study was the Political Skill Inventory (PSI), designed by Ferris et al. in 2005. Regarding survey design, the two basic goals were to obtain data that is relevant to the purposes of the survey and to obtain the data with the maximum amount of validity and reliability.

To establish validity and reliability, Ferris et al. (2008) tested construct validity using self-reports from two different studies. They found four primary factors that represented the

political skill construct. A second-order analysis was conducted that demonstrated that the single dimension adequately represented the four factors, indicating that researchers could conduct studies at both levels. In testing political skill's precursors and outcomes, mentoring, extraversion, and self-efficacy were found to predict social astuteness. Self-efficacy, extraversion, and self-monitoring predicted interpersonal influence. Mentoring and extraversion predicted networking ability. Moreover, self-efficacy predicted sincerity.

The biggest challenge to the PSIs construct validity has been the assumption that cognitive ability or intelligence correlates highly with political skill. Organizational scholars have contended that, because cognitive ability has been the dominant measure of individual differences, social effectiveness constructs, such as political skill, should be subordinate categories (Cheema et al., 2008). However, research across several samples has shown that political skill does not correlate with general mental ability (Cheema et al., 2008; Ferris et al., 2005).

Another challenge for the PSI was to define the differences between political skill and general social skill. Specifically, social skill is the ability to exhibit behavioral control and adaptability, along with the ability to know how and when to use certain behaviors within a group (Savickas & Porfeli, 2012). However, Ferris et al. (2005) argued that political skill is the ability to influence relationships to achieve business goals and personal outcomes.

Content validity is another important factor in the development of educational and psychological tests (Carmines & Zeller, 1979). Specific statements must be tested to assess whether they adequately represent the domain specified by the researcher to determine content validity. For the PSI, forty initial items were psychometrically tested, followed by elimination of weak items. The result was four constructs that supported the four dimensions: (a) networking

ability, (b) interpersonal influence, (3) social astuteness, and (4) apparent sincerity, of political skill (Ferris et al., 2005). The eighteen-item assessment used a 7-point Likert-type scale. With a focus on workplace behavior, respondents indicated their level of agreement or disagreement with each statement.

Criterion-related validity refers to the extent to which a measure is empirically associated with relevant criterion variables and is the third critical validity factor (Carmines & Zeller, 1979). In studies of the predictive validity of political skill, effectiveness and job performance ratings, along with subordinate evaluation of leader effectiveness, were significantly predicted. In addition, the dimensions of networking ability and social astuteness support the clearest differential prediction (Semadar et al., 2006).

The extent to which an experiment, test, or any measuring procedure yields the same results on repeated trials is reliability (Carmines & Zeller, 1979). To assess reliability, four methods—test-retest, split-halves, alternative-form, and internal consistency— can be used for testing. The internal consistency method is recommended because of the ease of use and the method’s high reliability (Carmines & Zeller, 1979). As recommended by Nunnally (1978), reliability coefficients should range from .70 to .80 (Carmines & Zeller, 1979). The reliability coefficients for each of the PSI dimensions were appropriate. (See Table 2).

Table 2. *Reliability Coefficients for Measures of PSI Variables (Ferris et al., 2005).*

Variable	Cronbach’s alpha
Networking Ability	.87
Interpersonal Influence	.78
Social Astuteness	.79
Apparent Sincerity	.81

Subjective Career Success Validity and Reliability

The second section of the combined survey instrument used in the current study is the Subjective Career Success questionnaire designed by Gattiker and Larwood in 1986. The questions utilized a five-point Likert scale with responses ranging from 1 (completely disagree) to 5 (completely agree). Gattiker and Larwood (1986) considered subjective evaluations of success in the domains of job success, hierarchical success, financial success, life success, and interpersonal success.

When testing their original study hypotheses, Gattiker and Larwood (1986) reported Cronbach's coefficient alpha as an index of internal consistency for each of the five factors and the overall score for subjective career success. Kline (2000) notes that the generally accepted value of .70 is a cut-off point for ability tests. However, psychological constructs below .70, as is the case for hierarchical success, can realistically be expected because of the diversity of the constructs being measured (Kline, 2000). For the Subjective Career Success scales, the reliability coefficients ranged from .65 to .79. All except for one was above 0.70, which Nunnally (1978) suggested as a “desirable minimum” (p. 245). In the case of most psychometric tests, such as Cronbach's alpha, most coefficients fall within the range of 0.75 to 0.83 (Nunnally, 1978, p. 245). The reliability coefficient for the composite score for Career Success was .71. The reliability coefficients are listed in Table 3.

Table 3. *Reliability Coefficients for Measures of Subjective Career Success Variables (Gattiker & Larwood, 1986).*

Variable	Cronbach's alpha
Job Success	.75
Interpersonal Success	.79
Financial Success	.74
Life Success	.71
Hierarchical Success	.65
Composite/Overall	.71

Demographic Variables

The last section of the survey instrument asks about participant demographics. Previous research shows that certain demographic variables exhibit strong influence on political skill use and career success (Todd et al., 2009). Therefore, age (younger than 30, 30-39, 40-49, 50-59 and older than 59), gender (women/men), educational level or highest degree earned (bachelor's degree, master's degree, doctoral degree), bachelor's degree education field of study/major (Business, Social Science, Physical/Mathematical Science, Engineering, Law, and Other), years of work experience (0-5 years, 6-10 years, 11-15 years, 16-20 years, and more than 20 years), and years of virtual team work experience (0-1 years, 2-3 years, 4-5 years, 6-10 years, and more than 10 years) were included as control variables in this study. Data coding for the demographic variables is listed in the Data Analysis Preparation section of Chapter 4.

Data Collection

The data collection procedures were as follows:

1. Provide participant consent and survey questions to SurveyMonkey for administration. SurveyMonkey sends out the questionnaire to audience.
2. Receive results for completed surveys. Survey results are imported into SPSS.
3. Verify that assumptions are met for multiple linear regression.
4. Analyze the data to determine the significance of hypothesized relationships.

The researcher developed on-line survey using SurveyMonkey developer. Two prescreening questions were listed to ensure participants possessed a minimum of a bachelor's degree and were leaders of a virtual team. If both questions were answered "Yes", participants were able to proceed to the informed consent screen. If "No" was answered for either question, respondents were directed to a disqualification page and thanked for their participation.

For participants who moved forward to the informed consent page, they were given the opportunity to read the informed consent document. The informed consent document assured individuals that their participation was voluntary and anonymous, and included the researcher's contact information for questions. At the completion of the survey, participants reached a "thank you for participating" page.

After the minimum sample was reached, the researcher received the data from SurveyMonkey in .SAV electronic format, which was transferred into SPSS software for analysis. Upon completion of the data analysis, all data files were placed in long-term storage on the premises of the researcher. All data will be destroyed after seven years. Data collection took place during the Spring of 2015.

Forward Stepwise Multiple Linear Regression

Forward stepwise multiple linear regression (MLR) analysis was used to test the hypotheses to determine which of the four political skill constructs (independent variables) along with the five demographic control variables, are most closely related to career success, the dependent variable. This statistical analysis method is consistent for the hypotheses and the research question for the current study (Swanson & Holton, 2010). According to West, Aiken, Cham, and Liu (2013), multiple linear regression analysis is appropriate when measuring a relationship between variables. In addition, the goal of this research is to determine the importance of the independent variables affecting the dependent variable beyond other independent variables in the model. Specifically, forward stepwise multiple linear regression computes a multiple regression a number of times, each time removing the weakest correlated independent variable (Tabachnick & Fidell, 2013). At the completion, the remaining variables are those that explain the relationship best. First, the forward stepwise multiple linear regression model enters independent predictor variables (networking ability, interpersonal influence, social astuteness, and apparent sincerity, as well as participant attributes of age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience) and selects, or retains, the independent predictors that are statistically significant as determined by a p-value of < 0.05 . This is accomplished using IBM® SPSS® (Analyze – Regression – Linear – Forward).

Data Screening

The data file provided to the researcher by SurveyMonkey was imported into IBM® SPSS® Statistics version 23. At the start of data analysis, Analyze - Descriptive Statistics - Frequencies was selected (IBM® SPSS®, 2013). The data was reviewed initially for response

patterns that indicate random responses. Selecting listwise deletion ensures that the multiple linear regression models are based on the same set of complete cases. Any control variable that was nominal was re-coded for data analysis. According to Tabachnick and Fidell (2014), independent variables (IVs) can be measured at any level (i.e., nominal, ordinal, interval, or ratio). However, nominal IVs that have more than two categories or values (e.g., age, race) must be re-coded using dummy variables prior to conducting the analysis because multiple linear regression procedures can only process nominal or ordinal-level IVs with a maximum of two values (Hayes & Preacher, 2013).

Assumptions Testing for Multiple Linear Regression (MLR)

As with other statistical tests, multiple linear regression is based on assumptions about the variables that a researcher uses in the analysis. A violation of these assumptions can result in overestimating or underestimating the effect size or the significance. The analysis for the current study was conducted based on the understanding that the following list of assumptions for multiple linear regression (MLR) were met. The assumptions include no outliers, independence of errors or residuals, linearity, no multicollinearity, homoscedasticity, and normality.

Outliers. According to Tabachnick and Fidell (2013), outliers can alter the outcome of regression analysis and can also indicate non-normal data. Extreme cases or outliers are outside cases with values that are ± 3 standard deviations (SD) from the mean of the variable (Leys, Ley, Klein, Bernard, & Licata, 2013). Outliers were detected using stem-and-leaf plots, boxplots and listwise diagnostics in SPSS. Outliers are values that are identified on the boxplot as cases that are extreme either at the upper and lower ends of the plot away from the distribution (Stevens, 2009).

Independence of Errors. Independence of errors testing is done using residuals analysis. Errors of prediction should be independent of one another (Tabachnick & Fidell, 2013). The Durbin-Watson test was used to detect the possibility of autocorrelation, which can be a concern when conducting multiple linear regression. According to Field (2013), values between 0 and 4 are acceptable, and values near 2 indicate that the residuals are uncorrelated.

Linearity. Another multiple linear regression assumption is that the relationship between the dependent and independent variables is linear. Linearity was assessed by examining scatterplots of the dependent and independent variables.

Multicollinearity. Another important assumption is that there is minimal correlation between the independent variables. Correlation between independent variables is known as multicollinearity (Field, 2013). Collinearity diagnostics are performed to determine whether the independent variables correlate with each other at a significant level. The variance inflation factor (VIF) was used to assess multicollinearity, which calculates how much the variance of an estimated regression coefficient increases if the predictors are correlated (Tabachnick & Fidell, 2013). A high correlation between pairs of predictor variables can inflate the regression coefficients so that the individual coefficients are not statistically significant (Mertler & Vannatta, 2010). According to Stevens (2009), a tolerance value or VIF that exceeds .01 but is less than 5 indicate that all the independent variables met the multicollinearity assumption.

Homoscedasticity. Another assumption of multiple linear regression is homoscedasticity. Levene's test was used to verify for homogeneity of variances. When Levene's test results are significant at $p < .05$, the population variances indicate heteroscedasticity, which violates the homoscedasticity assumption (Field, 2013).

Normality. In order for statistical analysis to be effective for use with multiple linear regression, the error term must be normally distributed (Tabachnick & Fidell, 2013). Data normality was evaluated using skewness, kurtosis, histograms, the Kolmogorov-Smirnov (KS) test, and the Shapiro-Wilk test.

Skewness and kurtosis refer to the shape of the curves on the plots utilized to determine normality of a distribution. Skewness refers to the distribution of a standard normal curve and kurtosis has to do with the peakedness of the distribution (Field, 2013). Deviations from normality will present as a negative or positive skewness in the descriptive view of the data. Tabachnick and Fidell (2013) reported that extreme values for skewness and kurtosis are values greater than ± 2 two is better, and can be transformed to improve normality.

The Kolmogorov-Smirnov (KS) test determines whether a sample comes from a hypothesized continuous distribution (Field, 2013). The KS test is nonparametric and was used in the current study because the test has the advantage of making assumptions about the distribution of data (Field, 2013). Also known as the goodness of fit test, the KS test measures the compatibility of a random sample with a theoretical probability distribution. The test indicates how well the data fits the distribution.

The Shapiro-Wilk test calculates a statistic that assesses whether a random sample is from a normal distribution. According to Brown, Cai, and DasGupta (2001), small values of the statistic are evidence of a departure from normality.

Data Analysis

The data was analyzed with multiple linear regression analysis using a forward stepwise method. The statistics selected included SPSS functions performing descriptives, which allowed for data screening of continuous variables, and screening for normality and linearity. This initial

analysis assisted in describing the data by detailing initial patterns, followed by forward stepwise multiple linear regression (MLR). MLR analysis included model fit (R , R^2 change, part and partial correlations), check for multicollinearity, normality and homogeneity of variance, confidence intervals, outliers, and finally examination of the significance of coefficient estimates. An interpretation of the model included discussion about the model's ability to predict the dependent variable. The fit of the model includes a discussion about the correlation coefficient R , the coefficients of determination R^2 , Adjusted R^2 , and change in R^2 in the Model Summary and the Coefficients tables.

The Model Summary presents the R^2 and Adjusted R^2 value for each step in addition to the amount of R^2 Change. The Coefficients table provides the coefficients for the regression equation. Both the raw and standardized regression coefficients are readjusted at each step to reflect the additional variables in the model. The stepwise multiple linear regression method is appropriate for measuring how much the independent variables accounted for the variability in the dependent variable (Field, 2013).

Ethical Considerations

The 1979 *Belmont Report* established by the U. S. Department of Health & Human Services (2012) guarantees that research participants have the right to make a choice concerning their decision to participate in an online survey. Furthermore, these individuals have the right to expect a level of protection for their participation in the survey. Specifically, potential survey participants may decline the invitation to share information if they feel their participation is a disadvantage to them. The beneficence principle implies three distinct actions, which are: do no harm, make the most of advantages, and make every effort to reduce any potential harm to participants. Finally, justice is a concern if individuals experience unequal treatment.

The primary ethical considerations for this study are associated with participant anonymity and informed consent. As such, participants are informed as to the voluntary nature of their responses and the measures taken to ensure anonymity. Unequal treatment is of little concern since all participants will be treated fairly through their personal access to the online survey and no interaction with any other human being. Issues to consider include ensuring that participants are fully informed about the intent of the research and that confidentiality is maintained (Patten, 2012). There are no anticipated conflicts of interest due to the use of a SurveyMonkey audience. In addition, the researcher will receive no compensation in support of the outcomes produced through this study.

This study addresses the expectation of these ethical considerations in the following manner, (a) using SurveyMonkey which provides anonymity to participant, (b) participant information is maintained by SurveyMonkey with direct exporting to SPSS, and (c) by using a consent form for participants, which explains what the data will be used for.

CHAPTER 4. RESULTS

This study used a nonexperimental, quantitative survey design to examine the relationship between the perception of political skills use and subjective career success of virtual team leaders in the U.S. This study utilized forward stepwise multiple linear regression to identify which perceived political skill constructs were most important in obtaining the desired results virtual leaders need (Treadway et al., 2013) to achieve career success. This investigation contributes to and extends the current research (Munyon, Summers, Thompson, & Ferris, 2015; Sun, Pan, & Chow, 2014; Blickle et al., 2013) in political skill, virtual teams, and the career success literature (Hogan, Chamorro-Premuzic, & Kaiser, 2013). Chapter 4 is organized by a discussion of the survey reliability analysis, demographics, assumptions testing, descriptive statistics, research question/hypotheses testing, and conclusions.

The data was analyzed using IBM SPSS Statistics 23 for Windows. Survey responses were imported directly from SurveyMonkey to SPSS for analysis. The target population was leaders of virtual teams in the United States. The sample frame for the study consisted of participants who were currently or had been managers, supervisors, or leaders of virtual teams, and possess, at minimum a bachelor's degree, who were active in Survey Monkey's audience.

Data Analysis Preparation

Following the import of data from SurveyMonkey into IBM SPSS Statistics 23, scores were calculated for the subscale scores of political skill and the composite score of subjective career success. Re-coding was performed on all nominal and dichotomous control variables in preparation for stepwise multiple linear regression. Therefore, the following codes were

created: age (1 = younger than 30, 2 = 30-39, 3 = 40-49, 4 = 50-59, and older than 5 = older than 59), gender (women = 0/men = 1), educational level or highest degree earned (bachelor's degree = 1, master's degree = 2, doctoral degree = 3), bachelor's degree education field of study/major (Other = 0, Business = 1, Social Science = 2, Physical/Mathematical Science = 3, Engineering = 4, and Law = 5), years of work experience (0-5 years = 1, 6-10 years = 2, 11-15 years = 3, 16-20 years = 4, and more than 20 years = 5), and years of virtual team work experience (0-1 years = 1, 2-3 years = 2, 4-5 years = 3, 6-10 years = 4, and more than 10 years = 5).

