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Perceived Self-Efficacy and Dispositional Optimism in Leaders' Behavioral Escalation of Commitment

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M.S., Covenant University, 2005

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Abstract

Escalation of commitment is an individual's persistent behavior at sustaining commitment to an original decision or course of action. Although researchers have found that personality impacts escalation of commitment behavior, this study addressed a gap in escalation of commitment behavior regarding personality in higher education, which has consistently been ignored. Building on the self-justification theory, this study was an investigation of (a) whether perceived self-efficacy and dispositional optimism individually predicted escalation of commitment behavior; and (b) whether perceived self-efficacy and dispositional optimism jointly predicted escalation of commitment behavior after controlling for age, gender, ethnicity, socioeconomic status, and tenure. Hierarchical regression was performed using a sample of 76 participants from a community college in Minnesota. Results suggested that only perceived self-efficacy will predict leaders' escalation of commitment behavior and not dispositional optimism. The result of this study has implications for positive social change by aiding effective leadership decision making, enabling better screening and recruiting process, and allowing organizations to develop specific training and intervention programs that will help educational leaders utilize their positive attributes appropriately.

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Dedication

I dedicate this dissertation to my Maker, the One, who saw me through it all. Indeed, God never leaves His own. I also dedicate this project to my late mother. Even though she is not physically here, her love lives within me.

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I wish to express a profound thank you to my husband and best friend, who stood by me throughout the duration of this dissertation. Your continued encouragement and listening ears kept me going, and I couldn't have done it without you. I must also thank my children, Tomi, Jomi, and Dami, for being very patient as I navigated and completed this project. Your love and prayers kept me.

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Chapter 1: Introduction to the Study

Background

The decision-making process cuts across every aspect of organizational functioning, including organizational performance and effectiveness (Schermerhorn, Hunt, & Osborn, 2011). During this process, executives, administrators, decision-makers, managers, and supervisors may take irrational actions that are detrimental to organizational success (George & Jones, 2008; Hongchang & Zhongming, 2015). Such behavior is referred to as escalation of commitment (EOC), the continuous choice by an individual to invest in a task or course of action despite apparent negative feedback and consequences (Brockner, 1992; Hsieh, Tsai, & Chen, 2015). Leaders might put additional resources into failing projects and persist in their choice of action even though the leaders are receiving negative feedback. Although escalation of commitment behavior is a ubiquitous phenomenon, decision making may be more prone to the escalation problem than other activities (Schmidt & Calantone, 2002; Steinkühler, Mahlendorf, & Brettel, 2014). In the current study, the term *escalation of commitment* will be used interchangeably with the word *escalation*.

Staw (1976), who introduced the escalation of commitment phenomenon, described it as reinvesting in a previous course of action despite receiving negative feedback about it. Staw showed that although rational decision making means ending investments that are likely to fail, individuals often decide to increase such investment at a later time, particularly if they thought they were responsible for the initial failure. Other

findings have consistently shown that people persist in their initial failing courses of action despite receiving negative feedback (Arkes & Blumer, 1985; Brockner & Rubin, 1985; Staw, 1981; Thaler, 1980). Lange (1993) suggested escalation involves an exit delay wherein decisions by most leaders are made too late or where failing projects are terminated far too late. As such, escalation of commitment remains significant to both individual and organizational decision-making behavior (Kirby & Davis, 1998; Staw, 1997; Staw, Barsade, & Koput, 1995; Whyte, Saks, & Hooks, 1997).

Schultze, Pfeiffer, and Schulz-Hardt (2012) suggested that individuals are likely to reinvest resources (e.g., time and money) into a project despite taking actions that may lead to eventual losses. This irrational commitment can influence decisions made in various contexts, including the banking industry, where bad loans are often given out in the hope of profitable recoupment (Staw et al., 1997), or for-profit organizations, whose projects are expanded despite negative feedback from the financial market (McCarthy, Schoorman, & Cooper, 1993). Escalation of commitment also occurs when companies and businesses accrue cost in investment projects or opportunities (Ross & Staw, 1986, 1993) as well as during the evaluative process, where employee performance is exaggerated (Bazerman, Beekun, & Schoorman, 1982). Brockener (1992) and Staw (1981) argued that the tendency to escalate commitment to an uneconomic course of action may lead to adverse consequences. These consequences are not limited to organizational ruin, but can also be seen when taxpayers' money is squandered in failed public projects (Schaumberg & Wiltermuth, 2014).

Ongoing research in decision making suggests that cognitive processes may play a role in influencing leaders' decisions (McCarthy, Schoorman, & Cooper, 1993; Simon, Houghton, & Aquino, 2000). In particular, McCarthy et al. (1993) suggested that, in certain conditions, leaders who have previously made a decision become excessively committed to their original choice and later make decisions prejudiced by a psychological commitment. Furthermore, two potential causes, individual and group, serve as elements of escalation of commitment (Bazerman, 1998). The individual cause shows that people are more likely to escalate commitment regarding prior action or decision because of a need to justify their action or decision to other people. According to Wolff (2003), the need to appear justified and subsequently commit to an unproductive course of action is especially strong when adverse consequences place responsibility with the individual. Conversely, the group element involves group competition and a situation wherein decision-makers do not want to accept defeat from subordinates or people working with them. As a result, the justification of prior decisions or resource allocations coupled with a desire for success can lead to irrational commitment (Colwell & Mowday, 2002).

Background of the Study

People are increasingly responsible for making important decisions that either positively or negatively affect both individual and organizational practices and outcomes (Mahlendorf & Wallenburg, 2013; Steinkühler et al., 2014). When decisions lead to poor consequences, it may be a result of a leader's escalated commitment to a previously taken decision or action. Escalation of commitment sometimes referred to as *irrational*

commitment or the *sunk cost fallacy*, is when leaders commit themselves to decisions beyond their rational-level thinking (Schultze et al., 2012). Put another way, escalation of commitment is when decision-makers meet with a "series of negative action consequences information and still hold on to the previous decision plan and continue to invest more resources and human power into unfavorable projects, which may get the enterprise more and more into hot water" (Kai & Xiaoming, 2010, p. 21). Escalation occurs in many different areas and contexts, such as banking (Barsade, & Koput, 1997; McNamara, Moon, & Bromiley, 2002; Schmidt & Calantone, 2002; Staw, 1976), government and politics (Ross & Staw, 1993), information systems (Keil, 1995; Keil, Mann, & Rai, 2000; Montealegre & Keil, 2000), and athletic events (Camerer & Weber, 1999). According to Brockner (1992), all involve decision making in the "face of negative feedback about prior resource allocations, uncertain surroundings, the likelihood of goal attainment, and the choice about whether to continue" (p. 122). The decision-making process, therefore, becomes susceptible to leaders' irrationally committing to prior decisions or courses of actions.

Organizational Leadership and Escalation of Commitment

Leadership plays a significant role in the continuation to invest in a failing project, course of action, or decision (Drummond, 2014; Keil et al., 2000; Schmidt & Calantone, 1998). Specifically, organizational leaders as well as individuals involved in decision making sometimes invest time, money, energy, and effort in an uneconomic project or previously failed task despite prior resource allocations and negative feedback

(Kisfalvi, 2000). Brockner (1992) similarly observed that decision-makers sometimes must decide concerning a previous decision or chosen course of action wherein they must decide whether to persist with or withdraw from it. These leaders are most likely to increase the amount of resources committed to a failing project or a wrong decision when they have been personally responsible for previous negative consequences (Brockner, 1992; Harrison & Harrell, 1993).

Personality and Escalation of Commitment

Most leaders bring their personality to the organization, especially when making decisions (Brockner, 1992). According to Chong (1998) and Chong and Eggleton (2003), personality attributes influence a leader to behave in certain ways, especially in the area of risk taking in decision making. One of such personality attribute is perceived self-efficacy, now referred to simply as self-efficacy. Likewise, dispositional optimism, another personality attribute, will be discussed throughout this study.

Perceived self-efficacy. According to Bandura (1995), self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations" (p. 2). In this study, perceived self-efficacy, hereafter called self-efficacy, refers to an individual's confidence to produce expected levels of performance in completing tasks and achieving stated goals. Similarly, self-efficacy plays an important part in an individual being motivated for expected outcomes. In particular, self-efficacy determines whether people will embrace the opportunities or the setbacks that their life circumstances have to offer, even if such life situations present daunting obstacles

(Krueger & Dickson, 2007). The outcomes people expect are based largely on their beliefs of how well they can complete a given task or how successful they can be in given situations. Individuals with high self-efficacy, for example, are not easily dissuaded by negative outcomes but instead believe their efforts will bring success (Whyte et al., 1997). Csikszentmihalyi (1997) argued that some people are more inclined to make certain decisions if they believe those decisions will eventually lead to success.

As posited by Bandura (1993, 1997), people usually avoid tasks that they believe they cannot complete but will engage in tasks or situations they think they can successfully perform. According to Higgins (1997), some individuals are more motivated to pursue and achieve personal advancements rather than obligations and, therefore, focus their attention on possible gains and rewards. As a result, these individuals see demanding tasks or tough decisions as opportunities to hone their abilities and skills. These individuals represent those with a high self-efficacy. Higgins claimed that, on the other hand, some individuals try to fulfill their responsibilities rather than pursue and realize personal aspirations. In this instance, their focus is on possible costs versus benefits and gains. A challenging task can therefore be perceived to accentuate flaws. This perception signifies low-self-efficacy.

Even though the personality characteristic of self-efficacy predicts success in many areas, including the world of work (Sadri & Robertson, 1993; Stajkovic & Luthans, 1998), feelings of self-efficacy may contribute to an individual's tendency to persist in failing situations (Whyte et al., 1997). Self-efficacy can lead to success in tough and risky

situations, which, in turn, could lead to an adherence to decisions or courses of actions that may not eventually yield favorable results (Whyte et al., 1997). Managers, supervisors, and administrators with high self-efficacy may be more susceptible to persisting in an economically unviable venture than leaders with low self-efficacy (Whyte et al., as cited in Bandura, 2000). According to Audia, Locke, and Smith (as cited in Bandura, 2000), individuals with high self-efficacy "remain wedded to previously successful practices despite altered realities that place them at competitive disadvantages" (p. 123).

Dispositional optimism. The second personality attribute of interest in this study is dispositional optimism. Dispositional optimism, hereafter referred to as optimism, is an important personality characteristic in leadership theory, particularly in leadership decision-making (Berndsen & van der Pligt, 2001; Luthans, 2002). According to Scheier and Carver (1992), optimism refers to individuals' expectations of good rather than bad things happening to them. Carver, Scheier, and Segerstrom (2010) posited that optimism "reflects the extent to which people hold generalized favorable expectancies for their future" (p. 879). In addition, Luthans (2002) referred to optimism as "a cognitive characteristic in terms of positive outcome expectancy and/or a positive causal attribution" (p. 64). Luthans described this personality trait as a distinctive characteristic through which individuals are motivated to work harder, aspire higher, and become more satisfied. In this study, optimism is defined as a set of favorable outcome beliefs held by an individual while working toward the completion of a task.

People who are optimistic believe that their failures and setbacks are transient and that they will be able to endure difficult work situations or problems. In this instance, optimists may be seen as valuable contributors to the work environment (Luthans, 2002). However, even though optimism is seen as a dispositional trait that affects the workplace positively, the literature on organizational behavior suggests that it may generate unfavorable and dysfunctional organizational outcomes (Bird, 2005; Luthans, 2002). Lovallo and Kahneman (2003) also suggested that unreasonable optimism can lead to poor choices or inappropriate actions. For example, behaviors that are optimistically motivated may lead to decision-makers striving for outcomes or results that are unrealistic, such as expecting that a failing project will later become successful because of the input of additional resources (e.g., money, time, personnel) expended on such project. In Luthan's words, "Optimistically driven behavior may be aimed at pointless pursuits or unrealistic goals" (p. 65).

Juliusson (2006) described optimism "as an inflated probability that an investment would generate returns" (p. 346). This description supports the notion that individuals have the tendency to expect good rather than bad to happen to them or expect adverse situations or events to turn around for good. Lay (1988) suggested that leaders or decision-makers who are optimistic because of their positive outcome expectancies may increase their commitment in certain situations (e.g., during a product development phase). As such, inappropriate optimism may affect a leader's escalation of commitment behavior. Juliusson (2006) stated that those who are optimistic may "interpret ambiguous

probabilities as more favorable" (p. 346). Mahlendorf and Wallenburg (2013) explained that optimism bias is the "tendency to assume that negative things are less likely to befall oneself than they are to one's peers" (p. 2273). Leaders who are confident may lose focus and may not make necessary action plans because of their positivity about future events or situations. Taylor and Staton (2007) suggested optimistic individuals are likely to cope better with adversities or challenging situations, and may less likely try to avoid such difficult situations altogether. This outlook shows that leaders with optimistic tendencies may be more willing to increase resources to an unproductive course of action or pursue an ineffective policy because of their hopefulness and the tendency not to avoid challenging situations. Mahlendorf and Wallenburg (2013) supported this notion and claimed that leaders with "optimistic outcome expectations will search more for positive evidence for a project and selectively ignore disconfirming evidence" (p. 2247).

Finally, Arkes and Hutzel (2000) explained that when individuals feel justified in their ability to produce satisfactory results or overemphasize the likelihood for success, they might continuously reinvest in a nonproductive task or decision. Schmidt and Calantone (1998) also showed that overestimating the likelihood of future returns for innovating products can result in additional funds than for products that were less innovating. For instance, Cooper, Woo, and Dunkelberg (1988) found that novice businessmen who were overly optimistic continuously increased investments during the development of a new product. Accordingly, optimistic leaders or decision-makers may be more willing to continue their commitment to reinvestment because of their desire to

recover the sunk cost or the resources already expended on the project (Arkes & Hutzel, 2000; Juliusson, 2006).

Demographic Factors and Escalation of Commitment Behavior

Several demographic factors also influence organizational decision making and leadership risky behavior. Extant research indicates that age, gender, ethnicity, socioeconomic status (SES), and tenure (work experience in years) influence faulty decision making (Brockner, 1992; Garland & Conlon, 1998; Moon, 2001a; Tan & Yates, 2002; Wong, 2005). Despite this ample evidence, there are mixed findings on the role of demographic characteristics in risk-taking behaviors, such as escalation of commitment (Choi, 2010; Denison, 2009; Finucane, Mertz, Slovic, & Schmidt, 2005; Keil et al., 2000; Loe, Ferrell & Mansfield, 2000; Salter & Sharp, 1997, 2001; Williams & Barrette, 2004; Wong & Kwong, 2007). Researchers know little about whether leaders' age, gender, ethnicity, SES, and tenure (work experience in years) influence their decisions to invest further in an unproductive course of action.

Findings from previous researchers have suggested age and gender are most predictive of risky behavior (Aloka & Bojuwoye, 2013; Kim & Hasher, 2005; Wong & Kwong, 2007). Ertac and Gurdal (2010) and Leijenhorst (2010) reported that females engage in less risky decision making than do males. Albert and Duffy (2012), Chen, Ma, and Pethtel (2012), and Rolison, Hanoch and Wood (2012) found that young adults are more likely than older adults to partake in risky decision-making behavior. It is important to examine whether demographic characteristics play contributory role in escalation of

commitment so that organizations better understand the decisions leaders individually make as a result of their age, gender, and ethnic differences. Knowledge of these differences can increase the likelihood that effective decisions will be made in situations that may be prone to escalation of commitment to faulty decision making. As a means of adding to the understanding of these important variables, the role of age and gender as well as other demographic characteristics, including ethnicity, SES, and tenure (years of work experience), was examined in leaders' escalation of commitment behavior. These variables were added as control variables in the present study.

Statement of the Problem

Escalation of commitment is the continuous choice by an individual to invest in a task or course of action despite apparent negative feedback and consequences (Brockner, 1992; Hongchang & Zhongming, 2015; Staw, 1997). Escalation situations are those in which a project, action, or decision made has led to losses, but there remains a possibility of achieving better outcomes. Such circumstances occur when additional time, money, or effort is further invested in the project, action, or decision (Keil et al., 2000; McCarthy et al., 1993). Consequently, those responsible for such decisions may escalate their actions by irrationally committing to a course of action (Staw, 1981). Researchers have also reported that escalation occurs when organizational leaders make an initial investment (e.g., financial commitment) to a troubled project and later elect either to (a) make a greater investment and/or allocate more funds without paying attention to what subordinates think, or (b) to abandon the troubled project (Schaubroeck & Davis, 1994;

Schaubrock & Williams, 1993; Sleesman, Conlon, McNamara, & Miles, 2012; Staw, 1976). These findings are consistent with Wolff's (2003) report that leaders and decision-makers continuously commit resources, such as money, time, or effort because they want to be seen as legitimately allocating these resources so that they do not appear wasteful.

Several examples from the extant literature on escalation show that when people choose to continually increase their commitment to a failing project or investment despite negative feedback, it not only leads to financial losses, but to lost time and effort as well. For instance, the Shoreham Nuclear Power Plant project in New York, which was initially estimated to cost $75 million, eventually cost more than $5 billion. Although this project was to be completed in 1973, it took another 23 years to complete it as Suffolk residents pushed back against the establishment of a nuclear plant (Ross & Staw, 1993). As a result, the plant never went into operation (Fagin, 2001). Escalated behaviors affect employees' work performance and overall productivity, leading to negative organizational and societal outcomes (Lunenburg, 2010). In the banking industry, for one example, loan officers made risky decisions in an effort to recoup losses as a result of their earlier poor credit judgments (Staw et al., 1997). According to Staw et al. (1997), the loan officers engaged in escalation because they tried to make a wrong situation right. This incident eventually led to the 1980s loan crisis, in which banks extended too much credit to borrowers who could not pay.

Some personality traits affect a leader's decision-making process and, subsequently, his or her tendency to escalate commitment to a losing course of action.

One such personality attribute is self-efficacy, a belief that an individual has the capability to perform actions required to manage given tasks or situations (Bandura, 1994). Although Mullins (1999) argued that personality factors such as self-efficacy are significant during the decision-making process, Whyte et al. (1997) proposed that feelings of self-efficacy might prompt a manager or supervisor to allocate more resources to his or her initial decision in an attempt to correct a deteriorating situation. Hence, individuals whose self-efficacy outweighs their actual capability are likely to exaggerate their ability to perform successfully on given tasks, which can lead to problems, including irrational commitment to an unproductive course of action (Csikszentmihalyi, 1997; Whyte et al., 1997).

Optimism contributes positively to leadership decision-making (Roux, 2010; Schneider, 2001; Seligman, 2002). Optimism is defined as the tendency to expect the most favorable result from a situation or an event (Gabris, Maclin, & Ihrke, 1998). According to Arkes and Hutzel (2000), optimism relates to the belief that a course of action or investment will lead to and possibly generate positive outcomes and returns. However, Moon (2001a) stated that an individual's positive outlook is sometimes derailed by sunk-cost effects because of the high investment already expended or believing that the project will soon come to a completion. Similarly, Schmidt and Calantone (1998) explained that organizational leaders who overestimate future returns for innovating products might be engaging in escalation. For instance, Arkes and Hutzel (2000) found that individuals who overestimate their success continued in their original

decision because they felt justified to do so. Although the impact of self-efficacy and optimism in decision making have been studied individually (Arkes & Hutzel, 2000; Bandura 2001; Carmona et al., 2008; Schmidt & Calantone, 1998), little is known about their joint role in leaders' escalation of commitment behavior. Most studies have focused on the cognitive determinants of a leader's decision making, which involves escalation of commitment behavior rather than on innate factors (Fineman, 2000; Walsh, 1995). There is a need to determine whether the personality traits of self-efficacy and optimism are likely to push a leader into escalating his or her commitment in failing decisions or courses of action even after receiving negative information.

