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# The Relationship Between the Big Five Personality Traits and Authentic Leadership

Bronti Baptiste  
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Walden University

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Walden University

2018

Abstract

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by

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MA, Walden University, 2007

BS, Missouri Southern State University, 2005

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Organizational Psychology

Walden University

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## Abstract

Effective leadership, ethical leadership, and leadership emergence have been extensively researched, but there remains a lack of research on the relationship between the big 5 personality traits and authentic leadership. This quantitative study was based on the empirical principles of the big 5 model and guided by the big 5 theory. In addition, this research asked if there was a relationship between the big 5 model and authentic leadership, and which combination of the 5 personality traits best predict authentic leadership. Fifty-five adult participants, employed in various corporations, were recruited from a convenience sample. They rated their leaders by completing an Authentic Leadership Questionnaire, the NEO Five-Factor Inventory-3, and a demographic questionnaire. Data were analyzed using multiple linear regression analyses and the results showed that the big 5 personality model explained 46.9% of the variance ( $F(5, 49) = 8.65, p < .001$ ). Conscientiousness positively ( $\beta = 0.40, p = .003$ ) correlated with authentic leadership while neuroticism was inversely ( $\beta = -0.04, p = .046$ ) correlated. These 2 traits best predicted authentic leadership and provided the strongest correlation. Extraversion ( $\beta = -.04, p = .739$ ) and openness-to-experience ( $\beta = .25, p = .080$ ) were non-significant traits. In the Pearson Correlation analysis, agreeableness had a weak inverse correlation with authentic leadership, ( $r(53) = -0.30, p = .027$ ), and contributed 8.9% of the variance in predicting authentic leadership. Conscientious leaders with low level of neuroticism, who practice authentic leadership, will bring about positive social change by reducing unethical practices, improving communication with employers, employees, and consumers, and improving employee morale.

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## Dedication

This degree is dedicated to the memory of my late parents, Mrs. Audrinita Fergus and Mr. George Norman. I know if you were here you would share in my joy and accomplishment.

Thank you for instilling in me the value of a sound education and to strive for perfection in everything I do I love and cherish the memories of both of you. Thank you for your unending love.

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## Chapter 1: Introduction to the Study

### **Background**

Authentic leadership is a leadership style which promotes moral and ethical outcomes as the leaders strive to achieve greater self-awareness, internalized moral perspective, balanced processing of information, and relational transparency while working with followers to foster positive self-development (Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). To become an authentic leader, individuals must pursue a personal journey of self-discovery, self-improvement, reflection, and renewal in addition to developing a leadership style consistent with their personality and character (Shirey, 2006).

Although authentic leadership has been extensively researched (e.g., Beddoes-Jones, 2011; Eriksen, 2009; Hassan & Ahmed, 2011; Shirey, 2006; Walumbwa, Christensen, & Hailey, 2011), previous research has been focused on the components of authentic leadership instead of the Big Five personality traits. Walumbwa, Luthans, Avey, and Oke (2011) recommended that future researchers expand the concepts of authentic leadership and how it relates to other variables by including antecedents and additional mediators such as characteristics, qualities, and traits that influence the construct. In this study, I sought to determine the relative association of the Big Five personality traits—namely extraversion, agreeableness, conscientiousness, neuroticism, and openness-to-experience—with authentic leadership.

## **Introduction**

In this chapter, I discussed authentic leadership and the Big Five personality traits, the problem addressed, the nature of the research and the research questions, and the associated hypotheses. This chapter also includes sections on the purpose, theoretical framework, scope, and significance of the study.

Authentic leadership is fundamental in today's work environment (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). Authentic leaders create conditions for the growth of trust and positive emotions in followers (Avolio et al., 2004). Authentic leaders also enhance decision making, improve well-being in organizations, and build positive emotional states and high levels of engagement in workplaces. May, Chan, Hodges, and Avolio (2003) described authentic leaders as individuals who know themselves and are transparent in linking their inner desires, expectations, and values to the way they behave every day and in every interaction. May et al. stressed that authentic leaders are not usually transformational, visionary, or charismatic leaders, but when called upon in the time of need, will be the ones whose stance can change the course of history for organizations, departments, and others.

May et al. (2013) pointed to John Gardner's resignation from the post of Secretary of Health and Human Services when he could no longer support President Lyndon Johnson's position on the Vietnam War as an example of authentic leadership. Gardner had enormous power given to him by the president, but that did not stop him from considering all perspectives in making his decision. Gardner made the decision to resign, which had positive outcomes for the country, instead of making a decision to benefit his



own self-interest. This is an example of authentic leadership in that John Gardner made an unselfish move for the betterment of the country out of concern for others (May et al., 2003).

At times, leaders are faced with many challenges, especially when organizations strive to remain competitive. In a time of world recession, leaders are expected to achieve more with fewer people and fewer resources (Beddoes-Jones, 2011). Based on what is known about the benefits of authentic leaders, for organizations to be effective and successful in the long term, leaders must practice authentic leadership style (Hassan & Ahmed, 2011). Moreover, the authenticity of leaders is important in attaining effective governance in any situation (Hassan & Ahmed, 2011).

There are a specific set of personal and relational characteristics common to authentic leaders. Past research has focused on personal characteristics such as self-awareness, self-regulation, and integrity (Eriksen, 2009; Gregory, Beck, & Carr, 2011; Walumbwa et al., 2008). In addition to the personal characteristics studied, researchers have explored construct variables such as self-concept, relational transparency, balanced processing, and internalized perspective (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Walumbwa et al., 2008). These construct variables, according to Walumbwa et al. (2008), are the four components of authentic leadership.

In this study, I explored the Big Five personality traits, also known as the Five-Factor model, to determine their relationship to authentic leadership. Researchers have been interested in the relationship between the Big Five model of personality traits and employee behaviors for some time. For instance, Derue, Nahrgang, Wellman, and

Humphrey (2011) on interpersonal attributes such as agreeableness and extraversion hypothesized that agreeable leaders are friendly, approachable in conjunction with being respectful, and helpful in developing followers' strength. Derue et al. concluded that relational-oriented and change-oriented leader behaviors were important predictors of leaders' overall effectiveness, and agreeableness was related to consideration but not transformational behavior, whereas the researchers found that extraversion was related to both consideration and transformational behavior.

Leaders with neurotic symptoms could cause confusion among their subordinates. Judge and Bono (2000) stated that neurotic individuals are anxious, fearful, depressed, and moody, and according to Judge (2009), neuroticism is associated with stress. Neuroticism includes characteristics such as anxiety, angry hostility, depression, self-consciousness, and impulsiveness (Zitny & Halama, 2011). Judge and Bono (2000) stated that neurotic individuals are anxious, fearful, depressed, and moody, and according to Judge (2009), neuroticism is associated with stress. Miller and Lynam (2003) concluded that emotional detachment could result from a combination of low levels of neuroticism and agreeableness because those individuals fail to consider the welfare of others. These characteristics do not appear to be predictors of authentic leadership because authentic leaders are supportive and care for others. However, the outcomes of personality traits on authentic leadership have not been researched directly.

The characteristics of self-control, reliability, and self-discipline, for example, appear to foster authentic leaders. Abraham (2004) stated that conscientiousness included personal qualities such as meticulousness, self-discipline, and personal ability. Abraham

also found that employees who are conscientious complete tasks faithfully, toil diligently, assist new employees, and accept extra responsibility. They contributed greatly to the smooth functioning of organizations. Perry, Witt, Penney, and Atwater (2010) found that individuals high in conscientiousness were achievement-driven, organized, and dependable. Similarly, Kalshoven et al. (2011) found that conscientious individuals were dependable, responsible, acted dutifully, and were task-focused as it relates to role clarification. Role clarification is essential for the successful operation of organizations and the creation of healthy workplaces.

Extraversion has been researched in multiple studies of leadership. For instance, Judge, Bono, Ilies, and Gerhardt (2002) stated that in studies on extraversion completed between 1904 and 1947, results were mixed in relation to leadership. Five of those studies showed that extraversion was positively related to leadership, three showed a negative relation, and four studies showed that extroversion had no relation to leadership. Based on these findings, Judge et al. concluded that there is a positive relationship between extraversion and both leader emergence and leadership effectiveness. However, the relation with leader emergence appeared stronger.

The last personality trait to be discussed in this study is openness-to-experience. DeNeve and Cooper (1998) marked openness-to-experience as controversial because it includes traits related to intelligence, openness, and creativity. DeNeve and Cooper noted that the scope of openness-to-experience includes any personality variable of a cognitive nature such as the belief of a just world, mental absorption, and rigidity. When gathering

information to help make sound and ethical decisions, openness should help authentic leaders to explore all possibilities.

### **Problem Statement**

Authentic leaders' drive for excellence and their focus on realizing the organization's goals and objectives can motivate them to perform at superior levels (George, McLean, & Craig, 2008). Not all leaders in organizations play a vital role in initiating change; neither do they necessarily provide the motivation and communication needed to keep change efforts moving in a positive direction (Alkahtani, Abu-Jarad, Sulaiman, & Nikbin, 2011). Moreover, the benefits of certain attributes such as the authentic leadership components, namely increased self-awareness, self-regulation, and positive modeling effects help in the development of authenticity in followers (Avolio & Gardner, 2005). Followers' authenticity, in turn, contributes to their well-being and the attainment of sustainable performance (Avolio & Gardner, 2005). Ilies, Morgeson, and Nahrgang (2005) found that authenticity had a vast meaning in subordinates' lives, especially in the process of leadership. Authentic leadership promises potential benefits to leaders, subordinates, organizations, and consumers.

The knowledge of what fosters authentic leadership will help meet the demand for more authentic leaders in the workforce. Eagly (2005) claimed that researchers who studied the qualities of leaders who made positive outcomes, used traits which fostered good leadership. They were hopeful that the development of authentic leadership would create optimism for their collective goals (Eagly, 2005). Numerous researchers have investigated the relationship between personality traits and many aspects of leadership

such as leadership emergence (Judge et al., 2002), leaders' characteristics (Foti, Fraser, & Lord, 1982), effective leadership (Hendricks & Payne, 2007; Johnson & Hill, 2009), ethical leadership (Kalshoven et al., 2011), and transformational and transactional leadership (Bono & Judge, 2004), but there is a lack of research on the relationships between the Big Five model of personality traits and authentic leadership. Thus, I conducted this study to explore those relationships in area identified in the existing literature as lacking empirical research.

### **Nature of the Study**

The participants for this study were employees from various companies who were enrolled as students at Walden University, and who were also members of the university's participant pool. They were asked to rate their leaders, supervisors, or managers on two instruments. I used a quantitative research design to electronically gather the data for the study. Quantitative research is the dominant type of research performed in social sciences (Locke, Silverman, & Spirduso, 2010), and I chose it for this study because it was the most efficient way to address a gap in the existing literature as it pertained to authentic leadership and the influence of the dimensions of the Big Five personality traits. The quantitative methodology provided information on the relationship between personality traits and authentic leadership behavior. I analyzed the data using statistical tests including descriptive, frequencies, percentages, and regression analyses.

### **Research Questions and Hypotheses**

In this study, I explored how the dimensions of the Big Five model of personality traits relate to authentic leadership. Data were collected from employed members of

Walden University participant pool, which comprises students, faculty, and staff. Participants rated their leaders, supervisors, or managers on two instruments: the authentic leadership questionnaire (ALQ), and the NEO Five-Factor Inventory-3 (NEO-FFI-3). I used the ALQ to measure subordinates' perceptions of their leaders' authentic leadership characteristics, and the NEO-FFI-3 to measure subordinates' perceptions of their leaders' personality traits as listed in the Big Five model. The study was guided by the following research questions, and I examined two pairs of hypotheses to answer these research questions about the correlations between the ALQ scale and the personality factors. I predicted that authentic leadership increases when the levels of conscientiousness, openness-to-experience, extraversion, and agreeableness increase, and decreases when the level of neuroticism increases. The personality factors were examined together. I used the regression model:  $AL = \beta_0 + \beta_1 (C) + \beta_2 (O) + \beta_3 (E) + \beta_4 (A) + \beta_5 (N) + \epsilon$  to determine which factors predicted authentic leadership. A multiple linear regression is the appropriate analysis to conduct when the goal is to assess a relationship between a set of continuous independent variables and a single continuous level dependent variable (Pallant, 2007). The continuous level predictor variables of the regression for Hypothesis 1 were conscientiousness, agreeableness, neuroticism, openness-to-experience, and extraversion, as measured by the NEO-FFI-3. The continuous level criterion variable was authentic leadership, as measured by the ALQ. Prior to analysis, I assessed assumptions of normality, homogeneity, and the absence of multicollinearity.

### **First Research Question and Hypothesis**

RQ1: Is there a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model and their perceptions of their leaders' authentic leadership?

*H1<sub>0</sub>: R Big Five model, ALQ = 0.* Subordinates' perceptions of their leaders' personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will not predict their leaders' perceived authentic leadership as measured by the ALQ. The notation *R Big Five model, ALQ = 0* means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are zero.

*H1<sub>a</sub>: R Big Five model, ALQ  $\neq$  0.* Subordinates' perceptions of their leaders' personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will predict their leaders' perceived authentic leadership as measured by the ALQ. The notation *R Big Five model, ALQ  $\neq$  0* means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are not zero.

### **Second Research Question and Hypothesis**

RQ2: Which combination of the Big Five personality traits, best predicts authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity?

*H2<sub>0</sub> R Big Five model/demographic = 0.* There is no combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

*H2<sub>a</sub>: R Big Five model/demographic  $\neq$  0.* There is a combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

After testing for the effect of the perceived personality variables as a set, I identified an optimal regression model by using a backward elimination procedure to select predictor variables from among all background and predictor variables.

### **Purpose of the Study**

The purpose of this quantitative study was to examine the relationship between the Big Five personality traits and authentic leadership, an area of study recognized by Walumbwa et al. (2011) as a gap in the current literature. Walumbwa et al.'s found that more studies were needed in critical areas such as authentic leadership, psychological capital, and trust to help address the unprecedented challenges organizations face. In this study, the predictor variables were the Big Five personality traits (conscientiousness, agreeableness, neuroticism, openness-to-experience, and extraversion) and the criterion variable was authentic leadership.

The findings of this study can assist employers in identifying which personality traits are likely to influence authentic leadership, which could aid in the assessment and selection of organizational leaders.

### **Theoretical Framework**

The big five theory formed the basis of this research. This theory has been used extensively to examine employee personality characteristics (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1992, 1993; McCrae & Costa, 1989; McCrae & John, 1992;



Saucier, 1994). Accordingly, this theory is appropriate for examining the personality traits inherent in authentic leaders. The existing literature has shown a relationship between personality traits and leadership, as personality traits dictate how individuals will behave when faced with certain situations. According to the literature, behaviors characterized by traits are constant and resistant to change (McCrae & Costa, 2006). In Chapter 2, I expand on this concept while marking the need for this study.

### **Operational Definitions**

*Agreeableness*: The personality trait that “deals with the motives for maintaining positive relations with others” (Jensen-Campbell & Graziano, 2001, p. 325).

Agreeableness refers to social behaviors such as the expression of interpersonal warmth and positive affect. These social behaviors include smiling, laughing, and eye contact (Cuperman & Ickes, 2009).

*Authentic leaders*: Leaders who are deeply aware of their values and beliefs; they are also self-confident, genuine, reliable, and trustworthy. Authentic leaders strive to build followers’ strengths, broaden their thinking, and create a positive organizational context (Avolio & Gardner, 2005; Gardner et al., 2005).

*Authentic leadership*: A leadership process that combines leaders’ ethical decision making with positive organizational behavior and a highly developed organizational context to produce increased self-awareness and self-regulated positive behavior in leaders and associates, thereby fostering positive self-development (Avolio & Gardner, 2005).

*Conscientiousness*: “A dimension that contrasts scrupulous, well-organized, and diligent people with lax, disorganized, and lackadaisical individuals” (Costa & McCrae, 1992, p. 6).

*Followers*: Individuals who follow their leaders because they want to; they will rely less on the formal authority that leaders or managers could use to obtain the cooperation of their followers (Turner & Lloyd-Walker, 2008).

*Leader*: An individual in a formal leadership role at any level in an organization who has other individuals reporting to him/her (Wong & Cummings, 2007). The levels could be classified as low, middle, and/or senior leadership/management, and the term could apply to individuals in any industry once the individuals attain a level of management. They oversee the day-to-day work of junior workers.

*Neuroticism*: This personality trait is marked by “the tendency to have a negativistic cognitive style and focus on self-perceptions that are unfavorable” (Walumbwa & Schaubroeck, 2009, p. 1278). Individuals with high scores on neuroticism frequently experience more intense negative emotions such as anxiety and anger than those with low neuroticism scores.

*Personality*: A set of individual attributes that consistently differentiate persons from each other in the ways they think, feel, and act (Ones, Viswesvaran, & Dilchert, 2005).

*Self-awareness*: In this process, persons continually come to realize their unique talents, strengths, sense of purpose, core values, beliefs, and desires (Avolio & Gardner, 2005).

*Traits:* “[R]elatively enduring psychological characteristics that influence people’s thoughts, feelings, and behaviours” (Nezlek, 2007, p. 791). The term “relatively enduring” means that although one’s traits may change in a lifetime, over a specific period (e.g., for a month) a person’s traits are fairly stable.

*Transactional leaders:* Individuals who practice a leadership style that offers rewards for productivity and denies rewards for a lack of productivity (Bass & Riggio, 2006).

*Transformational leaders:* Leaders whose primary objective is to stimulate and inspire followers to achieve extraordinary outcomes while simultaneously striving to improve their own leadership technique (Bass & Riggio, 2006).

### **Assumptions and Limitations**

In conducting this study, I made some necessary assumptions. First, I assumed that the participants in this study were honest in their responses on the questionnaires and completed them to the best of their knowledge. False responses to the questions on the questionnaires could have negatively affected the outcome of the study. I also assumed that, given their status as university students, faculty, and staff members, participants had the educational fortitude to understand and correctly comprehend the questions on the questionnaires. This minimized the chance of misinterpreting the questions on the questionnaires. The participant pool members were trained to follow instructions and some were familiar with the procedures for conducting scientific studies. In addition, student participants had all participated in surveys and performed evaluations prior to my

study because they are invited to evaluate the strengths, weaknesses, and overall performance of their professors at the end of each semester.

A limitation of this study was that participants were employed members of Walden University participant pool instead of employees in a specific workplace, and that the data collection was conducted online. No groups were formed because each participant completed the instruments with responses on their leaders, or supervisor, or manager. I studied the results from the completed instruments and the demographic questionnaire aggregately. Another limitation of this study was that I used a convenience sample, and participants were thus not randomly selected from the whole population.

Although a convenience sample allows researchers the opportunity to collect data from a large sample relatively quickly, there are drawbacks when using this sampling method. For instance, there is no assurance that the sample represents the targeted population (Mitchell & Jolley, 2004). In addition, Mitchell and Jolley claimed because the respondents volunteered to participate in the study, the sample could be biased. Most importantly, persons who respond to a request to participate in a study do not represent a significant portion of the population because persons who do not have the time or desire to respond are not represented in the sample (Mitchell & Jolley, 2004). Another possible limitation when using a convenience sample is that the sample contacted, such as participant pool members, might not be interested in participating in the study; for this reason, it is better to approach a larger sample by widely advertising (Goodwin, 2005). Goodwin further cautioned that although convenience sampling is adequate for most research in psychology, the method of sampling is not widely accepted for survey

research. I conducted this study using theoretical evidence, and did not use scientific experimentation.