Survey Instruments

Political Skill Inventory (PSI) and Subjective Career Success Questionnaire

The first instrument utilized in the study consisted of the validated 18-item Political Skill Inventory (PSI) developed by Ferris et al., (2005), which uses a seven-point Likert scale with responses ranging from 1 = *strongly disagree* to 7 = *strongly agree*. The survey identifies four constructs of political skill: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity. For data analysis, scores were calculated for the composite and subscales.

The second instrument utilized in the study was the 18-item Subjective Career Success Questionnaire scales validated by Gattiker and Larwood (1986). The scale uses a five-point Likert scale with responses ranging from 1 = *completely disagree* to 5 = *completely agree*. These items assess subjective evaluations of career success. For data analysis, scores were calculated for the composite score of Career Success.

Reliability Analysis

The reliability of the instruments for the population was examined using Cronbach's alpha. For the PSI, the current study reliability ranged from $\alpha = .76$ for *apparent sincerity* to $\alpha = .88$ for *interpersonal influence*. Reliability for the composite score of the Career Success subscales was $\alpha = .88$. Reliability coefficients for the variables aforementioned are presented in Table 4 and indicate internal consistency of both the current and original study for the constructs being measured.

Table 4. *Reliability Coefficients – Current study versus the Original studies*

Variable	N of Items	Cronbach's alpha (current study)	Cronbach's alpha (original study)
Networking Ability	6	.86	.87
Interpersonal Influence	4	.88	.78
Social Astuteness	5	.82	.79
Apparent Sincerity	3	.76	.81
Career Success (DV)	19	.88	.71

Demographics Results

A total of 700 respondents accessed the survey; however, only 28.14% or 197 individuals answered "Yes" to the prescreening questions: "Are you currently or have you been a manager, supervisor, or leader of a virtual team?" and "Do you have a minimum of a bachelor's Degree?" Of the 197 individuals qualified to participate in the survey, 153 agreed to the informed consent. Eleven individuals did not finish the survey, resulting in 142 qualified respondents, which is 13 more than the minimum sample required. The data yielded virtual

team leaders who represented all levels within a variety of industries and organizations, giving greater validity to the generalizability of the sample. Statistics about the respondents follows.

Individual Characteristics

To better understand the individual characteristics of the study participants, questions related to their age, gender, educational attainment, and virtual teamwork experience were asked.

Age. Qualified respondents consisted of 142 individuals who were currently or previously virtual team leaders with a minimum of a bachelor's degree. Age was a categorical variable in the data set. The largest groups of participants (69%, $n = 98$) were over 49 years of age as indicated in Table 5. In two recent studies, age was shown to be positively related to political skill (Harris, Kacmar, Zivnuska, & Shaw, 2007; Todd et al., 2009).

Table 5. *What is your Age?*

Age	<i>n</i>	%
Younger than 30	4	2.8
30 - 39	12	8.5
40 - 49	28	19.7
50 - 59	54	38.0
Older than 59	44	31.0
Total	142	100.0

Gender. Men (52.1%, $n = 74$) slightly outnumbered women (47.9%, $n = 68$) as shown in Figure 4. In comparison to the U.S. male-female ratio as reported by the U.S. Census Bureau in 2013, women slightly outnumbered males (Men 49.2, Women 51.8).



Figure 4. Gender

Educational Attainment. Regarding educational attainment for the current study, 52.8% ($n = 75$) had bachelor's degrees; 38% ($n = 54$) had master's degrees; and the remaining 9.2%, ($n = 13$) had doctoral degrees. (See Figure 5). According to the National Center for Education Statistics (2015) in 2013, 34% of the U.S. population had bachelor's degrees, over 8% had master's degrees, and less than 2% held a doctoral degree. In comparison to the national averages, the current study had a higher percentage of bachelor's, aster's, and Doctoral degree participants. This occurrence can be attributed to the participant make-up of the Survey Monkey audience.

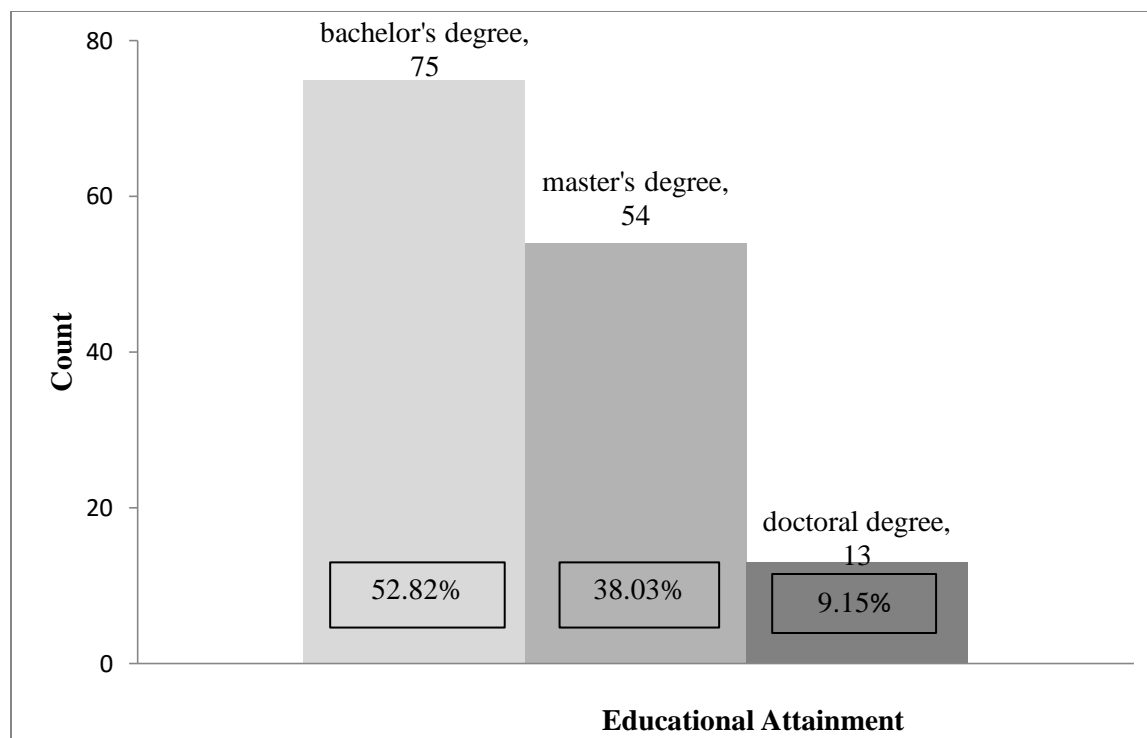


Figure 5. Educational attainment

Major Field of Study. For the current study, bachelor's degree majors consisted of Business (21.8%, $n = 31$), Social Science (20.4%, $n = 29$), Physical/Mathematical Science (15.5%, $n = 22$), Engineering (7.0%, $n = 10$), Pre-Law (3.5%, $n = 5$), and Other (31.8%, $n = 45$). "Other" majors included Education, English, Foreign Language, Health, History, Marketing, Music, Nursing, Psychology, and Social Work. Over 30 percent ($n = 45$) of the respondents possessed undergraduate degrees in non-business majors, such as Education, History, and Psychology.

In comparison, the National Center for Education Statistics (2015) reports that Science and Engineering majors were the largest percentage of bachelor's degree majors at 34.9% in 2013. Additionally, the National Center for Education Statistics (2015) indicated that 20% of

undergraduates majored in Business and 20% in Communication and History. Education majors were lower at 13%, while History, Art, and Psychology majors were closer to 5%, totaling 38% for the “Other” category (National Center for Education Statistics, 2015). (See Table 6).

Table 6. *What was your Major for your Bachelor's Degree?*

Major	Current Study <i>n</i>	Current Study %	National %
Business	31	21.8	20
Social Science	29	20.4	10.1
Physical/Mathematical Science	22	15.5	20
Engineering	10	7.0	11.9
Pre-Law	5	3.5	NA
Other (please specify)	45	31.8	38
Total	142	100.0	100.0

Note. For the current study, “Other” included Education, English, Communication, and History.

Work Experience. In the current study, eighty-one percent ($n = 116$) of participants had more than 20 years of total work experience, whereas 4.2% ($n = 6$) had 0-5 years of virtual team work experience (See Table 7). Gentry, Gilmore, Shuffler and Leslie (2012) found that work experience had significant influence on political skill use and career outcomes, such as promotability. Similarly, Blickle, Meurs, Wihler, Ewen, Plies, and Günther (2013) found that a significant amount of work experience indicated higher political skill use. The large number of respondents with more than 20 years of total work experience in the current study is in line with the findings of Blickle et al., (2013).

Table 7. *How many Total Years of Work Experience do you have?*

Total Years	<i>n</i>	%	Valid %	Cumulative %
0 – 5	6	4.2	4.3	4.3
6 – 10	2	1.4	1.4	5.7
11 – 15	7	4.9	5.0	10.6
16 – 20	11	7.7	7.8	18.4
More than 20	116	81.8	81.5	100.0
Total	142	100.0	100.0	
Total	142	100.0		

Regarding virtual team work experience, 26.1% ($n = 37$) had more than 10 years; 23.9% ($n = 34$) had 6-10 years; and 11.3% ($n = 16$) had 0-1 years. (See Table 8). Studies on organizational politics (Treadway, Hochwarter, Kacmar, & Ferris, 2005; Ammeter et al., 2002) found that team members utilize political tactics more often when they have worked on those teams for longer periods of time.

Table 8. *How many Years of Virtual Team Work Experience do you have?*

Years of Virtual Team Work Experience	<i>n</i>	%	Cumulative %
0 – 1	16	11.3	11.3
2 – 3	23	16.2	27.5
4 – 5	32	22.5	50.0
6 – 10	34	23.9	73.9
More than 10	37	26.1	100.0
Total	142	100.0	

Household Income. Approximately half of the participants (48.6%, $n = 69$) reported a six-figure household income for last year. Higher incomes are logically and empirically shown to be positively related to political skill (Todd et al., 2009). Furthermore, Ferris et al. (2008) demonstrated political skill to be significantly related to yearly gross income. Todd et al. (2009) also found that political savvy individuals with higher incomes correlated highly to career success. Although all questions in the survey for the current study were required, household income is a standard question offered by SurveyMonkey with an option to participants to keep information confidential. Over 26% of participants chose to keep their annual earnings confidential (26.6%, $n = 38$). Household income is presented in Table 9.

Table 9. *How much Total Income did all members of your household Earn last year?*

Income	<i>n</i>	%
\$0 to \$9,999	1	0.7
\$10,000 to \$24,999	1	0.7
\$25,000 to \$49,999	5	3.5
\$50,000 to \$74,999	12	8.5
\$75,000 to \$99,999	16	11.3
\$100,000 to \$124,999	16	11.3
\$125,000 to \$149,999	17	12.0
\$150,000 to \$174,999	13	9.2
\$175,000 to \$199,999	4	2.8
\$200,000 and up	19	13.4
Unable to capture	38	26.6
Total	142	100.0

Note: Unable to capture indicates information that participants chose to keep confidential.

Descriptive Statistics on Responses

For the current study, the highest mean score for the independent variables of the PSI subscales was observed for Apparent sincerity ($M = 6.31$), followed by Interpersonal influence ($M = 5.69$), and Social astuteness ($M = 5.46$). The lowest mean score for the PSI subscales was observed for Networking ability ($M = 4.95$). The mean score for the dependent variable, Career success was $M = 3.80$, $SD = .60$. The mean scores for the predictor variables were in line with the original study (Ferris et al., 2005) and a more recent, similar study (Todd et al., 2009). Findings are presented in Table 10.

Table 10. *Descriptive Statistics*

Variable	<i>Current study</i> <i>M</i>	<i>Original study 1^a</i> <i>M</i>	<i>Original study 2^a</i> <i>M</i>	<i>Literature reference^b</i>
Networking Ability (IV)	4.95	4.90	3.51	3.34
Interpersonal Influence (IV)	5.69	5.60	4.01	4.04
Social Astuteness (IV)	5.46	5.18	3.72	3.67
Apparent Sincerity (IV)	6.31	5.92	4.05	4.39
Career Success (DV)	3.80	NA	NA	3.79

^aTreadway, Hochwarter, Kacmar, & Ferris (2005).

^bTodd et al. (2009).

For the Political Skill Inventory (PSI), individual Likert items that measured the constructs ranged from 1 to 7. To compute a composite score for each political skill construct, items on the survey were averaged. For networking ability, Questions 14, 15, 16, 17, and 18 were averaged. For interpersonal influence, Questions 10, 11, 12, and 13 were averaged. For social

astuteness, Questions 5, 6, 7, 8, and 9 were averaged. And for apparent sincerity, Questions 20, 21, and 22 were averaged to compute a composite score for each political skill construct.

Assumptions Testing for Multiple Linear Regression (MLR)

Multiple Linear Regression (MLR) is a parametric statistical test that assumes the dataset meets the following assumptions: no outliers, independence of errors or residuals, linearity, no multicollinearity, homoscedasticity, and normality (Field, 2013; Tabachnick & Fidell, 2013). A violation of these assumptions can result in overestimating or underestimating the effect size or the significance. Results for the tests for outliers, independence of errors, multicollinearity, linearity, homoscedasticity, and normality are presented in the next sections.

Outliers

Prior to MLR analysis, the data was visually checked for outliers using stem-and-leaf plots and boxplots for the scale variables of political skill for networking ability, interpersonal influence, social astuteness, and apparent sincerity, as well as for career success (DV). Upon initial evaluation, there were no outliers found for predictor variable, networking ability and dependent variable, career success. However, a small number of outliers was detected for predictor variables interpersonal influence, social astuteness, and apparent sincerity. (See Figures 6, 7, 8, 9 and 10). According to Osborne and Overbay (2004), when the data points are suspected of being legitimate and the sample size is large (representative of the population as a whole), outliers should be retained. Upon evaluation of the raw data for the outliers, the cases were retained in the analyzable data set as legitimate responses.

The data were further evaluated using the calculation of standardized z -scores for each of the scale variables (interpersonal influence, social astuteness, and apparent sincerity) containing outliers. According to Tabachnick and Fidell (2013), a standardized z -score ± 3.29 may indicate

the presence of an outlier. Of the identified outliers, only two of the six outliers from the interpersonal influence variable exceeded the lower limit z -score value of 3.29. All other standardized z -scores fell outside of the range. Therefore, all cases were retained.