Purpose of the Study

Previous escalation researchers have addressed the behavior of a leader or decision-maker in the quest to make a bad situation right (Brockner, Rubin, & Lang, 1981; Harrison & Harrell, 1993; Schmidt & Calantone, 1998, 2002). Results have suggested that leaders continue to invest in unproductive projects or policies because they feel personally responsible for their actions and subsequent consequences. Despite these findings, the relationship between personality and escalation of commitment behavior has not been thoroughly researched. The primary purpose of this study, therefore, was to examine if self-efficacy and optimism jointly predict a leader's willingness to continue in a failing situation.

Even though existing researchers showed that personality influences the decision-making process in organizations (Juliusson, 2006), most studies on commitment

escalation involve students, investors, and leaders in for-profit organizations, information technology, and financial institutions (Gunia, Sivanathan, & Galinsky, 2009; Ku, 2008; McNamara et al., 2002; Montealegre & Keil, 2000; Ross & Staw, 1993). There has been no attempt to investigate the impact of personality on escalation of commitment behavior among leaders in institutions of higher education—in particular, the impact of self-efficacy and optimism in the escalation of commitment behavior of these leaders. Based on the lack of research in this area, I also explored the joint role of self-efficacy and optimism as dispositional traits in justifying escalation of commitment behavior among leaders in higher education. It is important to examine whether the personality of these academic decision-makers contributed to irrational commitment, commitments that may lead to adverse financial consequences (e.g., high procurement cost) or commitments that may lead to perseverance to otherwise obvious failing educational programs.

Research Questions and Hypotheses

The purpose of this study was to investigate the joint role of self-efficacy and optimism in justifying a leader or decision-maker's escalation of commitment behavior. The following research questions functioned as guides for inquiry and for generating hypotheses:

> Research Question 1: To what extent can escalation of commitment behavior be predicted from known related demographic characteristics (i.e., age, gender, ethnicity, SES, and tenure [work experience in years])?

$H1_0$: Age, gender, ethnicity, SES, and tenure [work experience in years]) will not predict escalation of commitment behavior.

$H1_{A:}$ Age, gender, ethnicity, SES, and tenure [work experience in years]) will predict escalation of commitment behavior.

Research Question 2: Can escalation of commitment behavior be correctly predicted from the personality traits of self-efficacy and optimism, and does the inclusion of self-efficacy and optimism individually increase or decrease the probability of escalation of commitment behavior among leaders and decision-makers?

$H2_0$: The personality trait of self-efficacy will not be a significant, positive predictor of leaders' escalation of commitment behavior.

$H2_{A:}$ The personality trait of self-efficacy will be a significant, positive predictor of leaders' escalation of commitment behavior.

$H3_0$: The personality trait of optimism will not be a significant, positive predictor of leaders' escalation of commitment behavior.

$H3_A$: The personality trait of optimism will be a significant, positive predictor of leaders' escalation of commitment behavior.

Research Question 3: If escalation of commitment behavior can be predicted correctly, is the joint interaction of self-efficacy and optimism central to its prediction?

$H4_0$: Personality, as measured by self-efficacy and optimism, will not jointly predict leaders' escalation of commitment behavior, while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

$H4_A$: Personality, as measured by self-efficacy and optimism will jointly predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

Theoretical Foundation

The most salient psychological explanation for escalation of commitment is derived from the self-justification theory (Staw, 1976, 1997). According to the self-justification theory, which itself was derived from the dissonance hypothesis (Festinger, 1957), leaders who are responsible for projects, assignments, or courses of action that are failing have a need to justify their original decisions or actions. The need to justify an initial decision or chosen course of action makes the leader increase his efforts by either reinvesting in the failing project, adding more resources, or persisting with the deteriorating course of action. According to Schultze et al. (2012), a leader or decision-maker continues with losing courses of action so as to "justify prior decisions and maintain a positive self-concept" (p. 17).

The behavioral perspective of self-justification theory proposes that being personally responsibility for initiating a project and the availability of information showing that the project is likely failing will prompt the need for justification and, in turn, will intensify a leader's commitment to continue the prior failing project or commit

to an earlier failing decision (Contractor, 2007). A more thorough review of the theories that explain escalation of commitment behavior and the personality traits of self-efficacy and optimism will be provided in Chapter 2.

Nature of the Study

This study was nonexperimental and quantitative. A hierarchical regression analysis was used to examine the relationship between the independent variables, self-efficacy and optimism, and the dependent variable, escalation of commitment behavior. Based on the purpose of the study, a quantitative method was appropriate because I examined distinct personal attributes (self-efficacy and optimism) of organizational leaders in the decision-making process. Leaders' escalation of commitment behavior was predicted based on their personality traits (self-efficacy and optimism). Lastly, I used the quantitative method to examine the existing theory regarding the role of leaders' self-justification in escalation of commitment situations. According to this theory, people will escalate their commitment to a failing project in order to justify their decisions on initial resource allocation decisions, especially in situations where they see themselves as personally responsible for negative reactions to the project (Brockner, 1992; Keil, 1995). The two independent variables were self-efficacy and optimism while the dependent variable of the study was escalation of commitment behavior.

Definition of Terms

This study was designed to address three primary concepts: self-efficacy, optimism, and escalation of commitment behavior. The following definitions are provided to ensure uniformity and understanding of these concepts throughout the study.

Dispositional optimism: Dispositional optimism is operationalized as a set of favorable expectations held by an individual regarding future outcomes (Carver et al., 2010). Data on participant's outcome expectancies was acquired using the Revised Life Orientation Test (LOT-R; Scheier, Carver, & Bridges, 1994).

Escalation of commitment behavior: This term refers to an individual's persistent behavior at sustaining commitment to an original decision or course of action even after receiving convincing proof that the initial decision or course of action was wrong (Staw, 1997). To obtain data on escalation of commitment behavior, participants responded to four questions with a rating scale of 0 *(Absolutely no)* to 100% *(Absolutely yes)* on two decision tasks adapted from Arkes and Blumer's (1985) validated blank-radar plane scenario.

Perceived self-efficacy: This term refers to a person's belief about how well he or she can perform an activity successfully (Bandura, 2001). Self-efficacy may be viewed as either situationally specific or as the general ability to cope with various circumstances. The eight-item New General Self-Efficacy Scale (NGSES; Chen, Gully, & Eden, 2001) was used to obtain information regarding the beliefs leaders have about how well they can perform an activity.

Self-justification: This term refers to individuals justifying the rationality of their decision or behavior to themselves and others. The need for self-justification is borne out of the inconsistencies between one's beliefs and behavior (Brockner, 1992; Sleesman et al., 2012).

Sunk cost fallacy: The sunk cost fallacy is a phenomenon in decision making that refers to a dysfunctional economic behavior on the part of an individual, leader, or decision-maker. This behavior entails continuing an unproductive venture, task, or endeavor by investing additional resources on it after evidence suggests otherwise (Arkes & Ayton, 1999; Schwartz, 2005).

Assumptions

In this study, I assumed participating leaders or decision-makers were in job positions in which decision making was commonplace, making escalation possible. I also assumed that all the measures in the current study, especially the escalation of commitment decision tasks, would measure exactly what they were supposed to measure and no other constructs. Specifically, I expected that the decision tasks would measure decision-makers' actual escalation behavior and not their intentions to escalate commitment. Although honesty of response has been noted to be a serious problem with self-report personality assessments (Aiken, 2002; Gregory, 2007), I assumed participants would honestly answer the questions on the self-efficacy and optimism scales (self-report personality tests). I expected that respondents would understand the questions presented in the survey and would be truthful in their responses. Lastly, I anticipated that the New

General Self-Efficacy Scale (NGSE), the Revised Life Orientation Test (LOT-R), and the escalation of commitment scenarios adapted from Arkes and Blumer's (1985) radar-blank plane scenario were appropriate survey instruments to gather information on the current study's variables of interest, as well as for answering the research questions.

Scope, Delimitation, Limitations, and Bias

Because the existing literature on escalation of commitment emphasized escalation effects through experiments involving student samples, it would be difficult to generalize the findings from this population (Bobocel & Meyer, 1994; Chang & Ho, as cited in Malenholf & Wallenburg, 2013; Staw, 1997, 2005). The scope of this study involved escalation of commitment in a real-world setting using leaders and decision-makers working in a public institution of higher education. However, the scope was limited because not all identified participants responded to the survey email invite. The study also included data gathering through self-report assessment tools, which may have led participants to provide exaggerated responses. Further, this study was delimited to the examination of leaders' or decision-makers' personality characteristics (self-efficacy and optimism) when making decisions about particular projects or assigned responsibilities.

A limitation of this study was that I was unable to obtain a sample size large enough to represent the population of interest. The survey invite link was sent to 400 identified decision-makers and leaders; but, only 131 clicked the link and attempted to complete the survey. Out of the 131 responses recorded, only 76 were usable and included in the regression analysis. Also, the external validity of the study was limited

because causality between escalation of commitment behavior, self-efficacy, and optimism could not be established. Rather, I attempted to explore the predictability of escalation of commitment behavior from the study's predictors (self-efficacy and optimism).

Another limitation was the susceptibility of the study's self-report tests to fall prey to the effects of social desirability. Social desirability entails participants answering questions or reporting in a favorable manner (Fisher, 1993). Because escalation of commitment behavior is viewed as faulty decision making (Bauer & Erdogan, 2010) that results in negative organizational outcomes and severe economic loss (Boulding, Morgan, & Staelin, 1997; Desai & Chulkov, 2009; Mahlendorf & Wallenburg, 2013; Tine, 2013), participants may have under-reported their involvement in it to refrain from revealing negative information to others. Therefore, to reduce the effects of this bias on study findings, only measures that had forced-choice items were employed.

One more limitation of this study, like other empirical studies, involved self-selection bias. Because participants were allowed to take part in the study based on their personal judgment of whether they met the study's initial criteria, their participation was likely related to their interest in the topic at hand (Bethlehem, 2010; Olsen, 2008), which could lead to systematic bias in the results.

A potential bias was measurement bias. Because measurement procedures have the potential to be erroneous, such errors must be minimized. Estimates of reliability suggest that changes in test scores might be due to errors in measurement and true scores

variability (Standards for Educational and Psychological Testing, 1999). I avoided this bias by making sure that the measurement scales employed in the study were reliable and valid, and all collected data were interpreted objectively.

Significance of the Study

Through this study, I addressed an under-researched area of organizational behavior: leaders who escalate their commitment to a failing course of action. As such, the results provide needed insight into the character traits associated with organizational leaders allocating more resources to unproductive projects. Leaders can become more aware of how a non-effective decision is likely to affect not only the organization as a whole but other stakeholders in the project, especially when the decision is based on finances. Because decision making cuts across every aspect of organizational functioning (Schermerhorn et al., 2011), additional research on the detrimental effects of irrational actions to organizational success is needed. Findings from this study will enrich the literature on leader personality and escalation of commitment. Based on the results, researchers can carry out additional studies on the significance of leaders' personality traits in justifying organizational decisions under specific situations, such as escalation of commitment.

Summary and Transition

Thus far, researchers have mainly focused on escalation of commitment in financial contexts involving new product development and capital investment (Boulding et al., 1997; Schmidt & Calantone, 2002). Despite research in organizational decision

making suggesting that individual processes play a role in leaders' escalation of commitment behavior (Brockner, 1992; Kisfalvi, 2000; Schaubroeck & Williams, 1993), little is known about whether personality traits such as self-efficacy and optimism jointly influence escalation of commitment behavior. Researchers have examined self-efficacy and optimism in isolation from each other, but little is known about how these personality traits function as a system in relationship to one another in escalation situations. Researchers have found a close individual positive relationship between self-efficacy and optimism (Gist & Mitchell, 1992; Majer, Jason, & Olson, 2004; Medlin & Faulk, 2011), showing that leaders who are efficacious may also be optimistic. Thus, investigating the combined impact of these personality traits on escalation of commitment and, subsequently, leadership performance, is an important and significant objective.

Previous researchers have called for additional real-world explorations of how personality characteristics relate to escalation (Steinkühler et al., 2014). In Staw's (2005) words, "There is no guarantee that the variables manipulated in the laboratory have captured the reality of escalation" (p. 229). Even though self-efficacy and optimism have been individually studied in some limited decision-making contexts, investigating these variables jointly in a real-world setting provided deeper insights into the escalation of commitment phenomenon. While existing research highlights self-efficacy and optimism as single constructs in commitment escalation, studying the joint role of these variables improve and extends the research on how they function in relationship to each other in practical settings. Although experiments are better suited to provide causal results, they

frequently differ substantially from real corporate settings. Thus, the current research examined the role of personality, as measured by self-efficacy and optimism in a non-laboratory setting. According to Weick (as cited by Reis & Gosling, 2010), conducting a non-laboratory research project "reflects the belief that the setting in which a behavior occurs must be a fundamental part of any theoretical account of that behavior" (p. 83). In doing so, the relatively mundane environment of a higher institution can provide a better opportunity to assess the manifestations of leaders' personality in the decision-making process. Streams of research on the topic of leadership personality as well as escalation of commitment had not directly addressed the relationship that may exist between these variables in higher education. Specifically, researchers had not examined if self-efficacy and optimism as personality traits predict escalation of commitment behavior among leaders in institutions of higher education. This study was an attempt to contribute to the understanding of this predictability in the current escalation research.

Chapter 2 is a detailed review of existing literature and a discussion of how optimism, self-efficacy, and escalation of focus commitment behavior relate to the current study. Researchers have emphasized the importance of personality in escalation of commitment. This study, however, focuses on the joint impact of self-efficacy and optimism on escalation of commitment behavior. The study concentrated on how these constructs may be more useful in understanding leaders' or decision-makers' persistence in losing courses of action, particularly among those in institutions of higher education

Chapter 3 outlines the research design, including the sample population and sample size, instruments used to measure the study's constructs, and techniques I used to analyze the data. Chapter 3 also highlights hierarchical linear regression analysis as a useful statistical technique for analyzing the relationship and prediction between the variables in this study.

Chapter 4, in which I summarize and discuss the results, includes tests of the hypotheses, the regression analysis, and sample description. Chapter 5 includes an interpretation of the results, as well as recommendations for further study. Additionally, social change implications are discussed in relation to personality and decision making in higher education.

Chapter 2: Literature Review

Introduction

Escalation of commitment refers to an individual's continued investment in a failing course of action despite unfavorable feedback (Keil et al., 2000; Schmidt & Calantone, 2002). I examined whether a leader's personality affected his or her tendency to invest more resources in an unproductive project, product, service, or goal. The central hypothesis of this study was that self-efficacy and optimism would predict escalation of commitment behavior among organizational leaders. Discussions regarding a leader's personality as a factor influencing his or her likelihood of putting more resources into a failing project have emerged in the literature (Chong, 1998; Chong & Eggleton, 2003; Stajkovi & Luthans, 1998). However, empirical investigations on whether particular leadership personality traits, such as self-efficacy and optimism, are associated with escalation of commitment behavior are limited. Researchers have insufficiently investigated if either self-efficacy or optimism are critical dispositions that could prompt an individual to continue to spend more time, delegate more personnel, or put more money toward the completion of an unproductive project. Since inquiry on this topic is still open for more research, additional empirical studies are needed to determine whether these positive dispositions are likely to prompt a leader to escalate his or her commitment toward decisions or courses of action that are failing to reach the intended goal, even after receiving negative feedback.

There has been no attempt to investigate empirically the combined impact of self-efficacy and optimism on a leader's escalation of commitment behavior. Little research has been conducted on the extent to which these relatively stable traits jointly magnify a leader's escalation of commitment behavior. Exploring the joint role of self-efficacy and optimism in commitment escalation was expected to shed more light on explanatory variables that amplify a leader's predisposition towards this ubiquitous problem. Specifically, examining self-efficacy and optimism jointly extended the knowledge of the pathway to escalation of commitment.

The following questions guided this research: Do leaders who are efficacious and at the same time optimistic about future events or courses of actions escalate more commitment compared to leaders who are either only efficacious or hopeful? In addition, will leaders' demographics (i.e., age, gender, ethnicity, socioeconomic status, and tenure) impact their escalation of commitment behavior?

More studies examining the joint role of self-efficacy and optimism in escalation of commitment can help explain the characteristics responsible for the increasing number of leaders allocating more resources to unproductive projects. Educational leadership is not immune to making irrational decisions and may escalate ineffective policies or services to the students' leaders serve. However, there has been no attempt to investigate if the decision-making process of educational leaders leads to escalation of commitment behavior. Specifically, there had been no research on the impact of the personality traits of self-efficacy and optimism concerning escalation of commitment behavior among

leaders in higher education. It was important, therefore, to examine the impact of personality traits on decision making leading to behaviors of escalation of commitment among leaders in higher education institutions.

Organization of the Chapter

I investigated whether escalation of commitment behavior was predicted by the personality traits of self-efficacy and optimism. The underlying issue is that individuals may escalate commitment to an unproductive project or course of action despite negative feedback when they are personally responsible for it, and this behavior may be more pronounced when people hold an optimistic view of the world and believe their actions are efficacious.

This chapter is organized into three parts. First, the major theoretical propositions for the variables are examined. Second, I addressed the relevant empirical studies that provided an analytical framework for a better understanding of escalation of commitment behavior. Finally, in the third section, I reviewed the literature on the potential relationship between personality traits, such as self-efficacy and optimism, and escalation of commitment behavior.

Literature Search Strategy

I conducted several literature searches to identify published and unpublished studies of self-efficacy and optimism as they relate to the escalation of commitment behavior. I also performed a literature search of the development of the escalation of commitment phenomenon. In particular, I employed two strategies to search relevant and

current literature from various databases, including PsycINFO, PsycArticles, Thoreau, and Dissertation Abstract International, as well as other multidisciplinary databases such as the Business Source Complete and Academic Search Complete. The search period was limited to the years between 2009 and 2016 to find the most current peer-reviewed references relating to escalation of commitment. Second, I conducted a nondigital search and review of the reference lists of the articles, literature reviews, books, web pages, and journals on escalation of commitment that made reference to self-efficacy, optimism, and other dispositional factors to obtain studies not previously identified in the database.

I contacted Walden University Library, the University of Wisconsin-Stout Library, and the Century College, Minnesota Library, and requested their assistance in locating additional studies (published and unpublished), seminars, or conference proceedings on escalation of commitment. Because of the changing perspectives on the escalation of commitment phenomenon, the search parameters on that topic were 1970, when escalation of commitment research commenced, to 2016, in order to isolate critical studies on escalation of commitment for the current research. The following terms were used to access the literature on commitment escalation; *overcommitment, failing course of action, overestimate, sunken cost fallacy, entrapment, and escalation of commitment behavior.*

Theoretical Framework

Multiple theorists have explained escalation of commitment behavior among those who are considered self-efficacious and optimistic. Specifically, the first two

theories, Staw's (1997) self-justification theory and Festinger's (1957) theory of cognitive dissonance, explain behaviors behind escalation of commitment. The last two theories, Bandura's (1997) self-efficacy theory, and Carver and Scheier's (1998) expectancy-value theory, offer explanations of why self-efficacy and optimism are relevant and useful for understanding escalation of commitment behaviors. Each of these theoretical orientations depicts various interpretations of escalation of commitment behavior and, in particular, the relationship escalation seems to have with a person's self-worth orientation and future outlook. For example, self-justification theory posits that leaders may persist in escalation of commitment behavior because they feel personally responsible for their actions and have a need to justify such actions, thus allotting more resources to an unproductive task. In a similar way, cognitive dissonance theory suggests that leaders may escalate their commitment as they strive for harmony when there are inconsistencies in their cognitions. The self-efficacy theory proposes that those who are highly self-efficacious may be successful at completing a task, and the likelihood that they may be more prone to escalating their commitment to an unproductive task is greater when compared to individuals with low self-efficacy. Conversely, expectancy-value theory suggests that those who are optimistic and committed to their goals may still put more resources into an unproductive project even in the face of negative feedback because of their confidence and optimism.