A further limitation was the method of data collection, online questionnaires. This limitation negatively impacted the number of completed questionnaires I received. A low response rate did not affect the outcomes of the statistical tests. This study also may have been affected by common method bias because the data for all the variables—both dependent and independent—were collected from students using only questionnaires. A consequence of common method bias is measurement error. To help overcome the limitations of the study, individuals 65 years and older were allowed to participate in the study.

### **Scope and Delimitations**

At some organizations, leaders are neither transparent in their dealings with subordinates, nor are they ethical in their dealings with subordinates and customers. Studying this problem was timely in light of the present economic downturn facing several countries, which has resulted in part from publicized corporate scandals that involved unethical practices. The participants of the study were not examined in their work environments because participants completed the questionnaires online. However, the results of this study may be extended to the larger population. There is no surety that the persons who completed the questionnaires were, in fact, employed and were supervised by leaders because the data were collected electronically and participants freely volunteered to rate their leaders. Further, I did not consider participants' socioeconomic status in this study. I did, however, collect participants' demographic

information such as age, sex, educational level, years of supervision, ethnicity, and tenure for descriptive purposes only; these responses did not affect the outcome of the study.

### **Significance of the Study**

This study is significant because of the growing demands for authentic leadership. Brewer (2010) stated that because of the many woes stemming from unfortunate events such as the economic downturn, the depressed stock market, mass layoffs, and the struggling housing market, American workers are in desperate need for ethical and effective leadership. According to Kalshoven, Den Hartog, De Hoogh (2011), leaders are important to organizations, and expanding the antecedents of ethical leadership or the qualities that lead to ethical leadership would be crucial because only when such antecedents are known can organizations select, train, and develop ethical leaders and enjoy the positive outcomes of ethical leadership.

The acts of inauthentic leaders have cost the U.S economy hundreds of billions of dollars in the latter part of the 20<sup>th</sup> century (May et al., 2003). To help reduce the huge cost of some executive workers' unethical behavior, it would be good if more organizations knew which personal characteristics are essential for the emergence of authentic leaders.

One objective of authentic leaders is to form positive social relationships with their subordinates; therefore, authentic leaders should score high on the facet scales of agreeableness and conscientiousness in particular. Also, Johnson and Hill (2009) noted, authentic leaders gather subordinates' input and include information from several perspectives in their decision making to ensure they make sound ethical decisions. Given

this, it would be cost-effective for organizations to recruit and promote leaders who score high on agreeableness and conscientious but low on the neuroticism trait.

### **Summary and Transition**

In this chapter, I discussed the gap in the literature, the aim and objectives of the study, and the importance of the study for its population. This chapter also included discussions of authentic leadership and personality traits along with the theoretical framework, assumptions, limitations, and delimitations associated with the study. Chapter 2 includes an intensive discussion of studies conducted on authentic leadership and personality traits, an elaboration of the big five theory, and a description of the methodological aspects of some existing studies relevant to the problem being addressed. Chapter 3 contains an elaborate description of the research design, the participants of the study, and the research questions and hypotheses. Chapter 4 contains a description of the participants, the data collection process, a discussion of the results of the study's data, and statistical analyses. In Chapter 5, I offer an overview of the study, a discussion and interpretation of the research findings, discussions of the implications for social change and limitations of the study, and recommendations for further studies.

## Chapter 2: Literature Review

### **Introduction**

Authentic leadership promises positive outcomes for subordinates, organizations, and leaders. Researchers have claimed that authentic leadership is about developing and enhancing employees' values, motives, emotions, and goals for the growth of the organization (Gardner et al., 2005). Authentic leadership was first introduced following a 2003 call from Bill George, a former chairman and chief executive officer of Medtronic and professor of Harvard Business School, for authentic leaders to restore customers' confidence following the corporate scandals and the mania for meeting Wall Street numbers (Klenke, 2007). Before joining Medtronic, George was an executive at Honeywell Aerospace, the largest manufacturer of aircraft engines. George stated that society needed authentic leaders—people with high integrity who are committed to building enduring organizations (Klenke, 2007). As a means of helping organizations progress, Avolio and Gardner (2005) identified authentic leadership as a success factor. This literature review includes explorations and comparisons of existing literature on authentic leadership, personality traits, and leadership styles. Reviews of studies for problems addressed, their methodological approaches, objectivity, and results also form part of this section.

I conducted this literature review in support of the following research questions:

(a) Is there a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model, and their perceptions of their leaders' authentic leadership? And (b) Which combination of the Big Five personality traits best predicts



authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity? The criterion variable for this study was authentic leadership, and the predictor variables were the dimensions of the Big Five personality model, namely agreeableness, neuroticism, extraversion, conscientiousness, and openness-to-experience. I designed this study to contribute data to the existing body of literature on leadership style and personality traits. Employers may use the results of this study to help improve employees' psychological, emotional, and social well-being as well as their career growth and development. The problem addressed in this study concerned the lack of research on how the Big Five personality traits are related to aspects of authentic leadership, while I wanted to understand what effects the Big Five personality traits have on leaders' authentic leadership behavior.

### **Strategy for Searching the Literature**

I used Walden University Library's electronic databases to explore peer-reviewed journals, conference papers, and dissertations. Databases I searched included Academic Search Complete, SocINDEX, Business Source, Sage, Thoreau, PsycINFO, ProQuest Central, PsycARTICLES, and Mental Measurements Yearbook. I limited the search to full-text scholarly (peer-reviewed) publications, and used Boolean operators *and*, *not*, and *or* to further limit the searches. For example, a search in Academic Search Complete for *authentic leadership* got 45 responses, when the *Big Five personality traits* and Boolean operator *and* were added "no results were found." While a search conducted for *authentic leadership or Big Five personality traits* provided 248 results for the period January 01, 1993 to December 31, 2014. However, when limiting this search to full-text peer-

reviewed journal articles published from 2010 to 2014, there were just 5 results. Another search conducted in PsycARTICLES for the *Big Five personality traits*, full text for the period 2009 to 2014, resulted in 42 results, but when term *authentic leadership* and Boolean operator *and* were added, there were no responses. A PsycINFO search for the terms *Big Five personality traits* and *authentic leadership* for the period 1993 to 2014 got no responses. I also searched Google Scholar for specific peer-reviewed articles. Search terms included *leader, leader behavior, authentic leadership, the Big Five personality dimensions, traits, personality traits, leadership, leadership emergence, leadership styles such as transformational, transactional, and implicit theories*. Additionally, I conducted extensive searches for similar terms in the Society of Industrial and Organizational Psychology database.

This literature review begins with a discussion of leadership and its related components, leading up to a comprehensive discussion of authentic leadership. It also includes discussions of the Big Five personality traits and how extensively these personality traits have been researched. An elaboration of the theoretical framework also forms part of this chapter. Additionally, I incorporated discussions of significant findings of studies and research conducted on the topics relative to this study.

### **Leadership**

Leadership encompasses many roles and responsibilities that are essential to lead, influence, supervise, monitor, and control subordinates. Turner and Lloyd-Walker (2008) found that effective leadership includes motivating, influencing, and bringing about change. Other researchers have found leadership to be a critical and multifaceted activity

that included implementing changes, initiating new ways to do things, motivating others to adapt their behavior, and encouraging individuality while promoting teams (Matzler, Bailom, Anschober, & Richardson, 2010). Still others have argued that effective leadership requires that leaders possess a vision, create social power, and direct that power in a direction to realize that vision (Reicher, Haslam, & Hopkins, 2005). In the literature, I found that attributes such as a clear and distinct vision, values, and standards enabled leaders to manage their organizations with enormous comfort and confidence (Ahmed, Shields, White, & Wilbert, 2010). Most importantly, leadership is fundamental for organizational effectiveness (Hogan & Kaiser, 2005).

Leadership is a broad phenomenon encompassing multiple activities, and as such, has no uniform definition (Wells & Wells, 2010). Leadership requires leaders to influence subordinates to perform at their highest potential. Leaders must motivate subordinates to pool their resources to contribute to the viability and success of their organizations (Vroom & Jago, 2007). Moreover, leadership hinges on groups collectively working together to achieve goals and objectives based on the leader's vision and guidance (Cummings et al., 2008). Leadership evolves with the times and adjusts with the environment (Wells & Wells, 2010). To help achieve success, leaders should possess a desire to be both successful and efficient in how they influence and manage their subordinates; this desire to succeed can cause leaders to positively interact with their subordinates.

The literature I reviewed confirmed that leadership entails more than influencing, controlling, and managing subordinates. Leadership, as Hollander and Offermann (1990)

described, is a process that thrives on followers' responsiveness, collective activities, and the expressed path of the leader. Leadership also involves a leader performing many important roles and functions. Such roles and functions include charting a course and communicating it to followers, problem solving, conflict mediating, advocating, and external liaison (Hollander & Offermann, 1990). Leadership activities include planning, organizing, providing direction, and exercising control over organizational resources, materials, and human resources in order to realize the organization's goals and objectives (Kanungo, 2001).

Researchers have defined leadership in multiple ways. Some definitions of leadership contain common functions such as direct supervision of subordinates, fostering of positive relationships, and guidance of the groups' activities (Yukl, 2010). Other researchers have defined leadership as a role that requires leaders to work towards accomplishing the organizational goals while being mindful of the many tasks ahead (Cummings et al., 2010). Being mindful of the tasks ahead and the constant drive to achieve goals are some of the attributes that help to make leadership fundamental for the success of organizations.

Leadership is classified according to which factors are evaluated. For instance, Strang (2007) wrote that leadership is classified as (a) a trait when a function of leading is considered, (b) an adjective when managerial or executive quality is viewed, (c) as a process when motivating, influencing, inspiring, coaching, mentoring, and facilitating are evaluated; or (d) a role when behavioral activity needed to accomplish a job is considered.

## **Leadership Activities**

Leaders should have the know-how to motivate or inspire subordinates to strive to achieve the organization's goals and objectives. Leadership activities include motivating followers to overlook personal distractions and strive to realize the best outcomes and objectives for the group and, ultimately, the organization (Hogan & Kaiser, 2005). Leaders need to create a positive work environment built on cooperation and respect for others, which should stimulate subordinates to contribute more and pool their personal resources for the sustainability of the organization (Hogan & Kaiser, 2008). According to Stander and Rothmann (2009), leaders should help subordinates form their own conclusions. To achieve this objective, leaders should set goals, have an action plan, share information, and behave in a manner so that subordinates will emulate them.

New systems could also help leaders achieve success. To help achieve success, at times, leaders ask their organizations to create new programs, services, and processes (Jaskyte, 2004). Masood, Dani, Burns, and Backhouse (2006) investigated the process that forms the central part of all leadership activity, regardless of the factors that affect the leadership activity. In this study, Masood et al. examined the effects of transformational leaders on subordinates' organizational freedom and their work performance. They concluded that talent alone might not be the only attribute that helped people attain top positions in large organizations. Early researchers found that people who rose to the top of large organizations were hard workers, ambitious, intelligent, and possessed political skill (Hogan & Kaiser, 2005). Connelly et al. (2000) found that leadership activities such as decision making, planning, and organizing, in addition to

positive personality characteristics, are essential for promotion to top leadership positions. The essential personality characteristics Connelly et al. listed are human relations skills, oral communication, desire for advancement, resistance to stress, tolerance for ambiguity, energy, and high work standards. Some other essential activities that are required of effective leaders include coaching, monitoring, reprimanding, evaluating, and guiding their subordinates. Ram and Parbhabar (2010) stated that leaders are recognized as individuals who create directions and encourage subordinates to follow those directions. Further review of the literature on leadership showed that feedback is fundamental for the development and growth of subordinates. For instance, Morgeson, DeRue, and Karam (2010) found that leaders' feedback to team members helped them assess their past and current performance, and adapt as needed to ensure future success. Achieving team success as well as building long and lasting relationships are objectives of efficient leaders and require leaders to possess certain qualities and exemplary traits.

### **Leadership Traits**

Traits are stable patterns of behavior or concepts that recur over time (Strang, 2007). Avolio (2007) stated that the literature on leadership has marked some traits pertaining to the impact on leadership success, emergence, and development as fixed. Transformational leaders, for instance, are known to be open, interpersonally-oriented, and less task-oriented in displaying these attributes; in short, transformational leaders need people skills (Walumbwa, Wu, & Ojode, 2004). However, Avolio contended that traits are not either/or, but rather may evolve to affect the level of leadership

effectiveness, emergence, and development based on the interaction of the leader, follower, and context.

Traits such as charisma are known to predispose the emergence of leaders; they also help to better translate a person's effectiveness, at least in the eyes of stakeholders (Judge et al., 2009). Oreg and Berson (2011) found that on the predisposition of behavior, traits influence the type of behavior people display and the decisions they make. Traits indicate more or less consistent and recurrent patterns of behavior that simultaneously characterized individuals and differentiated them from others (McCrae & Costa, 2006). McCrae and Costa also found that traits are patterns of behavior which help to predict how others with similar attributes will act and react when placed in similar situations. Leaders' traits will help employers predict how they will behave when placed in similar situations.

Leaders' traits are indicators of how they will perform their organizational duties. To clarify a long held belief, Foti et al. (1982) conducted two studies to investigate how traits are considered to be characteristic (prototypical) of leaders. The investigators found that by labeling persons as leaders, perceivers can judge their behavior on the principles of different leadership theories. The first study had 120 subjects who rated the characteristics of 17 items from a Gallup poll on one of four leader conditions: leader, political leader, effective leader, and effective political leader. The second study used data from several Gallup polls and analyzed 1,509 subjects' responses. The findings indicated that prototypes have an impact on people's ratings of real world leaders (Foti et

al., 1982). The findings of these studies showed that people rate leaders' organizational performance based on previously formed prototypical traits of other leaders.

### **Leadership Competencies**

Carroll (2005) conducted a Delphi study to compare the skills identified in 137 women leaders and nurse executives. The participants completed the questionnaires anonymously. The researcher used principal components analysis that identified six factors: (a) personal integrity, (b) strategic vision/action orientation, (c) team building/communication skills, (d) management and technical competencies, (e) people skills (e.g., empowering others, networking, valuing diversity, working collaboratively), and (f) personal survival skills/attributes (e.g., political sensitivity, self-direction, self-reliance, courage, and candor). Personal integrity and survival skills were recognized as the two factors that generated the most comments and discussions. Unsurprising, personal integrity was the attribute with the highest level of importance from both groups. Personal integrity consists of ethical standards, trustworthiness, and credibility. The findings of this study suggested that certain competencies should be developed for leaders to become successful. Effective communication was noted as fundamental in all leadership activities.

### **Roles of Leaders**

Leaders are expected to perform several roles during their daily operation. For instance, those who are effective form positive relationships and acquire status (Hogan & Kaiser, 2005). Building positive relationships and acquiring status are possible because of the constant interaction between leaders and their subordinates. Hogan and Kaiser's



statement helps to signify that certain activity in the leadership process could cause subordinates to form perceptions of leaders based solely on the leadership style or leadership process they practice. For instance, some leaders may be forced to make decisions that may have unpleasant consequences for the lives of subordinates and others (Washbush & Clements, 1999). An important role of effective leaders is to guide them to make changes in their commitment levels and their behavior within the organization (Tucker & Russell, 2004). Leaders guided by social achievement heighten the desire of their followers to succeed, and this guidance encourages some subordinates to take risks to achieve the organization's objectives (Khuntia & Suar, 2004).

In his literature on leadership, Burns (as cited in Rejai & Phillips, 2004) outlined several roles of leaders. First, Burns stated that leadership is rooted in power and conflict over the allocation of the organizations' assets and resources causing leadership to be contentious. Second, Burns ruled that leadership is collective, as it involves the interaction of leaders and followers. Third, he found that leadership is causative and purposeful because leaders create ideas, movements, institutions, and nations. Fourth, Burns found that depending on the goals involved, leadership could take two forms. Overall, leadership is a critical and multifaceted activity involving leaders and their subordinates.

### **Authentic Leadership**

Leaders display different characteristics to get the job done. Authentic leaders are defined as people who are "deeply aware of their values and beliefs, they are self-confident, genuine, reliable, and trustworthy, and they focus on building followers'

strengths, broadening their thinking and creating a positive and engaging organizational context” (Ilies et al., 2005, p. 374). A fundamental goal of authentic leaders is to foster high-quality social relationships with their followers. Authentic leaders’ objective for fostering such high-quality relationships is to empower followers to make a difference in their career and social development (Ilies et al., 2005). Moreover, the objective of authentic leaders in empowering their subordinates is to equip them to make significant contributions to the organization, which in turn will help the organization realize its goals and objectives.

Authentic leaders foster good interpersonal relationships with their subordinates as a result of their moral and ethical behavior. Authentic leadership is built on the philosophy of authenticity, which is being true to one’s self, and focuses on the principles of truthfulness and integrity. Gardner, Avolio, and Walumbwa (2005) stressed that when authenticity is applied to leadership, by definition it is no longer self-referential but refers to the interpersonal relationships between leaders and followers. Researchers stated that the current concept of authentic leadership centers on the formation of authentic relationships among leaders and followers that are built on trust and integrity (Avolio et al., 2004; Chan, Hannah, & Gardner, 2005; Gardner et al., 2005; Ilies et al., 2005). Researchers also realized that individuals have measurable differences that result in variations between effective and ineffective leadership (Eigel & Kuhnert, 2005). “One cannot go from inauthentic to authentic without wrestling with the tough questions about who we are, who we want to be, and how to contribute uniquely to the world” (Eigel & Kuhnert, 2005, p. 370). Persons’ personality traits are indicators of who they are and how

they will behave when faced with certain circumstances. Therefore, leaders' personality traits would help to inform employers of how those leaders will perform and interact with others.

Knowing the personality traits that contribute to authentic leadership will be significantly important to employers, especially those whose organizations are not as productive or as profitable as envisioned. According to Hogan and Kaiser (2005) organizational success is dependent on leadership, and when organizations succeed, the financial and psychological well-being of their stakeholders improves. Chang and Diddams (2009) found that authentic leaders are considered to be effective because of their transparency and subordinates' perceptions of a shared humanity with their leaders. Calloway and Awadzi (2008) wrote that knowing the roles of leaders is vital to societies, especially knowing what transform ordinary persons into great leaders. Certain personality traits, for instance, agreeableness and openness-to-experience, are more conducive for the implementation of the roles of leaders than, for example, neuroticism.

Authentic leaders' objective is not to transform subordinates but to be true in the way they conduct their daily affairs. Authentic leaders are supportive, and they strive to develop a positive environment that nurtures growth and productivity (Macik-Frey, Quick, & Cooper, 2009). Additionally, George (2003) wrote that authentic leaders' main concern is not money, power, or prestige for themselves but to serve others through their leadership style. Authentic leaders' passion is to empower subordinates to make a difference in their work attitudes and the organizations' performance. Researchers found that authentic leaders were confident, hopeful, optimistic, resilient, and high in moral

character; they were deeply concerned about how they think, behave, and are perceived by others (Avolio, Luthans, & Walumbwa, 2004, as cited in Avolio et al., 2004). Avolio and Gardner (2005) stressed that authentic leaders' main focus is not to develop followers into leaders, like transformational leaders' objective, although authentic leaders have a profound influence on followers through role modeling. However, because of the examples of their authentic leaders, subordinates tend to acquire the same traits and ethical behavior as their leaders.