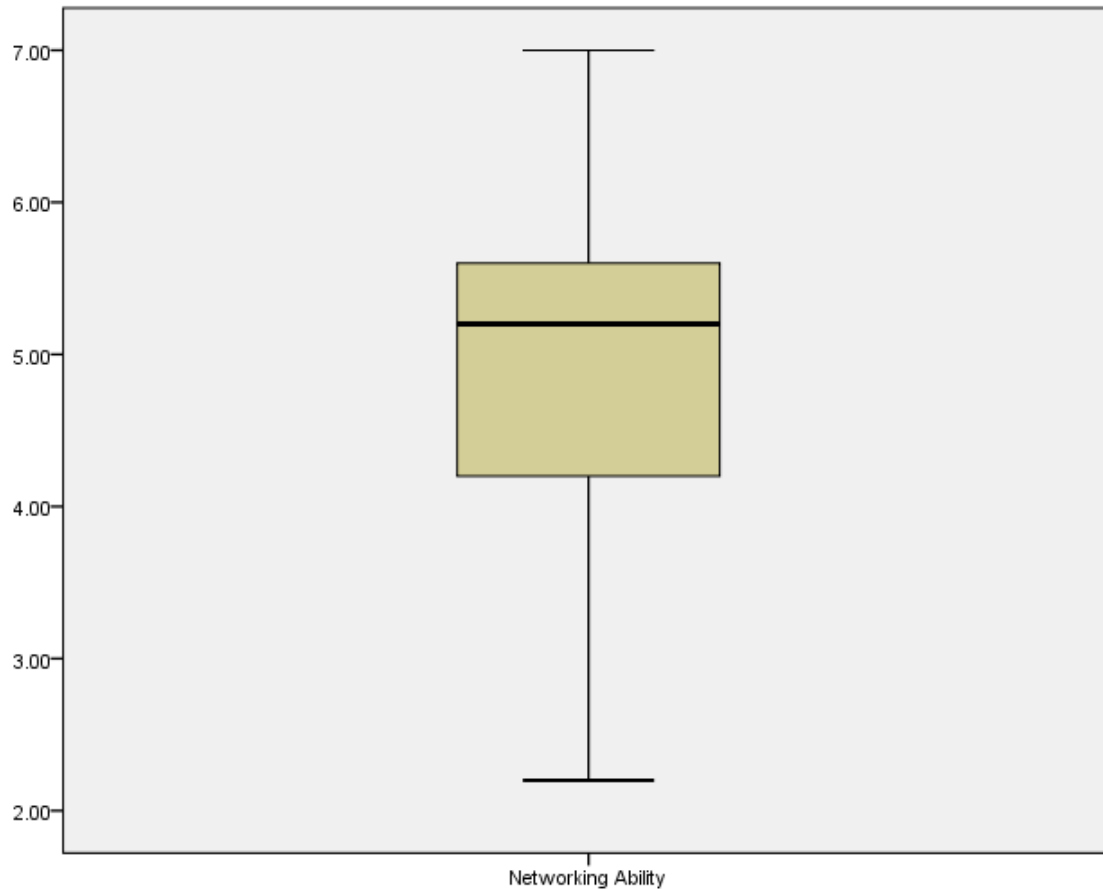


Figure 6. Boxplot for networking ability

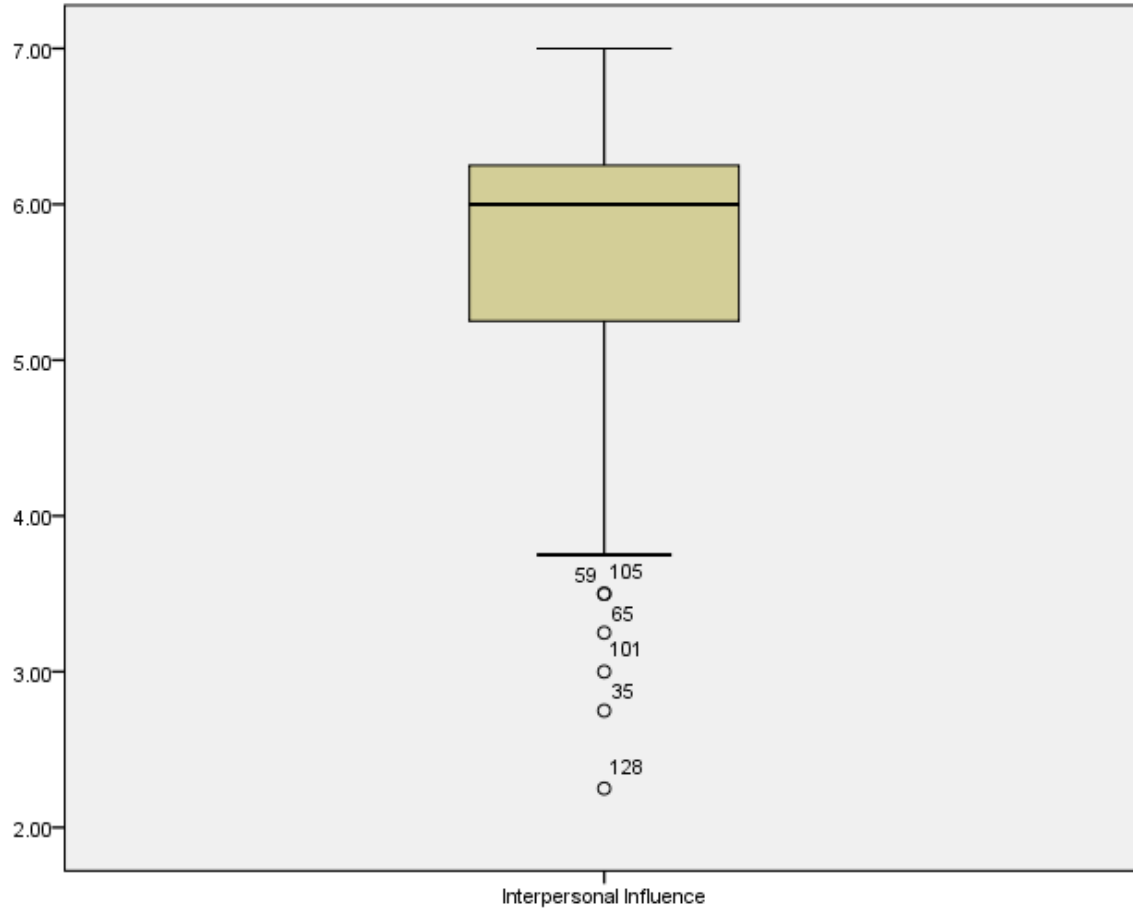


Figure 7. Boxplot for interpersonal influence

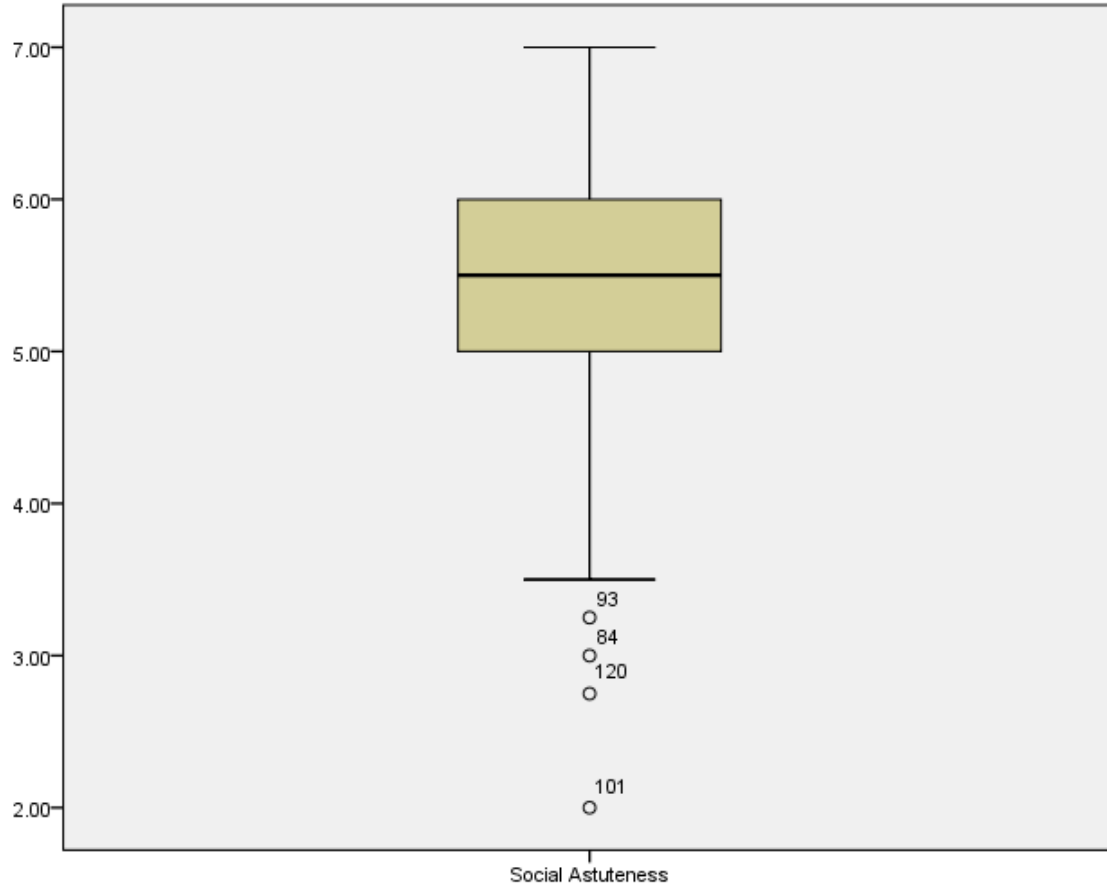


Figure 8. Boxplot for social astuteness

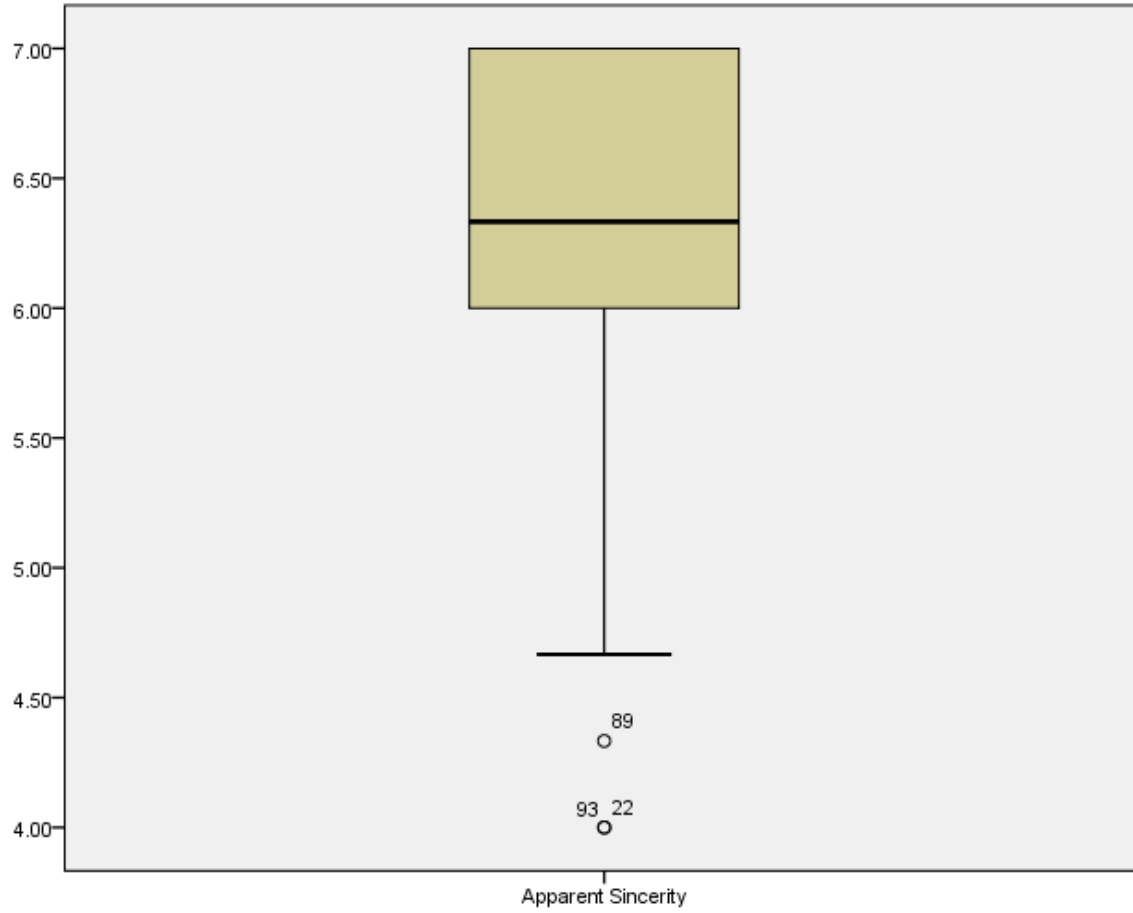


Figure 9. Boxplot for apparent sincerity

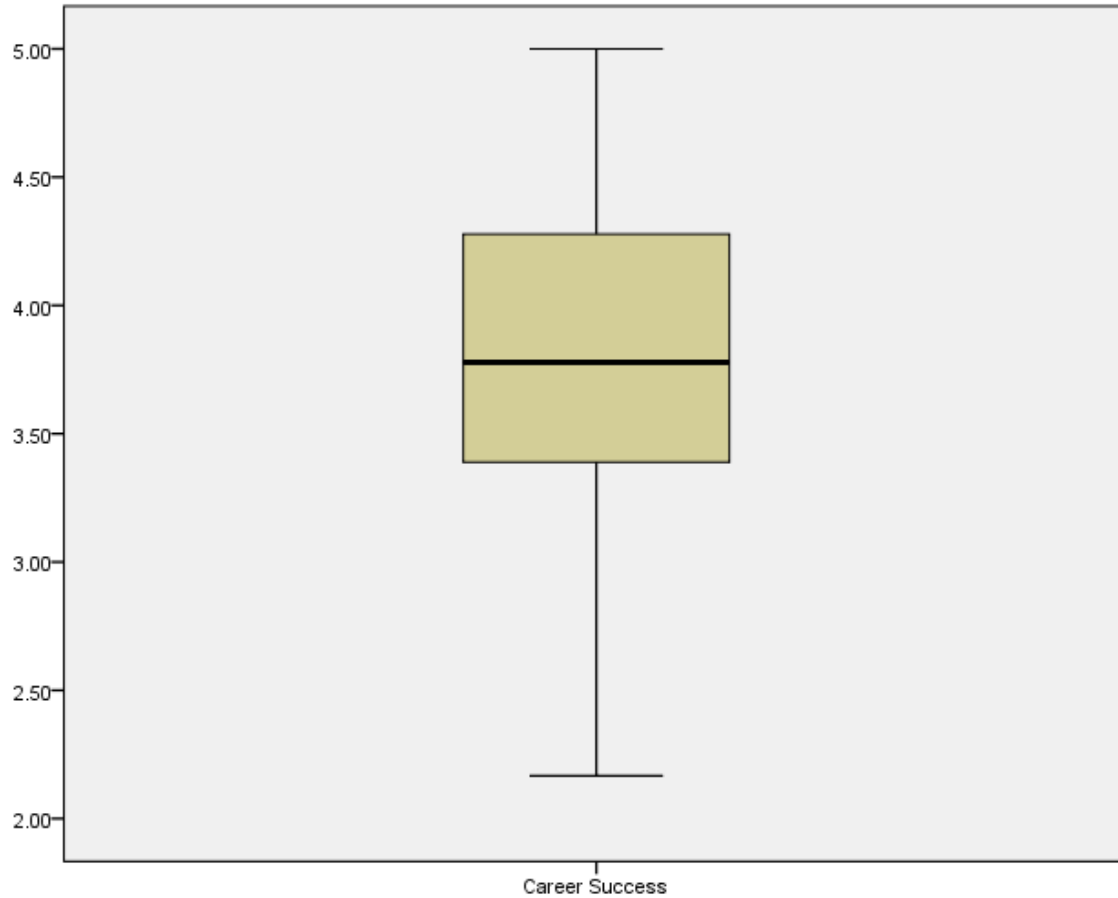


Figure 10. Boxplot for career success

Independence of Errors

The independence of errors was assessed using the Durbin-Watson test. In this analysis, the Durbin-Watson statistic was 1.894. (See Table 11). According to Field (2013), values between 0 and 4 are acceptable, and values near 2 indicate that the residuals are uncorrelated. The hypothesis for the assumption of independence of errors was accepted.

Table 11. *Model Summary, Final Regression Model*

Model Summary ^c				
Model	R	R Square	Adjusted R Square	Durbin-Watson
1	.466 ^a	.217	.211	
2	.501 ^b	.251	.240	1.894

a. Predictors: (Constant), Networking Ability
b. Predictors: (Constant), Networking Ability, Apparent Sincerity
c. Dependent Variable: Career Success

Linearity

Multiple linear regression (MLR) assumes a linear relationship between the independent variables and the dependent variable. Linearity defines the dependent variable as a linear function of the independent variables (Osborne & Waters, 2002). According to Osborne and Waters (2002), violating the linearity assumption has an effect on the regression coefficient and causes an underestimation of the relationship between the variables. Linearity was visually assessed using partial regression plots. Scatterplots (Figures 11, 12, 13, and 14) tested the assumption of linearity between the dependent variable Career success and the independent variables, (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity. There was no prominent deviation in any of the scatterplots; therefore, the linearity assumption was considered to be satisfied (Tabachnick & Fidell, 2013).

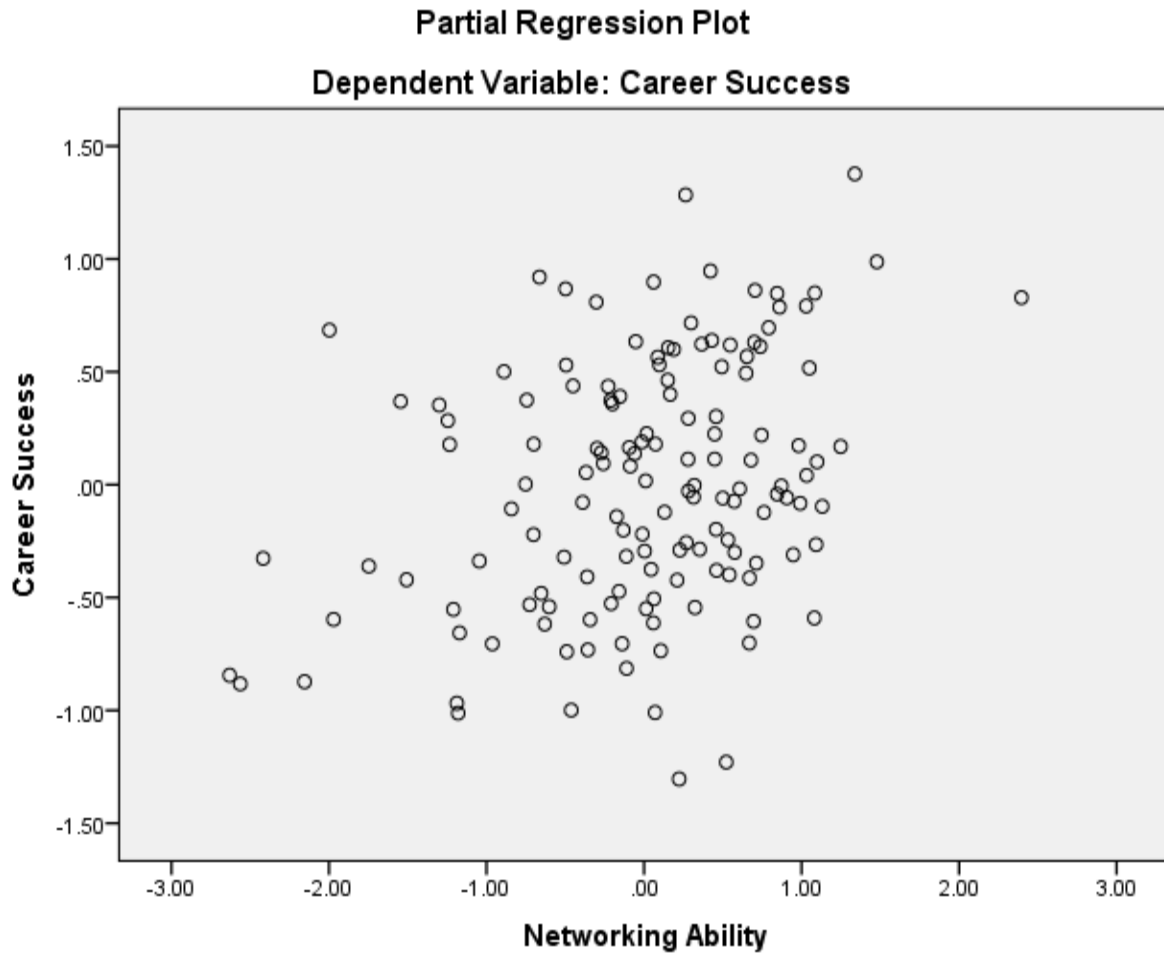


Figure 11. Partial regression plot–networking ability. The Partial Regression Plot presents a linear relationship between career success (DV) and networking ability (IV).