Self-Justification Theory

Although different theories have been used to describe escalation of commitment, self-justification theory has been noted to be the most appropriate at the individual decision making level (Brockner 1992; Keil, as cited in Cheng, Schulz, Luckett, & Booth, 2003). Accordingly, self-justification theory is relevant to commitment escalation because it provides useful insights into the phenomenon (Bobocel & Meyer, 1994; Brockner, 1992; Staw & Ross, 1987). First introduced by Staw (1976) through his capital investment study, self-justification theory postulates that people will likely justify their behaviors and refute any received negative feedback, especially when such behaviors are not consistent with their beliefs. This refusal of feedback entails an individual justifying his or her prior action or behavior and not accepting the negative feedback received regarding the behavior (Brockner 1992; Keil 1995). James and Sepehri (2011) also stated "a person influenced by self-justification will be inclined to have a very favorable opinion of previously chosen actions" (p. 9). In essence, a leader who experiences setbacks during the project phase increases his or her commitment to the project in an attempt to turn it around or to prove that his or her original course of action was a rational one (Staw, 1981). According to Holland, Meertens, and Van Vugt (2002), self-justification effects can "be very pervasive because they serve the central goal to feel good about ourselves as moral and wise human beings" (p. 1721).

As a way of justifying the motivation behind escalation of commitment behavior, Cheng (2003) stated that self-justification theory drew from Festinger's (1957) theory of

cognitive dissonance and Kiesler's (1971) theory of psychological commitment. This viewpoint suggests that organizational leaders become trapped in their prior decision because they do not want to admit a previous decision was irrational and in vain. Researchers have also reported that people tend to escalate their commitment toward an unproductive course of action to justify their previous allocation decisions (Barnir & Johnson, 1995; Brockner, 1992; Keil, 1995; Whyte, 1993), which, in turn, leads to an increase of resource investment in failing projects even after receiving negative feedback. When negative information about the viability of the project is at odds with a person's initial decision to invest, one way to resolve the dissonance is to ignore or deny the contradictory information by escalating commitment to the project. Although Kiesler (1971) argued that self-justification is a psychological state and that it is hard to prove the theoretical propositions, empirical tests conducted by researchers provide supportive evidence for its theoretical base. For example, the results from Staw`s (1976) early study of the prediction of self-justification theory showed that the mean amount of resources allocated to a previous course of action was higher in the negative feedback and personal responsibility conditions combined, thus supporting the proposition that escalation is associated with negative feedback and a need for justification.

Staw (1981) argued that decision-makers who rationalize their prior ideas continue with unfavorable projects in the hope that such projects will end successfully. This reasoning shows that the work environment is not immune to the self-justification rationalization, and escalating commitment may result in nonproductive outcomes.

Karlsson, Juliusson, and Garling (2005) also asserted that leaders may escalate more than usual when justifying their decisions or behaviors to someone who is important to them. People important to such leaders may include those in the workplace, subordinates, and coworkers. It is on this premise that I examined escalation of commitment behavior further in a workplace context, as organizational leaders are in positions of making either rational or irrational decisions based on their personality characteristics.

Theory of Cognitive Dissonance

The cognitive dissonance theory is a derivative of self-justification theory. Cognitive dissonance theory further explains why individuals feel a need to justify their actions or behaviors. Although both theories are appropriate for explaining escalation of commitment behavior, cognitive dissonance relates specifically to the behaviors exhibited when there are inconsistencies in an individual's cognitions, that is, between an individual's attitudes and behaviors. According to Aronson (as cited in Aronson, Wilson, & Akert, 2010), "The most powerful determinants of human behavior stem from our need to preserve a stable, positive self-image" (p. 3). The reason is people feel some tension or discomfort when there is a discrepancy between the behavior they elicit, an action performed, and their self-concept. Festinger's (1957) stated that cognitive dissonance arises when an individual simultaneously holds two inconsistent cognitions. Cognitions are "things a person knows about himself, his behavior, and about his surroundings" (Festinger, 1957, p. 3). In this state of psychological discomfort, Festinger proposed that the individual becomes motivated to accomplish some consonance and thus tries to

minimize whatever tension is being experienced. Specifically, the person actively seeks to avoid any information or situation that may bring about dissonance or increase the discomfort he or she already has. For example, the decision taken by a leader or manager involved in a capital budget decision process for a project would result in an initial cognition (generative cognition) that signifies his or her belief about how profitable and viable the project is as well as his or her commitment to such an investment decision (Festinger, 1957).

According to Beauvois and Joule (as cited in Cheng et al., 2003), the initially experienced cognition referred to as "generative cognition" is an "existing perception that makes it possible to assign the status of consonant or dissonant to the other cognitions" (p. 46). However, if the leader receives feedback or information that is inconsistent with his or her initial cognition (e.g., declining sales and lowered profits), a dissonant cognition is produced. This dissonance, according to Festinger, indicates that the project is not as viable and profitable as anticipated and has to be terminated. In such a circumstance, the leader is presented with two major ways to reduce the dissonance produced. First, he or she can accept the resulting dissonant cognition because of the negative feedback received, change his or her opinion about the prior investment decision made, and ultimately end the project. Second, the leader's commitment toward the project could continue by accepting initial cognition (i.e., generative cognitive) and by rejecting the dissonant feedback received. In this instance, rejecting the anomalous cognition means that the leader, despite receiving negative feedback, will escalate his or

her commitment toward the unprofitable project. According to Steele (1988), this heightened behavior arises because of the need for a positive self-image and not just because of the inconsistency between one's action and beliefs. Steele further suggested people will justify their actions or try to reduce the experienced dissonance because they do not want their image to be degraded. Therefore, leaders may want to escalate their commitment to troubling projects not only because of the dissonance they are experiencing but in addition to "save face" in front of their subordinates or co-workers. At other times, leaders may escalate their commitment so as to appear consistent in their decisions or behaviors.

Self-Efficacy Theory

The theory of self-efficacy supports the belief that people can complete a task successfully (Bandura, 1997, 2001). Stated differently, self-efficacy theory seeks to explain the belief that individuals hold about their capability to perform a task well (Parajes, 2009). This conviction is based on a person's ability, his or her motivation, and other situational factors to achieve stated goals. The theory further suggests that a person's self-efficacy stems from four sources, namely "performance accomplishments, modeled exposure, verbal persuasion, and physiological arousal" (Bandura, 1977b, p. 192). Individuals with high self-efficacy disposition are noted to possess a "can-do" attitude in completing given tasks and remain successful even while coping with other challenges of life. As such, these individuals may be able to do better at given tasks than those with low self-efficacy because of their confidence. In a similar way, the theory

posits that those with high self-efficacy, that is, people who believe they can successfully perform a task—are less likely to avoid difficult tasks or situations, but complete whatever they are working on. According to Bandura (1977a), the confidence to complete a task is from "the conviction that one can successfully execute the behavior required to produce the outcomes" (p. 193).

An individual's belief in his or her ability to finish a task may have a negative impact in escalation situations (Medina, 2001; O'Connor & Arnold, 2001). As a result, a person becomes prone to allocating more resources to his prior investments, especially when his feelings of efficacy are activated, an allocation believed to be the result of an attempt to rectify the unproductive decision and action. Myers (2010) stated that "when problems arise, a strong sense of self-efficacy leads workers to stay calm and seek solutions rather than ruminate on their inadequacy" (p. 57). Still, self-efficacy may result in commitment escalation especially when the worker firmly believes he or she can turn a failing situation around. Furthermore, those with high self-efficacy do not doubt their capabilities about successfully executing a task because they tend to persevere in difficult situations by working harder to achieve their goals (Bandura, 1997). Their belief and persistence may drive them to escalate their commitment in a failing situation or toward a failing course of action. Additionally, because individuals who are highly efficacious are more confident in their ability to complete a task (Bandura, 1977a), they are more prone to engage in actions that lead to escalation of commitment.

According to Kisfalvi (2000), when a decision or action that is taken by an individual is derived simultaneously from a complex combination of cognitions and emotions, he or she is likely to persist in that course of action. This is especially true in the case of a person with high self-efficacy. For instance, in the financial industry, feelings of self-efficacy may likely make some decision-makers allocate more resources to correct a bad loan. In situations like this, a leader's personality characteristics such as self-efficacy may influence him or her to exhibit persistent behaviors regarding an initial decision that has become unfavorable. Examining the implications of this example more broadly, one could conclude that even though banks might not introduce new loans to their financial books, dangers lie in the commitment escalation of an already well-established loan. In a review of the literature related to self-efficacy theory, scholars (Tine, 2013; Whyte et al., 1997; Yao & Cui, 2010) have suggested that future research should examine the role of individual characteristics and their potential relationship to a leader's persistent behavior or course of action. This study, therefore, addressed the call for additional research that would assist the understanding of how a leader's self-efficacy influences his or her persistence at a failing task.

Expectancy-Value Theory

The expectancy-value theory explains how dispositional optimism may affect a person's behavior and emotion. The theory suggests that people sometimes try to make sure that the behavior they exhibit is consistent with what they perceive and believe to be desirable (Carver & Scheier, 1998). Specifically, it posits that an individual's behavior is

a representation of desired goals (Carver et al., 2010). Carver and Scheier (1998) stated that the theoretical orientation of optimism suggests that people behave in certain ways because of a desire to attain a goal; that is, people work toward what is desirable to them. As such, the goal must be valued for an action to occur. Equally, people are either confident or have doubts about attaining a goal. Individuals who have enough confidence are believed to become engaged and remain involved in the attainment of a goal.

Scheier, Carver, and Bridges (2001) suggested that valuing a goal and having enough confidence to attain such a goal can be applied to the optimism trait and subsequently escalation of commitment. Such determination and persistence, which have enormous implications for the successful attainment of stated goals, could also become counterproductive in the long run (Carver et al., 2010). For instance, Carver and his colleagues asserted that being persistent may sometimes be problematic because those who are optimistic do not usually recognize things they cannot accomplish. They argued that those who are optimistic do not know when to put an end to an unsuccessful task. Thus, leaders and managers who value a project they are currently working on and believe they have the confidence to bring the project to fruition or produce positive outcomes from it are more likely to escalate their commitment to the project even in the face of impending failure. An optimistic leader may, therefore, allocate more resources into a failing course of action, believing a better outcome is possible if he or she thinks he or she is capable (confident) and values the project itself. Consistent with this argument is Wrosch, Scheier, Carver, and Schulz (as cited in Carver et al., 2010), who suggested that

optimists may persist in a goal-directed behavior if "there are circumstances in which people have to recognize that their goals are lost and that the adaptive course is to turn away from them" (p. 15).

Because optimists expect success and good outcomes from ongoing tasks/projects (Scheier et al., 2001), they are more likely to continue escalating their commitment to an unproductive situation. According to Myers (2010), optimism heightens a person's vulnerability, stating that "believing ourselves immune to misfortune, we do not take sensible precautions" (p. 67). During this vulnerability stage, a leader may make decisions that are not appropriate and put more resources into a failing course of action. Therefore, the individual factors that affect the escalation process need to be examined—in particular, how the personality trait of optimism relates to commitment escalation and decision control. Based on this idea, I examined the persistence of decision-makers/leaders who are hopeful that they can turn failing situations or courses of action around despite negative feedback.

An Overview of Escalation of Commitment

Escalation of commitment is the continuous choice by an individual to invest in a deteriorating course of action despite apparent negative feedback and consequences (Brockner, 1992). Sometimes referred to as the sunk cost fallacy (Gunia et al., 2009; Staw, 1997), escalation of commitment is a phenomenon that leads to a systematic delay of exit decisions. In other words, far more projects are terminated too late rather than too early (Lange, 1993; Meredith, 1988). Staw and Ross (1987) also described escalation

situations as "predicaments where costs are suffered in a course of action, where there is an opportunity to withdraw or persist and where the consequences of persistence and withdrawal are uncertain" (p. 40). According to Brockner (1992), decision-makers in different escalation situations find themselves faced with negative feedback concerning a previous decision or chosen course of action where they must decide whether to persist with or withdraw from it. Though escalation occurs in many different contexts (e.g., health care, government, business, nonprofit institutions, politics, and information systems), all involve decision-making in the face of negative feedback about prior resource allocations, uncertain surroundings, the possibility of attaining set goals, and the choice to persist through initial decisions (Staw, 1997; Wong, Kwong, & Ng, 2008).

The empirical evidence on escalation originates mostly from laboratory experiments (e.g., Bobocel & Meyer, 1994; McCain, 1986; Staw, 1976). However, the literature on the personal factors influencing escalation of commitment and the situational determinants of escalation of commitment has been split and inconsistent for a long time. Even so, researchers have attempted to provide actual examples of escalation situations and the role of individual attributes in escalation. In a major study, Staw (1981) showed that individuals seeking to prove that their initial decision or action was a good one escalated commitment toward an uneconomical project if there was some possibility of recouping anticipated losses. Similarly, some studies (e.g., Bragger, 2003; Greitemeyer, Schulz-Hardt, & Frey, 2009; Ross & Staw, 1986, 1993) have shown that, despite apparent negative information, an unproductive project may be sustained even at a

substantial loss. For example, findings from the Hubble Space Telescope study showed that many managerial mistakes were made during the project's implementation stage, which then resulted in huge spending and increased escalation of commitment to the project (Capers & Lipton, 1993; Quinn & Walsh, as cited in Chulkov, 2007).

Ross and Staw's (1986) case study about Expo '86 in Vancouver, British Columbia, also demonstrated a high degree of escalation of commitment by the attendant administration. According to Ross and Staw, the administration increased the budget substantially even when it was apparent the event was unprofitable. Timing is critical for the impact of perceived problems on escalation of commitment behavior in organizations. Early negative salient feedback reduces escalation of commitment (Brockner et al., 1982; Drummond, 1994, 1995), but if the negative information is revealed later, a leader's likelihood of escalating his or her commitment might increase (Teger, 1980). For example, Keil and Mann's (1997) findings of a survey of IT auditors revealed that 81% of them indicated that, to some degree, they escalated commitment to one or more of the five projects they had worked on—especially when information was received late. Thus, some individuals will increase their commitment to a failing project because they received late information about such project but can de-escalate if the information is received early even though it is unfavorable. Such findings suggest commitment escalation thrives mostly in situations in which information received is unfavorable or late. The present study contributed a new awareness of the motivation behind why leaders

still continue with unproductive projects even when information received is negative and particularly the role played by a leader's disposition in such behavior.

Alternative Viewpoints on Escalation of Commitment

Researchers have shown that leadership plays a significant role in the continuation to invest in a failing course of action (Brockner et al., 1981; Keil et al., 2000; Schmidt & Calantone, 1998). Escalation research suggests that leaders are more likely to persist in their initial choice of action or decision by investing more into it without rationally thinking (Brockner, 1992; Schaubroeck & Davis, 1994; Schaubrock & Williams, 1993; Sleesman et al., 2012; Wolff, 2003). In particular, organizational leaders, as well as those involved in decision making, are noted to invest time, money, energy and other resources in an unproductive project in spite of prior resource allocations and negative feedback (Kisfalvi, 2000).

According to Staw (1995), the persistence in allocating more resources to an unproductive project is the result of the personal responsibility to which people hold themselves. Specifically, studies have shown that leaders are most likely to increase the amount of resources committed to a failing project or a prior bad decision when they have been personally responsible for previous negative consequences (Brockner, 1992; Harrison & Harrell, 1993). For example, a rational decision would be to leave a project that is likely to fail or stop funding an investment that is failing and not yielding expected returns, but decision-makers do otherwise by still putting more resources into such investments. Schmidt and Calantone (2002), in their new product development (NPD)

study, also reported that leaders (i.e., managers) who took on the leadership of a new project would likely not see the project as failing even when it was. Rather, they were more likely to become more committed to the project, putting up more funds for its completion compared to those who became responsible for the project after it started. In light of the theoretical perspective of self-justification, the personal responsibility to which leaders hold themselves likely results from their need to justify actions and decisions taken. As such, organizational leaders, in particular, may be more disposed to justifying their decisions of escalation at all costs, especially when they are personally in charge of a failing project or wrong investment decision and do not want to acknowledge failure or appear unproductive.

Review of Related Studies

The following empirical studies provide an analytical framework for better understanding how self-efficacy and optimism may influence escalation of commitment behavior among organizational leaders.

Self-Efficacy and Escalation of Commitment

Self-efficacy is defined as "people's beliefs about their capabilities to produce designated levels of performance that exercise influence over events that affect their lives" (Bandura, 1994, p. 2). According to Myers (2010), an individual may persist in a task and put in considerable effort without being distracted by initial failures because of his level of self-confidence. This proposition stems from the theory of self-efficacy (Bandura, 2001), as it is believed that self-perceptions of high efficacy would intensify

irrational escalation whereas self-perceptions of low efficacy would reduce it. For example, Whyte et al. (1997) found that self-efficacy was a significant factor to consider in escalation of commitment. They stated that personal attributes influenced escalation of commitment because they increase a person's ability to escalate more in a failing situation. Biyalogorsky, Boulding, and Staelin (2006) also found that the "driving force behind escalation behavior is improper use of initial positive beliefs in the face of negative new information" (p. 108). As such, overconfident leaders may be more willing to increase their commitment to a previous course of action even in the face of negative information.

Kisfalvi (2000), in a longitudinal study, used a field setting to investigate the role of self-efficacy in decision-making situations. Kisfalvi found that self-efficacy positively predicted persistent decisions. Specifically, leaders with strong feelings of self-efficacy are more persistent, less anxious, and more successful (Kisfalvi, 2000). Hence, leaders that feel threatened may want to defend their egos by escalating their commitment to an unproductive project. Similarly, other leaders may persist at a losing course of action, not only because they do not want to admit to themselves that they made a mistake, but also because they are reluctant to admit the mistake to others. From the theoretical standpoint of self-efficacy, the "can-do" attitude of leaders and the belief they have in themselves to turn failing situations around are two reasons for refusing to admit mistakes and continuing in escalation commitment.

Other researchers, such as Seijts et al. (2000), reported that individuals with high self-efficacy have a higher tendency to persist in a project/venture that is not thriving and, therefore, will escalate their commitment. Brundin and Gustavsson (2008) also found that positive emotions (e.g., self-confidence, challenge, and hope) intensify an entrepreneur's tendency to escalate commitment while negative emotions (e.g., embarrassment and strain) will not. Similarly, based on his findings, O'Neill (2009) concluded that the "effects of emotion expressions on escalation are strongest when individuals are collectively responsible for the initial decision, a finding that was mediated by feelings of psychological safety" (p. 2396). As a result, leaders may continue in their original decision to invest more resources in a failing project when working in a team.

Supporting the notion that emotions also play a role in escalation, Moon (2001b) found that achievement-striving mediated the relationship between escalation of commitment and conscientiousness. Thus, leaders who are achievement-oriented may be more prone to investing more in an escalation situation. Simonson and Staw (1992) indicated that organizations need to reduce the threat to a leader's ego and explore alternative means that will pose less threat to such leaders so that they do not end up reinvesting in resources in unproductive projects. Taking this idea a step further, Harrison and Harrell (1993) showed that students who were told that they had information not privy to others, and who were also told that not continuing an on-going project would damage their reputation and employment prospects, escalated more by investing in unprofitable projects than participants who were told nothing. Consistent with this point

is James and Sepehri (2011), who argued that most of the behavioral decisions and courses of action taken are a result of individuals striving for consistency between their self-concept and available feedback as well as a way to validate their self-worth. One of the premises underlying a leader's behavior is not being able to maintain consistency between his or her cognitions (Festinger, 1957). As posited by the theory of cognitive dissonance, one can conclude that escalation justification is a result of the inconsistencies experienced by the leader pertaining to projects or tasks at hand.

Schmidt and Calantone (1998) suggested that giving leaders beneficial information regarding a project does not guarantee they would make better decisions and not escalate their commitment especially during a new product development. However, Robbins (1998) stated that individuals (e.g., managers and supervisors) high in self-efficacy can handle adverse decision consequences better and therefore, may be able to choose successful strategies to reach their goals; those with low self-efficacy, on the other hand, might panic when the means of achieving such goals is not apparent. Even though people who possess high self-esteem enjoy positive thoughts about themselves and can reduce their dissonant cognitions because of their positivity, these people still employ many self-justification strategies, especially in high-risk situations such as escalation (Holland et al., 2002). Decision-makers, therefore, need to justify elicited behaviors or actions, especially when they believe such courses of actions can lead to positive outcomes. The need for this justification, as stated by the theoretical perspective of self-

justification theory, is an important aspect of the decision-making process because individuals tend to justify their actions to protect their self-image.