### **Characteristics of Authentic Leaders**

Authentic leadership comprises four components to help leaders form positive and lasting relationships with their subordinates as well as enjoy less stressful working environments. The four components of authentic leadership are (a) balanced processing, (b) internalized moral perspective, (c) relational transparency, and (d) self-awareness (Walumbwa et al., 2008). In this section of the literature review, the four components will be conceptualized separately.

*Balanced processing*, according to Avolio, Walumbwa, and Weber (2009), entails assessing and evaluating all pertinent information before making decisions that are ethical and sound, and *internalized moral perspective* as the use of internal moral principles to help self-regulate one's behavior. Some researchers extended the balanced processing definition to note that authentic leaders are not afraid to include followers' opposing views when making decisions (Leroy, Palanski, & Simons, 2012); in essence, authentic leaders acknowledge information that contradicts their initial point of view (Peus, Wesche, Streicher, Bruan, & Frey, 2012). Additionally, authentic leaders act with

moral standards and value consistency, regardless of group, organizational, and societal pressures (Walumbwa et al., 2008). Avolio et al. conceptualized *relational transparency* as authentic leaders sharing accurate and timely information and their feelings specific to the situation while simultaneously avoiding inappropriate displays of emotions. The authentic leadership components listed above will contribute greatly to the formation of positive relationships with followers. Followers will know what is happening in the organization, and their views will be solicited in the decision-making process. The other components of authentic leadership will help to strengthen leader/followers relationships.

Leaders' abilities to control their emotions are fundamental for authentic and effective leadership. Avolio et al. (2009) described *self-awareness* as the ability to skillfully use one's strengths and weaknesses to make sense of the world, while Leroy et al. (2012) conceptualized self-awareness as leaders performing in a manner that signify that they are mindful of personal needs, preferences, motivations, and wants. When questioned, 75 members of the Stanford Graduate School of Business's Advisory Council vehemently stated that self-awareness was fundamental for leaders to develop (George, Sims, McLean, & Mayer, 2007). George et al. found that leaders, especially those in the early stage of their work career, neglected to devote sufficient time for self-exploration but instead strived to establish themselves in the corporate world. Importantly, individuals with a high level of self-awareness are known to be skillful at self-monitoring, and they structure themselves to relate effectively with others (Shivers-Blackwell, 2006). Kernis (2003) conceptualized authenticity as an unwavering person

who is true in all daily activities. Kernis also characterized authenticity as encompassing certain components that will complement the factors of authentic leadership.

Authenticity is the core component of authentic leadership, which, according to Walumbwa et al. (2008), is a multidimensional construct made up of self-awareness, balanced processing, relational transparency, and internalized moral perspectives. The components of authenticity, according to Kernis (2003), are awareness, unbiased processing, action, and relational orientation. Awareness of one's duties and responsibilities are vital for performing effectively. This component coincides with self-awareness, which focuses on leaders knowing and recognizing their strengths and weaknesses (Avolio et al., 2009). Unbiased processing is extremely important in leadership, as it dictates that leaders must not show favoritism to some subordinates over others. Displaying bias helps to harbor discord in organizations, and authentic leaders are mindful of the benefits of a positive work environment. Action leaders who display more acts of good deeds will enjoy subordinates' increased organizational commitment and a greater level of performance in return.

### **Dimensions of Authentic Leaders**

George (2003) stated that authentic leaders must possess certain dimensions. Dimensions and components are used in this paper to represent elements or factors that make up an entire personality, or entity, or unit. The five dimensions that authentic leaders must possess, according to George (2003), are (a) understanding their purpose, (b) practicing solid values, (c) leading with a heart, (d) establishing connected relationship, and (e) demonstrating self-discipline. George further stated that authentic

leaders lead with purpose, meaning, and values; they know their natural abilities; and they work hard to overcome their shortcomings. Moreover, authentic leaders use passion, compassion, and qualities of their hearts and minds as they lead. They usually form sustainable relationships, and others follow authentic leaders' teachings because of their transparency; that is, subordinates know where they stand with their authentic leaders (George, 2003). Authentic leaders are not born leaders. Instead, they work hard to accomplish that status, and when put to the test, they stand firmly by their principles. Authentic leaders are self-disciplined and consistent in the ways they strive to change the lives of persons they are entrusted to lead; their quest is to make a difference in the lives of the persons they lead.

Authentic leadership focuses closely on leaders' integrity, truthfulness, and their thoughts and perspectives. Their intrapersonal qualities are vital for moral and ethical leadership. Authentic leadership hinges on self-knowledge, self-regulation, and self-concept; these components will be discussed individually, commencing with self-knowledge.

**Self-knowledge.** Self-knowledge is one of the key components identified as antecedents of authentic leadership; self-consistency was the second key component listed (Peus et al., 2012). Peus et al. further stated that self-knowledge is required for the development of the three components of authentic leadership; it also is more prominent than balanced processing. Self-knowledge is an assessment and understanding of leaders' true virtues, strength, limitations, and abilities. This concept is important to authentic

leaders, as the literature states that authentic leaders are constantly aware of their strength, weaknesses, and how they are viewed by others.

**Self-regulation.** Self-regulation focuses on authentic leaders being motivated to organize their daily activities while holding positive beliefs about themselves. Self-regulation is a motivational process comprised of setting performance goals and outcomes, holding positive beliefs about one's capabilities, valuing learning and its anticipated outcomes, and experiencing positive affects that include pride and satisfaction (McCombs & Schunk, as cited in Schunk & Zimmerman, 1997). Many factors could affect the development of leaders' self-regulation, but socialization influences are most notable (Schunk & Zimmerman, 1997). Karoly (1993) stated that academic self-regulation includes planning and managing time; attending to and concentrating on instructions; and organizing, rehearsing, and coding information strategically. Establishing a productive work environment and using social resources effectively are also components of self-regulation. These activities are important for authentic and efficient leaders to incorporate into their daily work routines.

The self-regulatory dimensions of temperament relate to agreeableness, neuroticism, conscientiousness, and openness-to-experiences (van Lieshout, 2000). One can speculate that leaders with a high degree of self-regulation will prove to be authentic in their organizational functions. Avolio and Gardner (2005) conceptualized self-regulation as the stage at which authentic leaders test their authentic principles in order to achieve self-consistency; values are aligned with intentions and action in this process.



Peus et al. (2012) stated that subordinates are likely to perceive leaders as authentic and follow their lead when they perceive them as having a high level of self-consistency.

**Self-concept.** Self-concept is a vital component of authentic leadership. Gardner et al. (2005) stated that a high level of self-concept clarity and extensive self-knowledge are essential attributes for authentic leadership. Although self-concept clarity and above average self-knowledge are important attributes for authentic leaders, it baffles researchers that some people do not have accessible information about themselves (Chang & Diddams, 2009). These researchers cautioned authentic leaders that they should not only be mindful of their strengths and weaknesses; they should also recognize that self-knowledge can be deceptive and unknown (Chang & Diddams, 2009).

### **Authentic Leadership, Trust, and Work Engagement**

A workplace that fosters trusting and positive relationships could motivate workers to strive to attain the organization's goals and objectives. Hassan and Ahmed (2011) conducted a study in the banking sector in Malaysia to investigate the belief that an environment in which there is trust, pride in accomplishing great outcomes, and enthusiasm about what is done is an ideal place to work. These researchers stated that leaders are obligated to perform their daily roles, functions, and duties to high ethical and moral standards in an effort to entice others to follow their behavior. By selecting purposive random sampling for the study's design, the researchers could choose participants arbitrarily based on their personal attributes such as experience, perceptions, and attitudes. Hassan and Ahmed felt that trust in leaders is fundamental in organizations such as banks where complex functions hinge on people working together, information

sharing, cooperation, and genuinely trusting one another. The authentic leadership questionnaire they used measured authentic leadership. The three research questions were (a) To what extent authentic leaders promote subordinates' trust in them and their work engagement? (b) How does subordinates' trust in leaders facilitate employees work engagement? And (c) How does trust mediate the relationship between leadership authenticity and employees work engagement?

The findings of this study supported the principles of the authentic leadership theory. The study provided support for the notion that authentic leaders form trusting and long-lasting relationships with their subordinates. Hassan and Ahmed (2011) found that leaders who were transparent, displayed ethical values, and demonstrated no self-protecting behavior fostered trusting relationships that contributed to employees' positive work outcomes such as work engagement.

### **The Big Five Personality Traits**

The scope of this study encompasses individual behavioral regularities or personality traits. Wood (2012) referred to personality as the characteristics that distinguish persons based on their unique thoughts and actions, and likewise, Mischel and Shoda (1995) described the personality construct as based on the assumption that individuals are characterized by different traits. According to van Leishout (2000), traits are invariant over time and across situations. To emphasize the importance of traits, McCrae and Costa (1994) wrote that traits may represent not only persons' characteristics but also their very selves. This statement shows the stability and consistency of personality traits, which help to predict how persons will behave over time when placed

in different situations. McCrae and Costa also mentioned that all the traits of the Big Five personality dimensions are characterized by stability, and adults' personality profiles will not change significantly over time.

The term "Big Five" according to John, Naumann, and Soto (2008) should not imply that personality differences can only be assessed utilizing five distinct personality dimensions. The Big Five structure represents a wide spectrum of personality traits; each dimension represents a summarization of a large number of distinct and specific personality characteristics (John et al., 2008). However, there have been debates among researchers that the Big Five dimensions excluded some traits that should be significant when evaluating personality behaviors. To investigate the debates, Paunonen and Jackson (2000) reevaluated the study of Saucier and Goldberg, which was conducted in 1998 and concluded that there could be more personality dimensions than those included in the Big Five. Paunonen and Jackson found variances in human behavior that they considered important, although those personality dimensions were not included in the Big Five (Paunonen & Jackson, 2000). Smith and Canger (2004) stated that the Five Factor model also known as the Big Five model is essential because (a) It helps perform meaningful classification of personality traits, (b) It provides a framework for conducting research, and (c) It comprises basically all personality characteristics.

Based on the literature, it is evident that personality traits have been extensively researched. Tupes and Christal (1961) stated that the history of the measurement of personality trait ratings dated back to the first decade of the 20th century, when 400 physicians rated over 2,500 individuals in the 1909 investigations of Heymans and

Wiersma (Tupes & Christal, 1961). After a brief surge of interest in personality traits during the 1920s, few studies were conducted on trait ratings until the 1950s (Tupes & Christal, 1961). Beer and Watson (2008) found the Big Five personality structure to be widely accepted and recognized in research and practice. Over the years, the Big Five model has gone through an extensive transformation. According to the literature reviewed for this study, the Big Five model by 2006 had recorded over 300 publications per year, and the two older constructs (Cattell's 16 personality factors and Eysenck's three-factor model of personality) fewer than 50 publications combined. This performance shows that the Big Five model is used extensively in empirical studies and widely accepted by researchers when compared to the other personality constructs. However, Beer and Watson mentioned that some of the ardent proponents of the Big Five structure claimed there are simpler ways to describe the structure of this personality model.

Research on the Big Five personality dimensions exploded in the 1980s and has since been one of the most researched personality theories (Judge & Ilies, 2002). The Big Five originated from studies conducted on trait-descriptive adjectives drawn from the English dictionary; this model is widely used to assess personality traits (Digman, 1990; Goldberg, 1993). Mount and Barrick (1998) stated that the Big Five model is an easy and efficient way to classify thousands of personality traits using descriptive words found in the English dictionary. In spite of its popularity, researchers' views on the Big Five personality dimensions differed. For instance, some researchers emphasized that individual personality dimensions dealt with intrapersonal phenomena, which included cognitive and biological processes (Hofmann & Jones, 2005). Studies have also found

that the Big Five personality dimensions are relevant in leadership emergence; however, some research concluded that the general personality traits are less evident of leadership emergence in occupational settings (Hirschfeld, Jordan, Thomas, & Field, 2008).

### **Components of the Big Five Dimensions**

The Big Five model of personality consists of five traits that were empirically derived utilizing descriptive trait terms. Goldberg (1990; 1992) reanalyzed studies previously conducted (e.g., Norman, 1963; Peabody & Goldberg, 1989) as he was convinced that there was an error in previous studies conducted on personality traits. Initially, there were 1,431 adjective trait terms grouped in 75 groups analyzed to describe individual personality (Goldberg, 1990). The Big Five structure of personality resulted from the 3<sup>rd</sup> study when 100 clusters derived from 339 trait terms were analyzed (Goldberg, 1990). The “Big Five” according to Hirschfeld et al. (2008) describes the most prominent personality dimensions and the five dimensions comprising this model are discussed below:

#### **Agreeableness**

According to Patrick (2011), agreeableness refers to the manner in which individuals interact with others in the areas of trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Levels of trust, sympathy, helpfulness, and compassion are usually high in agreeable persons, whereas levels of distrustfulness, self-centeredness, and antagonism are low. Jensen-Campbell and Graziano (2001) stated that agreeableness relates to how persons maintain positive interpersonal relations with others, and it is not associated with anger, aggression, and interpersonal arguments. Some

researchers argued that of the personality traits in the Big Five model, agreeableness is the least well understood (Jensen-Campbell & Graziano, 2001; Wiggins & Trapnell, 1997). Hofmann and Jones (2005) stated that individuals who possess the Big Five personality trait of agreeableness should display behavior regularities that are helpful, considerate, pleasant, and cooperative. Bartram (2005) found that individuals with high levels of agreeableness strived for cohesion or unity among their group and thought positively of persons in the work setting.

### **Conscientiousness**

Persons characterized as conscientious are usually willing to conform to the group's norms, as well as to organizational rules and policies if they possess a level of agreeableness (Smithikrai, 2008). According to Hofmann and Jones (2005), persons characterized with the personality trait of conscientiousness displayed recurring behavioral regularities of the organization, efficiency, thoroughness, and steadiness. The literature explored further revealed that persons characterized as conscientious possessed characteristics such as self-control, determination, purposefulness, a will to achieve, and dependability (Grehan, Flanagan, & Malgady, 2011). Conscientious persons are organized, plan skillfully, and are reliable on matters that require achievement versus being careless, negligent, and sloppy (van Lieshout, 2000).

### **Extraversion**

Extraversion as stated in McCrae and John (1992) refers to behavior as positive, assertive, energetic, social, talkative, and warm. Because of their outgoing spirit, it is easy for extraverts to form relationships (Mushonga & Torrance, 2008). As stated in

Zhao and Seibert (2006), persons who scored high on extraversion were excitement seekers, stimulated, cheerful, and they liked people and large groups. Persons who scored low on extraversion preferred to be alone and were classified as quiet, reserved, and independent. Zhao and Seibert also stated that extraversion is a vital trait in managerial work. Extraverts according to Barrick, Parks, and Mount (2005) enjoy working, socializing and motivating those around them and as such make their work environment enjoyable.

### **Openness-to-Experience**

In the literature reviewed, individuals who were classified as openness-to-experience were creative, unconventional, and broadminded (Smith & Canger, 2004). Open individuals are less likely to engage in interpersonal relationships or relationships that fulfill their physical or emotional needs because the traits associated with openness do not appear relevant for interpersonal relationship; therefore, the researchers did not expect to find relationships between supervisors' openness and subordinates' attitudes (Smith & Canger, 2004). Receptiveness to new ideas, preference for varied sensations, attentiveness to inner feelings, and intellectual curiosity are other characteristics of the openness-to-experience dimension (Grehan et al., 2011). Authentic leaders, according to George et al. (2007), knew the importance of listening to feedback, especially those they would have preferred not to hear.

### **Neuroticism**

Neuroticism is the personality trait that deals with individual differences in adjustment and emotion stability (Zhao & Seibert, 2006). Persons who score low on

neuroticism are usually self-confident, calm, even tempered, and relaxed; Judge and Ilies (2002) found that a person's poor emotional adjustment is manifested in the form of stress, anxiety, and depression. Patrick (2011) wrote that neuroticism encompasses a person's emotional stability, including such facets as anxiety, hostility, depression, self-consciousness, impulsiveness, and vulnerability. Other traits associated with neuroticism are anxiety, depression, embarrassment, worry, and insecurity (Patrick, 2011).

Individuals with high levels of neuroticism usually experience heightened negative affect, anxiety, and self-consciousness; they may not be able to adjust their thoughts effectively and, as a result, may dwell on them and become emotionally self-absorbed (Renn, Allen, & Huning, 2011). As stated by Judge and Ilies (2002), neuroticism is identified by a positive indication of the emotional stability trait; stress, anxiety, and depression are warning signs of poor emotional adjustment.

Persons with a high level of neuroticism do not usually become authentic leaders because of their inability to adjust their emotions. These individuals are usually classified as passive leaders. Passive leaders do not model, reinforce, or actively monitor their subordinates' performance in realizing expectations, risk taking, and challenging the status quo. The consequence of passive leaders' behavior is that these leaders do not exhibit high levels of collective openness, conscientiousness, or extraversion (Hofmann & Jones, 2005). Conversely, persons who possess high levels of these personality traits (collective openness, conscientiousness, and extraversion) normally engage in leadership behavior, which should identify them as authentic leaders because of their supportiveness and efficiency. Hofmann and Jones further stated that the lack of recognized effective



leadership behavior in passive leaders is likely to result in more neurotic or less emotionally stable collective personality.

### **Study of Personality Traits and Leadership Emergence**

A multivariate study performed by Judge et al. (2002) concluded that agreeableness, extraversion, conscientiousness, and openness-to-experience displayed relationships to leadership emergence. The best predictors of leadership emergence were conscientiousness and extraversion, with neuroticism being the only unrelated dimension. Judge and Ilies (2002) stated that only in the last 2 decades has research in the Big Five model of personality traits become robustly active (e.g., Barrick, Stewart, Neubert, & Mount, 1998; Costa & McCrae, 1992; Digman, 1990; Goldberg, 1993; Graziano, Hair, & Finch, 1997; McCrae & Costa, 1989; Mount & Barrick, 1998; Widiger & Trull, 1997; Wiggins & Trapnell, 1997). According to De Young, Quilty, and Peterson (2007), researchers found that the Big Five personality model provided a common language and a way to organize personality research.

### **Study of NEO Five-Factor Inventory**

Holden, Wasylkiw, Starzyk, Book, and Edwards (2006) conducted four studies to investigate the dimensionality of Costa and McCrae's 1992 NEO Five-Factor Inventory (NEO-FFI). In Study 1, Holden et al. used four inferential dimensions and four clusters to represent the NEO-FFI; 114 undergraduates sorted the items into categories. Study 2 used self-reporting; 304 undergraduates completed the reports, which confirmed construct validity for 4-item clusters derived from the inferential space. The 420 undergraduates in Study 3 used self and peer reports to validate the inferential clusters obtained in Study 2.

Study 4 had 110 undergraduates who validated the cluster scales which measured quality of life, social and cultural behaviors.