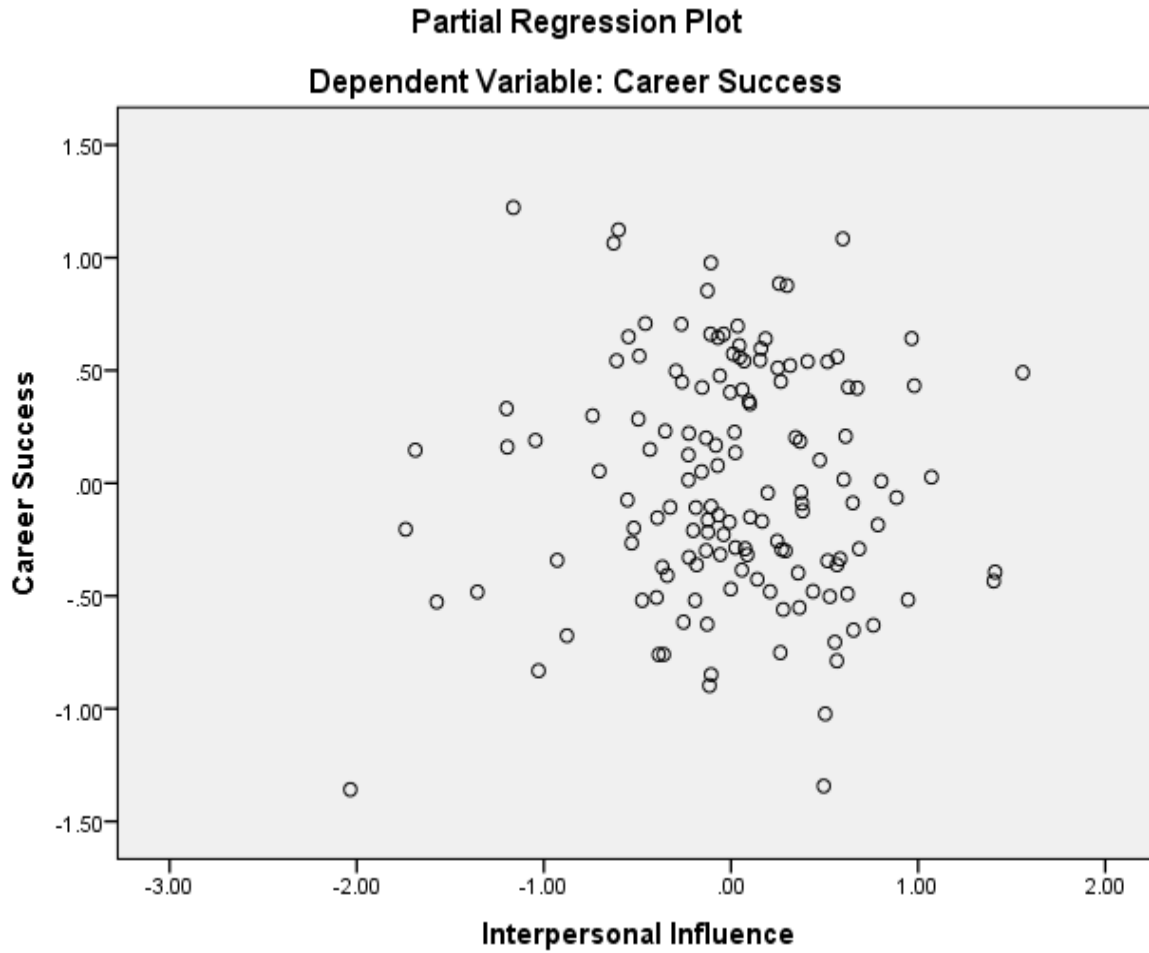


Figure 12. Partial regression plot–interpersonal influence. The Partial Regression Plot presents a linear relationship between career success (DV) and interpersonal influence (IV).

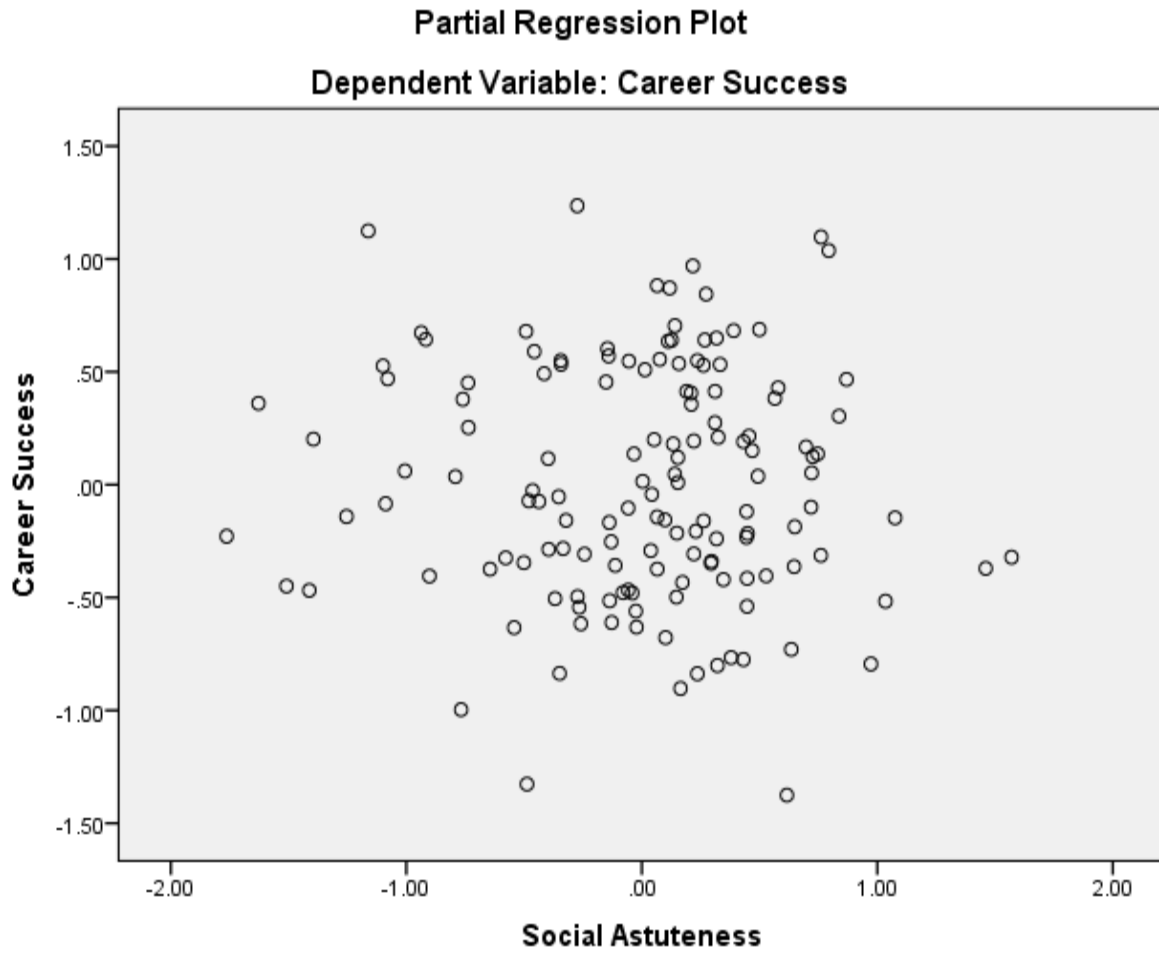


Figure 13. Partial regression plot–social astuteness. The Partial Regression Plot presents a linear relationship between career success (DV) and social astuteness (IV).

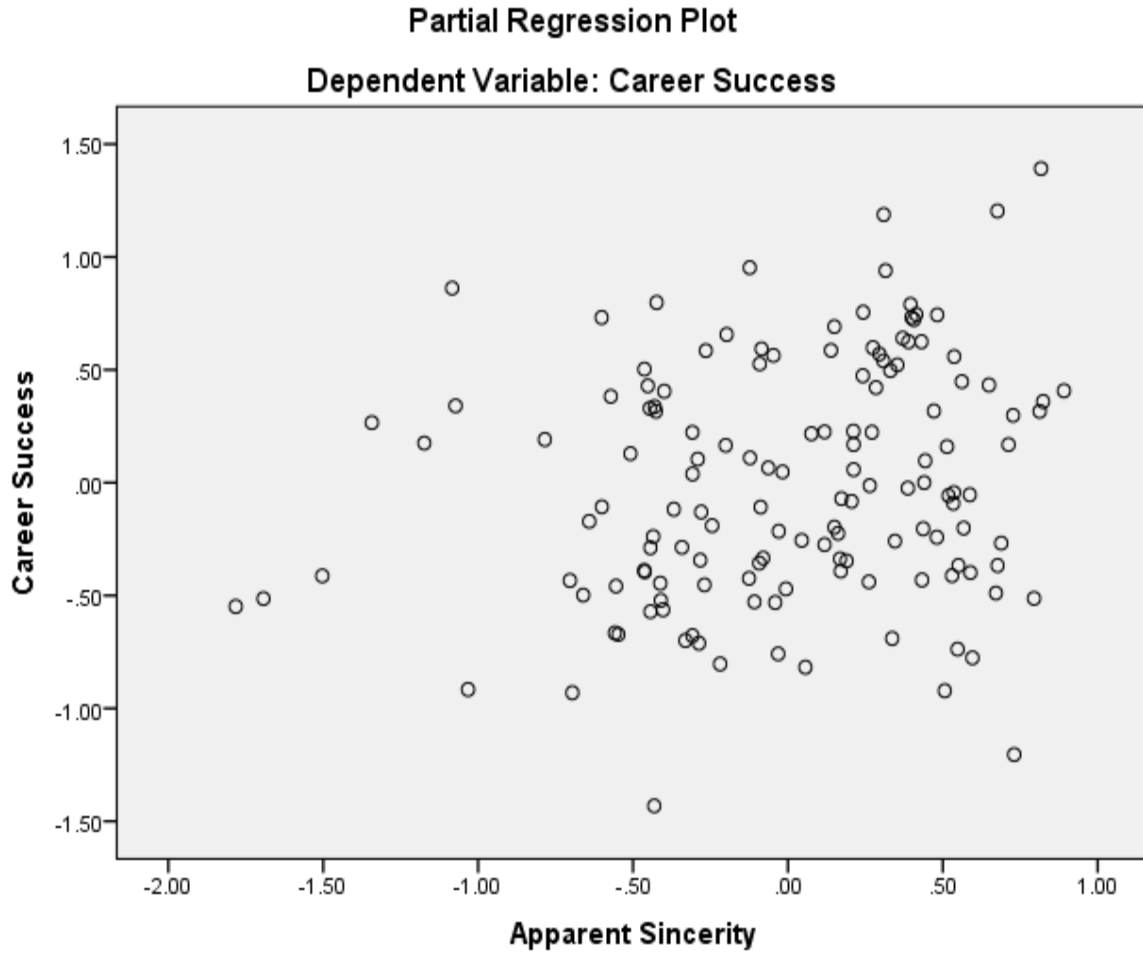


Figure 14. Partial regression plot—apparent sincerity. The Partial Regression Plot presents a linear relationship between career success (DV) and apparent sincerity (IV).

Multicollinearity

Another important assumption in MLR is that there is minimal correlation between the independent variables. Correlation between independent variables is known as multicollinearity (Field, 2013). Based on previous political skill studies (Ferris et al., 2005; Ferris et al., 2005) the correlation between interpersonal influence and social astuteness suggested that multicollinearity was possible. The variance inflation factor (VIF) was used to measure multicollinearity, which assesses how much the variance of an estimated regression coefficient increases if the predictors are correlated (Tabachnick & Fidell, 2013). Findings for the political skill independent variables,

(a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; indicate VIFs ranging from 1.43 to 2.47. According to Tabachnick & Fidell (2013), a VIF can be a concern between 5 and 10. Therefore, with the highest VIF for this study at 2.47, multicollinearity is not a concern. (See Table 12).

Table 12. *Multicollinearity Analyses for Independent Predictor Study Variables*

Independent Variable	Dependent Variable: Career Success	
	Tolerance	VIF
Networking Ability	.591	1.69
Interpersonal Influence	.405	2.47
Social Astuteness	.425	2.35
Apparent Sincerity	.699	1.43

Homoscedasticity

Another assumption of multiple linear regression is homoscedasticity, in which a random distribution or constant variance exists among the variables. Levene's test for homogeneity of variance was conducted for the independent variables and confirmed that the variances in Career success were not statistically different between groups based on age, gender, educational level, education field of study/major, years of work experience, years of virtual team work experience, (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity. Variances between groups are considered significantly different when significance is at $p < .05$ (Field, 2013). This difference would have violated the assumption for homogeneity of variance. (See Table 13).

Table 13. *Levene's Test Results for Independent Variables*

Test of Homogeneity of Variances				
Variable	Levene's Statistic	df1	df2	Sig.
Age	2.142	30	99	.107
Gender	3.128	30	99	.257
Educational Level	1.808	30	99	.239
Educational Field of Study/Major	1.851	30	99	.173
Years of Work Experience	5.185	30	99	.195
Years of Virtual Team Work Experience	1.979	30	99	.206
Networking Ability	1.203	30	99	.246
Interpersonal Influence	1.527	30	99	.063
Social Astuteness	2.043	30	99	.189
Apparent Sincerity	2.010	30	99	.143

N = 142

Normality

Normality of data was screened using skewness and kurtosis descriptive statistics, P-P Plots, and histograms. George and Mallery (2003) reported that extreme values for skewness and kurtosis are values greater than ± 2 . For the dependent variable *career success*, the skewness coefficient was -0.50 and the kurtosis coefficient was -0.56 , indicating normality. Skewness and kurtosis values for career success (DV) are presented in Table 14. The distributions were not extreme because the skewness and kurtosis values were less than ± 2 . However, the data was not considered entirely normal due to deviations from zero values. Therefore, the data was analyzed further using a P-P Plot and a histogram to test for normality.

Table 14. *Skewness and Kurtosis Values*

Dependent Variable	Skewness		Kurtosis	
	Statistic	Std. Error	Statistic	Std. Error
Career Success	-.050	.203	-.562	.404

A P-P Plot of regression standardized residuals also indicated that the distribution was approximately normal (Figure 15).