Optimism and Escalation of Commitment

Optimism refers to the tendency to always expect the most favorable result from a situation or an event (Gabris et al., 1998). This definition relates well to the idea that a course of action or investment will lead to and generate positive outcomes and returns (Arkes & Hutzel, 2000). Roux (2010) also defined optimism as "an explanatory style that attributes positive events to personal, permanent, and pervasive causes and interprets negative events in terms of external, temporary, and situation-specific factors" (p. 28). Seligman (as cited in Roux, 2010) conceived optimism as "making an internal, relatively stable, and global attribution regarding positive events" (p. 4). For the purposes of this research, optimism is a set of favorable outcome beliefs held by an individual while working towards the completion of a task.

The literature suggests that optimism contributes to workplace self-serving behavior such as escalation of commitment (Johns, 1999; Roux, 2010; Schneider, 2001; Seligman, 2002). For example, Schmidt and Calantone (1998) argued that when there is an overestimation in future returns for innovative products, leaders will escalate their commitment to that project. Also, individuals who overestimate their potential success in completing a project for which they were responsible escalated their commitment because they felt justified doing so (Arkes & Hutzel, 2000). Although some researchers have stressed the importance of optimism in challenging situations, more studies are

needed on the degree to which this personality trait accounts for escalation behavior in order to gain more clarity and insight into the escalation phenomenon.

Juliusson (2006) demonstrated that being optimistic about future returns, despite a high sunk cost, can lead to escalation of commitment. Similarly, Luthans, Avolio, Walumbwa, and Li (2005), in their study on Chinese factory workers, found a significant relationship between optimism and rated performance. Yossef and Luthans (2007) found that optimism was related to employees' performance, satisfaction, and happiness. Such findings suggest that when an individual exudes positivity and desires high performance and success on the job, the person may continue to add more resources to a failing course of action because he or she is confident about the course of action and wants to succeed at all costs. Consistent with these findings is Boulding et al. (1997), who argued that when a leader is optimistic about the success of an ongoing project, he or she is more likely to persist in a course of action. For example, Aspinwall and Richter (1999) found that people who were optimistic found it difficult to disengage and continued at tasks in which they were failing especially when there was no alternative work to change to. This result also parallels with Rasmussen, Wrosch, Scheier, and Carver's (2006) findings that optimists usually find it difficult to disengage from set goals, particularly when such goals are believed to be unattainable.

Moon (2001a) cautioned that this positive outlook is sometimes derailed by sunk cost effects, which signify not quitting because of the high investment already expended or thinking that the project will soon come to a completion. Whyte (1986) also opined

that "regardless of a direct 'culpability on the part of the decision-maker for initial failed outcomes,' making new choices might have an impact on the overall outcome of the project" (p. 319). Whyte's assertion is consistent with Bateman and Zeithani's (1989) finding that putting much effort and resources into a project results from failure feedback rather than success feedback. The personality of leaders or decision-makers is, for the most part, not currently thought to be a negative influence on the organizational decision-making process and outcomes (Awadh & Ismal, 2012; Bono & Judge, 2004; Rubin, Munz, & Bommer, 2005; Sung, Choi, & Kim-Jo, 2014). Therefore, this research provided a new perspective to the existing literature of organizational leadership behavior based on leaders' personality traits.

Summary and Conclusion

A review of the literature showed that escalation of commitment is a pervasive problem in both individual and group settings. Escalation of commitment involves individuals allocating more resources toward a floundering endeavor despite receiving negative information about it. Commitment escalation also includes adding more funds to an investment pursuit even when feedback suggests such an investment decision will be unsuccessful. According to Garland (1990), this pursuit is "throwing good money after bad." Additionally, the literature indicated that individual characteristics are significant in determining the degree to which people persisted in prior initiatives or decisions despite apparent failure. For example, Whyte et al. (1997) reported that believing in one's capacity to complete a task or achieve a goal amplifies escalation of commitment. Carver

et al. (2010) argued that outcome expectancies play a role in future escalation initiatives. Taken as a whole, research suggests that decision-makers may become overly optimistic leading to an overestimation of their expectations for success and, subsequently, their perseverance at failing projects (Juliusson, 2006; Staw, 1997; Steinkühler et al., 2014).

The literature related to commitment escalation also brings attention to personality as an important factor that influences organizational leaders' determination to correct failing projects, poor investment decisions, and unproductive tasks. Although individual attempts have been made by a few researchers to determine how individual differences affect decision-making even in the face of apparent failure, there was a need to examine further and explore the role of personality in the sunken cost fallacy referred to as commitment escalation. After reviewing the literature on escalation of commitment, I concluded that an in-depth probe was necessary of whether escalation of commitment behavior is predictable from particular enduring personal characteristics, such as self-efficacy and optimism. As reported by Moss (2008), researchers have not been able to find consistent results concerning how individual characteristics intensify or prevent escalation of commitment. Specifically, the current literature has not examined the interrelatedness of these personality traits (self-efficacy and optimism) to escalation of commitment behavior and their implications for organizational productivity and effectiveness. Investigating their combined interaction would provide a deeper understanding of the process through which corporate organization leaders make decisions and justify their behaviors or actions.

Since decision-making is an important aspect of educational leadership (Dimmock & Walker, 2002) and drives organizational outcomes (Finkelstein & Hambrick, 1996), the role of personality traits needed to be examined regarding escalation of commitment among leaders in higher education institutions. This study was intended to help educational leaders arrive at a better understanding of how their non-rational decisions and escalated behaviors may impact the institution's overall functioning and effectiveness.

In Chapter 3, the methodology and research design for measuring escalation of commitment behavior, including the measures of self-efficacy and optimism, is discussed. Information on the study's sample and data collection methods are also provided.

Chapter 3: Research Method

Introduction

Escalation of commitment is a pervasive problem that undermines organizational success (George & Jones, 2008). Leaders sometimes make decisions that negatively impact not just the organization but the society as a whole (Mahlendorf & Wallenburg, 2013; Steinkühler et al., 2014). As such, when leaders commit additional resources to unproductive courses of action, it may be because of their personality traits (Brockner, 1992). The purpose of this study was to address the problem of limited empirical evidence to support claims that personality contributes to leadership escalation of commitment. Specifically, I investigated whether the personality traits of self-efficacy and optimism jointly predict organizational leaders' escalation of commitment behavior. I also addressed whether leaders' demographic characteristics (age, gender, ethnicity, SES, and tenure) significantly affected their escalation of commitment behavior. By addressing these questions, this study provides insight into the association between leaders' personal characteristics and their escalation of commitment behavior. The research design is discussed in this chapter, specifically, the study setting, sample population, data collection method, instrumentation, and statistical analysis, the reliability and validity of the instrumentation, as well as the procedure for disseminating findings from the study.

Research Design and Approach

According to Parahoo (1997), the research design is "a plan that describes how, when and where data are to be collected and analyzed" (p. 142). Likewise, Polit and

Hungler (1991) asserted that designs help to enhance both internal and external validity of the study being conducted. Given the overall research objective of this study, the design is a quantitative correlational design. Correlational design is a non-experimental research design useful for describing the relationship between two or more variables as well as for quantifying the strength of that relationship. It was important to study the possible relationships between perceived self-efficacy and optimism in escalation situations because research has indicated that most people bring their personalities into the organization during decision-making (Brockner, 1992; Chong & Eggleton, 2003). As a result, correlational design was employed to analyze the existence of possible association among the variables of interest (self-efficacy, optimism, and escalation of commitment behavior) while making attempts to measure the extent to which they are related. By the same token, a correlational design is useful for making predictions of outcomes from variables of interest. In this study, I hypothesized that self-efficacy and optimism would jointly predict leaders' escalation of commitment behavior.

Although there was no manipulation of any variable in determining the relationship between self-efficacy, optimism, and escalation of commitment behavior, a correlational design was employed to examine the prediction of escalation of commitment behavior while attempts were also made to (a) minimize probable standard error of estimate in the study (McHugh, 2008); (b) build possible confounding variables as factors into the design which may, in the long run, enhance the validity of the study's

findings (Nachmias & Nachmias, 2008); and (c) provide insights into organizational leaders' escalation behavior through predictive findings.

In this study, a hierarchical linear regression technique was used to examine the hypothesized relationships. Hierarchical multiple regression technique, also known as sequential regression (Tabachnick & Fidell, 2007), can be used for many different types of analyses. Researchers have often used it to examine the relationship between two or more independent variables and a dependent variable while controlling for the impact of other independent variables (control variables) on the dependent variable. Specifically, this test was employed to measure the degree of association between the study variables (self-efficacy, optimism, and escalation of commitment behavior), and the prediction of the criterion (escalation of commitment behavior) by the independent variables (self-efficacy and optimism). Regression techniques are often used for investigating the strength of the relationship between independent variables that are dichotomous or metric and a dependent variable that is metric (Tabachnick & Fidell, 2007).

Multiple regression statistical methods are also commonly used to predict changes in a dependent variable from two or more independent variables (Grimm & Yarnold, 1995). According to Pedhazur (1997), hierarchical regression analysis is useful for explaining the variance from interrelated predictor variables. In particular, this statistical procedure is used to examine the influence of the study predictors while controlling for the effects of other variables (covariates) in the study. As such, hierarchical regression

was appropriate to analyze the effects of self-efficacy and optimism (predictor variables) after controlling for age, gender, ethnicity, SES, and tenure (demographic variables).

Assumptions of Regression Techniques

One of the underlying assumptions of regression techniques involves dealing with significant outliers in the variables of interest, high leverage points or highly influential points (Cousineau & Chartier, 2010). Outliers may affect the multiple regression equation and, in particular, influence the precision of the estimation of the regression weights. As such, both the predictor variables (IVs) and the outcome variable (DV) should be rid of outliers before conducting multiple regression (Gravetter & Wallnau, 2013). The assumption of multicollinearity must be addressed in multiple regression. Violating this assumption involves, at least, two of the study's predictors too highly related with each other, leading to large standard errors and causing the regression equation to be unreliable (Field, 2013). According to Gujarati (2003), if multicollinearity problems occur in a study, the model should be left as it is since multicollinearity does not impact the effectiveness of the overall regression model or the predictions made through such model. In this study, there were no multicollinearity problems. Additionally, collinearity between the two predictor variables (self-efficacy and optimism) was ruled out based on a high tolerance (*T*) statistic. Field emphasized that tolerance values should be above .10. Lastly, efforts were made to increase the study's sample size so as to produce precise estimates. According to Baguley (2012), gathering more data leads to lower standard errors and produces accurate estimates. Another assumption was the ratio of cases to

predictors. To correctly test for multiple correlations and individual regression coefficients and subsequently arrive at an accurate prediction equation, the sample size must not be too small (Morrow, n.d).

In determining regression sample sizes, Green (1991) suggested that it is important to have a sample size that is greater or equal to $N > 50 + 8m$ (where m is the number of IVs). In a similar way, the normality assumption must be met. Here, it is important that the residuals (errors) are normally distributed. Having all variables approximately normally distributed enhances the prediction equation. In a similar way, each of the independent variables, as well as collectively, must be linearly related to the dependent variable. Lastly, it is important that the variances of error along the line of best fit remain the same across all levels of the predictor variables. Violation of this assumption (heteroscedasticity), therefore, lies in the errors varying at different values (Osborne & Waters, 2002; Tabachnick & Fidell, 2007).

Advantages of Hierarchical Linear Regression

Hierarchical regression is advantageous over other linear regression techniques because it allows a researcher to decide the order in which the study's predictor variables will be analyzed and entered into the regression model (Petrocelli, 2003). Through this regression technique, I was able to observe the unique effect of each predictor (self-efficacy and optimism) as well as together on the criterion as opposed to entering all the predictor variables at the same time (Tabachnick & Fidell, 2007). Hierarchical regression is also beneficial for partialling out the variance from the dependent variable as a result of

each added predictor or set of predictors (Grimm & Yarnold, 1995). However, Petrocelli (2003) cautioned that a "theoretically based plan" (p. 11) should be utilized to determine the order in which the variables are added to the regression model. In the current study, the control variables (age, gender, ethnicity, SES, and tenure) had priority first and were entered into the regression model. Subsequently, the predictors (self-efficacy and optimism) were added to the regression model to see if they predict escalation of commitment behavior above and beyond the effects of the demographic variables.

Doing so permitted a unique examination of the impact of personality (self-efficacy and optimism) on escalation of commitment behavior while controlling for the effects of age, gender, ethnicity, SES, and tenure. By adding self-efficacy and optimism last to the regression model, I was able to examine the effects of these personality traits beyond other demographic variables as well as observe possible changes in escalation of commitment behavior after the effects of identified control variables were analyzed. Afterward, the two predictor variables (self-efficacy and optimism) were entered into the regression model simultaneously to examine their joint effect on the criterion variable (escalation of commitment). Examining the interaction between self-efficacy and optimism was the third step in the regression equation.

Independent Variables

The first independent variable was perceived self-efficacy, the confidence a person has in himself or herself to successfully complete a course of action (Bandura, 1994). Even though self-efficacy is viewed as a positive personality trait, individuals with

a self-efficacy notably greater than their actual capability may overestimate their ability to execute successfully given tasks or accomplish set goals (Csikszentmihalyi, 1997). As noted in the literature review in Chapter 2, the feelings of self-efficacy contribute to a tendency to continue in risky decision-making or behavior. In particular, beliefs about personal efficacy may prompt leaders to take risky actions especially if they believe it will be rewarding (Whyte, Saks, & Hooks, 1997). A leader may be more willing to allocate more resources to a previously unproductive decision or course of action in an attempt to correct it.

The second independent variable was dispositional optimism, the tendency to always expect the most favorable result from a situation or future event (Scheier, Carver, & Bridges, 1994). An individual's optimism is the positive expectation he or she has about future outcomes (Seligman, 2000). Though a positive characteristic in general, related literature on optimism indicates a likelihood of an overestimation of favorable outcomes among those who are highly optimistic (Puri & Robinson, 2007; Seligman, 2000). For instance, Puri and Robinson argued that "the dangers of extreme optimism may lead individuals to neglect taking basic precautionary measures" (p. 76). Previous research on optimism shows optimism as an attribute that relates to positive future outlook and outcomes (Kuratko & Hodgetts, 2004; Liang & Dunn, 2008). However, it has been noted that overoptimistic beliefs can be unhealthy and may lead to negative consequences (Liang & Dunn, 2010; Schneider, 2005). As such, a leader's unrealistic optimism during the decision making process may result in unpredictable outcomes for

the organization. According to Liang and Dunn (2010), "being overly confident and unrealistically optimistic drives entrepreneurs to over-estimate the odds they will succeed" (p. 5).

Dependent Variable

The dependent variable was escalation of commitment behavior, the allocation of additional resource (e.g., time, money, effort, labor, energy) by an individual to an unproductive endeavor or situation (Staw, 1997). Escalation of commitment also occurs when decision-makers continue to invest further in a bad decision in an attempt to make it right. Escalation of commitment involves organizational leaders facing a dilemma of whether or not to persist in an unproductive task or decision (Kelly & Milkman, 2013). As emphasized by Brockner (1992), leaders often must choose to add more funds to a failing project, especially when its prospect for success is minimal. According to Ross and Staw (1986), "Administrators may persist in a course of action, not just because they do not want to admit a mistake to themselves, but because they hesitate to expose their errors to others" (p. 217). Others overcommit to a losing course of action for fear of failure (Bobocel & Meyer, 1994). However, Brockner (1992) and Staw (1997) contended that persistence in a failing course of action is more prevalent among leaders who feel personally responsible for their initial decision than leaders who are not personally accountable for their decisions.

Control Variables

Age and gender. The primary statistical controls are age and gender. These variables are significant for several reasons. Individual factors like age and gender influence risk-taking behavior, one of which is escalation of commitment behavior (Aloka & Bojuwoye, 2013; Dietrich, 2010; Finucane, Mertz, Slovic, & Schmidt, 2005; Rolison, Hanoch, & Wood, 2012; Schlottmann, 2000). Finucane et al. (2005) revealed that age has a significant influence on a person's cognitive functioning. According to de Bruin et al. (2007), being highly self-efficacious or overconfident impedes one's ability to make effective decisions or policies. Other researchers have also argued that as people get older, they become more overconfident in their decision-making ability and risky behavior (Wong & Kwong, 2007). For instance, Reed, Mikels, and Simon (2008) claimed that older people do not seek enough information when independently making decisions. However, Albert and Duffy (2012) and Manning, Stewart, Bundred, and Trivers (2004) contended that older people make fewer risky decisions that younger people. In this study, it is envisaged that older leaders will be less cautious in their decision making and increase commitment to a failing course of action because of their past success. Thus, based on age, organizations may need to establish appropriate and effective leadership training programs.

Numerous researchers also supported the notion that men are more inclined toward risky decision-making behaviors than women (Aloka & Bojuwoye, 2013; Brooks & Zank, 2005; Eckel & Grossma, 2008; Schmidt & Traub, 2004; Zuckerman, 1991).

Powell and Ansic (1997) and Barber and Odean (2001) stated that men make more risky investment choices than women. These findings, therefore, show that age and gender are two important demographic factors that may impact the degree to which a leader escalates his commitment towards a losing course of action or in decision making in general. Because individual factors contribute in various ways to risk-taking behavior, it was important to minimize the potential effects of other factors, such as age and gender, that could limit an understanding of the hypothesized relationship between self-efficacy, optimism, and escalation of commitment behavior.

Additional controls. Other controls were ethnicity, SES, and tenure (work experience in years). Adding these variables removed potential variance that may have led to conflicting explanations about personality traits and escalation of commitment behavior. Also, these variables were selected from extant research because there they have accounted for possible variance in leadership decision making and escalation of commitment behavior. According to Mohammadpanah and Mahmoodi (2015), SES is an individual factor that affects decision making in organizations. For instance, de Bruin, Parker, and Fischhoff (2007) contended that those who are in the low-income class "are more likely to make errors in economic reasoning, such as honoring sunk cost" (p. 939). Dietrich (2010) also argued that people who are in low socioeconomic status (SES) tend to make poor decisions, especially when they have negative life experiences.

A mixed and inconclusive review of the literature revealed that tenure may or may not contribute to escalation of commitment. For example, Kennedy (1995) found

that work experience does not diminish an individual's cognitive bias, and as such, people may be more inclined towards a failing project and put additional resources towards the project. However, in a study on adverse framing effects, Choi (2010) maintained that leaders/managers with a longer work tenure have a lower tendency of escalation of commitment. In a similar way, Salter and Sharp (2001) found that leaders with more work experience engaged less in escalation of commitment. Likewise, Keil et al. (2000) reported that tenure was a not a significant factor in a leader's willingness to continue adding funds to a failing project. Some studies have also attempted to explore the role of ethnicity in risk-taking behavior and particularly, escalation of commitment. For instance, in a study on sunk cost and overcommitment, Molden and Hui (2011) showed that ethnicity did not significantly contribute to de-escalation of commitment. Choi (2010) also found that nationality (ethnicity) significantly influenced escalation of commitment. Specifically, Choi reported that American managers, compared to their Chinese counterparts, are more predisposed toward escalation of commitment behavior and as such, may take high-risk decisions or actions.

Adding these additional relevant statistical control variables helps limit possible confounding effects on the relationship between the explanatory variables and provides a better understanding of the role self-efficacy and optimism play on a leader's escalation of commitment behavior. According to Bernerth and Aguinis (2015), the inclusion of multiple control variables "purifies results and uncovers 'true' relationships" (p. 2).