Holden et al. (2006) based their four-part study's conceptual framework on the implicit personality theory because it focuses on perceived relationships as originated from personality traits. The investigators' claim centered on the assumption that the participants were capable of sorting the same-scale-keyed NEO-FFI together. One can conclude that the findings of Holden et al.'s study provided support for the implicit personality theory; this theory according to Schneider (1973) has fundamental implications in personality trait assessment. The implicit personality theory supports that individuals with a combination of confidence/assertiveness, self-discipline, and self-control possess the relevant attributes to achieve team success and emerge as leaders in groups (Hirschfeld et al., 2008).

### **Personality Traits on Effective Leadership**

Knowing how the Big Five personality traits influence effective leadership could save organizations time and financial resources in the areas of leader selection and performance. Johnson and Hill (2009) conducted a study that explored how personality trait(s) may impact effective leadership in military environments. The purpose of the study stemmed from the significant amount of time and resources the military was spending on selection and training of effective leaders. The researchers' goal was to further carry out a discussion and research in the areas of personality and effective military leadership in addition to identifying the differences between effective and ineffective leaders. Data for the quantitative study were collected from known military

leaders. The 57 participants of the study completed the observer version of the NEO-PI-R (Costa & McCrae, 1992) questionnaire, rating effective and ineffective leaders. Johnson and Hill stated that the use of observers to rate leaders was not new, as it had been done extensively by other researchers to gather information on leadership performance.

The results of Johnson and Hill's (2009) study confirmed their hypothesis that effective leaders will score lower than ineffective leaders on the neuroticism personality trait. This finding was consistent with the results of previous studies that concluded individuals who suffered from anxiety episodes and negative affect are not likely to be seen as leaders. Additionally, the results of Johnson and Hill's study supported another hypothesis that effective leaders would score higher than ineffective leaders on the personality trait of conscientiousness. The facet scales that measured the conscientiousness trait included competence, order, dutifulness, achievement striving, self-discipline, and deliberation. Ineffective leaders scored higher than effective leaders on all of the facet scales for neuroticism – anxiety, angry hostility, depression, self-consciousness, impulsivity, and vulnerability.

The study's findings suggested that effective leaders are seen as thorough, organized, reliable, friendly, outgoing, and dominant. Johnson and Hill's (2009) study found that leaders who were more effective were more trusting, straightforward, and altruistic than ineffective leaders. Individuals who scored high on conscientiousness dimension were likely to follow through on tasks and persevere to realize their goals in spite of obstacles. The researchers for this study did not hypothesize on two personality traits, namely agreeableness and openness-to-experience. The reason given for the

researchers' action was that previous research that used the NEO scale did not consistently find agreeableness and openness to be associated with military leadership.

A strength of this study is that it was conducted in a military setting with known military leaders. The advantage of this strength is that military officers rated their leaders as either effective or ineffective. The researchers listed the following as a weakness of the study: "that it rests on the premise that military personnel intuitively know effective leadership" (Johnson & Hill, 2009, p. 9). There was no way to objectively confirm effectiveness or ineffectiveness of the leaders who were rated because they were not identified.

Johnson and Hill's (2009) findings that individuals with high levels of conscientiousness are thorough on tasks and that they persevere to obtain their goals regardless of obstacles coincided with Mount and Barrick's (1998) findings. Mount and Barrick found that emotional stability (low level of neuroticism), agreeableness, and conscientiousness are fundamental for on-the-job success.

### **Big Five Personality Traits and Educational Leaders**

The components of the Big Five personality traits should not only be scrutinized in the selection of individuals who would practice authentic leadership principles; it could also be helpful in the selection of teachers. Patrick (2011) conducted a study that investigated whether the Big Five personality traits and expected students' grades related to their evaluations of teachers and college level courses. One hundred and seventy-six students completed two copies of the Big Five Inventory; one on their own personality traits and the other on their instructor's personality traits.

Patrick's (2011) study found that extraversion, openness, agreeableness, and conscientiousness were favored in instructors, and neuroticism was not favored. Patrick referred to personality as a multifaceted construct that could be described and evaluated in many different ways. The personality traits that the students favored in their instructors according to the findings in Patrick's study were also identified as being favored in leadership. For instance, the Big Five personality traits of openness, agreeableness, and extraversion were identified to foster positive social relationships with subordinates and others; the conscientiousness trait was found in leaders who worked consistently to produce exceptional and timely work. It is not surprising that students in Patrick's study did not prefer instructors with the neurotic personality trait. Neuroticism as previously stated contains characteristics such as anxiety, angry hostility, depression, self-consciousness, and impulsiveness (Zitny & Halama, 2011). The literature reviewed confirmed that people with high levels of neuroticism are similarly not successful or desired in leadership.

### **Theoretical Framework**

The big five theory formed the basis of this research. This theory originated from studies conducted on trait-descriptive adjectives drawn from the English dictionary (Digman, 1990; Goldberg, 1990). The big five theory has been used extensively to examine employee personality characteristics (Barrick & Mount, 1991; Digman, 1990; Goldberg, 1992, 1993; McCrae & Costa, 1989; McCrae & John, 1992; Saucier, 1994).

Recent unethical corporate scandals have eroded the integrity and performance of some businesses and their corporate officers. Research has shown that inauthentic or

ineffective leaders do not engage a broad spectrum of perspectives in their decision making process and as such are prone to make unethical and immoral decisions (May et al., 2003; Palanski & Yammarino, 2011; Maak & Pless, 2006; Peus et al., 2012; Schyns & Schilling, 2011). Unfortunately, these unethical decisions such as those made by executives at Enron, WorldCom, and the Lehman Brothers have grossly impacted some businesses. Consumers, corporate officers, researchers, and employers have demanded more authentic leaders (Chang & Diddams, 2009; George, 2003). This study should provide information that might help identify those whose personality traits suggest their propensity to be authentic leaders.

The Big Five personality structure is a broad spectrum of characteristics that describes differences in individuals' behavior. It is evident from the literature reviewed that not all of the Big Five personality dimensions are fundamental for authentic leaders' behavior. For instance, Patrick (2011) claimed that individuals with high levels of neuroticism are hostile, depressed, self-conscious, and experience anxiety. According to the principles of the Big Five personality traits, leaders who are conscientious are expected to be organized, thorough, efficient, reliable, and will work diligently to complete assignments (Hofmann & Jones, 2005; van Lieshout, 2000). Such behavior would be recurrent and resistant to change over time (McCrae & Costa, 2006). Therefore, personality traits antecedent to authentic leadership will include extraversion as these individuals will institute ambitious activities. Likewise, conscientious persons will work scrupulously to complete challenging tasks, and persons with high levels of openness-to-

experience will foster positive and enduring relationships with their subordinates as well as with their superiors.

The research questions for this study are as follows:

RQ1. Is there a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model and their perceptions of their leaders' authentic leadership?

RQ2: Which combination of the Big Five personality traits, best predicts authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity?

In this study, it was predicted that leaders who possess high levels of conscientiousness, extraversion, and openness-to-experience should become authentic leaders. This study was conducted on the tenet that leaders with high levels of neuroticism will not perform in ways common to authentic leaders, as people who display high levels of neuroticism are usually stressed and depressed and harbor negative thoughts of themselves and others (Walumbwa & Schaubroeck, 2009). In addition, it is predicted that agreeableness is fundamentally important in the practice of authentic leadership; this trait helps leaders to be tender-minded, trusting, straightforward, and compliant in their interaction with others.

Over the years, the Big Five model has gone through extensive transformation. According to the literature reviewed for this study, the Big Five model by 2006 had recorded over 300 publications per year, and the two older constructs (Cattell's 16 personality factors and Eysenck's three-factor model of personality) fewer than 50

publications combined. This performance shows that the Big Five model is used extensively in empirical studies and widely accepted by researchers when compared to the other personality constructs.

### **Traits Evaluation**

The existing literature showed that rating of self and others differs in the way traits are evaluated. For instance, Beer and Watson (2008) claimed that, in general, major personality traits like conscientiousness and neuroticism/emotional stability are separate or uncorrelated. Beer and Watson further explained how separation of the major personality traits is done; people only consider their own views or concepts and ignore those of others when evaluating traits. This shows that traits are unrelated and do not interfere or associate with each other. Beer and Watson explained when judging self, traits such as conscientious and neuroticism/emotional stability may be unrelated. However, the same two traits are less distinguishable when judging others.

Schneider (1973) identified implicit personality theories as having important implications for the assessment of traits. Beer and Watson (2008) cautioned that individuals can have prior knowledge of how traits correlate and can use information about one trait to fill gaps of information about another trait. The literature further showed that people could have preexisting beliefs about observable physical appearances, such as physical attractiveness relative to traits. The physical attractive halo that beautiful is good was used to explain the concept of rating self, versus others. Beer and Watson explained that trait raters rely less on implicit personality traits when they have specific and relevant trait information at their disposal. They rely only on implicit personality



traits or their own ideas of people, such as friendly/considerate, tall/beautiful, or short/ugly, when they do not have specific and relevant information, such as neurotic people are nervous, high-strung, and anxious (Barrick & Mount, 1991).

Beer and Watson (2008) conducted two studies that explored the rating of self, versus others on the Big Five traits; extraversion was excluded. Study 1 used previously published data, and Study 2 used 12 samples. The intercorrelations among the Big Five traits studied were significant in both the archived data and the current samples. Beer and Watson's study showed that the grouping or relationship of the traits studied related to the findings of previous studies conducted on the same traits and stored in archive.

### **Summary**

The problem addressed in this study concerns the lack of research on how the Big Five personality traits are related to aspects of authentic leadership. One goal of examining this topic is to provide data that organizations could use to try to limit unethical conduct by leaders in their organizational duties or in making decisions. High-profile scandals among corporations in the first decade of the 21st century have led stakeholders to lose trust, belief, and confidence in some organizations and their corporate leaders. Researchers stressed that leaders are responsible for keeping their subordinates together as they collectively strive to achieve their corporations' goals and objectives (Calloway & Awadzi, 2008). Moreover, some employees have not developed professionally, and some organizations have suffered loss of business or stagnation because of these scandals. The literature reviewed includes discussion and study of several instances in which employers and customers expressed their desire for more

authentic leaders. There is evidence in the literature reviewed that authentic leaders are true to self on a consistent basis and are constantly mindful of how they are perceived by others. Authentic leaders are fully cognizant of their self-knowledge and are aware of their strengths and weaknesses. Authentic leaders foster positive relationships with their subordinates and practice relational transparency.

Employees' social, psychological, and physical well-being are fundamental to organizations' productivity and profitability, as employees' decreased well-being could lead to absenteeism and employee turnover, which could prove to be expensive for organizations (Romer, Euwema, Giebels, & Rispens, 2010). The existing literature contained evidence that certain personality traits could be important for authentic leaders. For instance, conscientiousness, agreeableness, extraversion, and openness-to-experience could be important for authentic leaders; their openness-to-experience should allow them to be receptive to what others have to impart for the growth and development of the organizations and subordinates.

The literature reviewed also showed that subordinates who were properly supervised and managed increased their self-confidence and changed their focus and commitment for the enhancement of the organization and their own personal and career development. Some of the objectives of authentic leaders are to be open, truthful, ethical, and moral in all of their undertakings. This type of behavior should encourage subordinates to adopt similar behavior as their authentic leaders. Subordinates have developed positively under the guidance of authentic leaders. Additionally, organizations' operations are considered moral under the leadership of authentic leaders.

Research indicated that leaders' behavior had an impact on subordinates' attitudes and work performance. Based on the implicit theory of personalities, subordinates are encouraged to adopt their leaders' ethical and moral behavior. Acquiring ethical behaviors similar to their authentic leaders should help subordinates to increase their level of organizational commitment, which, in turn, should help the organization achieve its goals and objectives and realize its vision.

There is much research on leadership and leadership styles, but there is a lack of research on how leaders' personality traits could influence authentic leadership. Chang and Diddams (2009) emphasized that authentic leadership is a process that promises a substitute for fear as well as helplessness in workplaces. Authentic leadership embodies transparent and connected relationships among leaders and followers, which foster a high level of self-awareness along with internalized beliefs and moral values (Walumbwa et al., 2008). The previous statement helps to strengthen the importance and the need for performing this study. This study should provide information and knowledge in the area of the Big Five personality traits and leaders' authentic leadership behavior.

In Chapter 3 the methodological aspect of the study is discussed. The discussion includes a description and reason for the research design and the demographic particulars of the participants of the study. Chapter 3 also contains an explanation of the process of selecting participants, the instruments used to collect the data, and how the data were analyzed.

## Chapter 3: Research Method

### **Introduction**

My objective for this study was to explore the relationship between the Big Five personality traits and authentic leadership. In this chapter, I offer a full discussion of the research design, along with a description of how the participants were recruited. This chapter also contains a discussion of the characteristics of the participants, and the research questions and hypotheses that formed part of this study. In addition, this chapter contains descriptions of the instruments I used to measure the variables, and the statistical tests I selected to help analyze the data.

### **Methodology Overview**

In this study, I used a quantitative research design with the Big Five personality traits as predictor variables and authentic leadership as the criterion variable. Participants were recruited from the Walden University participant pool, which is made up of students, faculty, and staff members. To qualify to participate in this study, pool members had to volunteer and be employed. The study needed a sample size of 109 participants, based on a G\*Power 3.1.2 analysis (Faul, Erdfelder, Buchner, & Lang, 2009) but this was not achieved. Dattalo (2008) claimed that availability sampling or convenience sampling is a technique used by researchers to select individuals based on their accessibility.

Mitchell and Jolley (2004) recommended using the Internet to find a large convenience sample in a relatively short period of time, and to facilitate the ease of collecting data.

Before collecting any data from the participants, I obtained permission from Walden University Institutional Review Board (IRB; approval #01-06-15-0035857).

Walden University's participant pool administrators introduced the study to its members. I used the ALQ to measure participants' perceptions of their leaders' authentic leadership, the NEO-FFI-3 to measure their perceptions of their leaders' Big Five personality traits, and a demographic questionnaire to measure the control variables. These statistical tests were posted on SurveyMonkey.com after I received the IRB's approval. A consent form explaining the purpose of the study, assuring confidentiality, and requesting participation accompanied the tests. No course credits or any other incentives were offered to participants for completing the questionnaires. I gave participants the opportunity to request a copy of the survey results and a copy of the completed manuscript.

### **Research Questions and Hypotheses**

In this study, I explored how the personality traits of the Big Five model relate to authentic leadership. Data were collected from employed members of the Walden University participant pool. Participants rated their leaders, supervisors, or managers on two instruments. I used the ALQ to measure subordinates' perceptions of their leaders' authentic leadership, and the NEO-FFI-3 to measure subordinates' perceptions of their leaders' personality traits, as listed in the Big Five model. Two research questions guided the study, and I examined two pairs of hypotheses to answer these research questions about the correlations between the ALQ scale and the personality factors ( $H_0: R = 0$  and  $H_a: R \neq 0$ ). I predicted that authentic leadership increases when the levels of conscientiousness, openness-to-experience, extraversion, and agreeableness increase, and

decreases when the level of neuroticism increases. In addition, I examined the personality traits together and evaluated the regression model:

$$AL = \beta_0 + \beta_1 (C) + \beta_2 (O) + \beta_3 (E) + \beta_4 (A) + \beta_5 (N) + \varepsilon$$

to determine which traits predicted authentic leadership. A multiple linear regression is the appropriate analysis to conduct when the goal is to assess a relationship between a set of continuous independent variables and a single continuous level dependent variable (Pallant, 2007). The continuous level predictor variables of the regression for hypothesis 1 were conscientiousness, agreeableness, neuroticism, openness-to-experience, and extraversion, as measured by the NEO-FFI-3. The continuous level criterion variable was authentic leadership, as measured by the ALQ. Prior to conducting the analysis, I assessed the assumptions of normality, homogeneity, and the absence of multicollinearity.

### **First Research Question and Hypothesis**

RQ1: Is there a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model and their perceptions of their leaders' authentic leadership?

*H1<sub>0</sub>: R Big Five model, ALQ = 0.* Subordinates' perceptions of their leaders' personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will not predict their leaders' perceived authentic leadership as measured by the ALQ. The notation *R Big Five model, ALQ = 0* means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are zero.

*H1<sub>a</sub>: R Big Five model, ALQ ≠ 0.* Subordinates' perceptions of their leaders' perceived personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will predict their leaders' perceived authentic leadership as measured by the ALQ. The notation *R Big Five model, ALQ ≠ 0* means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are not zero.

### **Second Research Question and Hypothesis**

RQ2: Which combination of the Big Five personality traits, best predicts authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity?

*H2<sub>o</sub>: R Big Five model/demographic = 0.* There is no combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

*H2<sub>a</sub>: R Big Five model/demographic ≠ 0.* There is a combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

### **Research Design**

I used a quantitative research design for this study. I selected the quantitative research design over qualitative and mixed method designs because it allows researchers to make an assertion that something exists in some quantity or to some degree (see Locke et al., 2010). Additionally, the quantitative research design proved appropriate for this study because I scientifically collected data to determine the relationship between the Big Five personality traits and authentic leadership. Goodwin (2005) stated that with

quantitative design, researchers present their findings in numeric format and they use percentages to describe their participants. The participants indicated their level of agreement or disagreement on the self-administered questionnaires. Using self-administered questionnaires with survey participants has two advantages: (a) they are easily distributed to a large number of people, and (b) they ensure anonymity (Mitchell & Jolley, 2004). I downloaded the completed questionnaires, securitized them for completeness, and kept them in a secured (password protected) electronic format before entering the data into the SPSS statistical tool for analysis. I completed the ratings on a Likert-type scale.

### **Participants**

I recruited participants for the study from the Walden University participant pool. To participate in this study, participants had to be employed and supervised by a leader, supervisor, or manager. The Walden University participant pool consists of over 5,000 students, faculty, and staff members. Everyone who met the listed eligibility requirements was welcomed to participate in the study. Participants were assured that their involvement in the study was voluntary, and they were free to leave at any time if they wanted. Interested participants were asked to complete the questionnaires on SurveyMonkey.com. I will keep the data collected from the participants' responses in strict confidence for a minimum of 5 years.

### **Statistical Settings and Sample Size**

The statistical setting for the study was  $\alpha = 0.05$  for all hypotheses. Hypothesis 1, for RQ1, required the largest sample size for the analysis conducted (multiple linear



regression). I conducted a power analysis using a statistical power = .80, a medium effect size or  $f^2 = .15$ , five predictors or independent variables (traits of the Big Five model), and one criterion or dependent variable, authentic leadership. Based on these statistical settings, the sample size should have been 109 participants, as calculated using the G\*Power 3.1.2 calculator (Faul et al., 2009). Therefore, 109 participants were needed in the sample to measure the effect of the predictors on authentic leadership. This study's sample size was 55 participants. The research hypotheses for this study were two-sided, nondirectional, and the outcomes could have been either positive or negative (see Salkind, 2007). Researchers use nondirectional tests to consider theoretically acceptable alternatives and take into account a population mean above and below the specified value of the null hypothesis (Jaccard & Becker, 2002). I used the hypotheses for the study to test whether there were relationships between the Big Five personality traits and authentic leadership. The hypotheses implied that the test scores would show correlations between the Big Five personality traits and authentic leadership. No magnitude was stated in the hypotheses; only that relationships between the two variables existed.