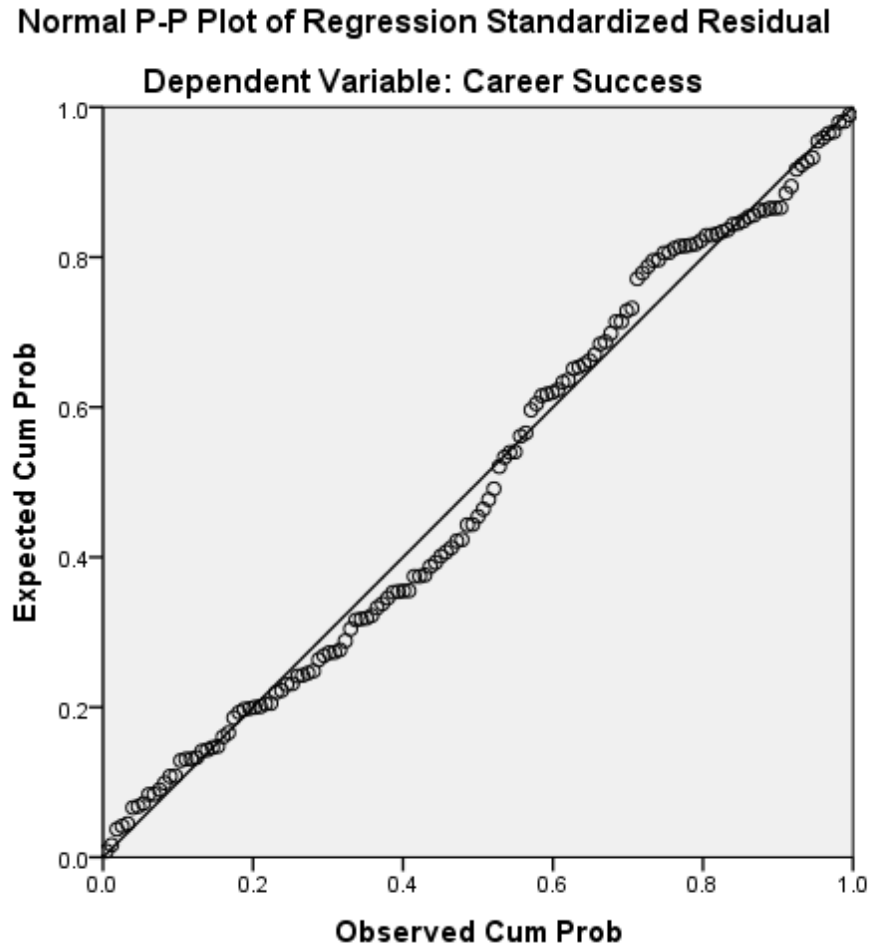


Figure 15. Normal P-P plot. The normal P-P plot presents a linear relationship between the dependent variable career success and the ten independent variables

Normality was also visually assessed using a histogram. (See Figure 16). The histogram for career success indicated a slight negative skewness. Although the skewness was not extreme, normality was further assessed using the Kolmogorov-Smirnov and the Shapiro-Wilk Test.

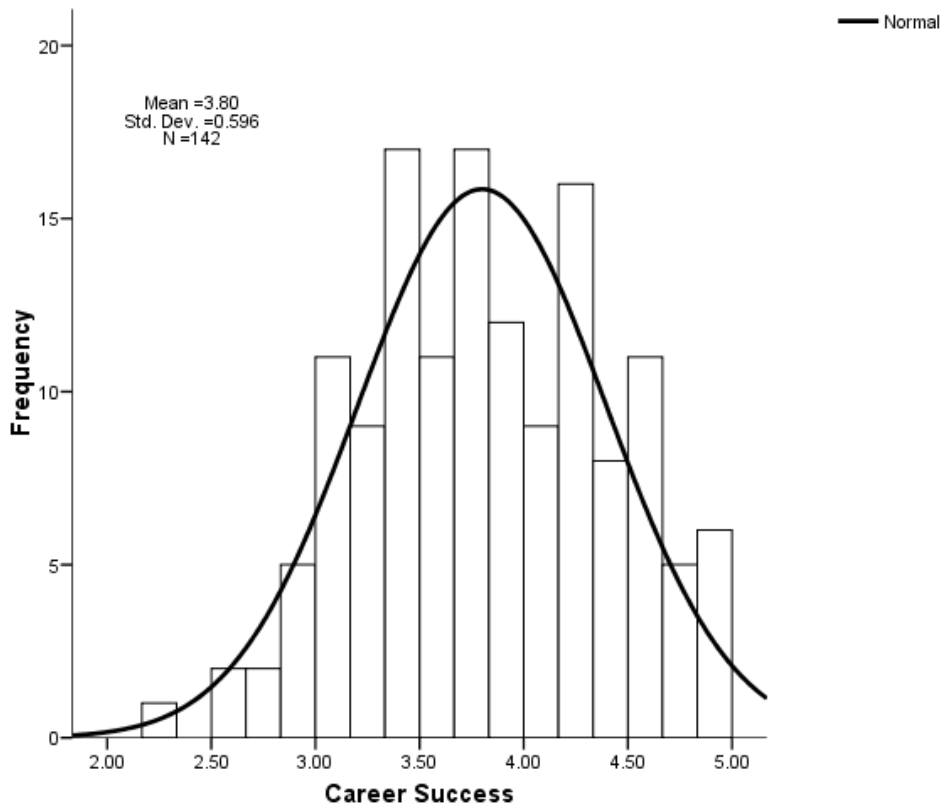


Figure 16. Histogram for career success

Additional normality testing consisted of the Kolmogorov-Smirnov and the Shapiro-Wilk Tests. The Kolmogorov-Smirnov test compares the distributions of the current dataset against a normal distribution to determine if the two distributions differ significantly. The Shapiro-Wilk test is a way to tell if a random sample comes from a normal distribution. Both the Kolmogorov-Smirnov ($p = .200$) and the Shapiro-Wilks ($p = .212$) tests indicate normality for the dependent variable, Career Success. Findings are normal when $p < .001$. According to Field (2013), a non-normal violation can indicate a small or large sample size, lack of independence, or outliers. Field (2013) also indicates that the distribution is not normal when the test is significant ($p < .05$). Both the Kolmogorov-Smirnov ($p = .20$) and the Shapiro-Wilks ($p = .21$) tests indicate that

the distribution for career success was the only normally distributed variable. Results are presented in Table 15.

Table 15. *Tests of Normality for Career Success*

Variable	Kolmogorov-Smirnov			Shapiro-Wilk		
	Statistic	df	p	Statistic	df	p
Career Success	.065	142	.200	.987	142	.212

Note. $N = 142$

Nevertheless, these results are interpreted with caution, as D'Agostino, Belanger, and D'Agostino (1990) advised that the Shapiro-Wilk test is best used for smaller samples; less than 50. According to Blanca, Arnau, López-Montiel, Bono, and Bendayan (2013), issues with normality should not be a concern for sample sizes larger than 40. In addition, Tabachnick and Fidell (2013) recommended that for multiple linear regression, the screening of residuals is more important in the evaluation of substantial departure from normality.

Summary of MLR Assumptions Testing

MLR assumptions were tested and no significant violations were found. Specifically, (a) no significant outliers were detected, (b) there was independence of errors, (c) linearity was met, (d) no multicollinearity existed, (e) homoscedasticity was satisfied, and (f) the data was normal. These results determined that forward stepwise multiple linear regression (MLR) was a suitable method of analysis.

Research Question and Hypotheses Results

The research question, "To what extent is the career success of virtual team leaders related to by political skill constructs (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity, and age, gender, educational level, education field of study/major, years of work experience, and years of work experience?" was tested using

forward stepwise multiple linear regression. Forward stepwise multiple linear regression is a SPSS process of building a model by successively adding or removing variables based on the t -statistics of their estimated coefficients (Field, 2013).

Forward Stepwise Multiple Linear Regression (MLR)

The forward stepwise option was selected in SPSS, allowing a regression model to be created and the most important and significant predictors to be calculated based on mathematical criteria (Field, 2013). Specifically, the forward stepwise function determined the most statistically significant independent variable, beginning with the most significant bivariate correlation, followed by the next highest predictor, controlling for the covariates and ultimately eliminating the non-significant variables from the model entirely (Field, 2013). Without the forward stepwise option, SPSS forcibly enters all independent variables (IVs) into the equation with no discretion of the level of significance and predictability of the dependent variable.

The null and alternative hypotheses for the overall MLR model to be tested using statistical notation were

$$H_0: \rho^2 = 0$$

$$H_A: \rho^2 > 0$$

where ρ^2 is the population coefficient of determination.

An analysis of variance (ANOVA) was conducted to test the null hypothesis for the predictive capability of the model, the results of which appear in Table 16. The null hypothesis that $\rho^2 = 0$ was not accepted because $p = .000 < \alpha = .05$. This also meant that the model was a good predictor of the dependent variable.

Table 16. ANOVA table with F-test to determine Model Fit

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	10.484	1	10.484	38.506	.000 ^b
	Residual	37.845	139	.272		
	Total	48.329	140			
2	Regression	12.131	2	6.066	23.125	.000 ^c
	Residual	36.198	138	.262		
	Total	48.329	140			

a. Dependent Variable: Career Success

b. Predictors: (Constant), Networking Ability

c. Predictors: (Constant), Networking Ability, Apparent Sincerity

The output from the forward stepwise multiple linear regression indicated that two predictor variables, networking ability and apparent sincerity (two of the total of ten IVs) have the highest significance of predicting the dependent variable, virtual team leader career success.

The results are indicated in Table 17.

Table 17. Variables determined by SPSS with Least Significant Variables Removed using Forward Stepwise MLR

Variables Entered/Removed ^a			
Model	Variables Entered	Variables Removed	Method
1	Networking Ability		Forward (Criterion: . Probability-of- F-to-enter < = .050)
2	Apparent Sincerity		Forward (Criterion: . Probability-of- F-to-enter < = .050)

a. Dependent Variable: Career Success

Overall Research Question

RQ: To what extent is the career success of virtual team leaders related to political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience?

Hypotheses for the Overall Research Question

H₀: There is not a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.

H_A: There is a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.

Networking ability and apparent sincerity were significantly and positively related to the career success of a virtual team leader indicated by a significantly predictive regression model. The model summary (Table 18) showed that the coefficient of determination, R^2 , equaled .251, which means 25.1% of the total variance of the dependent variable, career success is explained by frequency of networking ability and apparent sincerity (the independent variables that were retained in regression model 2). The conclusion from this is that the remaining 74.9% of variance in the dependent variable is unexplained by the independent/control variables in the model (Allison, 1999).

Table 18. *Model Summary^c of Most Significant Variables Entered*

Model	R	R Square	Adjusted R ²	Std. Error of the Estimate
1	.466 ^a	.217	.211	.52179
2	.501 ^b	.251	.240	.51216

a. Predictors: (Constant), Networking Ability

b. Predictors: (Constant), Networking Ability, Apparent Sincerity

c. Dependent Variable: Career Success

The remaining independent variables Interpersonal influence, Social astuteness, age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience were statistically removed from the regression model. (See Table 19).

Table 19. *Excluded Variables^a*

	Model	Beta In	t	Sig.
1	Age	-.023 ^b	-.301	.764
	Gender	-.041 ^b	-.532	.596
	Educational Level	.002 ^b	.023	.982
	Major	-.042 ^b	-.556	.579
	Work Experience	.103 ^b	1.379	.170
	Virtual team work experience	.067 ^b	.868	.387
	Interpersonal Influence	.086 ^b	.948	.345
	Social Astuteness	-.002 ^b	-.019	.985
	Apparent Sincerity	.198 ^b	2.506	.013

Table 19. *Excluded Variables^a Continued*

	Model	Beta In	t	Sig.
2	Age	-.019 ^c	-.260	.795
	Gender	-.018 ^c	-.232	.817
	Educational Level	.000 ^c	.005	.996
	Major	.002 ^c	.028	.977
	Work Experience	.088 ^c	1.188	.237
	Virtual team work experience	.060 ^c	.789	.432
	Interpersonal Influence	-.016 ^c	-.160	.873
	Social Astuteness	-.065 ^c	-.668	.505

a. Dependent Variable: Career Success

b. Predictors in the Model: (Constant), Networking Ability

c. Predictors in the Model: (Constant), Networking Ability, Apparent Sincerity

Hypotheses Testing for the Regression Coefficients

The multiple linear regression equation, using the standardized β -values the regression coefficients that were statistically significant in the second model, were as follows:

$$Y = 1.614 + .211 X_1 + .183 X_2$$

where (a) Y is the dependent variable of virtual team leader career success, (b) X_1 is the independent variable of networking ability, and (c) X_2 is the independent variable of apparent sincerity. Model 1 and model 2 of the regression equation appears in Table 20.

Table 20. *Coefficients*^a

Model	Unstandardized		Standardized		T	P
	B	Std. Error	β			
1 (Constant)	2.574	.204			12.624	.000
Networking Ability	.250	.040	.466		6.205	.000
2 (Constant)	1.614	.432			3.734	.000
Networking Ability	.211	.042	.394		4.974	.000
Apparent Sincerity	.183	.073	.198		2.506	.013

a. Dependent Variable: Career Success

Hypotheses testing was conducted and determined the statistical significance of virtual team leader career success (dependent variable) and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (e) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience (independent variables).

The hypothesis tested was

$$H_0: \beta_i = 0$$

$$H_A: \beta_i \neq 0$$

for $i = 1, 2, \dots, 10$ and where: (1) β_1 is the population regression coefficient for the independent variable *Networking ability*, (2) β_2 is the population regression coefficient for the independent variable *Interpersonal influence*, (3) β_3 is the population regression coefficient for the independent variable *Social astuteness*, (4) β_4 is the population regression coefficient for the independent variable *Apparent sincerity*, (5) β_5 is the population regression coefficient for the independent variable *age*, (6) β_6 is the population regression coefficient for the independent

variable *gender*, (7) β_7 is the population regression coefficient for the independent variable *educational level* (8) β_8 is the population regression coefficient for the independent variable *education field of study/major*, (9) β_9 is the population regression coefficient for the independent variable *years of work experience*, and (10) β_{10} is the population regression coefficient for the independent variable *years of virtual team work experience*.

Social astuteness was not significant because $p = .505 > \alpha / 2 = 0.025$; thus social astuteness was removed from the model. Interpersonal influence was not significant because $p = .873 > \alpha / 2 = 0.025$; thus interpersonal influence was removed from the model. Age was not significant because $p = .795 > \alpha / 2 = 0.025$; thus age was removed from the model. Gender was not significant because $p = .817 > \alpha / 2 = 0.025$; thus gender was removed from the model. Educational level was not significant because $p = .996 > \alpha / 2 = 0.025$; thus educational level was removed from the model. Major was not significant because $p = .977 > \alpha / 2 = 0.025$; thus major was removed from the model. Work experience was not significant because $p = .237 > \alpha / 2 = 0.025$; thus work experience was removed from the model. Virtual team work experience was not significant because $p = .432 > \alpha / 2 = 0.025$; thus virtual team work experience was removed from the model. See Table 19 for the non-significant independent variables that were removed from the second regression model.

Using Table 20, the two variables that were found to be statistically significant were: networking ability was statistically significant because $p = .000 < \alpha / 2 = 0.025$ and apparent sincerity was statistically significant because $p = .013 < \alpha / 2 = 0.025$.

A summary of the hypotheses and outcomes is presented in Table 21. Based on the hypothesis testing and findings presented, the researcher failed to accept the null hypothesis, H_0 .

Table 21. *Summary of Hypotheses and Outcome*

		R^2	P	Outcome
RSQ	H _A : There is a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.	.15	< .001	Supported
	H ₀ : There is not a statistically significant relationship between virtual team leader career success and political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience.			Not Supported

Note. R^2 = model variance explained. $p < .05$.

Conclusion

The overall research question for this study was “To what extent is the career success of a virtual team leader related to political skills constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience?” The study determined that apparent sincerity and networking ability were

significantly and positively related to the career success of a virtual team leader. Implications of these conclusions, study limitations, and future study recommendations are discussed in Chapter 5.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

Introduction

Virtual teams are being used more today than ever before. According to Hoch and Kozlowski (2014), the number of virtual teams are increasing rapidly, which requires organizational leadership to examine the skills of team leaders to ensure team goals and objectives are successfully met. Due to the need for virtual teams to work together across various time zones and geographical boundaries, using electronic media in place of face-to-face communication, virtual team leaders are integral to the process. In fact, team success has been directly tied to the success of the team leader (Hoch & Kozlowski, 2014). Hoch and Kozlowski (2014) found that those who are higher in political skill experienced more positive career outcomes. Their finding suggests that leaders and ultimately the organizations they work for benefit from being able to participate in political skill training. Therefore, the career success of virtual team leaders is central to organizational success.

Virtual teams provide organizations with a number of benefits. Today's downsized and leaner organizations find value in virtual teams while addressing new workforce demographics. Specifically, virtual teams allow companies to hire the best talent, who may live anywhere in the world, without needing relocation. In addition, flexibility for both individuals and organizations result in work being completed across a variety of geographical locations and time zones. Through virtual teams, organizational leadership can build optimal workforces while retaining the advantages of flatter organizational structure.

With the advantages that virtual teams add to organizations, challenges for virtual team leaders also exists. According to Bjørn and Ngwenyama (2009), virtual team leaders are not always able to translate their current leadership skill set to a non-located environment. With more than 80% of virtual team communication being electronic, traditional methods of political skill use such as persuasion, influence, and negotiation, can be challenging for virtual team leaders (Hoch & Kozlowski, 2014). Although several recent studies (Hoch & Kozlowski, 2014; Eissa, Fox, Webster, & Kim, 2012) have shown the benefits and challenges for virtual teams and virtual team leaders, there remains a gap in knowledge in understanding whether political skill has a relationship to virtual team leader success.