Methodology

Study Population

The study's population of interest were all individuals holding leadership positions in public institutions of higher education while the sampling frame included all employees of a community college under the umbrella Minnesota State Colleges and Universities (MnSCU) system in Minnesota who were either in leadership positions or in positions where they can independently make decisions. In particular, a complete list comprising intended sampling units was obtained from the college's human resources office. The list included employees in active employment as well as those who had completed their probationary period. Before I identified my sample, I screened out employees who were not in active employment. I also ensured that the list was accurate and did not contain errors in respect to having retired employees, laid-off employees, or twice-listed employees**.** This list eventually helped me narrow down those I later contacted through email.

Participants

Participants were employees at a 2-year Community College in Minnesota. Participants included both male and female employees in different departments who had been on the job for more than 6 months. Participants also included individuals who were in the position of making one or more decisions regarding their job or daily tasks and responsibilities. The minimum sample size for the relationships that was examined in this study is detailed below.

Inclusion and Exclusion Criteria

Eligible participants included only employees who were in the capacity to make independent decisions concerning their jobs or assigned duties and tasks. Additionally, only employees who had completed their probationary period of more than 6 months were included in the study. These individuals were eligible because escalation of commitment occurs among organizational decision-makers and not necessarily only elected or appointed leaders (Staw, 1997). Students and support staff members who were not in the position to make an independent decision as identified by the College's human resource director, as well as those that were new on the job, were excluded from the study.

Study Setting

The study setting was a Minnesota community college offering many majors. This setting was appropriate for the study because (a) the research involved leaders and decision-makers in a public institution of higher learning, and (b) there had been no attempt to study leadership escalation of commitment behavior involving participants from community colleges. Studying escalation of commitment among leaders within this population was, therefore, important, because risky decisions in educational research, management policies, institutional grants, athletics spending, and so on could have significant negative and far-reaching effects on student lives and the society as a whole.

Sampling Design

A convenience sampling design was utilized to select participants in a non-random manner for the study. This selection entailed a single-stage sampling procedure because of my access to the population of interest. According to Creswell (2003), "A single-stage sampling procedure is one in which the researcher has access to names in the population and can sample the people (or other elements) directly" (p. 156). Even though this selection process could have posed a threat to this study's internal validity (Kerlinger & Lee, 1999), the selected control variables (age, gender, SES, ethnicity, tenure) helped strengthen the validity of the study.

Timeframe

The total period for gathering data was 6 weeks. The first 2 weeks was used to obtain approval from the College's Institutional Review Board (IRB) and to obtain potential participants' contact information. The second 2 weeks was used to gather data from willing participants using PsycData as survey host. During the third 2 weeks, a reminder email was sent to potential participants and more responses was recorded.

Sample Size

According to Nachmias and Nachmias (2008), "It is often impossible, impractical, or extremely expensive to collect data from all individuals covered by the research problem" (p.163). Hence, it is appropriate to collect data from a subset of one's population of interest. This subset of sampling units is referred to as a sample, and the number of sampling units in a study is known as the sample size. Trochim (2006) posited

that the determination of a reasonable sample size requires that the researcher is knowledgeable about statistical power, appropriate significance level, and appropriate effect size. Therefore, using an alpha level of 0.05 and an acceptable .80 (denoted as 1- β) power level mean that the intended study has an 80% chance of having a statistically significant difference but with a 20% chance of a Type II error. A reasonable effect size using Cohen's *d* convention of 0.15 (Cohen, 1988) was suitable for my analysis.

The G* Power program is used to calculate sample size that is required for different effect sizes at specific levels of statistical power for a variety of different tests and designs (Faul, Erdfelder, Buchner, & Lang, 2009). Therefore, I conducted a priori power analysis (Buchner, Faul & Erdfelder, n.d) by running an *F*-test and, in particular, conducted a multiple linear regression: a fixed-model, R^2 increase test. Running this test resulted in a total sample size of 68. Hedeker, Gibbons, and Waternaux (1999) cautioned that a study's sample size usually does not remain the same or constant over time as it may decrease due to the attrition of participants or nonresponse/incomplete data. Furthermore, Geloven, Dijkgraaf, Tanck, and Reitsma (2009) suggested that, after the calculation of sample size, one should "adjust so that the number needed remains after expected loss of study subjects" (p. 7). Assuming an attrition rate of 10% (from a review of related studies), I needed to find a sample size of 76 participants.

Study Procedure

Before I started data collection, the research partner approved my IRB application (IRB00007882) and agreed to serve as the IRB of Record. I also received approval from

Walden University's IRB (11-10-15-0372695) to conduct my study. I then obtained the e-mail addresses of potential participants from the research partner's human resources department and sent out email invitations (Appendix A) to eligible participants to take the survey. In the email invitation, participants who were willing and interested in participating in the study were directed to click on a secure link from which they were directed to the introductory page with instructions on how to complete the survey. Participants were provided with informed consent information along with a promise of confidentiality and assurance of anonymity as suggested by Patten (2001). Participants were also told that there were no right or wrong answers.

After reading the informed consent page, participants were asked to "click on yes I agree" if they were completely sure of their willingness to participate in the study. The survey was three pages long, and participants were required to continue until they saw a submission prompt. At the end of the first two weeks, only 50 participants had responded to the email invite and completed the survey, so a reminder e-mail was sent out again to the identified participants. At the end of the survey period, 131 people had completed the survey, so the link was shut down, and the process of coding the data was started while also considering security issues about obtained data. I ensured appropriate safety of the data by using the survey host encryption network and a strong password on my laptop and cloud storage, where data will be electronically stored for 5 years.

Data Collection Method

In every research endeavor, it is important to choose the method that is most appropriate for the study concerning one's audience as well as the type of information being collected. Hence, Internet research was suitable for this study. Internet research involves administering a questionnaire through the web so that participants can then complete it from their individual computers. Duffy (as cited in Ahern, 2005), stated that "a typical web-based study involves the development of a specially designed web page containing a survey or questionnaire for completion by a specifically selected population" (p. 58). One major reason for the use of this method was to gain easy access to participants, as such, conducting web-based research gave me the needed accessibility to those in leadership positions (e.g., faculty, administrators, deans, directors, supervisors) who sometimes may be too busy to participate in a survey due to various obligations. Moreover, this web-based survey administration gave me the opportunity to gather information quickly from identified participants.

According to Duffy (as cited in Ahern, 2005), the Internet "presents an unparalleled breadth of opportunities for the collection of data from populations of interest in a cost-effective and resourceful manner" (p. 60). In a similar way, since this data collection method is noted to be efficient and cost-effective (Ahern, 2005), the ease of use associated with it afforded the recruitment of a sufficient sample for the study. As decision-makers, participants may not feel comfortable disclosing their decision-making approaches, but participating in an online study with a high level of anonymity could

motivate them to willingly and openly reveal their intent and behavior in escalating their commitment to a failing course of action. This data collection strategy is similar to those employed in previous escalation of commitment studies (e.g., Steinkühler et al., 2014; Tsai & Young, 2010).

Data Analysis Plan

Before hypothesis testing was performed, the data were cleaned to identify missing cases/information and corrected accordingly. Although there was a high proportion of missing values, listwise deletion was performed to remove missing responses from the entire cases (participants). I made this decision because the eventual sample size had been met from the power analysis conducted and appropriate for data analysis. The pairwise deletion method was not used because it produced different sample sizes/ number of observations and eventually could cause interpretation and generalization problems (Schafer & Graham, 2002).

Lastly, a preliminary analysis was conducted and the data were screened to detect possible significant outliers as well as to ensure that the data met the assumptions of normality, sphericity (homogeneity of variance), multicollinearity, homoscedasticity, and the ratio of cases to predictors. These were necessary before running the regression analysis.

Next, the hierarchical multiple regression analysis was used to analyze stated hypotheses. This test was employed to ascertain if the outcome variable (escalation of commitment behavior) could be predicted from the independent variables (self-efficacy

and optimism). In particular, both predictor variables were put into the regression model to estimate how much variance they shared with the criterion variable, escalation of commitment behavior. The statistical controls were entered in a hierarchical manner into the regression model in order of importance as suggested by current research. While a normal confidence interval of $\alpha = .05$, two-tailed test was applied in the study, the Statistical Package for the Social Science (SPSS) version 21.0 was utilized for data examination, necessary data transformations, tests for significance, and tests outputs. Based on the purpose of this study, the following hypotheses were tested:

$H1_0$: Age, gender, ethnicity, SES, and tenure [work experience in years]) will not predict escalation of commitment behavior.

$H1_A$: Age, gender, ethnicity, SES, and tenure [work experience in years]) will predict escalation of commitment behavior.

$H2_0$: The personality trait of self-efficacy will not predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

$H2_A$: The personality trait of self-efficacy will predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

$H3_0$: The personality trait of optimism will not predict leaders' escalation of commitment behavior.

$H3_A$: The personality trait of optimism will predict leaders' escalation of commitment behavior.

$H4_0$: The personality traits of self-efficacy and optimism will not jointly interact to predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

$H4_A$: The personality traits of self-efficacy and optimism will jointly interact to predict while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

Instrumentation

To measure identified variables, I used a standardized instrument in a questionnaire form with open-ended statements, fixed responses, and four sections (Section A, B, C, and D). This structured questionnaire comprised of reliable, valid, and applicable scales designed to measure the variables in the study. Section A consisted of the demographic variables of age, gender, SES, ethnicity, and tenure. Section B comprised the self-efficacy scale. Section C included the optimism scale, and Section D contained the escalation of commitment scenarios. The independent variables (self-efficacy and optimism) were deliberately itemized before the criterion variable (escalation of commitment behavior) so as to reduce the study's self-report bias since the same participants were to respond to all the variables through a single survey. According to Podsakoff and Organ (1986), reordering items on a questionnaire helps to address the

issues of study's self-report bias in a study. The psychometric properties, as well as the content and structure of each measure, are presented as follows.

Perceived self-efficacy. Perceived self-efficacy, an independent variable in this study, refers to a person's belief or perception about how well he or she can perform certain activities across different situations successfully (Bandura, 2001; Scherbaum, Cohen-Charash, & Kern, 2006). It is also an individual's capability to meet given tasks or demands or the generalizable ability to cope in various circumstances or situations. (Judge, Erez, & Bono, 1998). In the present study, an 8-item widely used scale in organizational research, the New General Self-Efficacy Scale (NGSE) developed by Chen, Gully, and Eden (2001), was employed. This instrument can be used to obtain information regarding the beliefs leaders have about how well they can perform an activity successfully. According to Chen et al. (2001), the "development of the NGSE was based on social cognitive theory and measures work-related self-efficacy as a trait-like generality dimension" (p. 63). The NGSE is regarded as highly reliable and unidimensional with responses on a 5-point response format with the anchors (1) for *strongly disagree* and (5) for *strongly agree*. The authors reported Cronbach alpha ranging from .86 to .90 when tested with 323 undergraduate students from a university in the mid-Atlantic region. For a trait-like variable such as self-efficacy, Chen et al. and Chen, Gully, and Eden (2004) reported high test-retest stability coefficients of $r = .67$ and $r = .74$, respectively. Norris (2008) also reported an internal consistency of .90. A sample

statement from the new general self-efficacy scales is, “I believe I can succeed at most any endeavor to which I set my mind” (Chen et al., 2001).

The validity (convergent and discriminant) of the NGSE scale through a principal components analysis showed that it is a theory-based scale and a unidimensional construct with eigenvalues of 4.17 and 4.76 respectively and accounting for 52% and 59% of the overall item variance (Chen et al., 2001). Concurrent validity was also established for the NGSE. According to Dandavino, Young, Gosselin, Snell, and Bhanji (2013), scores on the NGSE moderately correlated with a new scale, General Pediatrics-specific Self-Efficacy (GPedsSE) scale, ($r = 0.54$, $p < 0.005$). Confirmatory factor analysis also revealed higher discriminant validity scores for NGSE with the General Self-Efficacy Scale (GSE) and a scale measuring self-esteem. The NGSE scale was developed because of the low content validity and multidimensionality of the GSE scale (Bandura, 1997; Chen et al., 2001; Gardner & Pierce, 1998). Furthermore, a LISREL 8 analysis showed a predictive validity higher for NGSE than the Sherer et al. (1982) General Self-Efficacy Scale (SGSE).

The scoring of the NGSE scale entails finding the mean or average of the eight items for each participant. The range of possible scores is from 8 to 40, where higher scores indicate higher self-efficacy levels and lower scores indicate lower self-efficacy. Specifically, 8-23 is low self-efficacy, 24-27 is below average self-efficacy, 28-31 is average self-efficacy, 32-34 is above average self-efficacy, and 35-40 is high self-efficacy. I obtained permission from the authors of the NGSE scale to use the assessment.

In this study, self-efficacy was measured as a continuous variable and had a high level of internal consistency, as determined by a Cronbach's alpha of 0.90. This score is similar to what the authors of the scale and Norris (2008) reported.

Dispositional optimism. Dispositional optimism is operationalized as a set of favorable expectations held by an individual regarding future outcomes (Carver, Scheier, & Segerstrom, 2010). Information on participants' outcome expectancies will be obtained using the revised Life Orientation Test (LOT-R) by Scheier, Carver, and Bridges (1994). The LOT-R is a modest revision of the widely researched Life Orientation Test (LOT), which accessed mostly coping styles rather than "positive expectations for future outcomes" (Scheier et al., 1994).

The LOT-R is a 10-item scale designed to measure dispositional optimism with four point ratings anchoring 0 as *strongly disagree*, 1 = *disagree*, 2 = *neutral*, 3 = *agree*, and 4 = *strongly agree*. Scheier et al. (1994) reported acceptable internal consistency for the LOT-R with Cronbach's alpha ranging from .70 to .80. Reported test-retest reliability across four periods is.68 (4 months), .60 (12 months), .56 (24months), and .79 (28 months). These results show that the LOT-R is acceptably stable over time. Also, the LOT-R is noted to be highly correlated with the original Life Orientation Test (LOT, Scheier & Carver, 1985), r = .95. The positive and negative subscales of the LOT-R are also noted to correlate strongly with each other (Scheier et al., 1994). Likewise, convergent and discriminant validity were reported for the LOT-R by the authors. In particular, correlations ranged from a high of r = .53 (Trait Anxiety Inventory), r = .50

(Rosenberg's Self-Esteem Scale), r = .48 (Self-Mastery Scale) to a low of r = .43 (Guilford-Zimmerman Temperament Survey), and r = .36 (Eysenck Personality Questionnaire).

According to Scheier et al. (1994), the positive items, 1, 4, and 10, assess optimism, while the negative items, 3, 7, and 9, measure pessimism. The authors described Items 2, 5, 6, and 8 as filler items intended to disguise what the test measures and are not calculated as part of an individual's final score. On the LOT-R, a person's score may range from 0 to 24, with higher scores from 19 to 24 indicating high optimism, 14 to 18 implying moderate optimism, and 0 to 13 suggesting low optimism. Negative items are also reverse-coded before being scored on the LOT-R. Finally, the LOT-R was normed on samples of college students (N = 2,055, M = 14.33, SD = 4.28) and patients awaiting coronary artery bypass surgery (ages 36 to 82, N = 159, M = 15.16, SD = 4.05). The authors of the LOT-R scale did not require permission to use the assessment.

In this study, optimism was measured as a continuous variable. A reliability analysis for the LOT-R was also conducted to assess the degree of internal consistency of scale items. As a result, items 1 and 4 had to be deleted to achieve a high Cronbach alpha of .80.

Escalation of commitment behavior. To measure escalation of commitment behavior (dependent variable), participants responded to two scenarios adapted from Arkes and Blumer's (1985) Blank Radar Plane. The Blank Radar Plane Scenario is a validated and established measure of commitment escalation (Conlon & Garland, 1993;

Garland, 1990; Garland & Conlon, 1998; Moon, Hollenbeck, Humphrey, & Maue, 2003; Moon, 2001a, 2001b; Wong, Yik, & Kwong, 2006). The first modified decision task that was used in this study was adapted for studying escalation of commitment in a teaching context by Wong (2005). In particular, this decision task describes the submission of a jazz dancing program project proposal for funding from the Quality Education Fund (QEF) by a teacher who had put much time and effort into the preparation of the proposal. Despite the time and effort put it, the teacher learns from the government that funding was limited.

In this modified version of Akes and Blumer's (1985) scenario on the Blank Radar test, one question was based on the likelihood that the teacher will continue writing the proposal while the other was related to the teacher abandoning the proposal altogether. After reading the first scenario, participants responded to two questions and were asked to indicate their willingness to continue writing the same proposal for the jazz dancing proposal or abandon it and write another proposal for a different program that is more likely to be funded. Specifically, participants were to specify their willingness by giving a probability rating ranging from 0% *(absolutely no)* to 100% *(absolutely yes).*

In the second scenario (also adapted from Arkes and Blumer's [1985] Blank Radar Plane), participants were asked to take the role of the head of a hypothetical airline company that is considering developing and manufacturing a plane that would not be spotted by conventional radar (Hongchang & Zhongming,, 2015; Van Putten, Zeelenberg, & van Dijk, 2010; Wong, Yik, & Kwong, 2006). Participants were asked to

report if they would allocate more resources (although more than half of the budgeted amount would have been used and the project at 90% completion) into developing the plane after receiving information that a competitor had developed and marketed a similar radar-blank plane at a lower price and with better performance than the one produced by their company. Participants were to respond to a set of questions related to the scenario described. Specifically, one question was based on the likelihood that the described blank radar project will end up in financial success while the other was related to whether the investment on the project should continue. Escalation of commitment behavior is the degree to which participants would invest more research funds toward the completion of this radar plane project and in particular, the last 10%. In line with previous research (Conlon & Garland, 1993; Garland, 1990; Kwong, 2007; Moon, 2001a), participants' willingness ratings will serve as the index of escalation of commitment behavior from the two decision task scenarios described.

Control Variables

Age. Participant's age was self-reported on the demographic section on the questionnaire and comprised six categories (1 = 18- 20, 2 = 21-30, 3 = 31-40, 4 = 41-50, 5 = 51-60, 6 = 60 and above). This classification is consistent with groupings in previous studies on escalation of commitment (Tsai & Young, 2010; Wong & Kwong, 2007).

Gender. Gender was categorized as 0 for male and 1 for female. In a study by Wong and Kwong (2007), the unique contribution of gender (control variable) to escalation of commitment was tested using hierarchical regression analysis. As such, the

categorization of gender in this study is similar to the coding in Wong and Kwong's (2007) study on risk and escalation situations.

Ethnicity. The ethnicity variable was dummy coded to consist of five levels (0 = *Caucasian*, 1 = *Asian American*, 2 = *African American*, 3 = *Latino*, 5 = *Other*). This selection level is consistent with demographic data collected in other studies on risk-taking behavior and organizational decision-making (Anderson & Galinsky, 2006; Molden & Hui, 2011; Rainford, 2013).

Socioeconomic status (SES). The referent category (household earnings per year) for this variable was 1 = less than $19,999; 2 = $20,000 to $49,999; 3 = $50,000 to $79,999; 4 = $80,000 to $99,999; 5 = over $100,000. SES was coded according to this income classification in previous studies examining personal differences in adult decision-making competence (e.g., de Bruin et al., 2007, Finucane et al., 2005).

Tenure. This variable was dummy-coded and consisted of four categories. This categorization included 0 - 5 years, 5 - 10 years, 10 - 15 years, and 15 years or more. Buxton (2008) found tenure to be positively correlated with unethical behavior. This unethical violation, in turn, led to more escalation of commitment. Tenure was also considered a control variable in a study of self-leadership by Norris (2008).