The null hypotheses for this study could be stated as  $H_0: \rho = 0$ , and alternative hypotheses  $H_a: \rho \neq 0$ , where the  $\rho$  value represents the true correlation in the population (Jaccard & Becker, 2002). The sample size is known to influence statistical significance, and according to Snedecor and Cochran (1967), small departures from the null hypotheses can be detected as statistically significant in large samples. Therefore, a large sample size is preferred in scientific studies. This study was conducted with the listed components, and a sample of volunteers recruited from Walden University.

The sample size is an important factor when using a multiple regression, and so is the ability to generalize the results of the study. Pallant (2007) emphasized that a multiple regression is not the statistical technique to use when the sample size is small and the distribution of the scores is skewed. Pallant cited Stevens' recommendation for social science researches, who recommended about 15 subjects per predictor variable for a reliable equation. Based on Stevens' recommendation, if a study has five predictor variables, 75 subjects are needed. This study had five predictor variables and 55 participants.

### **Instrumentation and Materials**

#### **Big Five Personality Traits**

I assessed the Big Five personality traits—agreeableness, conscientiousness, extraversion, openness-to-experience, and neuroticism—using the NEO Personality Inventory-Revised (NEO-PI-R) of Costa and McCrae (1992). Costa and McCrae developed this psychological instrument to measure five major domains of normal adult personality: neuroticism (N), extraversion (E), openness-to-experience (O), agreeableness (A), and conscientiousness (C). According to McCrae and Costa (2010), the NEO-FFI-3 is a short, comprehensive version of NEO-PI-3, which measures the five domains of personality. The 60-item inventory consists of five 12-item scales that measure each domain. Some people may complete the NEO-FFI-3 within 5-10 minutes, but older persons and those with reading limitations may take longer (McCrae & Costa, 2010). McCrae and Costa designed the NEO-FFI-3 to be understandable by adolescents and adults, but occasionally, some respondents do not understand an item. This instrument is

best suited for basic research purposes. A reading level of a sixth-grade student is sufficient to understand the items on this scale (McCrae & Costa, 1991).

According to Botwin (1995), the NEO-PI-R norms are based on a sample of 1,000 subjects with an equal number of males and females. McCrae and Costa (2010) selected the subjects from three large scale studies of the NEO-PI-R, and stratified the normative sample to match the 1995 U.S. Census projections for gender, age, and race. The validity of the NEO-PI-R has been demonstrated in numerous ways. Costa, McCrae, and colleagues have collected construct, convergent, and divergent validity evidence for the scales through a series of tests (Botwin, 1995). According to Botwin, short-term test-retest reliability for the NEO-PI-R has been found, and long-term test-retest reliability has been shown for N, E, and O domains of the previous version of the instrument.

The domain level reliabilities are excellent for NEO-PI-R, and range from .86 to .95 for self and observer-reports forms (Botwin, 1995). The facet level reliabilities are also good and range from .56 to .90 for self and observer rating forms. Each trait in the Big Five personality model is a domain, and each domain in the NEO Personality Inventory-3 consists of six facets. For example, the six facets in the extraversion domain are warmth, gregariousness, assertiveness, activity, excitement seeking, and positive emotion. I calculated the reliabilities for the study using Cronbach's alpha formula. The internal consistency values indicated the level of item homogeneity among the tests. I contrasted the study's reliability values with the reliability scores of the scale. In a past study, Cronbach's alphas for the Big Five dimensions were .68, .40, .50, .73, and .45 for

extraversion, agreeableness, conscientiousness, emotional stability or neuroticism, and openness-to-experience scales, respectively (Gosling, Rentfrow, & Swann, 2003).

As Botwin (1995) stated, the NEO-PI-R scales correlated with analogous scales from other instruments. Costa and McCrae (1992) referred to the NEO-PI-R as a reliable and well-validated test of personality features, derived from a theoretical base lacking in conceptualization. Participants for this study responded to the NEO-FFI-3 using a 5-point scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). Courneya, Bobick, and Schinke (1999), added the 12 items for each scale and obtained a total score that ranged from 0 to 48 for each personality dimension.

To obtain the Five-Factor value for each dimension or domain, I summed the values from the answer grid for each completed item. This step was taken to determine the raw score for each of the personality domains. For instance, to obtain the raw score for neuroticism, the values on the answer grid for Items 1, 6, 11, 16, 21, 26, 31, 36, 41, 46, 51, and 56 must be summed, provided the respondents marked the 12 items pertaining to that dimension. If 10 or more items are left blank, then that test should not be formally scored and is considered invalid (McCrae & Costa, 2010). The maximum score for any dimension will be 48 and range from 0 to 48. A copy of the publishers' consent to use the NEO-FFI-3 is presented in Appendix A and some examples of items on the instrument are given in Appendix B.

### **Authentic Leadership Questionnaire**

Employed members of Walden University participant pool who rated their leaders, managers, or supervisors completed the Authentic Leadership Questionnaire that

Avolio, Gardner, and Walumbwa (2007) developed and tested. Students, faculty, and staff members of Walden University participant pool supervised by leaders (supervisors or managers) formed the population for this study. The ALQ is a validated and theory-based instrument developed to measure self-awareness, relational transparency, internalized moral perspective, and balance processing. Walumbwa et al. (2008) developed and tested the 16-item measure using five samples from the People's Republic of China, Kenya, and the United States and distributed the items as follows: self-awareness (four items), relational transparency (five items), internalized moral perspective (four items), and balance processing (three items). The estimated Cronbach's alpha for each of the measures was at acceptable levels: self-awareness, .92; relational transparency, .87; internalized moral perspective, .76; and balanced processing, .81 as Walumbwa et al. (2008) reported. The internal consistency reliability for each measure of ALQ was self-awareness, .73; relational transparency, .77; internalized moral perspective, .73; and balance processing, .70 (Walumbwa et al., 2008). Riggio, Zhu, Reina, and Maroosis (2010) mentioned that all 16 items on the ALQ equate to an aggregate total score of authentic leadership alpha of .97.

The responses to the Authentic Leadership Questionnaire were scored using a five point Likert scale with 1 being *not at all* and 5 being *frequently, if not always*. A copy of the publishers' consent to use the Authentic Leadership Questionnaire is presented in Appendix C, and some samples of the items on the questionnaire are given in Appendix D. Avolio, Gardner, and Walumbwa (2007) assigned specific questions of the ALQ, 16 questions to each component of authentic leadership. For instance, Questions 13, 14, 15,

and 16 relate to self-awareness, and Questions 6, 7, 8, and 9 relate to internalized moral perspective. Questions 1, 2, 3, 4, and 5 are allotted to transparency, and Questions 10, 11, and 12 to balance processing. The scores for the questions as allocated must be summed to produce the total score for each component of the ALQ. The answers to Questions 13, 14, 15, and 16 will help to confirm if there is a relationship between authentic leadership and self-awareness. The sum of the scores for all 16 questions will equal authentic leadership. To obtain the raw score for each scale, a researcher must calculate the average of the item value (Avolio, Gardner, & Walumbwa, 2007).

The NEO-FFI-3 and ALQ provided data to measure the variables in order to determine the hypothesized relationships among leaders' perceived personality traits and perceived authentic leadership that leaders practice during their interaction with subordinates. High test scores indicate a strong level of a particular trait, and low test scores indicate a low presence of the trait. For instance, leaders with high scores of extraversion tend to be outgoing, cheerful, warm, gregarious, and assertive.

### **Demographics**

I designed a questionnaire to collect participants' demographic information such as their age, sex, supervision, tenure, ethnicity, and educational level. I used the demographic data collected to produce descriptive statistics such as the average age of the participants, the number of participants who were males and females, and the percentage of participants who held a high school diploma, an Associate's Degree, or Graduate Degree. The demographic data did not affect the results of the study, but were used solely for descriptive reporting. Research showed that the listed demographic

variables were potential predictors of organizational commitment and job satisfaction (Mathieu & Zajac, 1990). In this study, age, sex, educational level, supervision, ethnicity, and tenure were measured as control variables. Research also showed that age, education, gender, and tenure are variables which could affect ethical behavior (Appelbaum, Deguire, & Lay, 2005). Age is indicated in years and sex by number (1 = *male*; 2 = *female*). I measured the demographic variables using a demographic information sheet. Participants were asked to check the appropriate boxes. Please refer to Appendix E for a copy of the Demographic Questionnaire.

### **Procedure**

I posted the questionnaires on SurveyMonkey.com and encouraged the participant pool members who met the requirements to complete the questionnaires. Participants were not coerced to participate in the study. A consent form accompanied the questionnaires explained the aim and objectives of the survey. Interested persons who consented to participate were given a link to enter the survey, and assured that their responses will be kept in strict confidence. Participants were initially given 2 weeks to complete the questionnaires. On completion of the final questionnaire, participants were asked to click a button which read “Thank you”, which revealed a thank you letter. This letter thanked participants for their involvement in the study. A copy of the thank you letter is attached and marked “Appendix F”. At the end of the data collection period, I downloaded the completed questionnaires, checked them for completeness, and analyzed them. I am keeping the information obtained from the survey in a password protected electronic format.

### **Data Collection and Analysis**

The data collected from the two instruments and questionnaire were analyzed for descriptive findings: standard deviation, mean, frequency, and range for the demographic variables. For instance, standard deviations and means were calculated for continuous data, such as the NEO-FFI-3 subscales. Frequencies and percentages were calculated for nominal data, such as sex. The research data were also analyzed to show correlations among the predictor variables and the criterion variable; a multiple linear regression was performed to examine the relationships between the variables. The linear regression equation  $Y = a + bX$  was used to determine the linear relationship between the Big Five personality dimensions (Y) and authentic leadership principles (X); where  $a$ , is the intercept and  $b$ , is the slope (Jaccard & Becker, 2002).

A multiple regression enables researchers to predict a single continuous variable, referred to as a dependent or criterion variable, using two or more continuous, or nominal variables, referred to as the independent or predictor variables (Grimm & Yarnold, 2008). To examine research question two, a hierarchical multiple regression was conducted to determine which combination of the predictor variables best predicted authentic leadership. Hierarchical multiple regressions give researchers the ability to input variables or sets of variables in steps or blocks, and researchers assess each independent or predictor variable to determine what it adds to help predict the dependent or criterion variable, after controlling the previous variables (Pallant, 2007). In this study, age, sex, educational level, supervision, ethnicity, and tenure were entered in block 1 and the five predictor variables were entered as a set, in block 2. Putting some variables in block 1



had the effect of statistically controlling those variables. The  $R^2$  change was examined to determine the amount of additional variance explained by the variables in block 2 compared to the variables in block 1.

### **Threats to Validity**

This study was conducted using a quantitative research design. The risks to internal validity were at a minimum as no treatment was administered. Predictions were made after an extensive review of the existing literature of previous studies conducted on the topics explored in this study. As such, only the variables, the Big Five personality traits and authentic leadership, introduced in this study caused an effect. Participants were recruited using the Internet as a research tool and not from an organizational setting. Mitchell and Jolley (2004) stated that the Internet is an efficient and cost effective tool for recruiting a large number of participants. Granello and Wheaton (2004) stated that some limitations collecting data online are difficulties obtaining a representative sample, low response rate, and problems with technology. This survey study was not affected by external validity, internal validity, or construct validity. The results could be generalized beyond the immediate setting and specific situation. Mitchell and Jolley (2004) stated that researchers need internal validity only if they need to show that the treatment had an effect. This study was not exposed to any outside interference and it succeeded to study what was intended. Using members of Walden University participant pool as participants provided a wide and diverse set of characteristics and cultural norms. Additionally, the participants were familiar and competent users of the Internet.

### **Protection of Participants**

I conducted this study in accordance with the American Psychological Association ethical standards for performing scientific research with humans as participants. Before collecting any data from the participants, I obtained permission from Walden University's Institutional Review Board (IRB). The board also ensured that the scope of the study aligned with the ethical framework of the university. Additionally, the board ensured that the scope of the study will not pose any undue harm or risks to participants' physical, mental, and psychological well-being.

Participants remained anonymous; no identifying personal information was gathered (e.g., name, social security, and student number). The results of the study are not linked individually to participants. To maintain anonymity, the survey was configured "No, the respondent's IP address will **not** be stored in the survey results." Responses to the survey were viewed and checked for completeness by browsing Individual Responses on the Analyze page of Survey Monkey. All participants were free to leave the study if they lost interest in it. I will keep the data collected from participants in strict confidence. No one other than me has access to any data collected from the participants. After the data were analyzed, they were placed in a password protected electronic format. I will destroy the data 5 years after collection to prevent potential misappropriation.

There was no discrimination in gender or ethnicity of the participants, as all the members who qualified were eligible to participate in the study. No incentives were offered to the participants to entice them to participate in the study. The sex of the participants was coded as 1 for *male* and 2 for *female*.

### **Summary**

In this chapter, the research design was discussed as well as the characteristics of the participants, the research questions, the hypotheses, and the statistical tests. Chapter 4 contains descriptive statistics of the data, description of the participants and the data collection process, a review of the study's data, the statistical analyses, and their findings.

## Chapter 4: Data Analysis

### **Introduction**

The purpose for conducting this study was to explore the relationship between the Big Five personality traits and authentic leadership. I explored two research questions and two hypotheses in this quantitative research study. I used the first research question to examine whether there was a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model, and their perceptions of their leaders' authentic leadership. I used the second research question to examine which combination of the Big Five personality traits best predicts authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity.

In this study, 55 adults, currently employed, in various corporations rated their leaders, supervisors, or managers on perceived Big Five personality traits as defined in the Big Five model and perceived authentic leadership. I collected data electronically using the NEO FFI-3 and the ALQ. Participants' demographic characteristics were collected using a demographic questionnaire. I analyzed the data from the online survey using SPSS statistical software. This chapter contains the following: (a) a full discussion of the data collected, (b) a discussion of the research tools I used, (c) a summary of descriptive statistics, (d) a presentation of participants' demographics, (e) an analysis of the data, and (f) a discussion of statistical tests results in relation to the research questions and hypotheses.

### **Data Collection**

In this study, I gave participants a chance to rate their leaders' personality traits and their authentic leadership. Participants were recruited via the Internet over a 3-month period. Participants were members of Walden University participant pool, which consists of over 5,000 students, faculty, and staff members. The participant pool administrators informed its members that the survey was ready for viewing, and invited potential participants to sign-up to complete the survey. When members successfully completed the sign-up process, they were given a link to the survey, which was hosted on SurveyMonkey.com, and comprised two survey instruments and a demographic questionnaire.

The survey was organized as follows. The consent form, which outlined the terms and conditions of the survey, was the first page; it asked interested persons to read it and either volunteer or decline the invitation to participate in the study. Only persons who clicked the "Agree" button on the consent form got access to the survey instruments and the questionnaire. The first survey instrument to be completed was the ALQ, which comprised 16 items. It was followed by the 60-item NEO FFI-3, which began on item number 17 and ended on item number 79. The last three items on the NEO FFI-3 asked participants three questions: (a) if they had completed all of the questions, (b) if they had filled in the answers across the sheet, and (c) if they had answered the questions accurately and honestly. The third survey tool was the demographic questionnaire. It comprised six items, and asked the participants to provide their age, sex, educational level, supervision, tenure, and ethnicity. This questionnaire started on item number 80

and ended on item number 85. Participants were prompted to click a “Thank you” button which revealed a thank you letter that gave them the option to request a copy of the survey results and a link to the completed dissertation.

In an effort to modify the IRB’s approval and increase participation in the study, after collecting data for just over two months, I completed a Request for Change in Procedure form and submitted to the IRB. I proposed four Starbucks gift cards, \$10.00 each, to be raffled as an incentive. The university did not approve this initiative because of its policy against offering incentives after the start of the collection process. The survey remained opened for a further month before closing on April 30, 2015.

The population studied was leaders, inclusive of supervisors and managers (individuals who supervise and guide subordinates). Participants of this study were employed persons enrolled at Walden University who were supervised by leaders, supervisors, or managers, and were members of the participant pool. I made no stipulation on the length of supervision for fear of not realizing the anticipated sample size and discriminating against some subordinates.

### **Research Tools**

I downloaded completed responses and securitized them for completeness. Six respondents did not complete the survey questionnaires sufficiently, and these responses were thus eliminated from the analysis and discarded. Only valid responses or responses sufficiently completed were included in the study and entered into the SPSS statistical tool for analysis. Valid responses were those with less than 10 missing items on the NEO-

FFI-3. After discarding the six incomplete responses, I conducted the study with 55 participants using the following survey tools.

### **Authentic Leadership Questionnaire (ALQ)**

I used the ALQ to measure participants' perceptions of their leaders' authentic leadership. This 16-item scale comprises four subscales: self-awareness, balance processing, internalized moral perspective, and relational transparency. Scores for each subscale were calculated as averages of the item values as specified by the publishers. For example, to find the self-awareness score for each respondent, the average was calculated by including the indicated value for questions 13, 14, 15, and 16; any question a respondent left blank was not included in the calculation. This scale was rated on the Likert scale of 0 to 4: 0 represented "not at all," and 4 represented "frequently, if not always."

The Cronbach's alpha for the ALQ was .95, indicating an acceptable internal reliability for this questionnaire. The internal consistency reliability for each measure of ALQ was .73 for self-awareness, .77 for relational transparency, .73 for internalized moral perspective, and .70 for balance processing (see Walumbwa et al., 2008). The estimated Cronbach's alpha for each of the four subscales was at acceptable levels: self-awareness, .92; relational transparency, .87; internalized moral perspective, .76; and balanced processing, .81 (see Walumbwa, et al., 2008).

### **NEO-Five Factor Inventory-3 (NEO-FFI-3)**

The 60-item NEO-FFI-3, designed to measure the five dimensions of the Big Five personality traits (agreeableness, extraversion, openness-to-experience, conscientiousness, and neuroticism) gave me an opportunity to measure participants' perceptions of their leaders', managers', or supervisors' personality traits. This scale was scored on a 5-point scale ranging from 0 (*strongly disagree*) to 4 (*strongly agree*). Each subscale consists 12 items which were added to determine the total score for that trait.

The NEO FFI-3 Cronbach's alpha was .65, which indicated an acceptable internal reliability for the scale. The domain level reliabilities are excellent and range from .86 to .95 for self and observer-reports forms.

### **Demographic Questionnaire**

I used a demographic questionnaire consisting six items to collect the participants' information such as age, sex, educational level, tenure, supervision, and ethnicity. Respondents were asked to provide the appropriate answers to the items on this questionnaire.

### **Analysis of Data**

To provide a visual view of the relationship between the Big Five personality traits and overall authentic leadership, I constructed a scatterplot (see Figure H1).

The cluster and close proximity of the scores on the scatterplot indicated that participants were consistent with their answers to the survey questions, and they experienced no difficulties in answering them.



### **Data Cleaning and Outlier Analysis**

In this quantitative survey research, no treatment was administered to the participants. Participants were guaranteed confidentiality and no personal identifying data such as name, social security, and student number were collected. Data were only collected from members of Walden University participant pool. I did not extent recruitment of participants to Facebook members from fear of coercing or pressuring members of the pool. Also, soliciting participants from Facebook would not have been as controlled as recruiting participants from the Walden University participant pool.