The current study sought to fill gaps in organizational and management research specifically in the areas of political skill, virtual teams, and career success. Although political skills use has been extensively studied (Treadway et al., 2013; DeRosa, 2009; Pfeffer, 1992), a gap remained explaining the relationship between political skill use and virtual team leader career success. To this point, Ferris et al. (2005) argued that if political skill use and training resulted in more politically savvy employees with successful careers, organizations would experience more overall success and goal achievement.

The current study also provides evidence that managers may be able to use the Political Skill Inventory (PSI) survey measures as a selection assessment for recruiting. Due to the importance of identifying the right talent through the talent management process (Huczynski & Buchanan, 2013), political skill can be an additional measurement that assists organizational leaders in identifying high potential knowledge workers.

Scholars must also continue to examine virtual team leader career success and effective political skill use (Cogliser et al., 2013) so that requisite knowledge is passed on to

organizational leaders and practitioners. Specifically, Riggio (2013) stated that the resources necessary for the development of employees' soft skills, such as influence and interpersonal ability, are lacking the appropriate focus from scholars and practitioners. In addition, organizational leadership that is not currently utilizing virtual teams is missing valuable opportunities to remain competitive in the rapidly changing global and social economic environment (Berry, 2011).

As a contribution to the research on political skill, virtual teams, and career success, this study employed a quantitative, nonexperimental, survey design that utilized forward stepwise multiple linear regression. The study tested for relationships between virtual team leader career success and the political skill constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (e) apparent sincerity; and control variables, age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience. The study utilized two validated self-reported survey instruments. The Political Skill Inventory (PSI) and the Subjective Career Success Questionnaire, measured political skill use and subjective career success, respectively. SurveyMonkey was utilized to recruit study participants with a minimum of a bachelor's degree and virtual team leader experience. The data collection was concluded when the sample size of 129 was obtained. IBM SPSS version 23 statistical software was utilized to conduct forward stepwise multiple linear regression to analyze the data and to answer the research question.

Summary of the Results

In this study, forward stepwise multiple linear regression (MLR) analysis was used to investigate the omnibus research question: "To what extent is the career success of a virtual team leader related to political skills constructs: (a) networking ability, (b) interpersonal influence, (c)

social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience?" MLR assumptions: (a) no significant outliers, (b) normality of data, (c) independence of errors, (d) linearity, (e) homoscedasticity, and (f) no multicollinearity were tested and evaluated for the entire data set. MLR assumptions were met and these results determined that forward stepwise multiple linear regression (MLR) was an appropriate method of analysis for the data that was collected.

The omnibus research question investigated the relationships between virtual team leader career success and the use of political skills constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience. The forward stepwise MLR analysis resulted in the null hypothesis, H_0 , not being accepted.

Results from this study indicated that two variables were statistically significant. networking ability was statistically significant because $p = .000 < \alpha/2 = 0.025$ and apparent sincerity was statistically significant because $p = .013 < \alpha/2 = 0.025$ (Table 20). Furthermore, social astuteness, and apparent sincerity, age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience did not significantly explain any relationship to virtual team leader career success and was statistically removed from the model. Therefore, the alternative hypothesis, H_A was accepted.

Discussion of Results

The primary objective of this research was to explain the relationship between virtual team leader career success and political skill use. Forward stepwise multiple linear regression

(MLR) indicated networking ability and apparent sincerity impact the virtual team leader career success.

Sample Data

The only known demographic of the participants prior to data collection was that respondents were virtual team leaders with a minimum of a bachelor's degree. The survey data yielded virtual team leaders from a variety of organizations and industries across the U.S., giving greater validity to the generalizability of the sample. Using a diverse sample reduces selection bias, allowing participants from any industry and company with virtual team leaders the ability to contribute.

Control Variables. This study controlled for demographic variables known to influence political skill (Treadway et al., 2013; Zhang & Chandrasekar, 2011; Todd et al., 2009). However, in the current study, age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience had no significant impact to the relationship between virtual team leader career success and political skill use. Each of the control variables were statistically removed from the regression model through forward stepwise multiple linear regression.

Specifically, age was not significant because $p = .795 > \alpha / 2 = 0.025$; gender was not significant because $p = .817 > \alpha / 2 = 0.025$; educational level was not significant because $p = .996 > \alpha / 2 = 0.025$; major was not significant because $p = .977 > \alpha / 2 = 0.025$; work experience was not significant because $p = .237 > \alpha / 2 = 0.025$; and virtual team work experience was not significant because $p = .432 > \alpha / 2 = 0.025$; and all six control variables were removed from the regression model (See Table19).

The lack of support for the control variables to predict virtual team leader career success in this study is not surprising. In fact, James, Mckechnie, and Swanberg (2011) found that work engagement and job performance, linked to career success, often decrease with age and years of work experience. In addition, Wei, Liu, Chen, and Wu (2010) found that political skill was acquired through social learning processes more than age, education, and organizational tenure.

The gender demographics for the study were split fairly equally between men (52.1%) and women (47.9%). There was a comprehensive range in age; however almost 70% of participants were over 49 years old. This age percentage indicates a more seasoned population with potential for more political skill experience and career success. In one recent study, Treadway et al. (2013) found age and organizational tenure to be predictors of political skill use, interpersonal influence, and career success.

Educational level and undergraduate field of study/major did not have a significant relationship to career success in the current study. However, in comparison to the general population, the current study had a significant number of participants possessing Doctoral degrees. There were 9.2% of participants who held Doctoral degrees in the current study as compared to less than 2% nationally.

Predictor Variables

Previous research has found political skill to be positively related to the ability to recognize and capitalize on opportunities that lead to individual success (McAllister, Ellen, Perrewé, Ferris, & Hirsch, 2015). Similarly, the current study found a positive relationship between virtual team leader career success and political skill predictor variables networking ability and apparent sincerity.

Networking Ability. In this study and consistent with previous studies regarding political skill (Treadway et al., 2013; Todd et al., 2009; Ferris et al., 2008), networking ability had a significant relationship with virtual team leader career success. The Model Summary (Table 18) showed that the coefficient of determination, R^2 equaled .217, which meant that (a) 21.7 % of the total variance the virtual team leader career success (dependent variable) could be explained by networking ability (the independent variable retained in the MLR model) and (b) the remaining 78.3% of variance in the dependent variable is unexplained (Allison, 1999).

The results also suggested that although participants were generally happy with their career success, with an overall mean score of 3.80 (Table 10), their perceived ability to network was not considerably reduced based on the virtual nature of their roles. The networking ability scores indicated that networking ability was a key factor for virtual team leader career success.

Apparent Sincerity. Followed by the regression coefficient for networking ability was the regression Beta coefficient for apparent sincerity, and both were retained in model 2. The Model Summary (Table 18) showed that the coefficient of determination, R^2 equaled .251, which meant that 25.1 % of the total variance the virtual team leader career success (dependent variable) could be explained by networking ability and apparent sincerity (the only independent variables retained in the MLR model). The remaining 74.9% of variance in the dependent variable is unexplained (Allison, 1999).

This outcome suggested that apparent sincerity is critical not only for traditional team leaders, but also for the career success of team leaders who are virtual. In fact, Ferris et al., (2003) found that apparent sincerity increased the level of trust peers had in their leader because the leader appeared to have high levels of genuineness and integrity.

Interpersonal Influence. This study sought to explain how political skill relates to the career success of virtual team leaders. The study results found that interpersonal influence explained no variance in virtual team leader career success. Interpersonal influence was not significant because $p = .873 > \alpha / 2 = 0.025$; thus interpersonal influence was removed from the model.

Social Astuteness. This study sought to explain how political skill relates to the career success of virtual team leaders. The study results found that social astuteness explained no variance in virtual team leader career success. Social astuteness was not significant because $p = .505 > \alpha / 2 = 0.025$; thus social astuteness was removed from the model.

Todd et al. (2009) posited that the political skill construct social astuteness should increase in a virtual environment. However, based on the current study's findings, an increase above the other three constructs (networking ability, interpersonal influence, and apparent sincerity) did not occur. One reason why social astuteness was not significant in the relationship to virtual team leader career success may be due to the questions within the PSI. Specifically, the questions are "I understand people very well," "I am particularly good at sensing the motivations and hidden agendas of others," "I have good intuition or savvy about how to present myself to others," "I always seem to instinctively know the right things to say or do to influence others," and "I pay close attention to people's facial expression," may not be easily accomplished virtually. The question, "I pay close attention to people's facial expression" traditionally requires that individuals are within the same physical location (Sparrowe, Liden, Wayne, & Kraimer, 2001), and in the current study, the team members are virtual and unable to "see" one another's facial expressions. Although the construct social astuteness, is relevant to political skill and

should be retained, the survey question regarding facial expression is not relevant to virtual team leaders.

The regression beta coefficients for the four predictor variables are listed in Table 22.

Table 22. *Regression Beta Coefficients for Predictor Variables*

Predictor Variable	<i>B</i>	Sig.
Apparent Sincerity	.183	.013
Networking Ability	.211	.000
Interpersonal Influence	-.016	.873
Social Astuteness	-.065	.505

Omnibus Research Question

The results of the forward stepwise multiple linear regression analysis indicated a predictive regression model that showed a statistically significant relationship between virtual team leader career success and political skill constructs in order of significance, networking ability and apparent sincerity. The model also revealed that the remaining independent variables social astuteness, interpersonal influence, age, gender, educational level, education, field of study/major, years of work experience, and years of virtual team work experience, had no significant impact and were statistically removed from the model.

Any analysis of variance (ANOVA) tested the null hypothesis for the predictive ability of the model. The results appear in Table 16. Results of this analysis indicated that the null hypothesis $\rho^2 = 0$ was not accepted because $p = .000 < \alpha = .05$. This meant that model 2 was a statistically significant predictor of the dependent variable.

Theoretical Contributions

This study addressed a gap in the literature on social influence theory and to what extent the career success of a virtual team leader was impacted by political skills constructs: (a) networking ability, (b) interpersonal influence, (c) social astuteness, and (d) apparent sincerity; and age, gender, educational level, education field of study/major, years of work experience, and years of virtual team work experience. At the root of social influence theory was an attempt to understand the process by which individuals could be persuaded to change others' perceptions and decisions (Levy et al., 1998). Furthermore, Harris et al. (2007) suggested that impression management tactics, as they relate to work outcomes, varied to the extent that those who look sincere from those who truly were sincere could truly influence others.

However, the studies were conducted within traditional work environments where individuals were seen face-to-face by their colleagues, customers, and team members (Nagy et al., 2011). In a previous study, Ferris et al. (2007) found that political skill constructs were more relevant to career and organizational success than social influence theory had proven. The current study explored the theory from a virtual team and virtual team leader perspective. The interpretations made from this study contributed to the body of knowledge by analyzing the four constructs of political skill. Specifically, the current study found that 25.1 % of the total variance in virtual team leader career success (dependent variable) was explained by the political skill constructs networking ability and apparent sincerity (the independent variables that were retained in the regression model 2). The remaining 74.9 % of the unexplained variance was unexplained by the predictor variables in the current study.

As found by Nagy et al. (2011), individual behavior emanates from a desire to create or change the perceptions of others in support of one's own goals. In this study, the goal was career

success for a virtual team leader. In fact, Kessler, Bandelli, Spector, Borman, Nelson, and Penney (2010), found that maintaining power and success for leaders was directly related to their networking ability, a component of social influence theory.

In addition, the current study findings reiterate the conclusions of Ferris et al. (2007) in that the “appropriate and most accurate use of the right political skill construct increases the effectiveness of social influence through effective style and delivery” (p. 292). Because there is a difference in work environment between virtual teams and traditional teams (Berry, 2011; Bell & Kozlowski, 2002), the findings from the current study offer additional insight into the impacts of social influence theory from a virtual perspective.

Practical Implications

The role of virtual team leaders involves a different level of skill than that of traditional team leaders (Berry, 2011). Implications from the current study stems from the finding that virtual team leaders who were higher in political skill experienced positive career outcomes. This result suggests that leaders may benefit from political skill training (Ferris et al., 2005). To this point, Ferris et al. (2005) argued that if political skill training resulted in more politically skilled leaders, organizations overall would experience more positive outcomes. Therefore, human resources leaders should include political skill training as a part of their manager or leader educational curriculum.

Limitations

Quantitative Survey Methodology

One limitation of this study was the quantitative research survey methodology. The type and amount of information that can be obtained in an online survey is limited. The quantitative nature of the study did not allow for probing or clarifying questions to the research participants.

This limitation was not improved as the survey questions used a Likert-type scale, which limits participants' ability to provide any additional, subjective information. Although on-line surveys are easier to design and administer for participants, the same respondents are often recruited repeatedly which leads to polling fatigue (Kaplowitz, Lupi, Couper & Thorp, 2012). Thus, the participants are less interested in the content of the study, which may decrease the quality of responses (Puleston, 2011).

In addition, the on-line survey offered the option for participants to end the survey prior to completion. This limitation was improved by ensuring the participants maintained anonymity while answering the survey questions. Because the study's focus was relationships rather than effect, the implication is that political skill caused virtual team leader career success. The quantitative research design utilized does not permit for such assertions. Leaders with higher team efficiency or functionality viewed themselves as more politically skilled. Future research designs can address this issue in order to reduce such alternative interpretations of the results.

Population

Another limitation of this study is population. The use of Survey Monkey Audience panels limits representation of the entire virtual team leader population in the U.S. The sample for the current study was obtained from members of the Survey Monkey Audience panel only. Consequently, the sample may not have been representative of the 3,677,061 virtual workers and their team leaders in the U.S., as reported by GlobalWorkplaceAnalytics.com (2016). Therefore, a risk of bias exists because of the sample population (Patten, 2012).

Future Directions of Research

This study added to the body of knowledge concerning the four political skill constructs, specifically related to virtual team leaders and career success. In previous political skill studies

examining team leader career success, the teams were traditional teams (Ferris et al., 2012; Todd et al., 2009).

Additional Career Success Factors

The first recommendation for future research is to examine individual factors that comprise virtual team career success (subjective and objective) as they relate to political skill. Both Todd et al. (2009) and Ng et al. (2005) examined the overall composite score of political skill against subjective and objective career success factors such as, total promotions, total compensation, career satisfaction, and life satisfaction. Looking at the four constructs of political skill against a number of career success outcomes is helpful in determining which skills best predict specific outcomes. For example, social astuteness may lend itself to greater team success and career longevity, thus contributing to an understanding of a virtual team leader's career success.

Industry and Job Field

Based on the findings of the current study, future research includes understanding how different industries and field of work could impact the results. For example, analyzing virtual team leaders in the Information Technology (IT) industry may offer additional insight. Because IT industry knowledge workers have more experience working virtually due to the often remote nature of their work, their ability to utilize political skills remotely is more comprehensive than the individuals in non-IT roles and industries (Cascio & Shurygailo, 2003). The ability to compare an IT virtual team leader to non-IT virtual team leaders in less traditional virtual industries, such as general business, health care, human resources, and finances, may prove informative.

Two-Way Feedback

The final recommendation for future research would be exploring beyond the team leader's perception of their own political skill use, and obtaining the perspective of the team members and subordinates of the team leader. Tannenbaum, Mathieu, Salas, and Cohen (2012) found that the research and practice of team leaders' skills training was lagging. Previous studies disregarded the role of subordinates in determining what additional skills training was necessary for team leaders (Wei et al., 2010). With the increase in use of virtual team based work structures in organizations, there continues to be a growing need to develop a more informed understanding of virtual team leaders as they affect team outcomes. Ahearn et al. (2004) contended that leaders drive team performance as well as individual behavior. Therefore, combining political skill use from an individual and subordinate perspective, and adding team performance as an outcome of virtual team leader career success, is a recommendation.

Qualitative Research Design

Another recommendation for future research is to investigate political skill use in virtual team leaders employing a qualitative research design incorporating human interaction (focus groups and interviews) into the study. Qualitative research design is an appropriate approach to an emerging topic, such as explaining how virtual team leader career success is impacted by political skill use. According to Patten (2012), qualitative research design using a purposive sampling such as virtual team leaders and their subordinate team members, would provide firsthand accounts via focus groups and interviews.

Conclusion

This study showed that a relationship between virtual team leader career success and political skill use exists. The study findings revealed that networking ability (because $p = .000 < \alpha/2 = 0.025$) was the greatest predictor of the virtual team leader career success, followed by apparent sincerity (because $p = .013 < \alpha/2 = 0.025$). The remaining two political skill constructs, social astuteness and interpersonal influence, were not found to be significantly related to virtual team leader career success. The results suggested that organizations that want to protect their investment in their talent should balance their development training with strategies that build political skill in a virtual environment.

The use of a quantitative, non-experimental, survey research design was well suited to answer the overall study research question by explaining how virtual team leader career success was related to four political skill constructs and six demographic control variables.