Threats to Validity

According to Mertler and Vannatta (2010), many scientific inquiries involve some form of random and non-random error. The threats to internal validity in a non-experimental study include, but are not limited to instrumentation, self-selection, testing

procedure, extreme scores, assignment bias, and generalization (Lobmeier, 2010, Yiannakis, 1997). Lipsey and Wilson (1993) also maintained that when internal and external threats to validity are minimized, research findings remain statistically significant and applicable. To control possible threats, based on a review of related studies on decision-making and risk-taking behavior in which escalation of commitment is sometimes classified, I identified potential confounding variables unique to the present study. Therefore, to strengthen internal validity, age, gender, ethnicity, SES, and tenure (work experience in years) were controlled so that their contributions to the variance in escalation of commitment behavior (dependent variable) would be known. In a similar way, the contributions in differences expected from confounding variables were also minimized through these control variables. Standardizing the conditions under which this study was carried out also helped minimize inherent threats. In this regard, I used measures with extensive evidence of strong psychometric properties. Employing reliable and valid instruments also reduced the threat to internal validity in the study. Additionally, the thorough selection of participants, careful survey administration, and the data collection procedures employed in this study helped control the threat of instrumentation. Lastly, one way that I ensured sample representativeness was to "restrict the population to fit the specification of the available sample" (Anastasi & Urbina, 1997, p. 69). In this case, the study sample accurately reflected participants who (a) had been on the job for a minimum of 6 months and (b) held a job position that entailed some form of

decision-making. This information was ascertained through the community partner's human resource department.

Ethical Procedures

According to Bixler and Seeman (cited in Fisher, 2012), ethics are "principles of action based on a commonly accepted system of values" (p. 28). Therefore, as a way to ensure proper adherence to ethical conduct in research, appropriate approval was first obtained from the research partner's (community college) and Walden University's Institutional Review Boards (IRB) before participant recruitment, data collection, and analysis took place. Inclusive of the study's procedure, a written summary on informed consent (see Appendix A) portraying the study's possible risks and measures to alleviate those risks, benefits from the study, duration of the study, the voluntary nature of the study, as well as issues of privacy and how to contact the researcher was made available to participants. Specifically, the statements signifying informed consent were written on the first page of the questionnaire that was administered to participants. Those who agreed to participate in the study were required to click on a "Yes I agree" button to complete the survey. Also, adequate steps were taken to maintain anonymity and confidentiality within the work site. The only identifying information that was collected from the community partner's human resource office was participants' email addresses. This information was used only to verify eligibility before the survey link was sent out. Email addresses were not linked to individual responses. In protecting participants from physical and psychological harm, I was not careless with the information used to assess

eligibility or the responses collected. No other personal information that could identify those who eventually completed the survey was collected. Participants were also fully informed of their right to participate voluntarily in the study. A statement indicating that participants had the right to discontinue their participation at any point during the study without any form of negative consequence was also provided Appendix A). Participants were exposed to minimal risks, not unlike those they are usually exposed to in their daily activities (APA, 2010; Bersoff, 2008; Fisher, 2013).

The name of the institution used for data collection has been masked throughout the duration of this dissertation. Data were collected anonymously to encourage honest responses from participants, and, by using closed-ended questions, I ensured that only valid responses were obtained from participant. As previously discussed, no participant was coerced or pressured to participate in the study. Participation was only in an "opt-in" manner through the email invitation that was provided. This way, all data collection was anonymous, and participants responded to the survey during their free time. Lastly, in keeping with the procedures for using published instruments, I had explicit permission to use the NGSE scale, the LOT-R scale as well as Wong's modified (2005) escalation of commitment decision task. Approvals were granted by the developers (Appendix B).

Dissemination of Findings

The findings will be disseminated through appropriate venues including Walden University's Semi-Annual Research Symposium and the Society for Industrial and Organizational Psychology (SIOP) Annual meeting. Other appropriate venues include the

Minnesota Psychological Association (MAP) and the American Psychological Association (APA) annual conferences. Being a member of these associations gives me the opportunity to conduct a poster presentation to disseminate the research results. I will also attempt to publish the findings in reputable journals such as the *Industrial and Organizational Psychology: Perspectives on Science and Practice* (an official publication of SIOP), the *Psychologist-Manager Journal* (an official publication of APA) and the *Journal of Social, Behavioral, and Health Science* (an online peer-reviewed journal at Walden University). These presentations and publications will assist in disseminating relevant information that will contribute to scholarship in the field of industrial-organizational psychology and add new knowledge to specific areas like decision-making and organizational leadership effectiveness.

Summary

The present study examined the individual and joint role of self-efficacy and optimism in leaders' escalation of commitment behavior. In addressing the limited empirical evidence to support claims that personality influences escalation of commitment among organizational leaders and decision-makers, appropriate research design, statistical tests, and reliable and valid instruments were chosen. A correlational design was employed to establish possible relationships among the variables (self-efficacy, optimism, and escalation of commitment behavior). The outcome variable (escalation of commitment behavior) was predicted from the independent variables (self-efficacy and optimism). A hierarchical linear regression analysis was used to analyze

stated hypotheses. This statistical test was appropriate for predicting an outcome from the predictor variables while at the same time controlling for the effects other variables. Through hierarchical regression, I examined whether escalation of commitment behavior was predicted by self-efficacy and optimism after the effects of demographic factors—age, gender, ethnicity, SES, and tenure—were controlled. According to Williams (2002), hierarchical analysis "yields successive tests of the validity of the hypotheses" to be tested (p. 1). Likewise, the measures (NGSE, LOT-R, and Wong's [2005] decision task) that were used for data collection were valid and reliable. According to Nunnally (as cited by Cortina, 1993), reliability is "the extent to which measurements are repeatable, and any random influence that tends to make measurements different from occasion to occasion is a source of measurement error" (p. 206). As a result, necessary psychometric properties, norms and scoring instructions as reported by the authors/developers of the instruments are provided in this study.

Chapter 4 includes the results of the study. Descriptive statistics highlighting a complete narration of the study's sample and a review of hypothesis testing are also included.

Chapter 4: Results

Introduction

I investigated (a) whether leaders' demographic characteristics (age, gender, ethnicity, SES, and tenure) are statistically significantly related to their escalation of commitment behavior, (b) whether the personality traits of self-efficacy and optimism individually predicted organizational leaders' escalation of commitment behavior, and (c) whether the personality traits of self-efficacy and optimism jointly predicted organizational leaders' escalation of commitment behavior. The purpose of this chapter is to report and discuss the results of this study. Recruitment procedures for creating the sample, data collection methods and instruments, and a summary of the results from the hypotheses tested are discussed below.

Research Questions and Hypotheses

The purpose of this study was to understand whether the control variables of age gender, ethnicity, SES, and tenure significantly influenced escalation of commitment behavior. The study was designed to examine whether leaders' self-efficacy and optimism individually and jointly predicted their escalation of commitment behavior. Several questions guided the study: To what extent are known demographic characteristics (i.e., age, gender, ethnicity, SES, and tenure [work experience in years]) predictors of escalation of commitment behavior? Can escalation of commitment behavior be correctly predicted from the personality traits of self-efficacy and optimism, and does the inclusion of self-efficacy and optimism individually increase or decrease the

probability of escalation of commitment behavior among leaders and decision-makers? Finally, if escalation of commitment behavior can be predicted correctly, is the joint interaction of self-efficacy and optimism central to its prediction? The hypotheses for Research Question 1 included the following:

$H1_0$: Age, gender, ethnicity, SES, and tenure (work experience in years) will not predict escalation of commitment behavior.

$H1_{A:}$ Age, gender, ethnicity, SES, and tenure [work experience in years]) will predict escalation of commitment behavior.

Research Questions 2 and 3 generated the following hypotheses:

$H2_0$: The personality trait of self-efficacy will not predict leaders' escalation of commitment behavior.

$H2_A$: The personality trait of self-efficacy will predict leaders' escalation of commitment behavior.

$H3_0$: The personality trait of optimism will not predict leaders' escalation of commitment behavior.

$H3_A$: The personality trait of optimism will predict leaders' escalation of commitment behavior.

$H4_0$: The personality traits of self-efficacy and optimism will not jointly interact to predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

$H4_A$: The personality traits of self-efficacy and optimism will jointly interact to predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure (work experience in years).

Data Collection, Response Rate, and Time Frame

After receiving approval from the research partner's IRB and Walden's University's IRB, I sent out an email (Appendix A) containing the survey link to participants whose contact information was provided by the institution's human resource department. The criteria for participating in the research study were as follows: First, the employees needed to be in the position of making one or more decisions regarding their job or daily tasks and responsibilities, and second, employees needed to have been on the job for more than 6 months.

I collected data for approximately 4 weeks via PsycData. There were no discrepancies between the recruitment and data collection plans described in Chapter 3. No adverse effects were reported at the time of recruitment. PsycData recorded 131 responses via the recruitment link that was sent to potential participants' email addresses. No IP address was obtained during data collection, and email addresses were not linked to participants' responses. As such, there was no way of tracing participants' individual responses. Additionally, how many people viewed the link to the survey and did not respond is unknown. Of the 131 participants who completed the survey, only 76 respondents met eligibility requirements for the study's estimated sample.

Descriptive Statistics

Sample Demographics

In this study, demographic data concerning all participants served as control variables. Sample demographics regarding age, gender, ethnicity, socioeconomic status, and tenure are explained below. Demographic results are also detailed below in Table 1.

Age and gender. The majority of participants were in the age range of 31-40 (30%) while only 8 (11%) were age 60 years and above. Most of the participants were males (74 %) with only 26% females.

Ethnicity, socioeconomic status, and tenure. Participant ethnicity was recorded as 67 (88%) Whited; 5 (7%) Asian Americans; and 1 (1%) African American. About 4% of the respondents selected the category "Others" without specifying their ethnic group. Latinos were not represented in the sample. Also, the majority of participants (71%) earned income (household earnings per year) of less than $100,000 with only 29% earning $100,000 or more. Concerning tenure, nearly half (48%) of the participants had been in a decision-making position between 1 to 5 years while only 16% had been in a decision-making position for 15 years or more.

Descriptive analysis for the independent variable and evaluation of the criterion is presented in Table 2.

Table 1

*Frequency Distribution of Participants' Demographics (*N = *76)*

Demographic	*f*	%
Age		
21-30	9	11.8
31-40	23	30.3
41-50	18	23.7
51-60	18	23.7
61 & above	8	10.5
Gender		
Male	56	73.7
Female	20	26.3
Ethnicity		
Caucasian	67	88.2
Asian American	5	6.6
African American	1	1.3
Latino[b]	0	0
Other[a]	3	3.9
SES (household earnings per year)		
less than $19,999	1	1.3
$20,000-$49,999	14	18.4
$50,000-$79,999	21	27.6
$80,000- $99,999	18	23.7
over $100,000	22	28.9
Tenure (number of years in a decision making position)		
0-5	34	44.7
6-10	22	28.9
10-15	8	10.5
15 or more	12	15.8

[a] Participants were allowed to select "Other" if categories did not fit their personal identification description on the ethnicity variable; they were not requested to specify what "Other" meant.
[b]Latinos were not represented in the sample.

Table 2

*Means, SDs, and Intercorrelations for Predictors and Criterion Variable (*N = *76)*

Variable	*M*	*SD*	Self-efficacy	Optimism
EOC	52.75	8.83	.509***	.315
Self-efficacy	4.21	.44	--	.529**
Optimism	16.58	3.72		--

Note. ***p* < .05, 2-tailed. ****p* < .01, 1-tailed. Valid *N* (listwise) = 76

From Table 2, the four items from the EOC scenarios had a mean score of 52.75 (*SD* = 8.83). EOC had the highest score. This was followed by optimism scale with six items and a mean score of 16.58 (*SD* = 3.72). The lowest score was self-efficacy with ten items and a mean score of 4.21 (*SD* = 0.44). The correlation values showed that EOC is significantly related to self-efficacy, $r(74) = .509$, $p < .001$, and significantly related to optimism, $r(74) = .315$, $p = .003$. A significant but small correlation was found between self-efficacy and optimism, $r(74) = .529$, $p < .001$.

Test of Assumptions

An exploratory data analysis was first conducted to check if the data met the assumptions of hierarchical regression. Results are detailed below.

Independence of error (residuals). Independence of error was assessed by the Durbin-Watson statistics. This assumption guarantees that the observations are unrelated. The Durbin-Watson statistic, 1.749, was close to the acceptable value of 2, indicating no correlation between residuals. Hence, this assumption was met.

The assumption of linear relationship. Linear relationship was assessed by plotting the studentized residuals (SRE_1) against the (unstandardized) predicted values (PRE_1). This assumption entails that both independent variables in this study are linearly related to the dependent variable, as well as each independent variable being linearly related to the dependent variable. The results indicated that the residuals formed a horizontal band on the scatterplots (see Figures 1 and 2). A linear relationship was observed from the partial regression plots plotted between each of the covariates and independent variables (age, ethnicity, SES, tenure, self-efficacy, and optimism) and the dependent variable (EOC). The assumption of linearity was not violated.

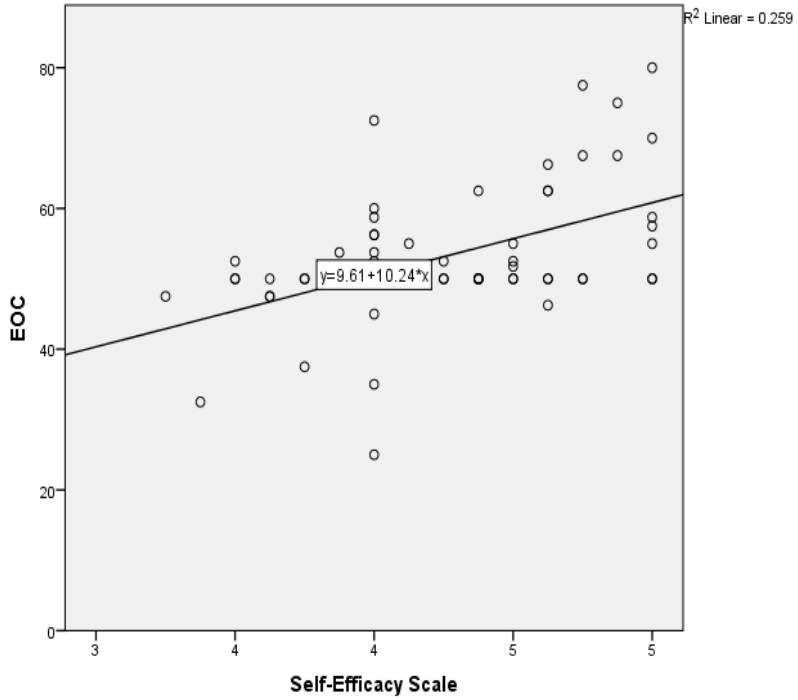

Figure 1. Scatterplot with a line of fit showing a linear relationship between EOC and self-efficacy.

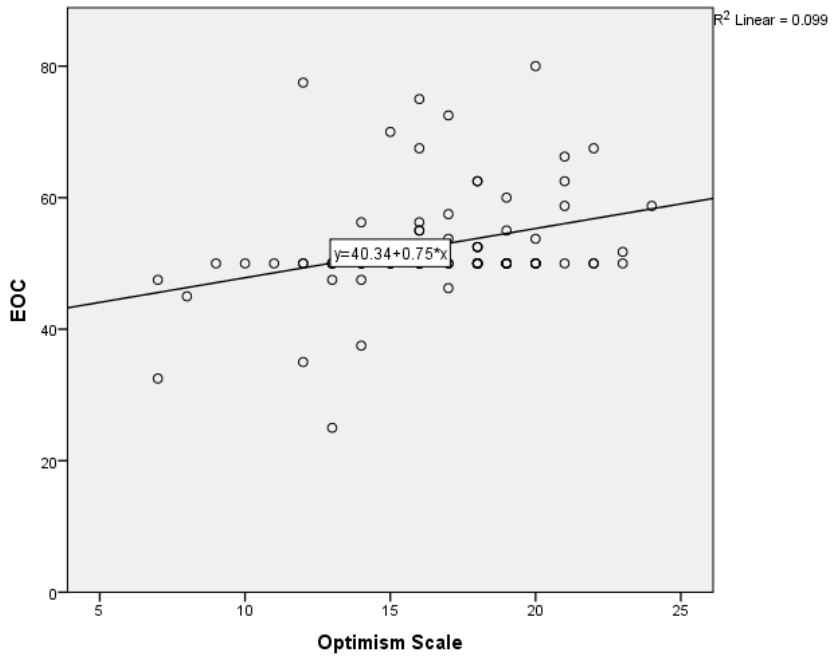

Figure 2. Scatterplot with a line of fit showing a linear relationship between EOC and optimism.

Assumption of homoscedasticity. Homoscedasticity was assessed to see if the residuals are equally spread over the predicted values of the dependent variable. The studentized residuals (SRE_1) was plotted against the unstandardized predicted values (PRE_1). The plot showed that the spread of the residuals did not increase or decrease across the EOC's predicted values. This assumption was met (see Figure 3).

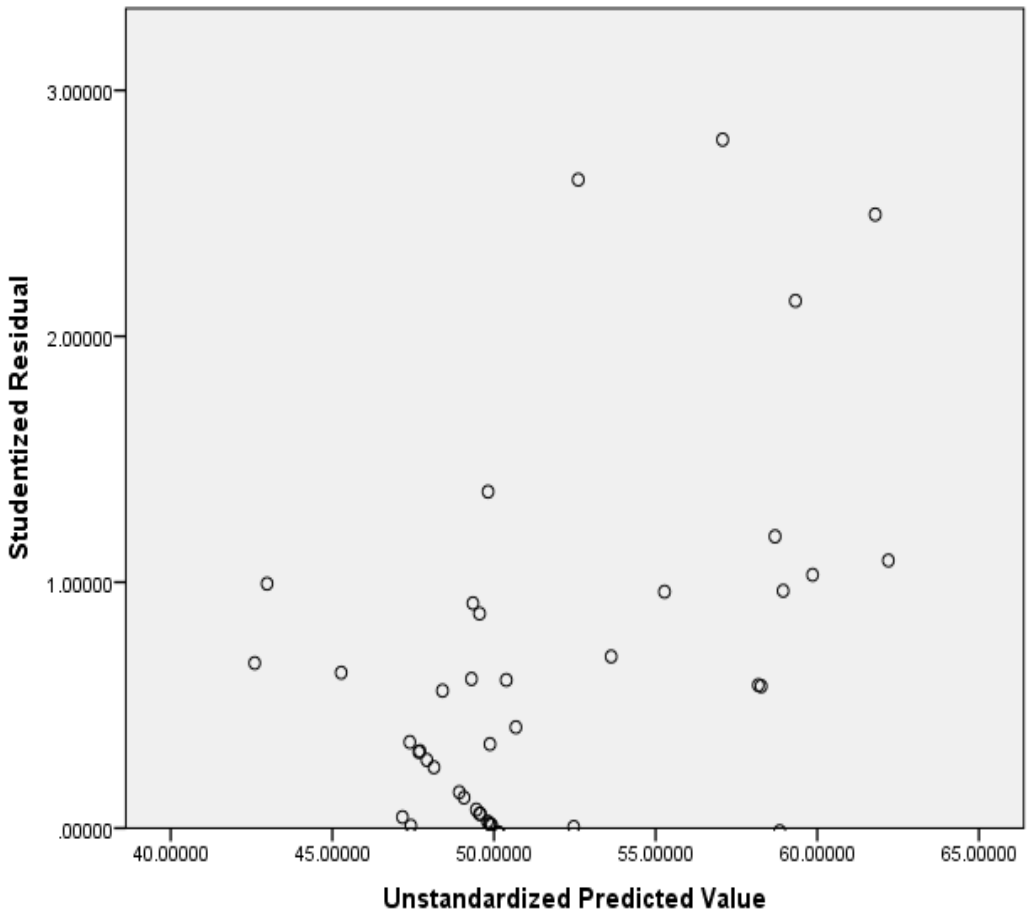

Figure 3. Scatterplot showing data homoscedasticity.

The assumption of multicollinearity. Multicollinearity occurs when at least two of the independent variables are highly correlated. This is a problem in deciding which of the independent variables contributes to the variance explained. Since none of the variables had correlations greater than .7, there was no multicollinearity. Also, all the tolerance values were greater than .1 (the lowest was .6). To avoid problematic multicollinearity with the interaction term, the variables were centered, and an interaction

term between optimism and self-efficacy was created (Aiken & West, 1991). This assumption was met.