The targeted sample size was 109. A total of 61 responses were collected from the survey, and I ultimately used the data from 55 participants. If participants left 10 or more items on the NEO FFI-3 blank, that response was invalid, and not included in the analysis. One respondent completed all three questionnaires but failed to answer the item which asked the respondent's age. This response to the survey was discarded and not included in the data set or entered into SPSS for analysis. I used standardized values to check outliers, defined as values outside of the range  $z = \pm 3.29$  (see Tabachnick & Fidell, 2012). I conducted this study to explore those relationships in the area identified in the existing literature as lacking empirical research. The data set did not contain any outliers. As a result, the final inferential analyses included data from 55 participants. Of the 55 participants included in the study, 10 (18.2%) were males and 45 (81.8%) were females. Frequencies and percentages for participants' demographics data collected in terms of sex, age, supervision, educational level, tenure, and race are presented in Table 1.

*Table 1*  
*Frequencies and percentages for Sex, Age, Tenure, Supervision, Educational Level, Ethnicity*

Demographic	No. of Participants <i>N</i> = 55	%
<b>Sex</b>		
Male	10	18.2
Female	45	81.8
<b>Age</b>		
24 to 29 Years	7	12.7
30 to 39 Years	9	16.4
40 to 49 Years	21	38.2
50 to 59 Years	12	21.8
60 Years and Over	6	10.9
<b>Tenure</b>		
Up to 9 years	41	74.5
10 to 19 years	9	16.4
20 to 29 years	5	9.1
<b>Supervision</b>		
Up to 4 years	39	70.9
5 to 9 years	13	23.6
10 to 14 years	1	1.8
15 to 19 years	2	3.6

*(table continues)*

Demographic	No. of Participants <i>N</i> = 55	%
Educational Level		
Bachelors' Degree	12	21.8
Graduate Degree	43	78.2
Ethnicity		
White	32	58.2
Black or African American	19	34.5
Asian	1	1.8
Some Other Race	3	5.5

*Note.* Percentages may not total 100 due to rounding.

### **Mean and Standard Deviation**

The means and standard deviations for this study compared favorably with the norms for the scales (McCrae & Costa, 2010; Walumbwa, Wang, Wang, Schaubroeck, & Avolio, 2010). Table 2 shows the continuous variables means and standard deviations for this study and those for the scales.

Table 2

*Means and standard deviations for the continuous variables*

Variable	<i>M</i>	<i>SD</i>	Scale's	Norm
			<i>M</i>	<i>SD</i>
Neuroticism	21.2	5.2	20.8	7.6
Extraversion	26.3	4.2	27.9	6.6
Openness	23.6	4.7	25.6	6.2
Agreeableness	25.8	5.4	30.8	6.9
Conscientiousness	27.0	4.3	32.6	7.3
Authentic Leadership	7.9	4.5	3.4	0.7

### **Sample Characteristics**

#### **Skewness and Kurtosis**

All of the continuous variables can be presumed to be normally distributed as the following statistical tests revealed. Skewness and kurtosis are two components known to assess normality of variables. When a distribution is normally distributed, the values of skewness and kurtosis are zero (Tabachnick & Fidell, 2001).

#### **Skewness**

The Big Five personality traits had a skewness of .163, and authentic leadership's skewness was .076. These values are not zero but relatively close to zero, hence these variables are considered to be normally distributed.

**Kurtosis**

The Big Five personality traits kurtosis was  $-.154$ , and authentic leadership showed a kurtosis of  $-1.475$ . These values are below zero, hence these variables are considered to be normally distributed.

**Shapiro-Wilk Normality Tests**

I also conducted Shapiro-Wilk normality tests on the continuous variables research data. The individual personality traits'  $p$ -value are agreeableness  $.555$ , conscientiousness  $.611$ , extraversion  $.454$ , neuroticism  $.483$ , and openness  $.050$ . The  $p$ -value of  $.823$  for the Big Five model was not significant because it was greater than  $.05$ ; this value ( $p = .823$ ) confirmed that the Big Five personality traits were considered to be normally distributed. The significant value for the authentic leadership was  $p = .001$ . This value indicates that there is some deviation in the data (See Figure H2). Pallant (2007) stated that most techniques are tolerant to violation of normality assumptions and are reasonably robust. However, with a sample size of  $30+$ , violation of the normality assumptions does not cause any major problems (Pallant, 2007).

**Cronbach's Alphas**

Cronbach's alpha, a statistical tool to measure reliability, revealed satisfactory scores for the Big Five personality traits and the components of authentic leadership. Table 3 shows the Cronbach's alpha scores for the five personality traits in the Big Five model and research scores published in Gosling, Rentfrow, and Swann (2003). Table 4 presents the Cronbach's alpha for each of the components of authentic leadership and research scores published in Walumbwa et al. (2008). The high Cronbach's alpha score

for this survey tool shows the strong relationship between the components and the similarity of the items.

Table 3

*Cronbach's alpha for the Big Five personality traits and research scores*

Personality Trait	Cronbach's Alpha	Research Score
Neuroticism	.65	.73
Extraversion	.57	.68
Openness-to-experience	.48	.45
Agreeableness	.52	.40
Conscientiousness	.72	.50

Table 4

*Cronbach's alpha for the components of authentic leadership and research scores*

AL Component	Cronbach's Alpha	Research Score
Transparency	.94	.87
Ethical/Moral	.95	.76
Balance Processing	.93	.81
Self-Awareness	.93	.92

### Pearson Correlations

I calculated a Pearson correlation between the Big Five personality traits and authentic leadership. A Pearson correlation is an appropriate statistical analysis when the goal is to assess the strength of a relationship between two continuous variables (Pagano, 2009). The results of the Pearson correlation showed low to moderate significant relationships between authentic leadership and three of the Big Five personality traits. Authentic leadership inversely correlated with neuroticism ( $r = -.50, p = <.001$ ), and agreeableness ( $r = -.30, p = .027$ ), but positively correlated with conscientiousness ( $r = .55, p = <.001$ ). The results of the Pearson Correlation are presented in Table 5.

Table 5

*Pearson correlation between the Big Five personality traits and authentic leadership*

Variable	1)	2)	3)	4)	5)	6)
1) Neuroticism	1.00					
2) Extraversion	.16	1.00				
3) Openness	.36**	.51**	1.00			
4) Agreeableness	.57**	.28*	.46**	1.00		
5) Conscientiousness	-.33*	.36**	.28*	.05	1.00	
6) Authentic Leadership	-.50**	.11	.12	-.30*	.55**	1.00

*Note.* \*Correlation is significant at the .05 level (2-tailed). \*\*Correlation is significant at the .01 level (2-tailed).

I conducted a second Pearson correlation analysis between the subscales of authentic leadership and the Big Five personality traits. The subscales were highly correlated, but the personality traits correlations with the subscales ranged from moderate to weak. Agreeableness' weak inverse relationship with transparency was not significant ( $r = -.23, p < .089$ ). The results of this Pearson correlation are presented in Table 6.

Table 6

*Pearson correlation between the subscales of authentic leadership and the Big Five personality traits*

Variable	(1	(2	(3	(4	(5	(6	(7	(8	(9
1) T	1								
2) EM	.84**	1							
3) BP	.83**	.82**	1						
4) SA	.85**	.81**	.90**	1					
5) N	-.49**	-.45**	-.41**	-.52**	1				
6) E	.16	.13	.08	.06	.16	1			
7) O	.12	.16	.14	.02	.36**	.51**	1		
8) A	-.23	-.25	-.28*	-.35**	.57**	.28*	.46**	1	
9) C	.51**	.52**	.47**	.55**	-.33*	.36**	.28*	.05	1

*Note.* \*\* Correlation is significant at the 0.01 level (2-tailed). \*Correlation is significant at the 0.05 level (2-tailed). Code: T = Transparency, EM = Ethical Moral, BP = Balance Processing, SW = Self Awareness, N = Neuroticism, E = Extraversion, O = Openness, A = Agreeableness, and C = Conscientiousness



### Summary of Results for the First Research Question

The findings of the statistical analysis for the First Research Question and Hypothesis are as follows:

#### First Research Question and Hypothesis

RQ1: Is there a relationship between subordinates' perceptions of their leaders' personality traits as defined in the Big Five model and their perceptions of their leaders' authentic leadership?

*H1<sub>0</sub>*:  $R_{Big\ Five\ model, ALQ} = 0$ . Subordinates' perceptions of their leaders' personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will not predict their leaders' perceived authentic leadership as measured by the ALQ. The notation  $R_{Big\ Five\ model, ALQ} = 0$  means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are zero.

*H1<sub>a</sub>*:  $R_{Big\ Five\ model, ALQ} \neq 0$ . Subordinates' perceptions of their leaders' personality traits (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) as measured by the NEO-FFI-3 will predict their leaders' perceived authentic leadership as measured by the ALQ. The notation  $R_{Big\ Five\ model, ALQ} \neq 0$  means that the beta values for the full model,  $\beta_1$ ,  $\beta_2$ ,  $\beta_3$ ,  $\beta_4$ , and  $\beta_5$  are not zero.

To address research question one, I conducted a multiple linear regression to determine whether there was a significant relationship between subordinates' perceptions of their leaders' personality traits and their perceptions of their leaders' authentic leadership. The predictor variables in the multiple linear regression were the Big Five

personality traits (neuroticism, extraversion, openness-to-experience, agreeableness, and conscientiousness) and the criterion variable was authentic leadership.

### **Multiple Linear Regression Model**

The small sample size of 55 valid cases raised some concerns about reliability and replication of the model on fresh data. Tabachnick and Fidell (2001) cited Green's suggested rule of thumb for determining regression sample size which is,  $N > 50 + 8m$  (where  $m$  is the number of IVs) for testing multiple correlation and  $N > 104 + m$  for testing individual predictors (assuming a medium-sized relationship). Locke, Silverman, and Spirduso (2010) stated that with different types of studies, there will be different sampling procedures and sample sizes but the important objective is that the sample will not allow the extraneous variables to influence the findings. While I am aware of the listed concerns, I nevertheless conducted the analyses.

Prior to testing the hypotheses with the multiple linear regression model, I assessed the assumptions of normality, homoscedasticity, and absence of multicollinearity using the residuals from the full model. A normal P-P scatterplot of the residuals showed they followed the normality line; thus, the assumption was considered to have been met. The assumption of homoscedasticity corresponds to the error terms showing no systematic error in the data set. Homoscedasticity was interpreted in a scatterplot of standardized residuals as a function of standardized predicted values. In order for the assumption to be met, the scatterplot should show a rectangular distribution without a recognizable pattern. The assumption of homoscedasticity was considered to have been met as the data points did not follow a particular pattern (see Figures H3 and

H4). Multicollinearity occurs when two predictor variables are highly correlated, which leads to the predictive power being reduced for both variables. High multicollinearity is assessed using the Variance Inflation Factors (VIFs); values greater than 10 suggest the presence of extreme multicollinearity and a violation of the assumption (Stevens, 2009). None of the predictors showed signs of multicollinearity, as the highest VIF value was 2.04; thus, the assumption for the absence of multicollinearity was considered to have been met.

The results of the multiple linear regression indicated that the Big Five personality traits, taken as a set, were significant predictors of authentic leadership,  $F(5, 49) = 8.65$ ,  $p < .001$ ,  $R^2 = 0.47$ . The  $p$ -value of the regression allowed me to conclude that the predictors were collectively significant and the coefficient of determination ( $R^2$ ) suggested that 46.9% of the variability in authentic leadership can be predicted by the Big Five personality traits. The null hypothesis ( $H_01$ ) can be rejected for this research question (RQ1). The results of the multiple linear regression also indicated two statistically significant predictor variables: conscientiousness with a positive relationship and neuroticism with an inverse relationship. Results for the multiple linear regression are presented in Table 7.

Table 7

*Results for the multiple linear regression (Big Five personality traits predicting authentic leadership)*

Personality Trait	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>P</i>	Significant Predictor
Conscientiousness	.42	.14	.40	3.09	.003	Yes
Openness-to-Experience	.23	.13	.25	1.79	.080	No
Extraversion	-.05	.14	-.04	-0.34	.739	No
Agreeableness	-.20	.11	-.25	-1.78	.081	No
Neuroticism	-.26	.13	-.04	-2.05	.046	Yes

*Note.*  $F(5, 49) = 8.65, p < .001, R^2 = 0.469$

As conscientiousness ( $t = 3.09, p = .003$ ), increased by one unit, perceived authentic leadership increased by .42 units, whereas values for other predictors were held constant. As neuroticism ( $t = -2.05, p = .046$ ) increased by one unit, perceived authentic leadership decreased by .26 units, while values for the other predictors were held constant. An important point to note is that agreeableness was not a significant predictor in the regression analysis but proved inversely significant in the Pearson Correlation.

### Summary of Results for the Second Research Question

The findings of the statistical analyses for the Second Research Question and Hypothesis are as follows:

#### Second Research Question and Hypothesis

RQ2: Which combination of the Big Five personality traits, best predicts authentic leadership, after controlling for age, sex, educational level, supervision, tenure, and ethnicity?

*H2<sub>o</sub>:  $R_{Big\ Five\ model/demographic} = 0$ .* There is no combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

*H2<sub>a</sub>:  $R_{Big\ Five\ model/demographic} \neq 0$ .* There is a combination of the Big Five personality traits, as measured by the NEO-FFI-3 that best predicts authentic leadership, as measured by the ALQ, after controlling any influence from the demographic variables.

To address research question two, I conducted a hierarchical multiple regression with all of the predictor variables entered in blocks (the demographic variables in Block 1 and the Big Five personality traits in Block 2). Sex was treated as a dichotomous categorical variable with Male = 1 and Female = 2. Age, supervision, tenure, and educational level were treated as ordinal variables. Ethnicity was treated as a dichotomous variable with Other = 1 and White = 2.

### **Hierarchical Multiple Regression**

The predictor variables in the hierarchical multiple regression were conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism. The criterion variable was authentic leadership. The predictors controlled were sex, age, supervision, educational level, tenure, and ethnicity. A problem with too many predictor variables could lead to a further reduction of the power to detect important variables (Meinshauson, 2008).

As mentioned above, there are some concerns about the small sample size. There is also much redundancy in the analyses (same data set and same variables). In spite of the severe problems, I conducted the hierarchical analysis to thoroughly investigate the relationships between the variables. In the first step (block 1) of the hierarchical multiple regression analysis I assessed how much of the variance in the criterion variable can be explained by the controlled predictors mentioned above. In the second step (block 2), I assessed how much additional variance can be explained by the predictors as above listed.

The first step (block 1) of the hierarchical multiple regression indicated that the demographic variables (age, sex, tenure, supervision, educational level, and ethnicity) were not statistically significant predictors of perceived authentic leadership,  $F(6,48) = 0.71$ ,  $p = .640$ ,  $R^2 = 0.08$ . The  $p$ -value of the regression allowed me to conclude that the regression is not statistically different than zero. Results for the first block of the hierarchical multiple regression are presented in Table 8.

Table 8

*Results for the hierarchical multiple regression with step 1 (predictors predicting authentic leadership)*

Source	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	Significant Predictor
Sex (reference: male = 1)	-2.23	1.73	-.19	-1.29	.202	No
Age	-0.03	0.58	-.01	-0.06	.956	No
Supervision	1.30	1.03	.21	1.27	.210	No
Tenure	-1.61	1.10	-.23	-1.46	0.51	No
Educational Level	0.12	1.57	.01	0.08	.939	No
Race (reference: Other = 1)	0.75	1.36	.08	0.55	.585	No

*Note.* Step 1:  $F(6,48) = 0.71$ ,  $p = .640$ ,  $R^2 = 0.08$

The second step (block 2) of the hierarchical multiple regression that included all of the predictor variables indicated that the combination of the controls (sex, age, supervision, tenure, educational level, and ethnicity) and independent variables (conscientiousness, openness-to-experience, extraversion, agreeableness, and neuroticism) do significantly predict authentic leadership,  $F(11,43) = 4.06$ ,  $p = <.001$ ,  $R^2 = 0.51$ . The coefficient of determination ( $R^2$ ) indicated that 51% of the variation in authentic leadership can be explained by the predictors. An additional 43% of the variability in authentic leadership can be explained by the inclusion of the Big Five personality traits beyond what is accounted for by the demographic differences alone.

In spite of the small sample size for this analysis, further examination of the predictor variables in the final model (step 2), as expected, it was found that conscientiousness and neuroticism were statistically significant predictor variables: conscientiousness positively and neuroticism negatively significant. As conscientiousness ( $t = 2.71, p = .010$ ) increased by one unit, perceived authentic leadership increased by 0.39 units. As neuroticism ( $t = -1.99, p = .053$ ) increased by one unit, perceived authentic leadership decreased by 0.27 units. Results for step 2 of the hierarchical multiple regression are presented in Table 9.

Table 9

*Results for the hierarchical multiple regression with step 2 (covariates and predictor variables predicting authentic leadership)*

Source	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	Significant Predictor
Sex (reference: Male = 1)	-1.45	1.36	-.13	-1.07	.292	No
Age	0.06	0.46	0.02	0.14	.889	No
Supervision	0.89	0.82	0.14	1.08	.285	No
Tenure	-1.09	0.88	-0.16	-1.24	.221	No
Educational Level	1.13	1.24	0.11	0.92	.364	No.
Race (reference: Other = 1)	0.06	1.10	0.01	0.06	.955	No
Conscientiousness	0.39	0.15	0.38	2.71	.010	Yes
Openness	0.24	0.14	0.25	1.73	.091	No
Extraversion	-0.01	0.14	-0.01	-0.08	.939	No
Agreeableness	-0.20	0.12	-0.24	-1.60	.117	No
Neuroticism	-0.27	0.14	-0.31	-1.99	.053	Yes

Note. Step 2:  $F(11,43) = 4.06, p = <.001, R^2 = 0.51$



To answer Research Question two, of the Big Five Personality traits studied, conscientiousness and neuroticism, in combination, best predicted authentic leadership.

### **Backward Elimination Analysis**

Finally, I next conducted a backward elimination to determine an optimal regression model by selecting an ideal combination of the various predictors. The backward elimination kept the important predictors and allowed for a more accurate determination of relationship. Initially, all the predictors were included in the analysis (the Big Five personality traits and the demographic variables) and the ones with the lowest partial  $F$  were eliminated until the non-significant predictors were all dropped. In the backward elimination analysis, elimination is based on the empirical relationship among the variables, and it stops when elimination of any additional variable significantly reduces the  $R^2$  (Wright, 2008).

Although acquiring an adequate sample size is important, the literature covering this research tool is inconsistent. Wilson Van Voorhis and Morgan (2007) cited Harris' rule of thumb that the number of participants for regression sample size should exceed the number of predictors by at least 50 (the total number of participants should equal the number of predictors plus 50) and Green's suggested rule of thumb for determining regression sample size is,  $N > 50 + 8m$  (where  $m$  is the number of IVs) for testing multiple correlation and  $N > 104 + m$  for testing individual predictors (assuming a medium-sized relationship). Some researchers stated that there is little empirical evidence to support the sample size recommendations (Mundfrom, Shaw, & Ke, 2005). Costello and Osborne (2009) stated that a large percentage (62.9%) of researchers they studied,

used an early and still prevalent rule of thumb of 10:1 or less to determine priori sample size. Costello and Osborne's finding confirmed the claim that a large percentage of researchers reported factor analyses using relatively small samples. Based on the Power Analysis I conducted, a sample size of 109 was needed to detect a relationship between the variables, this study's sample size of 55 is considered to be small.