Finally, the findings in this study indicate that an individual's ability to utilize proven capabilities like political skill, in a virtual environment, often described as ambiguous and threatening, is predicted to lead to career success (Hochwarter & Thompson, 2010) in virtual team leaders. Future research will expand the knowledge in the areas of political skill, virtual teams, and career success.

REFERENCES

- Abele, A. E., & Spurk, D. (2009). How do objective and subjective career success interrelate over time? *Journal of Occupational & Organizational Psychology*, 82(4), 803-824. doi:10.1348/096317909x470924
- Ahearn, K. K., Ferris, G. R., Hochwarter, W. A., Douglas, C., & Ammeter, A. P. (2004). Leader political skill and team performance. *Journal of Management*, 30(3), 309-327. doi:10.1016/j.leaqua.2004.05.004
- Allison, P. D. (1999). *Multiple regression: A primer*. CA: Sage Publications.
- Baer, M. (2012). Putting creativity to work: The implementation of creative ideas in organizations. *Academy of Management Journal*, 55(5), 1102–1119. doi:10.5465/amj.2009.0470
- Bartley, S. J., Judge, W., & Judge, S. (2007). Antecedents of marital happiness and career satisfaction: An empirical study of dual-career managers. *Journal of Business and Public Affairs*, 1(1).
- Baruch, Y., & Lin, C. P. (2012). All for one, one for all: Coopetition and virtual team performance. *Technological Forecasting and Social Change*, 79(6), 1155-1168. doi:10.1016/j.techfore.2012.01.008
- Beer, M., Walton, R. E., & Spector, B. A. (1985). *Managing human assets: The groundbreaking Harvard Business School program*. NY: Simon and Schuster. doi:10.1002/hrm.3930240310
- Belbin, R. M. (2011). Management teams: Why they succeed or fail. *Human Resource Management International Digest*, 19 (3). doi:10.1016/b978-1-85617-807-5.10001-9
- Berry, G. R. (2011). Enhancing effectiveness on virtual teams: Understanding why traditional team skills are insufficient. *Journal of Business Communication*, 48(2), 186–206. doi:10.1177/0021943610397270
- Bjørn, P., & Ngwenyama, O. (2009). Virtual team collaboration: Building shared meaning, resolving breakdowns and creating translucence. *Information Systems Journal*, 19(3), 227-253. doi:10.1111/j.1365-2575.2007.00281.x
- Blanca, M. J., Arnau, J., López-Montiel, D., Bono, R., & Bendayan, R. (2013). Skewness and kurtosis in real data samples. *Methodology*, 9(2), 78–84. doi:10.1027/1614-2241/a000057
- Blee, K., & Currier, A. (2011). Ethics beyond the IRB: An introductory essay. *Qualitative Sociology*, 34(3), 401-413. doi:10.1007/s11133-011-9195-z.

- Blickle, G., Kramer, J., Schneider, P. B., Meurs, J. A., Ferris, G. R., Mierke, J., ... & Momm, T. D. (2011). Role of political skill in job performance prediction beyond general mental ability and personality in cross-sectional and predictive studies. *Journal of Applied Social Psychology, 41*(2), 488-514. doi:10.1037/t32665-000
- Blickle, G., Meurs, J. A., Wihler, A., Ewen, C., Plies, A., & Günther, S. (2013). The interactive effects of conscientiousness, openness to experience, and political skill on job performance in complex jobs: The importance of context. *Journal of Organizational Behavior, 34*(8), 1145-1164. https://doi.org/10.1002/job.1843
- Blickle, G., Meurs, J. A., Zettler, I., Solga, J., Noethen, D., Kramer, J., & Ferris, G. R. (2008). Personality, political skill, and job performance. *Journal of Vocational Behavior, 72*(3), 377-387. doi:10.1016/j.jvb.2007.11.008
- Blickle, G., Wendel, S., & Ferris, G. R. (2010). Political skill as moderator of personality--Job performance relationships in socioanalytic theory: Test of the getting ahead motive in automobile sales. *Journal of Vocational Behavior, 76*(2), 326-335. doi:10.1016/j.jvb.2009.10.005
- Bolino, M. C., Kacmar, K. M., Turnley, W. H., & Gilstrap, J. B. (2008). A multi-level review of impression management motives and behaviors. *Journal of Management, 34*(6), 1080-1109. doi:10.1177/0149206308324325
- Bolino, M. C., & Turnley, W. H. (2003). Counternormative impression management, likeability, and performance ratings: the use of intimidation in an organizational setting. *Journal of Organizational Behavior, 24*(2), 237-250. doi:10.1002/job.185
- Bosch-Sijtsema, P. (2007). The impact of individual expectations and expectation conflicts on virtual teams. *Group & Organization Management, 32*(3), 358-388. doi:10.1177/1059601106286881
- Bozeman, D. P., & Kacmar, K. M. (1997). A cybernetic model of impression management processes in organizations. *Organizational Behavior and Human Decision Processes, 69*(1), 9-30. doi:10.1006/obhd.1996.2669
- Brass, D. J., & Burkhardt, M. E. (1993). Potential power and power use: An investigation of structure and behavior. *Academy of Management Journal, 36*(3), 441-470. doi:10.2307/256588
- Breland, J. W., Treadway, D. C., Duke, A. B., & Adams, G. L. (2007). The interactive effect of leader-member exchange and political skill on subjective career success. *Journal of Leadership & Organizational Studies, 13*(3), 1-14. doi:10.1177/10717919070130030101
- Brown, L. D., Cai, T. T., & DasGupta, A. (2001). Interval estimation for a binomial proportion. *Statistical Science, 16*(2), 101-133. doi:10.1214/ss/1009213286

- Cable, D. M., & DeRue, D. S. (2002). The convergent and discriminant validity of subjective fit perceptions. *Journal of Applied Psychology*, 87(5), 875–884. doi:10.1037/0021-9010.87.5.875
- Carmines, E. G., & Zeller, R. A. (1979). *Reliability and validity assessment, Vol 17*. NY: Sage Publications.
- Cheshin, A., Rafaeli, A., & Bos, N. (2011). Anger and happiness in virtual teams: Emotional influences of text and behavior on others' affect in the absence of non-verbal cues. *Organizational Behavior and Human Decision Processes*, 116(1), 2–16. doi:http://dx.doi.org.library.capella.edu/10.1016/j.obhdp.2011.06.002
- Child, J. (2015). *Organization: contemporary principles and practice*. NJ: John Wiley & Sons. doi:10.1002/9781119176862
- Cialdini, R. B., & Goldstein, N. J. (2004). Social influence: Compliance and conformity. *Annu. Rev. Psychol.*, 55(1), 591-621. doi:10.1146/annurev.psych.55.090902.142015
- Cogliser, C. C., Gardner, W., Trank, C. Q., Gavin, M., Halbesleben, J., & Seers, A. (2013). Not all group exchange structures are created equal effects of forms and levels of exchange on work outcomes in virtual teams. *Journal of Leadership & Organizational Studies*, 20(2), 242-251. doi:10.1177/1548051812472370
- Cogliser, C. C., Gardner, W. L., Gavin, M. B., & Broberg, J. C. (2012). Big five personality factors and leader emergence in virtual teams relationships with team trustworthiness, member performance contributions, and team performance. *Group & Organization Management*, 37(6), 752-784. doi:10.1177/1059601112464266
- Cooper, D. R., & Schindler, P. S. (2006). *Business Research Methods (9th ed.)*. NY: McGraw-Hill Irwin.
- Crawshaw, J. R., van Dick, R., & Brodbeck, F. C. (2011). Opportunity, fair process and relationship value: career development as a driver of proactive work behaviour. *Human Resource Management Journal*, 22(1), 4-20. doi:10.1111/j.1748-8583.2011.00169.x
- Creswell, J. W. (2014). *Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.)*. CA: SAGE.
- Curseu, P. L., Schalk, R., & Wessel, I. (2008). How do virtual teams process information? A literature review and implications for management. *Journal of Managerial Psychology*, 23(6), 628. doi:10.1108/02683940810894729
- D'Agostino, R. B., Belanger, A., & D'Agostino Jr, R. B. (1990). A suggestion for using powerful and informative tests of normality. *The American Statistician*, 44(4), 316-321. doi:10.2307/2684359

- Davenport, T. H., Thomas, R. J., & Cantrell, S. (2012). The mysterious art and science of knowledge-worker performance. *MIT Sloan Management Review*, 44 (1).
- De Rosa, D. (2009). Virtual success: The keys to effectiveness in leading from a distance. *Leadership in Action*, 28(6), 9-11. doi:10.1002/lia.1269
- Diener, E., Larsen, R. J., Levine, S., & Emmons, R. A. (1985). Intensity and frequency: Dimensions underlying positive and negative affect. *Journal of Personality And Social Psychology*, 48(5), 1253-1265. doi:10.1037/0022-3514.48.5.1253
- Dix, J. E., & Savickas, M. L. (1995). Establishing a career: Developmental tasks and coping responses. *Journal of Vocational Behavior*, 47(1), 93-107. doi:10.1006/jvbe.1995.1031
- Dries, N., Pepermans, R., & Carlier, O. (2008). Career success: Constructing a multidimensional model. *Journal of Vocational Behavior*, 73(2), 254-267. doi:10.1016/j.jvb.2008.05.005
- Duarte, D. L., & Snyder, N. T. (2001). *Mastering virtual teams: Strategies, tools, and techniques that succeed* (2nd ed.). CA: Jossey-Bass. doi:10.1016/s0737-6782(01)00087-x
- Ebrahim, N. A., Ahmed, S., & Taha, Z. (2009). Virtual teams: A literature review. *Australian Journal of Basic and Applied Sciences*, 3(3), 2653–2669. doi:10.1109/techpos.2009.5412112
- Eby, L.T., Butts, M., & Lockwood, A. (2003). Predictors of success in the era of the boundaryless career. *Journal of Organizational Behavior*, 24, 689–708. doi:10.1002/job.214
- Eissa, G., Fox, C., Webster, B. D., & Kim, J. (2012). A framework for leader effectiveness in virtual teams. *Journal of Leadership, Accountability and Ethics*, 9(2), 11-22.
- Elron, E., & Vigoda-Gadot, E. (2006). Influence and political processes in cyberspace: The case of global virtual teams. *International Journal of Cross Cultural Management*, 6(3), 295–317. doi:10.1177/1470595806070636
- Ferris, G. R., Blass, F. R., Douglas, C., Kolodinsky, R. W., & Treadway, D. C. (2003). Personal reputation in organizations. In J. Greenberg (Ed.), *Organizational behavior: The state of the science* (2nd ed.): 211-246. NJ: Lawrence Erlbaum. doi:10.1016/s0742-7301(02)21002-6
- Ferris, G. R., Blickle, G., Schneider, P. B., Kramer, J., Zettler, I., Solga, J., & Meurs, J. A. (2008). Political skill construct and criterion-related validation: A two-study investigation. *Journal of Managerial Psychology*, 23(7), 744-771. doi:10.1108/02683940810896321

- Ferris, G., Davidson, S., & Perrewé, P. (2005). Developing political skill at work. *Training-New York then Minneapolis then New York*, 42(11), 40.
- Ferris, G. R., Kane, R. E., Summers, J. K., & Munyon, T.P. (2011). Psychological and physiological health and well-being implications of political skill: Toward a multi-mediation organizing framework. *The role of individual differences in occupational stress and well-being*, 9, 63-107. doi:10.1108/s1479-3555(2011)0000009007
- Ferris, G.R., Perrewé, P.L., & Douglas, C. (2002). Social effectiveness in organizations: Construct validity and research directions. *Journal of Leadership & Organizational Studies*, 9(1), 49-63. doi:10.1177/107179190200900104
- Ferris, G. R., & Treadway, D. C. (1989). *Politics in Organizations: Theory and Research Considerations*. PsycEXTRA Dataset. doi:10.1037/e518332013-862
- Ferris, G. R., Treadway, D. C., Brouer, R. L., & Munyon, T. P. (2012). Political skill in the organizational sciences. In G. R. Ferris & D. C. Treadway (Eds.), *Politics in organizations: Theory and research considerations* (pp. 487-529). NY: Routledge/Taylor and Francis. doi:10.1037/e518332013-862
- Ferris, G. R., Treadway, D. C., Kolodinsky, R. W., Hochwarter, W. A., Kacmar, C. J., Douglas, C., & Frink, D. D. (2005). Development and validation of the political skill inventory. *Journal of Management*, 31(1), 126-152. doi:10.1037/t03663-000
- Ferris, G. R., Treadway, D. C., Perrewé, P. L., Brouer, R. L., Douglas, C., & Lux, S. (2007). Political skill in organizations. *Journal of Management*, 33(3), 290–320. doi:10.1177/0149206307300813
- Field, A. (2013). *Discovering Statistics using IBM SPSS Statistics* (4th ed.). London: Sage
- Forret, M. L., & Dougherty, T. W. (2004). Networking behaviors and career outcomes: Differences for men and women? *Journal of Organizational Behavior*, 25(3), 419-437. doi:10.1002/job.253
- Furst, S. A., Reeves, M., Rosen, B., & Blackburn, R. S. (2004). Managing the life cycle of virtual teams. *The Academy of Management Executive*, 18(2), 6-20. doi:10.5465/ame.2004.13837468
- Gandal, N., & Stettner, U. (2014). Network dynamics and knowledge transfer in virtual organizations: Overcoming the liability of dispersion. Available at SSRN 2467626. doi:10.2139/ssrn.2467626
- Gattiker, U. E., & Larwood, L. (1988). Predictors for managers' career mobility, success, and satisfaction. *Human Relations*, 41(8), 569–591. doi: 10.1177/001872678804100801

- Gattiker, U. E., & Larwood, L. (1986). Subjective career success: a study of managers and support personnel. *Journal of Business and Psychology*, 1(2), 78-94. doi:10.1007/bf01018805
- Gattiker, U. E. (1985). *Organizational careers: Testing a model of career success*. (Unpublished doctoral dissertation). Claremont Graduate School, Claremont, CA. <http://dx.doi.org/10.1007/bf01018805>
- Gentry, W. A., Gilmore, D. C., Shuffler, M. L., & Leslie, J. B. (2012). Political skill as an indicator of promotability among multiple rater sources. *Journal of Organizational Behavior*, 33(1), 89-104. doi:10.1002/job.740
- George, D., & Mallery, P. (2003). *Using SPSS for Windows step by step: a simple guide and reference*. MA: Allyn y Bacon. Retrieved from <http://wps.ablongman.com/wps/media/objects/385/394732/george4answers.pdf>
- Gioia, D. A. & Sims, H.P. (1983). Perceptions of managerial power as a consequence of managerial behavior and reputation. *Journal of Management*, 9(1), 7-24. doi:10.1177/014920638300900103
- Goffman, E. (1959). *The presentation of self in everyday life*. London: Penguin.
- Greenhaus, J. H., Parasuraman, S., & Wormley, W. M. (1990). Effects of race on organizational experiences, job perform. *Academy of Management Journal*, 33(1), 64-86. doi:10.2307/256352
- Griffith, T. L., & Neale, M. A. (2001). Information processing in traditional, hybrid, and virtual teams: From nascent knowledge to transactive memory. *Research in Organizational Behavior*, 23, 379-421. doi:10.1016/s0191-3085(01)23009-3
- Harris, K. J., Kacmar, K. M., Zivnuska, S., & Shaw, J. D. (2007). The impact of political skill on impression management effectiveness. *Journal of Applied Psychology*, 92, 278-285. doi:10.1037/0021-9010.92.1.278
- Hayes, A. F., & Preacher, K. J. (2013). Statistical mediation analysis with a multicategorical independent variable. *British Journal of Mathematical and Statistical Psychology*, 67(3), 451-470. doi:10.1111/bmsp.12028
- Hertel, G., Geister, S., & Konradt, U. (2005). Managing virtual teams: A review of current empirical research. *Human Resource Management Review*, 15(1), 69-95. doi:10.1016/j.hrmr.2005.01.002
- Heslin, P. A. (2005). Conceptualizing and evaluating career success. *Journal of Organizational behavior*, 26 (2), 113-136. doi:10.1002/job.270