Significant outliers. Casewise diagnostics showed one outlier, Case Number 45, with a standardized residual of -3.162. Residuals outside of three standard deviations each side of the mean are considered to be outliers. Since the data were collected, measured, and recorded correctly, as well as the Cook's distance was less than 1, this outlier was included in the data.

Table 3

Assumptions: (Outliers)

	Case	Std. residual	Value	Predicted value	Residual
EOC	45	3.162	25	49.72	24.717

Leverage level. The leverage level determines whether any cases exhibit high leverage above .2. In this data set, Cases 7, 15, and 67 with leverage scores of .295, .308, and .356 were above the no risk level. These leverage values were not of concern, and I left them in the analysis because they did not lead to high influence.

Influential points. Influential points were assessed using Cook's distance (Cook & Weisberg, 1982). From the data set in the column labeled COD_1, no point was greater than 1, showing there were no influential points.

The assumption of normality. As shown in Figure 4, the standardized residuals appear to be approximately normally distributed with the mean of zero, *SD* = .952. See Figure 4.

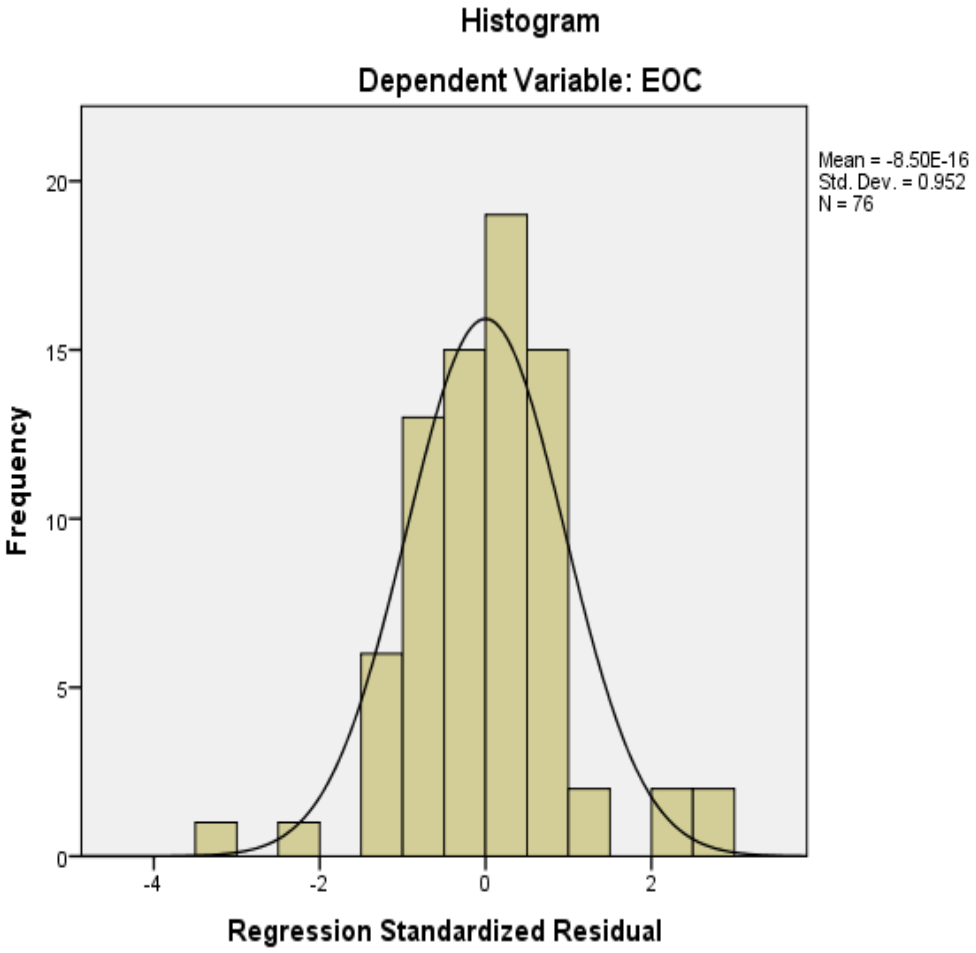

Figure 4. Histogram showing data normality.

To confirm the findings, the normal P-P plot is included showing the residual points align along the diagonal line. The data satisfied the assumption of normality (see Figure 5).

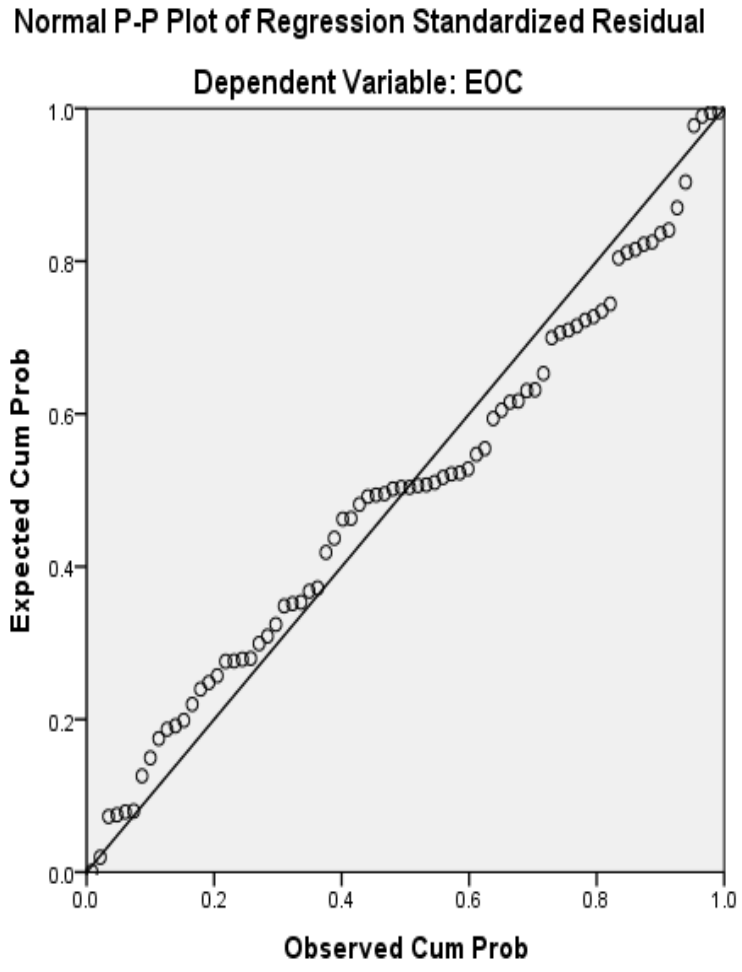

Figure 5. Normal P-P Plot confirming data normality.

Multivariate Analysis and Hypothesis Testing

Two regression analyses were conducted to test whether self-efficacy and optimism predicted escalation of commitment behavior and whether age, gender, ethnicity, SES, and tenure predicted escalation of commitment behavior. Specifically, hierarchical multiple regression analysis was used to test the predictability of escalation of commitment behavior by self-efficacy and optimism, and to explore whether self-

efficacy and optimism would jointly predict leaders' escalation of commitment behavior while controlling for age, gender, ethnicity, SES, and tenure.

Before hypothesis testing was performed, the data were cleaned to identify missing cases/information and corrected accordingly. Listwise deletion was performed to remove missing responses from the entire cases (participants). After this exclusion, the remaining number of cases still matched the estimated sample size (76) obtained through the power analysis conducted. The remaining number of cases were also sufficient enough to test correctly for multiple correlations, individual regression coefficients, and subsequently arrive at an accurate prediction equation. According to Green (1991), one must have a sample size that is greater or equal to $N > 50 + 8m$ (where m is the number of IVs). After deleting cases that had missing values, a sample of 76 cases remained and was eventually used for the regression analysis. This sample size is deemed adequate given two independent variables included in the analysis (Tabachnick & Fidell, 2007).

Preliminary descriptive analysis also showed that the distribution for the demographic variable of ethnicity showed no variability. Because there was no variability, and in order not to reduce the statistical power during hypothesis testing, the ethnicity variable was intentionally removed from the overall analysis.

Hierarchical regression was chosen to control for the effects of the remaining control variables: age, gender, SES, and tenure. Hierarchical regression was also chosen to control for the effects of the independent variables, optimism, and self-efficacy (both independently and jointly) when predicting the dependent variable, escalation of

commitment behavior (EOC). Furthermore, this test requires the independent variables to be continuous or categorical and the dependent variable to be continuous. These requirements were met.

In this type of regression, sets of variables are added, and the effect that each set adds to the prediction is determined. The initial set in this study were the four control variables. The change in R^2 was assessed, and then its statistical significance was calculated. The second model was determined after the addition of the two independent variables. Through this analysis, the importance of the independent variables, optimism, and self-efficacy, can be assessed after all the demographic variables are controlled for, as well as the interaction of self-efficacy and optimism.

Interpreting the Results

Because the data satisfied all the assumptions for a hierarchical regression model, the test was run in SPSS. The control variables excluding ethnicity were entered as Step 1 (Model 1) while self-efficacy and optimism (both centered), as well as the interaction between the centered self-efficacy and centered optimism scales, were added at Step 2 (Model 2).

Outcomes of Age, Gender, SES, and Tenure on Escalation of Commitment Behavior

To answer Hypothesis 1 and the research question regarding whether known demographic characteristics (i.e., age, gender, SES, and tenure [work experience in years]) can be predicted from escalation of commitment behavior, a regression analysis was performed to determine if the combination of these control variables predicted

escalation of commitment better. The regression results indicate that the addition of the covariates was not statistically significant *(p* = .334), and the variance explained only increased by 7%.

Outcomes of Self-efficacy and Optimism on Escalation of Commitment Behavior

Hypotheses 2 and 3 and accompanying research question were tested with a separate regression analysis. In the model fit table (Table 4) the most important measure is R^2, representing the variation in the dependent variable, EOC, explained by the independent variables. From this model, R^2 increased for each model (from .070 to .306), showing that more of the variation in the dependent variable was explained by the addition of both independent variables.

Table 4

Model Fit Summary for Variables Predicting EOC

Model	*R*	R^2	Adj. R^2	Std. Error of Estimate	ΔR^2	ΔF	*df*1	*df*2	Sig. ΔF
1	.264[a]	.070	.017	8.751	.070	1.333	4	71	.266
2	.554[b]	.306	.235	7.721	.237	7.732	3	68	.000

[a] Predictors: (Constant), Tenure (number of years), Gender, SES, Age:
[b] Predictors: (Constant), Tenure (number of years), Gender, SES, Income, Age, AxB, SE_Cent, Opt_Cent

From Table 4, the addition of the centered independent variables, self-efficacy and optimism (Model 2) as well as the interaction of self-efficacy and optimism to the

prediction of EOC led to a statistically significant increase of R^2 of .237, $F(3,6\ 8) = 7.732$, $p < .0005$.

Statistical Significance of the Model

The full model of age, gender, tenure, SES, centered self-efficacy, centered optimism, and centered self-efficacy and optimism to predict escalation of commitment behavior (Model 2) was statistically significant, $R^2 = .237$, $F(7, 68) = 4.292$, $p = .001$.; adjusted $R^2 = .235$. Additionally, results with all the variables entered in the model accounted for 23.7% of the variance; thus, the model significantly predicted escalation of commitment behavior. Also, it was observed that only self-efficacy was significant and with a moderate effect size of $sr^2 = .14$ (squared semipartial correlation). A summary of results is listed in Table 5.

Table 5

*Hierarchical Regression Analyses Predicting Escalation of Commitment Behavior from Self-Efficacy and Optimism (*N = *76)*

Predictor	ΔR^2	*B*	β	*t*-value	*P*
Step 1	.070				
Control variables[a]					
Age		1.162	.158	1.118	.257
Gender		2.094	.105	.917	.362
SES		1.595	.911	1.750	.084
Tenure		-.951	-.118	-.827	.411
Step 2	.237				
Control variables[a]					
Self-efficacy		9.212	.458	3.736	.000*
Optimism		-.057	-.024	-.187	.852
Self-efficacy x Optimism		-.645	-.138	1.302	.197

[a] Control variables included age, gender, SES, and tenure. Self-efficacy and optimism were centered at their means. *Betas* are those from the step where the variables were entered into the model.

*p < .05, 2-tailed, 95% confidence interval.

Summary

Results indicated that the control variables of age, gender, SES, and tenure did not significantly predict leaders' escalation of commitment behavior. Additionally, the interaction of self-efficacy and optimism did not significantly predict escalation of commitment behavior. However, when the potentially confounding variables of age, gender, SES, and tenure were held constant, only self-efficacy individually significantly predicted escalation of commitment behavior. This suggests that self-efficacy is a significant predictor of escalation of commitment after controlling for the influence of age, gender, SES, and tenure.

In sum, in response to Research Question 1 regarding whether known related demographic characteristics (e.g., age, gender, SES, and tenure [work experience in years]) accounts for escalation of commitment behavior, the analysis for the sample did not support the null hypotheses. In response to Research Question 2 regarding whether escalation of commitment behavior can be correctly predicted from the personality traits of self-efficacy and optimism and if the inclusion of self-efficacy and optimism individually increase or decrease the probability of escalation of commitment behavior among leaders and decision-makers, the analysis for this sample did not fully support the null hypothesis. Only self-efficacy was observed to individually contribute to escalation of commitment behavior. Finally, in response to Research Question 3 concerning the joint

interaction of self-efficacy and optimism being central to the prediction of escalation of commitment, the analysis supported the null hypothesis.

In chapter 5, the results as it relates to the literature of escalation of commitment and decision making are interpreted further.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

This chapter is a summary of the study conducted among educators in a community college located in Minnesota. The purpose of this study was to investigate the relationship between known demographic variables (age, gender, ethnicity, SES, and tenure) and leaders' escalation of commitment behavior. The study also attempted to examine whether self-efficacy and optimism individually and jointly interacted to predict escalation of commitment behavior.

The purpose of this chapter is to summarize, highlight, and interpret the findings presented in Chapter 4. Chapter 5 contains a summary and interpretation of findings; it also covers limitations of the study and recommendations for future research. The chapter concludes with a discussion of implications for social change and organizational decision making, as well as conclusions drawn from the study.

Summary and Interpretation of Findings

The regression model included the personality traits of self-efficacy and optimism as individual predictors of escalation of commitment. According to the model, leaders' escalation of commitment behavior could be predicted by the interaction of self-efficacy and optimism traits. In addition to the predictions, the model controlled for potential demographic variables such as leaders' age, gender, SES (household earnings per year), and tenure. These control variables were selected because previous researchers (Garland & Conlon, 1998; Moon, 2001a; Tan & Yates, 2002; Wong, 2005) found them to be

correlates of decision making and risky behavior, which together define escalation of commitment. Three research questions were investigated in this study:

1. To what extent can escalation of commitment behavior be predicted from known related demographic characteristics (i.e., age, gender, ethnicity, SES, and tenure [work experience in years])?
2. Can escalation of commitment behavior be correctly predicted from the personality traits of self-efficacy and optimism, and does the inclusion of self-efficacy and optimism individually increase or decrease the probability of escalation of commitment behavior among leaders and decision-makers?
3. If escalation of commitment behavior can be predicted correctly, is the joint interaction of self-efficacy and optimism central to its prediction?

The findings are discussed in the sections that follow.

Escalation of Commitment Behavior as an Outcome of Age, Gender, SES, and Tenure

Results of the analysis for Question 1 and the first hypothesis indicated that these variables were not predictors of escalation of commitment behavior for this sample. The variables accounted for only 7% of the variance in escalation of commitment behavior. The addition of the control variables to the prediction of escalation of commitment behavior did not also lead to a statistically significant increase. Therefore, the null hypothesis was retained. This result supports the mixed findings (Choi, 2010; Denison,

2009; Finucane, Mertz, Slovic, & Schmidt, 2005; Wong & Kwong, 2007) in the literature, which suggest that demographic characteristics may or may not contribute to risk-taking behaviors, such as escalation of commitment behavior. For instance, Keil et al. (2000) found that age, gender, and tenure did not significantly contribute to a leader's willingness to continue a failing project. The results by Chui and Spindel (2009) also showed that gender and age did not individually influence ethical decision making. Salter and Sharp (2001) found that leaders with longer work experience were less involved in escalation of commitment. These findings are consistent with Choi's (2010) argument that leaders who have worked longer in an organization will engage less in escalation of commitment. Likewise, Maccoby (1998) observed that there were no significant differences between males and females during group decision making. Given that the findings did not confirm the control variables of age, gender, SES, and tenure as predictors of escalation of commitment behavior, more research may be needed to understand whether other factors aside from these variables contribute to understanding leaders' escalation of commitment behavior. In other words, additional research is needed to determine what other factors may be overshadowing the nonsignificant relationship accounting for a weak 7% variation.

Escalation of Commitment Behavior as an Outcome of Self-efficacy

Results of the analysis for Question 2 and the hypothesis that the personality trait of self-efficacy would predict escalation of commitment behavior indicated that self-efficacy was a predictor for this sample. Self-efficacy added some explanation for

leaders' willingness to add more funds to a failing project. The regression model for self-efficacy as measured by the New General Self-Efficacy Scale (Chen et al., 2001) and escalation of commitment behavior measured from the scenarios of escalation commitment/decision **(**Arkes & Blumer, 1985; Wong, 2005) indicated that self-efficacy significantly predicted escalation of commitment behavior.

The result suggests that organization leaders' beliefs about how well they can successfully perform activities can impact their commitment to failing projects or decisions. In other words, a decision maker's perceived capability to meet given tasks or demands will likely make him or her add more resources to an initial course of action. Moreover, leaders who are overconfident in their capability to complete a project successfully may increase the funds allocated to such project even in the face of negative information. This finding replicates and extends results from Whyte et al. (1997) and Whyte and Saks (2007), who found that self-efficacy significantly contributed to irrational escalation of commitment behavior because it intensifies an individual's willingness to escalate in a failing circumstance. Similarly, the results of Tine's (2013) study of cognitive biases in escalation of commitment showed that overconfidence had a significant effect on escalation of commitment behavior. In particular, individuals who were overconfident reported they would likely increase their commitment to a failing project. Similarly, Boulding and Staelin (2006) showed that inappropriate use of positive beliefs despite new information intensifies escalation of behavior. Additionally, self-

efficacy operationalized as a positive self-evaluation construct by Brooks and Korzaan (2014) was observed to predict overcommitment to project objectives.

Escalation of Commitment Behavior as an Outcome of Optimism

Results of the analysis for the second part of Question 2 and the hypothesis that the personality trait of optimism would predict escalation of commitment behavior indicated that the addition of optimism to the prediction of escalation of commitment behavior led to a statistically significant increase for this sample. Although the result confirmed that optimism added some explanation for the increase in escalation of commitment behavior, it did not individually significantly predict the criterion variable. The result obtained confirmed that an individual's tendency to always anticipate favorable outcomes from current or future events will not necessarily lead him or her to commit more funds to a failing course of action. The findings support previous literature suggesting that optimistic expectations do not intensify investments in projects that are failing (Mahlendorf & Wallenburg, 2013). In contrast, the result is a deviation from Scheier et al. (2001), who found that optimistic individuals continued to escalate their commitment even in unproductive situations. This result was also not indicative of Myers's (2010) claim that individuals who believe they are insusceptible to disaster and are not careful may take inappropriate actions, such as putting more resources in failing course of action.

Escalation of Commitment as an Outcome of the Interaction Between Self-Efficacy and Optimism

The hypothesis that self-efficacy and optimism would jointly interact to predict escalation of commitment behavior was not supported. Although the overall model was statistically significant, and the interaction of self-efficacy and optimism accounts for 1.7% of the variance in escalation of commitment behavior, this interaction did not significantly account for any prediction in this sample. This result implies that participants who believe that they would complete a given task and also hold a positive futuristic view of events or situations would not likely commit more resources (e.g., money, time, effort) to an unproductive project.