As expected, the results of the backward elimination model indicated that conscientiousness and neuroticism created the best linear combination for predicting perceived authentic leadership. The initial regression model with all 11 predictors indicated a significant model [ $F(11, 43) = 4.06, p < .001, R^2 = .510$ ]. After 10 iterations, the final model with only two predictors (conscientiousness and neuroticism) indicated the strongest prediction model [ $F(2, 52) = 18.15, p < .001, R^2 = .411$ ]. As conscientiousness ( $t = 3.82, p < .001$ ) increased by one unit, perceived authentic leadership increased by 0.45 units, if neuroticism was held constant. As neuroticism ( $t = -3.14, p = .003$ ) increased by one unit, perceived authentic leadership decreased by 0.30 units, if conscientiousness was held constant. Results for the final model of the backward elimination model are presented in Table 10.

Table 10

*Results for the final step of the backward elimination (conscientiousness and neuroticism the best linear combination for predicting authentic leadership)*

Source	<i>B</i>	<i>SE</i>	$\beta$	<i>t</i>	<i>p</i>	Significant Predictor
Conscientiousness	0.45	0.12	.43	3.82	<.001	Yes
Neuroticism	-0.30	0.10	-.35	-3.14	.003	Yes

*Note.* Final step:  $F(2,52) = 18.15, p < .001, R^2 = 0.41$

According to Pallant (2007) the “beta values represent the unique contribution of each variable, when the overlapping effects of all other variables are statistically removed” (p. 153). The new equation, according to the backward elimination analysis is:

$$AL = 2.23 + .45(C) - .30(N)$$

### Conclusion

In this chapter, I presented the data collected to explore the two research questions and hypotheses. The objective for collecting the data was to determine if a relationship between the Big Five personality traits and authentic leadership existed and which of the Big Five personality traits, in combination, best predicted authentic leadership. I relied on the data collected from the survey instruments, ALQ and the NEO FFI-3 to determine which of the hypotheses answered the research questions. The findings of this study revealed that there is a relationship between the variables studied, and conscientiousness and neuroticism best predict authentic leadership. The sample for this research consisted of only 55 participants. Age, sex, tenure, educational level, supervision, and ethnicity were used as predictors and controlled. None of the controlled predictors were

statistically significant. I described the recruitment process, data collection, scrutiny of the survey responses, the number of participants included in the study, and a summary of the result findings were also presented in this chapter.

The fifth and final chapter of this study will contain a review of the conclusion and recommendations. I will begin the chapter with a summary of the results. Then, I will discuss and interpret the findings. Next, I will discuss the study's strengths and limitations as well as the implications for social change. The chapter will end with some recommendations for further research.

## Chapter 5: Conclusion and Recommendations

### **Introduction**

I conducted this research study to examine if there were any relationships between the Big Five personality traits and authentic leadership, and which of the Big Five personality traits best predicted authentic leadership. Importantly, I conducted this study to address Walumbwa et al.'s (2011) observation that more studies were needed in the critical area of authentic leadership to help address the unprecedented challenges organizations faced. Leaders' unethical corporate behaviors, coupled with the recent economic downturn, have caused many organizations to suffer adverse effects such as reduce profitability, negative publicity, and low employee morale. It was my desire to find a way to help minimize the recurrence of these unethical corporate behaviors. The key findings of this research study were that conscientiousness and neuroticism in combination best predicted authentic leadership—conscientiousness with a positive relationship and neuroticism an inverse relationship.

I conducted an online quantitative survey to collect the data. Seventy-three members of the Walden University participant pool signed up to complete the survey. I received only 61 responses, and ultimately conducted the study using data from 55 participants who sufficiently completed the research tools-- the ALQ, the NEO FFI-3, and a demographic questionnaire. This chapter includes a discussion of the findings, an interpretation of the findings, a discussion of the significance of the findings, discussions of limitations of the study and its implications for social change, and recommendations for further studies.

## Interpretation of the Findings

### Key Findings of the Study

The key finding of this study is that the Big Five personality traits as a set resulted to be significant predictors of authentic leadership,  $F(5,49) = 8.65, p < .001, R^2 = 0.47$ . Within the regression equation, however, only conscientiousness ( $t = 3.09, p = .003$ ) and neuroticism ( $t = -2.05, p = .046$ ) were statistically significant predictors. The hierarchical multiple regression showed that the predictors statistically controlled were not significant predictors to perceived authentic leadership,  $F(6,48) = 0.71, p = .640, R^2 = 0.08$ . The Big Five personality traits contributed 43% of the variance in perceived authentic leadership, after accounting for the controlled predictors. When the Big Five personality traits were added to the equation, the coefficient of determination ( $R^2$ ), increased from .08 to .51, indicating the strong effect of the Big Five personality traits in predicting perceived authentic leadership. Together, conscientiousness and neuroticism contributed 41% of the variance in perceived authentic leadership.

Consistent with the regression analyses, a Pearson correlation analysis I conducted between the Big Five personality traits and authentic leadership showed a significant inverse correlation for neuroticism and agreeableness, but a significant positive correlation for conscientiousness. Authentic leadership correlations with neuroticism and conscientiousness were moderate but weak with agreeableness. Although agreeableness had a significant simple correlation with authentic leadership, agreeableness did not account for a unique variance in the multiple regression analysis.

The second set of Pearson correlations showed that the subscales of authentic leadership were highly correlated. As in the first Pearson correlation, neuroticism had significant inverse correlations with the subscales of authentic leadership (transparency, ethical moral, balance processing, and self-awareness). Conscientiousness once again indicated moderate significant positive relationships with the subscales of authentic leadership. Agreeableness indicated weak significant inverse correlations with balance processing and self-awareness. It is worth mentioning that the same three personality traits that were significant in the first Pearson correlation were also significant in the second Pearson correlation.

### **Review of the Findings**

An important factor to note is that the findings from this study support what I found in the literature I reviewed—not all of the Big Five personality traits correlate with leadership constructs. For instance, in this study, conscientiousness and neuroticism significantly correlate with authentic leadership, and agreeableness is significant in the simple correlation analysis. Openness-to-experience and extraversion were not significant in predicting perceived authentic leadership. Similar to what I found in this study, Judge and Zapata (2014) found that only two of the Big Five personality traits, conscientiousness and openness, supported job performance in positions which afforded leaders their independence in completing work. Judge and Zapata also found that emotional stability, agreeableness, and extraversion were important for job performance in positions which required strong social skills. These researchers confirmed that conscientious individuals are dependable, self-reliant, self-motivated, and capable of

working on their own. Although Judge and Zapata's study showed that agreeableness is necessary for jobs that require strong social skills, this trait was not significant in predicting authentic leadership. That finding is surprising because as previously stated, authentic leaders form long lasting relationships with their subordinates, and they promote healthy working environments.

Most importantly, the findings of this study indicated that leaders who score high on conscientiousness are more likely to practice authentic leadership, and high scorers on neuroticism are less likely to practice authentic leadership. According to Rothmann and Coetzer (2003), high scorers on neuroticism could experience psychiatric problems. They cope poorly with stress and are less likely to control their impulses. These negative qualities should make it difficult for high scorers on neuroticism to practice authentic leadership. Authentic leaders perform their duties with purpose, values, and integrity as they strive to build enduring organizations, motivate their employees to provide superior customer service, and create long meaningful relationships with employers, employees, and consumers (George, 2003). Authentic leaders are concerned with how they think and behave, as well as how others perceived them; they are mindful of their own and others' values or moral perspectives, knowledge, and strength (Avolio & Gardner, 2005; Avolio, et al., 2004; Ilies et al., 2005). These qualities should help conscientious leaders who practice authentic leadership to excel in organizations. Individuals who score high on neuroticism are not likely to be authentic leaders because their expressions of anger and hostility may lead subordinates to react negatively to them (Colbert, Judge, Choi, & Wang, 2012). Anger and hostility expressed frequently will make it difficult for those



leaders to form meaningful relationships and have influence over their subordinates (Weisband & Atwater, 1999).

### **Conscientious Leaders and Authentic Leadership**

Conscientious leaders who practice authentic leadership could be high performers. According to Barrick, Mount, and Strauss (1993), conscientious individuals are expected to perform better than others because of their goal setting ability; they exert more effort to achieve challenging and difficult goals, and they are more committed to work longer in order to achieve their goals. Based on these qualities, authentic leaders who score high on conscientiousness should help their organizations realize their goals. The findings in this study are in line with those in Patrick's (2011) study, which showed that conscientious leaders worked consistently to produce exceptional and timely work, and with those in Barrick and Mount's (1991) study, which showed that conscientiousness predicted job success. Additionally, authentic leadership is defined as a leader behavior that promotes a positive ethical climate and an internalized moral perspective (Walumbwa et al., 2008). Walumbwa et al. further stated that authentic leaders act with moral standards and value consistency regardless of the group, organizational, and societal pressures.

The qualities of conscientiousness should help leaders to be effective and efficient in dispensing their organizational duties and responsibilities. Conscientious leaders are self-disciplined, dutiful, plan skillfully and meticulous, persistent, and strive to make subordinates become organizational citizens who are committed to the organization's goals and objectives. Conscientious leaders are mindful of assignment deadlines and

work steadfastly to meet deadlines while being watchful to avoid errors. Some qualities which conscientious individuals exercise, according to Brown and Trevino (2006), are self-control, careful planning, reliability, and the ability to organize well. These attributes, interacting with the components of authentic leadership—fostering greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency—should cause authentic leaders to successfully perform their duties with integrity and above the average leaders in their business sector.

Authentic leadership is considered the fundamental element of effective leadership—it builds trust because of its strong focus on positive attributes such as honesty, integrity, and high ethical standards in the fostering of leader-follower relationships (Wong & Cummings, 2009). A recent study by Chartered Institute of Personnel Development (CIPD) showed that in order to build effective organizations, leaders are needed who display personal integrity, humanity, allow followers to get to know them, and who are fundamentally trustworthy (Beddoes-Jones, 2012). The finding of the CIPD study also indicated the need for more authentic leaders, and give credence to the importance of this study.

An interesting finding in Robertson, Baron, Gibbons, MacIver, and Nyfield's (2000) study on the relationship between conscientiousness and managerial performance was that the study failed to establish a statistically significant relationship between conscientiousness and current job performance ( $r = .09$ , n.s.,  $N = 437$ ) for the total sample. Their study also did not provide support for conscientiousness and job performance in managers, but resulted in a negative correlation ( $r = -.20$ ,  $p < .001$ , two-

tailed) between conscientiousness and promotions for the total sample. These results were based on data collected from 453 managers in the United Kingdom who represented three financial services companies, a large manufacturing company, and a distribution organization. The findings in Robertson et al.'s study did not correlate with the fundamental characteristics of conscientiousness. Fang and Zhang (2014) noted when they observed, "Individuals high on conscientiousness often look before they leap, draw on experience and lessons learned, are concerned with work quality, and ensure the timely accomplishment of a task" (p. 787). One would expect that conscientious individuals would enjoy promotions because of their dedication, reliability, trustworthiness, completion of assignments on a timely basis, and their ability to organize and execute their plan of action.

### **Neuroticism and Authentic Leadership**

Individuals with high levels of neuroticism are known to suffer from depression, anger, hostility, and low self-esteem; therefore, leaders who score high on this trait will not perform efficiently in a workplace environment. For example, they will not be able to foster positive relationships with subordinates, neither will they be able to direct subordinates to work in a manner pleasing to customers because of their personal characteristics—depression, negative emotions, hostile behavior, aggression, and moody personality. Fang and Zhang (2014) stated that an essential characteristic of neuroticism is depression, which affects one's ability to adapt, resulting in low self-esteem, irrational perfection ideation, and pessimism. These qualities would not allow leaders with high levels of neuroticism to practice authentic leadership, as authentic leaders strive to

develop followers' psychological and moral well-beings while assessing their accomplishments to be the best that they could be. Authentic leaders' constant desire is to realize their organizations' goals and objectives while conducting their duties in high moral and ethical standards.

### **Comparison/Contrast of Neuroticism and Conscientiousness**

The qualities of neuroticism and conscientiousness are vastly different. Individuals with low levels of neuroticism display emotional stability. Emotionally stable individuals are calm, display an even mood, and are not overly distraught in stressful situations (Hough, Eaton, Dunnette, Kamp, & McCloy, 1990). The characteristics Hough et al. listed for persons with low levels of neuroticism lack the commitment, confidence, and ethics essential to help curb inauthentic and unethical corporate behaviors. Truthful, honest, and not easily corrupted are a few behavioral qualities (Walumbwa & Schaubroeck 2009), identified in persons who scored high on conscientiousness. According to Costa, McCrae, and Kay (1995), high scorers of conscientiousness are more suited for demanding jobs that require initiative, persistence, and organization. Their job success maybe at the expense of personal growth in other areas of their lives. The characteristics of conscientiousness such as goal setting, goal achievement, committed to goals, determination, and work long hours to accomplish challenging goals as stated in Barrick, Mount, and Strauss (1993) could cause conscientious leaders to be deficient in some personal areas.

Conscientiousness is this study's positive significant trait and it suggests authenticity for leaders. Costa et al.'s (1995) finding supports this study's finding that conscientiousness correlates with perceived authentic leadership. Conscientious leaders who practice authentic leadership are more likely to promote authenticity in organizations and reduce the occurrence of inauthentic and unethical financial behavior. Reducing inauthentic and unethical leaders' behavior would require initiative, persistence, and organization, characteristics identified in Costa et al.'s study. It is no surprise that conscientiousness correlates positively with perceived authentic leadership. As stated earlier, leaders who are conscientious work long untiring hours despite difficulties to realize their organizations' goals and objectives. They are good planners who prioritize the organizations' duties and functions above their personal matters.

### **Significance of the Findings**

This research study is important, as my objective was to examine the Big Five personality traits and their relationship to authentic leadership. The emphasis of the ALQ is on how leaders monitor and self-regulate their behaviors, and each of the four dimensions of the scale represents an aspect of leaders' authenticity (Walumbwa et al., 2010). The NEO-FFI-3 focuses on trait-descriptive adjectives to describe how leaders behave. I also conducted this study to fill a gap in the literature, as well as to satisfy Bill George's (2003) cry for authentic leaders to help solve the leadership crisis. George wanted leaders who would build enduring organizations, motivate their employees to provide superior customer service, and create long-term value for shareholders. Barrick and Mount's (1991) study like this study found a connection between personality traits

and work performance and that conscientiousness predicted job success. Another factor of importance is that this study's finding is in line with Salgado's (1997) finding that conscientiousness and neuroticism predicted job performance in areas of supervisory ratings, training ratings, and personnel data. This study's findings would add knowledge to the existing body of literature on topics such as leadership, personality traits, and authentic leadership.

Knowing that conscientiousness positively correlates with authentic leadership is a significant finding. Employers could use this knowledge to strive to employ and promote more conscientious leaders. Employers could investigate the possibility of using personality tests to assess conscientiousness and also assess employees' levels of conscientiousness before promoting them to leadership positions. For example, a test called "How Conscientious are You" could be used to evaluate employees' levels of conscientiousness. Neuroticism correlating negatively with authentic leadership is not surprising because the qualities of this trait, as mentioned in Chapter 2, do not align with fostering good social and ethical leadership.

### **Limitations of the Study**

The findings of this study were based on a small sample, recruited from Walden University participant pool comprising over 5,000 students, faculty, and staff members. Recruitment lasted three months, and more students signed up to complete the survey than the number of completed responses received. A limitation which affected this study was that data were collected electronically using questionnaires or only one method of data collection. The study's total number of responses was also affected by collecting

data from one source, Walden University's participant Pool. On the positive side, the participants of this study represented many different organizations.

Subordinates rated their leaders on perceived personality traits and perceived authentic leadership. Perceived personality rating could have some drawbacks if ratings were done by unhappy subordinates, as opposed to self-rating of leaders' personality traits. However, perceived authentic leadership should be a more accurate rating of leaders' authenticity, as subordinates' response to leaders' influence is a better measure of leaders' authenticity. Leaders are not good raters of self-authenticity, as according to Gardner et al. (2005), an important aspect of authentic leadership is the relationships formed between leaders and subordinates. Nevertheless, the ratings of the Big Five personality traits are comparable to the NEO-FFI-3 norms.

At times, researchers may prefer observer rating over self-reports. McCrae and Costa (2010) stated that in some instances, such as when an individual is mentally or physically incapable of completing the inventory or when there is the belief that the individuals will falsify the responses, researchers may prefer observer rating over self-reports.

Walden University gives students a certain timeframe to complete their dissertations, and the time constraints did not permit a much longer recruitment process. If more time was allotted for data collection, the small number of responses received might have increased. Another factor that contributed to the low number of responses is that the targeted population might have preferred to complete hard copies (paper and pencil) of the survey instruments. According to Sax, Gilmartin, and Bryant (2003), the

response rate for Web surveys among college students was lower than the response rate for paper and pencil surveys. Sax et al. felt that their claim was likely to change as familiarity with technology increases. Overall, these researchers claimed that the response rate for paper and Web surveys was in flux as researchers were employing new survey techniques. Another contributing factor to the low response rate could have been that college students who were juggling college life, job responsibilities, and family life found it inconvenient to complete Web surveys. My efforts to offer an incentive to help stimulate participation failed. If I had been successful in this endeavor, the response rate could have been significantly higher.

### **Recommendations for Future Studies**

This online study was conducted with a small sample of the population studied. SurveyMonkey.com hosted the survey instruments and members of Walden University participant pool were invited to participate in the study by completing the survey instruments. The response from the targeted population was not as robust as I anticipated, and the projected sample size was not achieved. To help overcome this limitation, it is recommended that future studies be conducted in workplace settings where the possibility of recruiting a larger number of participants would be increased. Multiple workplace locations are strongly recommended, as a strength of this study is that participants represented several organizations. Future studies should extend the recruitment period in order to entice a larger sample of the population. Perhaps if this study is repeated with a larger sample size, agreeableness would prove to be a statistically significant trait in the multiple regression analysis.



For future studies, it is recommended that there be two groups of participants: one consisting of subordinates or followers who would rate their leaders and the other group of their leaders (leaders, managers, or supervisors) who will rate themselves. In this manner, researchers would be able to distinguish between own perceptions of the leaders' characteristics and followers' perceptions of the characteristics of their leaders (Cooper, Scandura, & Schriesheim, 2005). A fundamental aspect of authentic leadership is the relationships formed between leaders and followers (Gardner et al., 2005). Collecting data from both groups (followers and leaders) would help researchers to better assess leaders' authenticity. To help expand the scope and diversity of participants, future studies should collect data from a broader group of participants and examine the influence of leaders' authentic leadership on followers' emotional and psychological well-being. Researchers should also assess how authentic leaders' positive relationship with employees correlates with employees' loyalty.

### **Implications for Social Change**

The findings of this study implied that leaders with high levels of conscientiousness and low levels of neuroticism are more likely to practice authentic leadership. According to Avolio and Gardner (2005), authentic leaders are individuals who possess qualities such as genuine or authentic, trustworthy, and reliable. In addition, Walumbwa et al. (2008) stated that authentic leadership is evident in the workplace when leaders enact their true self, while displaying such behaviors as being honest with oneself, being sincere with others, and behaving in a way that reflects one's personal values. Walumbwa et al. defined authentic leadership as a leader behavior which promotes

positive psychological capacities, a positive ethical climate, greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency while working with followers to foster self-development. According to Beddoes-Jones (2012), “Modern leadership failures, however, invariably seem to involve either a lack of self/other awareness, a lack of self-regulation/discipline or a moral/ethical deficit” (p. 47). I will first discuss conscientious leaders, followed by a discussion of the characteristics of neurotic leaders.