- Heslin, P. A. (2003). Self- and other-referent criteria of career success. *Journal of Career Assessment*, 11(3), 262– 286. doi:10.1177/1069072703254500
- Higgins, C. A., Judge, T. A., & Ferris, G. R. (2002). Influence tactics and work outcomes: a meta-analysis. *Journal of Organizational Behavior*, 24(1), 89–106. doi:10.1002/job.181
- Hoch, J. E., & Kozlowski, S. J. (2014). Leading virtual teams: Hierarchical leadership, structural supports, and shared team leadership. *Journal of Applied Psychology*, 99(3), 390–403. doi:10.1037/a0030264
- Hogan, R., Chamorro-Premuzic, T., & Kaiser, R. B. (2013). Employability and career success: Bridging the gap between theory and reality. *Industrial and Organizational Psychology*, 6(1), 3-16. doi:10.1111/iops.12001
- Holton, J. A. (2001). Building trust and collaboration in a virtual team. *Team performance management: an international journal*, 7(3/4), 36-47. doi:10.1108/13527590110395621
- Huczynski, A., & Buchanan, D. A. (2013). *Organizational behaviour*. NY: Pearson.
- Hung, H. K., Yeh, R. S., & Shih, H. Y. (2012). Voice behavior and performance ratings: The role of political skill. *International Journal of Hospitality Management*, 31(2), 442-450. doi:10.1016/j.ijhm.2011.07.002
- James, J. B., McKechnie, S., & Swanberg, J. (2011). Predicting employee engagement in an age-diverse retail workforce. *Journal of Organizational Behavior*, 32(2), 173-196. doi:10.1002/job.681
- Jawahar, I. M., Meurs, J. A., Ferris, G. R., & Hochwarter, W. A. (2008). Self-efficacy and political skill as comparative predictors of task and contextual performance: A Two-Study Constructive Replication. *Human Performance*, 21(2), 138–157. doi:10.1080/08959280801917685
- Jones, E.E. (1990), *Interpersonal Perception*, NY: WH Freeman.
- Judge, T. A., & Bretz, R. D. (1994). Political influence behavior and career success. *Journal of Management*, 20(1), 43-65. doi:10.1177/014920639402000103
- Kaplowitz, M. D., Lupi, F., Couper, M. P., & Thorp, L. (2011). The effect of invitation design on web survey response rates. *Social Science Computer Review*, 30(3), 339–349. doi:10.1177/0894439311419084
- Kapoutsis, I., Papalexandris, A., Nikolopoulos, A., Hochwarter, W. A., & Ferris, G. R. (2011). Politics perceptions as moderator of the political skill–job performance relationship: A two-study, cross-national, constructive replication. *Journal of Vocational Behavior*, 78(1), 123-135. doi:10.1016/j.jvb.2010.09.009

- Kayworth, T., & Leidner, D. (2002). Leadership effectiveness in global virtual teams. *Journal of Management Information Systems*, 18(3), 7-40. Retrieved from <http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.469.9124&rep=rep1&type=pdf>
- Kessler, S.R., Bandelli, A.C., Spector, P.E., Borman, W.C., Nelson, C.E., & Penney, L.M. (2010). Re-examining Machiavelli: A three-dimensional model of Machiavellianism in the workplace. *Journal of Applied Social Psychology*, 40(8), 1868-1896. doi:10.1111/j.1559-1816.2010.00643.x
- Kirchmeyer, C. (2006). The different effects of family on objective career success across gender: A test of alternative explanations. *Journal of Vocational Behavior*, 68(2), 323-346. doi:10.1016/j.jvb.2005.05.002
- Kirkman, B. L., & Mathieu, J. E. (2005). The dimensions and antecedents of team virtuality. *Journal of Management*, 31(5), 700-718. doi:10.1177/0149206305279113
- Kline, Paul (2000). *The handbook of psychological testing* (2nd ed). London: Routledge.
- Kolodinsky, R. W., Treadway, D. C., & Ferris, G. R. (2007). Political skill and influence effectiveness: Testing portions of an expanded Ferris and Judge (1991) model. *Human Relations*, 60(12), 1747-1777. doi:10.1177/0018726707084913
- Laud, R. L., & Johnson, M. (2012). Upward mobility: A typology of tactics and strategies for career advancement. *Career Development International*, 17(3), 231-254. doi:10.1108/13620431211241072
- Lee, F., & Tiedens, L. Z. (2001). 2. Is it lonely at the top?: The independence and interdependence of power holders. *Research in Organizational Behavior*, 23, 43-91. doi:10.1016/s0191-3085(01)23003-2
- Leys, C., Ley, C., Klein, O., Bernard, P., & Licata, L. (2013). Detecting outliers: Do not use standard deviation around the mean, use absolute deviation around the median. *Journal of Experimental Social Psychology*, 49(4), 764-766. doi:10.1016/j.jesp.2013.03.013
- Lu, M., Watson-Manheim, M., Chudoba, K. M., & Wynn, E. (2006). Virtuality and team performance: Understanding the impact of variety of practices. *Journal of Global Information Technology Management*, 9(1), 4-23. doi:10.1080/1097198x.2006.10856412
- Martins, L. L., & Shalley, C. E. (2011). Creativity in virtual work: Effects of demographic differences. *Small Group Research*, 42(5), 536-561. doi: 10.1177/1046496410397382
- Maynard, M. T., Mathieu, J. E., Rapp, T. L., & Gilson, L. L. (2012). Something (s) old and something (s) new: Modeling drivers of global virtual team effectiveness. *Journal of Organizational Behavior*, 33(3), 342-365. doi:10.1002/job.1772

- McAllister, C.P., Ellen, B.P., Perrewé, P.L., Ferris, G.R., & Hirsch, D.J. (2015). Checkmate: Using political skill to recognize and capitalize on opportunities in the 'game' of organizational life. *Business Horizons*, 58, 25–34. doi:10.1016/j.bushor.2014.09.008
- McKenna, K. Y. A. (2008). Influences on the nature and functioning of online groups. In A. Barak (Ed.), *Psychological Aspects of Cyberspace: Theory, Research, Applications*. (228-242). NY: Cambridge University Press. doi:10.1017/cbo9780511813740.011
- Mertler, C.A. & Vannatta, R.A. (2005). *Advanced and multivariate statistical methods: Practical applications and interpretations* (3rd ed.). CA: Pyrczak Publishing.
- Mesmer-Magnus, J. R., DeChurch, L. A., Jimenez-Rodriguez, M., Wildman, J., & Shuffler, M. (2011). A meta-analytic investigation of virtuality and information sharing in teams. *Organizational Behavior and Human Decision Processes*, 115, 214–225. doi:10.1016/j.obhdp.2011.03.002
- Morris, S.M. & Snell, S.A. (2010). The evolution of HR strategy: Adaptations to increasing global complexity. In A. Wilkinson, N. Bacon, T. Redman, & S.A. Snell (eds.), *Sage handbook of human resource management*, Sage Publishing.
- Munyon, T. P., Summers, J. K., Thompson, K. M., & Ferris, G. R. (2015). Political skill and work outcomes: A theoretical extension, meta-analytic investigation, and agenda for the future. *Personnel Psychology*, 68(1), 143-184. doi:10.1111/peps.12066
- Nabi, G. (1999). An investigation into the differential profile of predictors of objective and subjective career success. *Career Development International*, 4(4), 212–225. doi:10.1108/13620439910270599
- Nagy, B., Kacmar, M., & Harris, K. (2011). Dispositional and situational factors as predictors of impression management behaviors. *Journal of Behavioral and Applied Management*, 12(3), 229-245. Retrieved from <http://search.proquest.com.library.capella.edu/docview/871413096?accountid=27965>
- Ng, T. W. H., Eby, L. T., Sorensen, K. L., & Feldman, D. C. (2005). Predictors of objective and subjective career success: A meta-analysis. *Personnel Psychology*, 58(2), 367-408. doi:10.1111/j.1744-6570.2005.00515.x
- Osborne, J. & Waters, E. (2002). *Four assumptions of multiple regression that researchers should always test. Practical assessment, research & evaluation*. Retrieved from <http://PAREonline.net/getvn.asp?v=8&n=2>.
- Osborne, J.W. & Overbay, A. (2004). The power of outliers (and why researchers should always check for them). *Practical Assessment, Research & Evaluation*, 9(6). Retrieved from <http://PAREonline.net/getvn.asp?v=9&n=6>

- Patten, M. L. (2012). *Understanding research methods* (8th ed.). CA: Pyrczak.
- Nunnally, J. (1978). *Psychometric theory*. NY: McGraw-Hill.
- Nydegger, R., & Nydegger, L. (2010). Challenges in managing virtual teams. *Journal of Business & Economics Research (JBER)*, 8(3). doi:10.19030/jber.v8i3.690
- Parker, B., & Chusmir, L. H. (1991). Motivation needs and their relationship to life success. *Human Relations*, 44(12), 1301–1312. doi:10.1177/001872679104401204
- Paulhus, D. L. (1991). Measurement and control of response bias. In J. P. Robinson, P. R. Shaver & L. S. Wrightsman (Eds.), *Measures of personality and social psychological attitudes* (pp. 17-59). NY: Academic Press. doi:10.1016/b978-0-12-590241-0.50006-x
- Paulhus, D. (1983). Sphere-specific measures of perceived control. *Journal of Personality and Social Psychology*, 44(6), 1253-1265. doi:10.1037/0022-3514.44.6.125
- Peluchette, J. V. E. (1993). Subjective career success: The influence of individual difference, family, and organizational variables. *Journal of Vocational Behavior*, 43(2), 198-208. doi:10.1006/jvbe.1993.1042
- Pfeffer, J. (1992). *Managing with power: Politics and influence in organizations*. MA: Harvard Business School Press.
- Powell, A., Galvin, J., & Piccoli, G. (2006). Antecedents to team member commitment from near and far: A comparison between collocated and virtual teams. *Information Technology & People*, 19(4), 299-322. doi:10.1108/09593840610718018
- Puleston, J. (2011). Online research—game on!: A look at how gaming techniques can transform your online research. In *Proceedings of the 6th ASC (Association for Survey Computing) International Conference Shifting the Boundaries of Research* (20-50). Retrieved from <http://www.asc.org.uk/publications/proceedings/ASC2011Proceedings.pdf>
- Rosenfeld, P., Giacalone, R.A., & Riordan, C.A. (2002). *Impression Management: Building and Enhancing Reputations at Work*, London: Thomson Learning.
- Quisenberry, W., & Burrell, D. (2012). Establishing a cycle of success by utilizing a transactional leadership, technology, trust, and relationship building on high performing self-managed virtual teams. *Review of Management Innovation & Creativity*, 5(16), 97-116. Retrieved from <http://connection.ebscohost.com/c/articles/94256151/establishing-cycle-success-by-utilizing-transactional-leadership-technology-trust-relationship-building-high-performing-self-managed-virtual-teams>
- Rao, C. R., & Sinharay, S. (2006). *Handbook of Statistics: Psychometrics*. doi:10.1016/s0169-7161(06)26036-x

- Reading, S. (2013). Starting your dissertation journey. A. Glasper, & C. Rees, *How to Write Your Nursing*. Retrieved from http://samples.sainsburysebooks.co.uk/9781118410691_sample_409201.pdf
- Ribes, D., Jackson, S., Geiger, S., Burton, M., & Finholt, T. (2013). Artifacts that organize: Delegation in the distributed organization. *Information and Organization*, 23(1), 1-14. doi:10.1016/j.infoandorg.2012.08.001
- Riggio, R. E. (2013). The “hard” science of studying and developing leader “soft” skills. *Leader Interpersonal and Influence Skills: The Soft Skills of Leadership*. London: Taylor and Francis Ltd.
- Roberts, L. M. (2005). Changing faces: Professional image construction in diverse organizational settings. *Academy of Management Review*, 30(4), 685–711. doi:10.5465/amr.2005.18378873
- Rudman, L. A. (1998). Self-promotion as a risk factor for women: The costs and benefits of counterstereotypical impression management. *Journal of Personality and Social Psychology*, 74(3), 629–645. doi:10.1037/0022-3514.74.3.629
- Savickas, M. L., & Porfeli, E. J. (2012). Career Adapt-Abilities Scale: Construction, reliability, and measurement equivalence across 13 countries. *Journal of Vocational Behavior*, 80(3), 661-673. doi:10.1016/j.jvb.2012.01.011
- Schein, E. H. (1971). The individual, the organization, and the career: A conceptual scheme. *The Journal of Applied Behavioral Science*, 7(4), 401-426. doi:10.1177/002188637100700401
- Sibunruang, H., Capezio, A., & Restubog, S. L. D. (2013). Getting ahead through dlattery: examining the moderating roles of organization-based self-esteem and political skill in the ingratiation-promotability relationship. *Journal of Career Assessment*, 22(4), 610–626. doi:10.1177/1069072713514821
- Siebdrat, F., Hoegl, M., & Ernst, H. (2008). The bright side of virtual collaboration: How teams can profit from dispersion. *Academy of Management Proceedings*, doi:10.5465/ambpp.2008.33627369
- Sparrowe, R., Liden, R. C., Wayne, S., & Kraimer, M. (2001). Social networks and the performance of individuals and groups. *Academy of Management Journal*, 44, 316–325. doi:10.2307/3069458
- Spence, M. (1974). Competitive and optimal responses to signals: An analysis of efficiency and distribution. *Journal of Economic theory*, 7(3), 296-332. doi:10.1016/0022-0531(74)90098-2

- Stevens, J. P. (2009). *Applied multivariate statistics for the social sciences* (5th ed.). NJ: Routledge.
- Sun, L. Y., Pan, W., & Chow, I. H. S. (2014). The role of supervisor political skill in mentoring: Dual motivational perspectives. *Journal of Organizational Behavior*, 35(2), 213-233. doi:10.1002/job.1865
- Swanson, R. A., & Holton, E. F. (2010). *Foundations of Human Resource Development*. CA: Berrett-Koehler.
- Tabachnick, B. G., & Fidell, L. S. (2013). *Using Multivariate Statistics* (6th ed.). NJ: Pearson.
- Tannenbaum, S. I., Mathieu, J. E., Salas, E., & Cohen, D. (2012). Teams are changing: Are research and practice evolving fast enough?. *Industrial and Organizational Psychology*, 5(1), 2-24. doi:10.1111/j.1754-9434.2011.01396.x
- Todd, S. Y., Harris, K. J., Harris, R. B., & Wheeler, A. R. (2009). Career success implications of political skill. *The Journal of Social Psychology*, 149(3), 279-304. doi:10.3200/socp.149.3.279-304
- Treadway, D. C., Breland, J. W., Williams, L. M., Cho, J., Yang, J., & Ferris, G. R. (2013). Social influence and interpersonal power in organizations roles of performance and political skill in two studies. *Journal of Management*, 39(6), 1529-1553. doi:10.1177/0149206311410887
- Treadway, D. C., Ferris, G. R., Duke, A. B., Adams, G. L., & Thatcher, J. B. (2007). The moderating role of subordinate political skill on supervisors' impressions of subordinate ingratiation and ratings of subordinate interpersonal facilitation. *Journal of Applied Psychology*, 92, 848-855. doi:10.1037/0021-9010.92.3.848
- Trochim, W. M. K. & Donnelly, J. P. (2008). *Research methods knowledge base*. OH: Atomic Dog/Cengage Learning.
- U.S. Department of Health & Human Services. (1979, April 18). *The Belmont report*. Retrieved from <http://www.hhs.gov/ohrp/humansubjects/guidance/belmont.html>
- Vaccaro, I. G., Jansen, J. J., Van Den Bosch, F. A., & Volberda, H. W. (2012). Management innovation and leadership: The moderating role of organizational size. *Journal of Management Studies*, 49(1), 28-51. doi:10.1111/j.1467-6486.2010.00976.x
- Wayne, S. J., & Ferris, G. R. (1990). Influence tactics, affect, and exchange quality in supervisor-subordinate interactions: A laboratory experiment and field study. *Journal of Applied Psychology*, 75(5), 487-499. doi:10.1037/0021-9010.75.5.487

- Wei, L. Q., Liu, J., Chen, Y. Y., & Wu, L. Z. (2010). Political skill, supervisor–subordinate guanxi and career prospects in Chinese firms. *Journal of Management Studies*, 47(3), 437-454. doi:10.1111/j.1467-6486.2009.00871.x
- Weiss, N. A., & Weiss, C. A. (2012). *Introductory statistics*. NJ: Pearson Education.
- West, S., Aiken, L., Cham, H., & Liu, Y. (2013). *Multiple regression: The basics and beyond for clinical scientists*. Oxford Handbooks Online. doi:10.1093/oxfordhb/9780199793549.013.0013
- Westen, D., & Rosenthal, R. (2003). Quantifying construct validity: Two simple measures. *Journal of Personality and Social Psychology*, 84(3), 608-618. doi:10.1037/0022-3514.84.3.608
- Wester, K. L. (2011). Publishing ethical research: A step-by-step overview. *Journal of Counseling & Development*, 89(3), 301-307. doi:10.1002/j.1556-6678.2011.tb00093.x
- Wu, L. Z., Yim, F. H. K., Kwan, H. K., & Zhang, X. (2012). Coping with workplace ostracism: The roles of ingratiation and political skill in employee psychological distress. *Journal of Management Studies*, 49(1), 178-199. doi:10.1111/j.1467-6486.2011.01017.x
- Yang, K. (2006). *Quantitative methods for policy analysis. Theory, politics, and methods*, 349–367. doi:10.1201/9781420017007.pt7
- Zajac, E. J. & Westphal, J.D. (1995). Accounting for explanations of CEO compensation: Substance and symbolism. *Administrative Science Quarterly*, 40, 283–308. doi:10.2307/2393639