Limitations of the Study

The present study had several limitations. First, the response rate from participants was low (131 responses) despite a high percentage of potential participants in a decision-making position at the research site. Next, even though the second escalation of commitment scenario used in this study has been extensively used in decision-making and escalation research, I assumed it was a good fit for leaders in the education setting. Using this poor fit measure may have caused a lack of findings regarding the expected interaction between the personality traits (self-efficacy and optimism) and escalation of commitment behavior. The first escalation scenario was deemed suitable because it was modified from the validated Arkes and Blumer's (1985) Blank Radar Plane case and made relevant to the education context.

The ethnicity demographic description on the survey (Appendix B) had only four categories and an "Other" category. Not giving the variable more category options may have contributed to not having a well-represented sample regarding the diverse ethnic groups; for that reason, the variable was eventually dropped from the regression analysis. Also, some of the participants did not completely fill out the survey, thereby creating a lot of missing data and causing a reduction in the initial sample size.

Another limitation of this study is that the results may not be generalized to other types of organizations, especially, for-profit businesses, because the study was conducted among educators from a higher institution. Although decisions made in education may not necessarily equate to other "corporate leaders" whose decisions may be much more financially costly, this study significantly contributes to the little research on escalation among educational professionals. Lastly, as with most research of this nature, participants might have supplied incorrect information that did not reflect their true personalities because of the survey method for data collection. False negative and or false positive responses may have influenced the results of this study.

The goal of the present study was to further the body of knowledge regarding the role of demographic characteristics of age, gender, ethnicity, SES, and tenure in escalation of commitment behavior. Through this research, I expected to explain better the predictability of escalation of commitment behavior by the personality traits of self-efficacy and optimism, particularly in the higher education setting. A complete understanding of escalation of commitment behavior as it relates to leaders and decision-

makers in institutions of higher education provides the opportunity to influence social change as more organizations seek leadership effectiveness and appropriate resource allocation. Despite testing the hypotheses in this study and performing the regression analysis previously outlined, there are still limitations, and further research is still needed in varied contexts.

Recommendations

There are several opportunities for further research on escalation of commitment behavior among leaders in higher education. First, the demographic variables that were used as controls did not explain significant variance in the criterion variable, even though they were selected with care and followed existing literature. As such, other demographic or individual variables could be explored that might account for individual differences in leaders' poor decisions about resources allocated to unproductive courses of action, and to see if they yield different results. Future research on escalation of commitment may include factors such as leaders' level of education, experience on the job, responsibility level (Ropponen & Lyytinen, 2000; Staw, Barsade, & Koput, 1997) on one hand, and the scope of financial implications, such as size of initially project or future cost (Brockner, Rubin, & Lang, 1981), on the other hand.

Next, the current research limited the scope of escalation of commitment to two personality traits, perceived self-efficacy and dispositional optimism. Investigating other personality characteristics may shed more light on why organizational leaders persist in prior decisions and continue to spend more time, delegate more manpower, or put more

money towards the completion of a failing project. As discussed, this study explored trait attributes of leaders and decision-makers in the education field. However, a broader scope of state-like characteristics of leaders should be considered. Specifically, researchers should examine other positive characteristics, especially those of psychological capital (hope and resilience) to determine if they magnify leaders' escalation of commitment behavior. Incorporating these state-like characteristics to the regression model may account for even more of the variance in the likelihood that leaders will continue troubled projects.

Researchers might replicate this study among leaders or decision-makers in elementary and high school settings to see why leaders stick to failing decisions that could further aggravate such educational challenges. Just as with higher education, primary and secondary education face pressures of accountability and funding (O' Sullivan, 2011; Stiles, 2012).

Another aspect of the present study is sampling participants in decision-making roles and not entirely those in core managerial positions or with major administrative duties. Replicating this study and sampling only leaders in supervisory positions will likely foster a better understanding of leadership decision making and commitment escalation. Exploring these management positions may also shed more light on how self-efficacy, optimism, and escalation of commitment behavior relate.

Lastly, research that could inform practice might help improve leaders' risky behavior, as I attempted to do in this study. More studies are needed on how personality

characteristics increase leaders' persistence to dedicate more resources to unproductive courses of action, especially with a larger sample than one used in this study. Furthermore, researchers may gain a more in-depth understanding of the association between personality and commitment escalation when the size and diversity of the sample are expanded.

Implications for Social Change

The results of this study will help drive positive social change by expanding the knowledge of the relationship between personality traits and escalation of commitment behavior. This study measured the impact of personality traits on leaders' escalation of commitment behavior. Overcommitment to failing courses of action has been shown to result from individual differences and poor leadership decision making. This result is evident in extant research suggesting that personality traits may promote leadership escalation of commitment behavior. What is also evident with this sample is that the personality trait of self-efficacy is indeed an attribute that significantly contributes to leaders' escalation of commitment behavior.

First, through specific testing, this study mirrors findings in the literature that supports the idea that individual characteristics have a positive relationship and account for some variation in leadership commitment and effectiveness. As such, this study has significant implications for organizations seeking to enhance their leadership decision making process. Specifically, insights from this effort will promote positive social change as findings should assist leaders in making effective decisions that will be beneficial to

them, the organizations they represent, and the general public. For example, leaders responsible for public projects may be able to make meaningful decisions and take appropriate actions that will aid the execution of community-based projects promptly and with fewer resources. Organizations will be better equipped to assist leaders in capitalizing on personality factors to foster positive organizational outcomes. Decision-makers who are aware that they are susceptible to adding more resources to an unproductive project as a result of their personality trait may be cautioned from time to time regarding the project they are handling.

Since extant research suggest that personality does change (e.g., Costa & McCrae, 2006; Jackson, Thoemmes, Jonkmann, Lüdtke, & Trautwein, 2012; Lucas & Donnellan, 2011; Roberts, Walton, & Viechtbauer, 2006b; Roberts, Walton, & Viechtbauer, 2006b; Roberts, Wood, & Caspi, 2008; Specht, Egloff, & Schmukle, 2011), specific and directed leadership training and intervention programs may also help decrease a leader's tendency to commit to previously faulty decisions. Jackson, Hill, Payne, Roberts, and Stine-Morrow (2012) suggested such training could be cognitively directed. In essence, this study brings into focus the need for leaders to be aware of their personality in escalation of commitment scenarios so they can engage in non-faulty decisions or courses of action in order to attain optimum effectiveness.

Next, on a practical level, insights from this study will promote positive organizational change. Specifically, hiring managers may be able to ascertain better whether a certain individual under consideration for leadership position would have a

propensity toward escalation of commitment. Moreover, implications of this research may help organizations place individuals into leadership positions, identifying profiles of individuals who can make effective decisions, and take appropriate actions that will be beneficial to the immediate community and the society at large. Thus, organizational psychologist may be able to develop specific personality or profile tests that will help human resource weed out candidates who may be highly susceptible to escalation of commitment.

The results of this study are useful for all educators and administrators undertaking district-wide projects as well as policy-makers making educational decisions and changes. In particular, these leaders need to take into account how their personality may increase their persistence at continuing a faulty prior decision that may impact students' academic success and outcomes. The findings have implications for the teacher-recruiting process. These findings could aid the development of an assessment tool that will provide a better picture of potential hires' personality and commitment level. Specifically, the discoveries from this study have provided insights into the contributory role of positive attributes, specifically self-efficacy in commitment escalation. This insight will go a long way in helping schools create strategic programs aimed at training those in administrative positions how to appropriately use these traits in situations that are prone to escalation.

Finally, an understanding of the impact of personality traits on escalation of commitment behavior will also help in developing a more meaningful and practical

personality assessment tool for personnel selection. In particular, during the employee search and recruitment phase, organizations may be able to sieve out candidates who overestimate their ability to succeed at given tasks. As a result, the findings of this study will aid organizations and businesses that are facing the problem of leaders who make ineffective decisions, especially those who will know when to stop putting additional funds to a failing course of action.

Conclusion

The purpose of this study was to address an empirical gap in the literature regarding the impact of personality traits (i.e., self-efficacy, and optimism) on leaders' escalation of commitment behavior. I addressed a gap in the literature regarding the lack of escalation of commitment research in the education field. The results of this study may add a more meaningful understanding that will foster effective decision making in educational institutions, as well as help other kinds of organizations create appropriate tools for hiring and training.

The findings have also shed light on the various aspects of escalation of commitment behavior among leaders in institutions of higher learning. From these findings, it is worthy to conclude that the positive personality trait of self-efficacy is an important contributor to escalation behavior especially when leaders think they can turn a failing project around by adding more resources to it. Self-efficacy significantly predicted escalation of commitment behavior and affected the degree to which leaders persisted at unproductive courses of actions. This association further suggests the valuable

contribution of self-efficacy and escalation of commitment behavior to the field of educational research, which has previously lacked such commitment escalation studies.

Another area of importance in this study is the findings of the demographic variables (age, gender, SES, and tenure) and their implications on escalation of commitment behavior. These variables had no impact on escalation of commitment behavior and, as such, do not serve as predictors of the willingness of leaders to escalate their commitment to a project. This result confirmed the mixed and inconclusive evidence surrounding demographic variables and escalation of commitment behavior and echo findings that participants' demographic information does not serve any contributory role in commitment escalation. As such, it cannot be concluded that any one particular group of people (e.g., male/female leaders, younger/older leaders) have a higher tendency to escalate commitment to a failing course of action. This understanding thus provides an avenue for reducing the chances of discriminating unfairly by negating assumption that demographics matter.

A review of the available literature demonstrated a clear gap in research surrounding the joint impact of self-efficacy and optimism on escalation of commitment behavior among leaders in higher institutions of learning. The lack of attention to determine if an individual's belief in his or her ability to complete tasks and have a positive outlook may significantly contribute to their escalation of commitment behavior is troublesome, because a leader's personality could affect his or her behavior, especially if the quality of the decisions negatively impacts his or performance and the productivity

of the organization the person represents. Evaluating the joint role and effects of these personality characteristics further will afford employers the opportunity to learn about the necessary tools for training and professional development to reduce the negative effects of these characteristics in organizations. I attempted to fill this gap in the literature even though the results indicated self-efficacy and optimism do not jointly affect escalation of commitment behavior.

Overall, the results of this study demonstrated support for the association of personality and escalation of commitment behavior. Specifically, the results have reiterated the need to continue to add to the limited empirical research that the positive attribute of self-efficacy plays a crucial role in leaders over-committing resources to projects that need no further resource allocations. The present research has furthered the existing body of knowledge by demonstrating that personality has direct implications for effective leadership decision making and non-faulty commitment.

This study makes several contributions to the escalation of commitment phenomenon. First, it brings attention to a model that explains leaders' willingness to continue allocating more resources to a failing course of actions. By incorporating personality characteristics, this model has shown that self-efficacy and optimism account for more variance in escalation of commitment behavior. In particular, this model has added the importance of self-efficacy to current knowledge on escalation of commitment.

The escalation of commitment phenomenon has been studied extensively in a variety of contexts such as banking, new product development, sports events, and project

management (Boulding, Morgan, & Staelin, 1997; He & Mittal, 2007; Staw et al., 2007; Staw & Hoang 1995). However, sparse research regarding escalation of commitment exists among decision-makers and leaders in the education setting. The results of this study, therefore, will enlighten educators, policy-makers in education, faculty recruiters, school and organizational psychologists, and staff in leadership positions. With the insight and knowledge from this study, education institutions may be able to improve their leadership decision-making processes and foster leadership effectiveness.

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Appendix A: Recruitment Letter

Dear Participant,

My name is Adebimpe Babatunde, and I am a Reading Coach from the Reading and Student Success Department at Century College. I am writing to invite you to participate in my research about aspects of personality that may impact decision making in higher education institutions. You're eligible to be in this study because in your position at the College; you have the capacity to make independent decisions concerning your job or assigned duties and tasks. I obtained your contact information from the human resource office, and I have approval from Century's IRB to conduct this research. If you have any questions about the study, please email or contact me at adebimpe.babatunde@waldenu.edu or [redacted]

If you'd like to participate in this study, please click the link below to begin the survey:

https://www.psychdata.com/s.asp?SID=168592

Thank you very much.

Sincerely,

Adebimpe Y. Babatunde, M.A.
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Appendix B: Survey Questions

Dear Respondent,

This survey is designed to gather information from organizational leaders and/or decision-makers. Your participation is anonymous, and information provided will be treated with utmost confidence. This is not a test, so there are no right or wrong answers. Your submission signifies your consent to participate in this study. Thank you.

Section A

Demographic data

Age: (18-20) (21-30) (31-40) (41-50) (51-60) (60 & above)

Gender: Male Female Other

Ethnicity: Caucasian____ Asian American____ African American____ Latino____ Other____

Socioeconomic Status (household earnings per year): less than $19,999_____$20,000-$49,999_____$50,000-$79,999____ $80,000- $99,999_____over $100,000_____

Tenure (number of years in a decision making position in the MSNCU System): (0-5) (6-10) (10-15) (15 or more)

Section B

New General Self-Efficacy Scale (NGSE)

Instructions:

Please use the scale below to rate your agreement (or disagreement) with each of the following statements about yourself.

Strongly **Strongly**

Disagree Disagree Neutral Agree Agree

<-|----------|----------|----------|----------|->

(1) (2) (3) (4) (5)

1. _____ I will be able to achieve most of the goals that I have set for myself.
2. _____ When facing difficult tasks, I am certain that I will accomplish them.
3. _____ In general, I think that I can obtain outcomes that are important to me.
4. _____ I believe I can succeed at most any endeavor to which I set my mind.
5. _____ I will be able to successfully overcome many challenges.
6. _____ I am confident that I can perform effectively on many different tasks.
7. _____ Compared to other people, I can do most tasks very well.
8. _____ Even when things are tough, I can perform quite well.

Section C

Revised Life Orientation Test (LOT-R)

Instructions:

Please be as honest and accurate as you can throughout the questionnaire. Try not to let your response to one statement influence your responses to other statements. There are no "correct" or "incorrect" answers. Answer according to your own feelings, rather than how you think "most people" would answer.

Please answer the following questions about yourself by indicating the extent of your agreement using the following scale:

(0) = strongly disagree (1) = disagree (2) = neutral (3) = agree (4)= strongly agree

_____ 1. In uncertain times, I usually expect the best.

_____ 2. It's easy for me to relax.

_____ 3. If something can go wrong for me, it will.

_____ 4. I'm always optimistic about my future.

_____ 5. I enjoy my friends a lot.

_____ 6. It's important for me to keep busy.

_____ 7. I hardly ever expect things to go my way.

_____ 8. I don't get upset too easily.

_____ 9. I rarely count on good things happening to me.

_____ 10. Overall, I expect more good things to happen to me than bad.

Section D

Decision Task 1

Please read the following scenarios and answer the questions that follow.

Last year (Frank retired last year, and you were assigned to follow-up the jazz-dancing program) you had a plan to organize a jazz-dancing program for the school and to apply for the Quality Education Fund (QEF) this year for its establishment. You have made much effort in preparation, including information collection, co-ordination, attitude survey within the school, meeting with colleagues and students, etc. Just before you began to write the proposal, the QEF officer gave a public announcement, which said that it had funded too many jazz-dancing programs in the last two years (e.g. over 150 programs) and further funding to similar programs would be highly selective this year. The decision you need to make now is to abandon the jazz-dancing proposal and write

another proposal for a different program that is more likely to be funded or continue writing the same proposal.

Question 1: Please give a probability rating indicating your willingness to continue writing up the proposal for submission, with 0% (absolutely no) to 100% (absolutely yes): _____ %

Question 2: Please give a probability rating indicating your willingness to abandon it and write another proposal for a different program that is more likely to be funded, with 0% (absolutely no) to 100% (absolutely yes): _____ %

Decision Task 2

You are the Vice President of Operations for a midsized high-tech manufacturing firm. You have spent 5 million dollars of the 10 million dollars budgeted for a research project to develop a radar-scrambling device that would make a ship undetectable by conventional radar, that is, in effect a radar-blank ship. The engineering department has informed you that the project is 90% complete. However, you have just discovered that another firm has already begun marketing a similar product with a much better design: It takes up less space and is much easier to operate than your design. The decision you face now is either to (a) quit this project and use the rest of the money to invest in another new product or (b) authorize the next 1 million to continue the current project.

Question 1: Please give a probability rating indicating your willingness to quit this project and use the rest of the money to invest in another new product, with 0% (absolutely no) to 100% (absolutely yes): _____ %

Question 2: Please give a probability rating indicating your willingness to authorize the next 1 million to continue the current project, with 0% (absolutely no) to 100% (absolutely yes): _____ %

Appendix C: Approval from Research Partner's IRB

IRB Letter of Approval from the Partner Institution

[redacted]

Re: Survey of Employees related to personality

and decision making

Dear Bimpe. Babatunde,

As chair of the Institutional Review Board (IRB) of [redacted], I have reviewed your request to survey employees as part of your graduate program. The IRB approved this research and hereby considers this project exempt as per 45CFR46.101(b)(2). You may proceed with your research. This approval is valid for one year from date of this letter. If your research extends beyond this time, you will need to apply for reapproval.

If you have any questions or concerns, please

feel free to contact me. Good luck with your

research.

Sincerely,

[redacted]

Dean of Institutional Effectiveness/Chair, IRB

Appendix D: Permission for New General Self-Efficacy Scale (Chen et al., 2001)

Hello [redacted],

My name is [redacted] and am a doctoral candidate at Walden University. I am currently working on my dissertation titled Self-Efficacy and Optimism in Leaders' Escalation of Commitment Behavior. I came across the New General Self-Efficacy Scale (NGSE) authored by you and your colleagues and will like to ask for permission to use it in my doctoral study. I will be grateful if my permission is granted and furnished with the scale's psychometric properties and scoring information. I promise to use it only for my dissertation (educational purpose).

Thank you for your kind consideration.

Bimpe Babatunde

[redacted] Chen <[redacted]>

to me

You can use the scale, per attached

[redacted], Ph.D.

Robert H. Smith Chair in Organizational Behavior, Robert H. Smith School of Business

4538 Van Munching Hall, University of Maryland

College Park, MD 20742-1815

Appendix E: Permission for the Life Orientation Test-Revised (Scheier et al., 1994)

All of these scales are being made available here for use in research and teaching applications. All are available without charge and without any need for permission. Please do not write to me requesting a letter of permission, because this is all you will get. Download or print them from the linked pages.

Reference:

Carver, C. S., Scheier, M. F., & Segerstrom, S. C. (2010). Optimism. *Clinical Psychology Review, 30, 879-889.* Retrieved from http://www.psy.miami.edu/faculty/ccarver/CCscales.html

Appendix F: Permission for Escalation of Commitment Scenarios (Arkes & Blumer, 1985; Wong, 2005)

Dear [redacted],

My name is Bimpe Babatunde from Walden University, U.S.A. I am currently working on my dissertation and came across your article titled: Understanding the Emotional Aspects of Escalation of Commitment: The Role of Negative Affect

Please I will like to request the use of your escalation of commitment scenario (personally responsible version). My study centers on leadership personality and escalation of commitment and I will like to use your scenario in my study.

I promise to give you and your co-authors proper academic credit and use it only for academic purpose.

Kind Regards,

Bimpe Babatunde

Wong [redacted] <[redacted]>

to me

Hi,

Sure. You are welcome to use it. Thanks

Best

[redacted]

Appendix G: Permission for Arkes and Blumer's Modified Blank Radar Plane Scenario

Adebimpe Babatunde <[redacted]>

to mnewong

My name is Bimpe Babatunde and am a doctoral candidate at Walden University. I am currently working on my dissertation titled Self-Efficacy and Optimism in Leaders' Escalation of Commitment Behavior. I came across your modified version of Arkes and Blumer"s (1985) “Blank Radar Plane” case and will like to ask for permission to use it (Quality Education Fund Decision Task) in my doctoral study.

I will be grateful if my permission is granted and furnished with the modified decision task's questions and scoring information. I promise to use it only for my dissertation (educational purpose).

Thank you for your kind consideration.

Wong [redacted] <[redacted]>

to me

Hi,

Sure. You are welcome to modify it and then acknowledge the source of the modification. Good luck

Best, [redacted]