Conscientious leaders who practice authentic leadership are likely to reduce the frequency of inauthentic and unethical organizational behavior. A study by Barrick and Mount (1991) found that conscientiousness is near-universal in predicting job performance regardless of job type or industry. Authentic leaders follow the rules, norms, and moral standards of their organizations. The conditions that authentic leaders create foster trust and promote employee relationships with leaders and organization as they build confidence, accomplish work goals, and increase employee and organizational performance (Avolio et al., 2009). Clipp-Smith, Vogelgesang, and Avey (2009) found that significant relationships with trust and performance increase when organization’s leaders embraced the concept of “to thine own self be true”. The phrase, “to thine own self be true” is synonymous with authentic leadership.

When making decisions, authentic leaders include input from different perspectives in order to make sound decisions and foster authenticity in subordinates. Conscientious leaders are trustworthy, truthful, honest, organized, plan skillfully, self-disciplined, careful, reliable, dependable, and work long, hard hours to complete

assignments accurately and on time. They are thorough, and according to Walumbwa and Schaubroeck (2009), they are not easily corrupted by others as they maintain a high regard for duties and responsibilities. Not being easily corrupted by others will help to minimize the number of inauthentic and unethical financial corporate (leaders, supervisors, or managers) behaviors which have plagued some modern-day organizations.

Authentic leaders who possess the above-listed conscientious qualities should possess the integrity and self-confidence to perform their duties, free from unethical dealings similar to those which attracted negative comments about some organizations. Increasing the number of conscientious leaders in any organization should also increase the possibility of fostering conscientious workers, thereby increasing authentic and ethical performance of organizational duties.

Authentic leaders must behave in a certain mandated way. Hassan and Ahmed (2011) stated that leaders are expected to demonstrate the highest moral standards and ethical demeanor in the way they talk, act, make decisions, and behave so that others in the organization will emulate them. Authentic leadership is a style of leadership where individuals endeavor to live up to the expectations of leaders as they strive to build enduring organizations that meet the needs of their stakeholders (leaders, employers, subordinates, consumers, and suppliers) and work to improve subordinates' self-confidence, organizational growth, and trust. Seco and Lopes (2013) stated that, "The authenticity of the leader in exercising his/her positive qualities of character will be the beacon that help people to face the growing complexity and trust deficit that storms the

present day” (p. 95). Better communication within organizations, transparency, and fewer unethical corporate behavior expected from authentic leaders should help to increase customers’ patronage, resulting in greater profitability and better social relationships within organizations.

Neuroticism is this study’s second significant personality trait and it correlates negatively with perceived authentic leadership. Leaders with high levels of neuroticism experience negativity and extreme negative emotions. Walumbwa and Schaubroeck (2009) stated that neuroticism deals with a tendency to foster a negativistic cognitive style and unfavorable negative perceptions of self. This trait’s qualities will not cultivate an authentic leadership style that is recommended to foster positive development in subordinates, a positive ethical workplace climate, and positive psychological capacities. Ethical leadership has both direct and indirect influence on followers’ job satisfaction and affective commitment (Neubert, Carlson, Kacmar, Roberts, & Chonko, 2009). Neubert et al.’s study found that, indirectly, ethical leadership was involved in shaping perceptions of ethical climate, which engendered greater job satisfaction and effective organizational commitment.

### **Conclusion**

The results of the statistical tests mentioned earlier indicated that only conscientiousness of the Big Five personality traits positively correlated with authentic leadership and that conscientiousness and neuroticism in combination best predicted authentic leadership. Agreeableness was inversely significant in the simple correlation analysis. An interesting finding of this study is that although neuroticism had a

statistically significant relationship with authentic leadership, that relationship was negative or inverse in predicting authentic leadership, but combined with conscientiousness, they were the best predictors of authentic leadership. Conscientious leaders who practiced authentic leadership were likely to be ethical, transparent, self-confident, self-regulated, and role models for subordinates. They constantly strived to realize their organizational goals and objectives in addition to creating an environment that fostered social and psychological growth and development for subordinates.

This study met my objective as the data showed that there is a relationship between the Big Five personality traits and authentic leadership. Conscientiousness and neuroticism are statistically significant ( $p < .05$ ) and in combination, they best predict authentic leadership. Thus, the null hypothesis for the research questions can be rejected because the results coincided with the predictions. The study's findings are similar to other studies and the tenets of the big five theory which is extensively used to evaluate employees' characteristics. The findings should raise awareness of the relationship between the Big Five personality traits and authentic leadership, more specifically between the two significant predictor variables and authentic leadership and contribute to reducing the frequency of leaders' inauthentic and unethical behavior. Positive social changes such as healthy workplaces, ethical decisions, transparency, increased employees' commitment, and lasting relationships are expected if more leaders practice authentic leadership.

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## Appendix A: NEO-FFI-3 Permission Letter

## Original E-mail

**From :** Vicki McFadden [vmark@parinc.com]

**Date :** 10/22/2012 01:10 PM

**To :** Bronti Baptiste [bronti.baptiste@waldenu.edu]

**Subject :** RE: Request: License Agr for NEO-FFI-3

Thank you Bronti for this additional information.

PAR is in the process of developing an online assessment tool. PARiConnect is set to release in January 2013. Since you are not planning to use the NEO-FFI-3 online until at the earliest January 2013, this would be available in time for your project.

More information about PARiConnect can be found at: [www.PARiConnect.com](http://www.PARiConnect.com). No additional information is available at this time. I would recommend signing up for the updates to this system by entering your e-mail address on the website.

If you can use the NEO-FFI-3 via PARiConnect, then we would not license you to create your own website containing the test. I would suggest waiting until PARiConnect is released in January before making any decisions.

Once PARiConnect has released, please explain in detail the reasons that you cannot use the online platform published by PAR.

If you have any questions in the meantime, please feel free to contact me.

Best Regards,

*Vicki McFadden*

Permissions Specialist

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Psychological Assessment Resources, Inc., 16204 N. Florida Avenue, Lutz, FL 33549,  
[www.parinc.com](http://www.parinc.com)

Telephone: (888) 799-6082; Fax: (800) 727-9329; Intl Fax: (813) 449-4109; e-mail:  
[vmark@parinc.com](mailto:vmark@parinc.com)

## Appendix B: NEO-FFI-3 Instrument Sample Items

1=strongly disagree, 2=disagree, 3=neither agree nor disagree, 4=agree, 5=strongly agree

He is not a worrier.

He laughs easily.

He thinks he's better than most people.

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## Appendix C: ALQ Permission Letter



To whom it may concern,

This letter is to grant permission for the above named person to use the following copyright material:

Instrument: Authentic Leadership Questionnaire (ALQ)

Authors: Bruce J. Avolio, William L. Gardner, and Fred O. Walumbwa

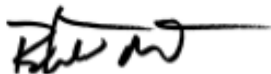
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for his/her thesis research.

**Three sample items** from this instrument may be reproduced for inclusion in a proposal, thesis, or dissertation.

The entire instrument may not be included or reproduced at any time in any other published material.

Sincerely,



Robert Most  
Mind Garden, Inc.  
www.mindgarden.com

## Appendix D: Authentic Leadership Questionnaire Sample Items

0 Not at all    1 Once in a while    2 Sometimes    3 Fairly often    4 Frequently,  
if not always

My leader says exactly what he or she means.

My leader admits mistakes when they are made.

My leader encourages everyone to speak their mind.

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## Appendix E: Demographic Questionnaire

Instructions: Please respond accurately to all of the below items by circling or indicating your correct response.

- a) What sex are you? Male or Female
- b) Your age (in Years) \_\_\_\_\_
- c) No of years supervised by present leader, manager, or supervisor. \_\_\_\_\_
- d) No of years on the job \_\_\_\_\_
- e) Highest educational level attained. High School Diploma/Associate Degree/  
Bachelor's Degree/Graduate Level
- f) Your nationality: White/African American/Asian/European/Hispanic/ Other

## Appendix F: Thank you Letter to Participants

Dear Participant:

Thank you greatly for freely devoting your time to participate in my survey research. Your involvement in the survey will help me to move closer in completing my doctoral assignment and also help to contribute to the existing literature on the Big Five model of personality traits and authentic leadership.

If you would like a summary of the test results and a summary of the research findings, please let me know. Also, when my dissertation is completed, I will be happy to send you a link where you could review it; please indicate if you would like to receive the link.

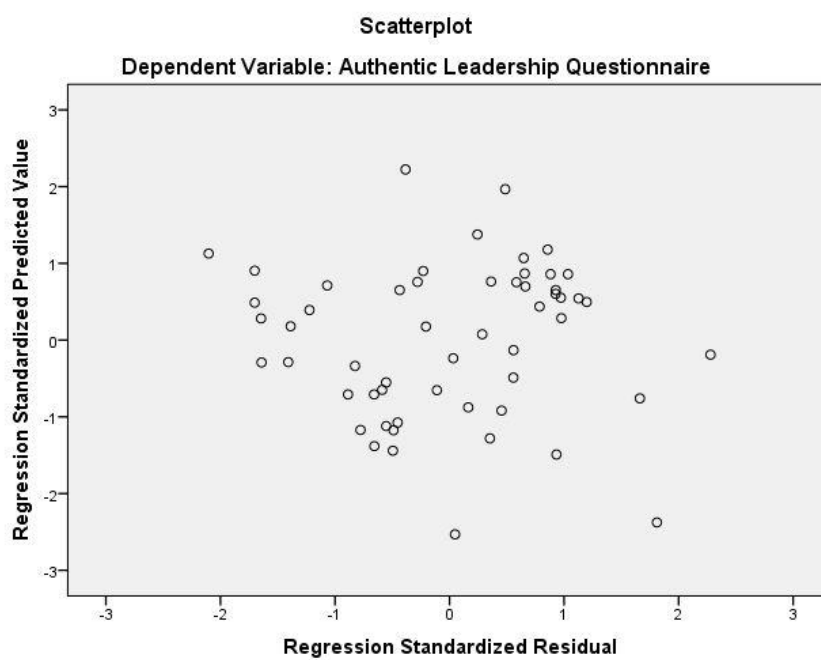
Once again thank you for participating in my research; I truly appreciate your assistance. If you have any questions or concerns, please let me know. I will be happy to assist and can be reached at [bronti.baptiste@waldenu.edu](mailto:bronti.baptiste@waldenu.edu).

Kind regards,

Yours sincerely,

Bronti Baptiste  
PhD Student  
Walden University

## Appendix G: Graphs and plots to support normality



*Figure H1.* Plot of Residuals between authentic leadership total scores and the Big Five personality traits.

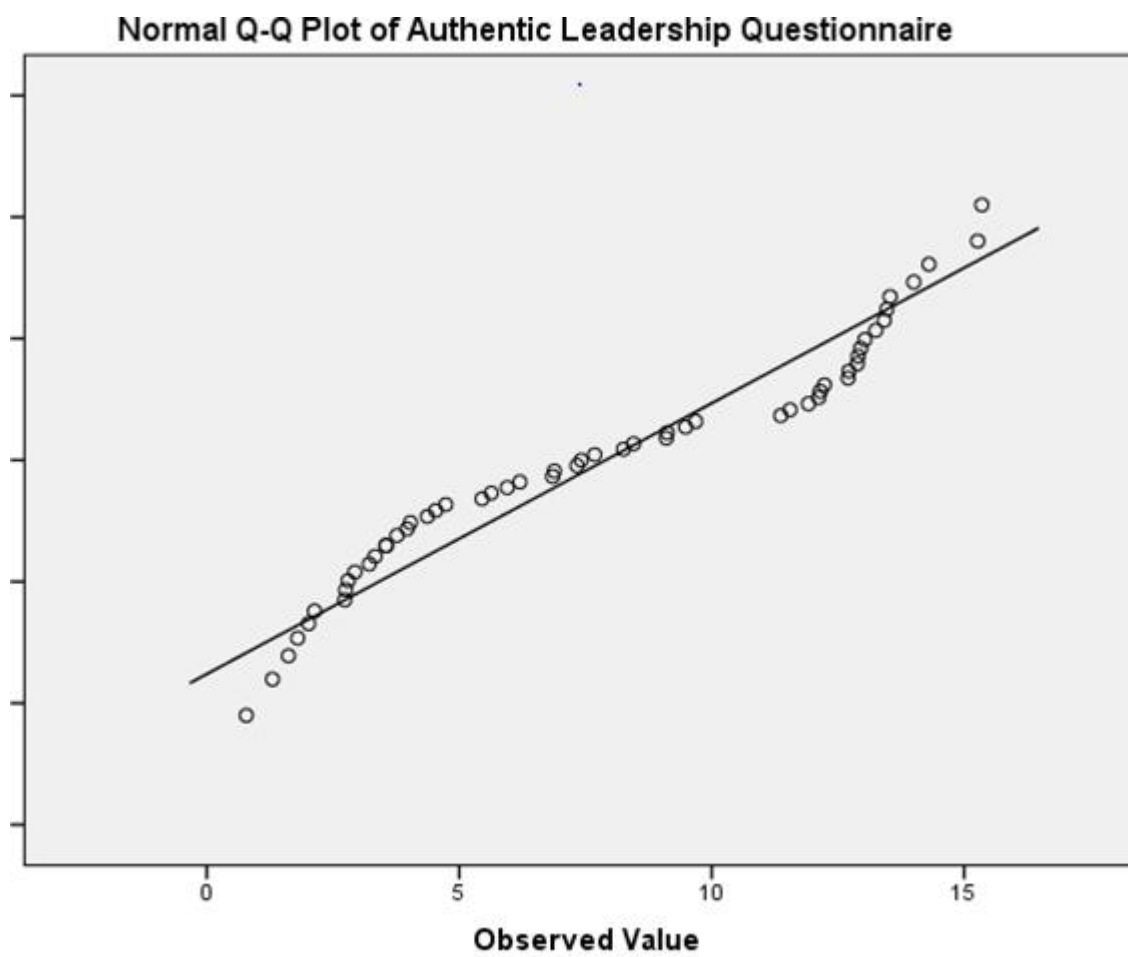
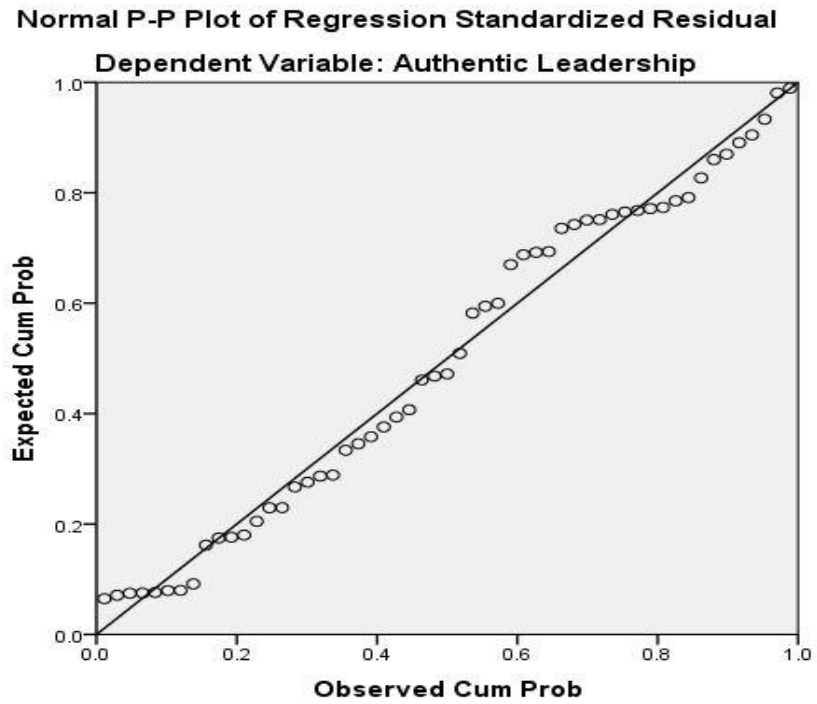
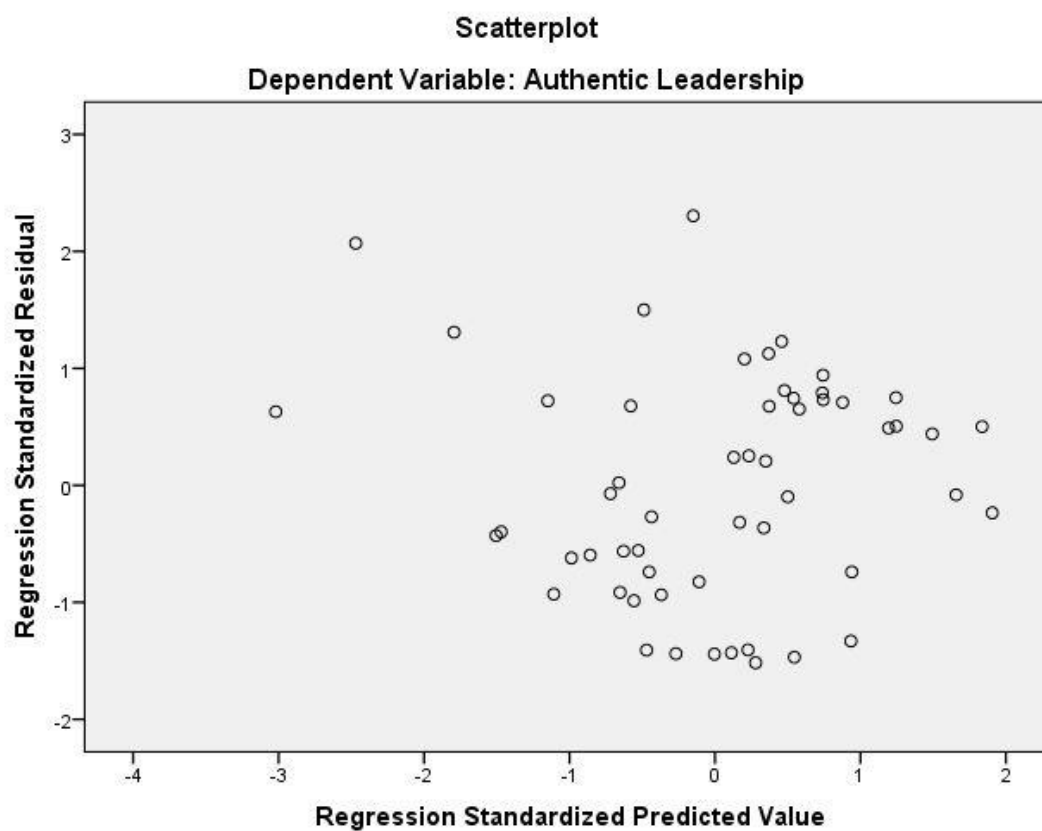


Figure H2. Shapiro wilk test, authentic leadership data



*Figure H3.* Normal P-P plot for authentic leadership as a function of the predictors in multiple regression model.



*Figure H4:* Scatterplot for interpreting homoscedasticity with standardized residuals as a function of standardized predicted values in multiple linear regression model.