

A Literature Review of the Influence of Emotional Intelligence (EI) and the Big Five Personality Traits on Leadership Effectiveness

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This paper presents a literature review of the influence of Emotional Intelligence (EI) and the Big Five personality traits on leadership effectiveness. It highlights relevant theoretical and empirical work that measures the relationship between EI and the Big Five personality dimensions on leader effectiveness. Because there have been doubts of the contribution of EI to leadership effectiveness, calls have been made for more empirical research related to the unique role of EI on leadership effectiveness. This paper provides a foundation for studies through reviewing and analyzing the existing literature and identifies opportunities for efficient further related research in the subject.

Keywords: emotional intelligence, leadership effectiveness, personality traits

INTRODUCTION

This paper provides the foundation for studies through reviewing and analyzing the existing literature related to the influence of Emotional Intelligence (EI) and the Big Five personality traits on leadership effectiveness. This review is divided into six sections. The first is a review of the key literature related to leadership effectiveness. The next includes Emotional Intelligence (EI) and four sub-sections that contain EI models. The third addresses the historical background, theory, and application of personality traits. The fourth is an overview of the relationship between personality traits and EI. The fifth addresses relevant literature on the relationship between EI and leadership effectiveness. The sixth and final section overviews the relationship between personality traits and leadership effectiveness.

LITERATURE SEARCH METHODOLOGY

A comprehensive online search was conducted using databases and search tools for locating relevant material, including Academic Search Complete, Academic Search Premier, Business Abstracts, Business Source Complete, EBSCOhost, Education Information Resources Center, FirstSearch, Human Resource

Abstracts, LexisNexis, ProQuest, ProQuest Digital Dissertations, PsycINFO, SAGE, and the Vocational and Career Collection. A search using Google Scholar also returned references to applicable articles. Various keywords were used, including emotional intelligence, EI, Human Resource Development (HRD) outcomes, individual performance, attainment of organizational objectives, leadership, leadership performance, the Big Five Index (BFI), and personality traits. The titles of several additional studies were obtained by referring to the reference lists of key studies on EI, HRD, and leadership. This is a method that reference librarians refer to as citation chaining (Savolainen, 2004). Once articles were identified through an initial search, abstracts were read and the articles scanned for relevancy. Articles deemed relevant to EI, personality traits, and leadership were included and appear in the literature review.

Leadership Effectiveness

Leadership is a top priority for organizations and one of the “most researched and debated topics in the organizational sciences” (Zopiatis & Constanti, 2010, p. 302). Although research on leadership is extensive, the central themes that characterize contemporary leadership studies were also present in earlier explorations (Bass & Bass, 2008). Leadership research can be traced back to a 19th-century philosopher Thomas Carlyle and his Great Man theory. The Great Man theory holds that effective leaders are born with certain qualities (Spector, 2016; Zaccaro & Horn, 2003). Early leadership research suggested some individuals possessed innate traits or characteristics that allowed them to rise above others and that these extraordinary individuals could alter the course of history (Hollander, 2014). Galton (1884) assumed prospective leaders were born with certain traits that allowed them to ascend to positions of power. Early scholars attributed leadership success to genetic attributes (McCleskey, 2014).

Leadership research is extensive and has expanded to examine personality traits, intelligence, situational leadership, and interactions between leaders and followers (Grossman & Valiga, 2016; McCall & Lombardo, 1983). Compared to personal trait theories, situational theories emphasized that effective leaders adapt their leadership style to the follower’s level of development and ability. Situational leadership focuses on the significance of the leader’s reaction in a particular situation (Grossman & Valiga, 2016; Hersey, Blanchard, & Johnson, 1969).

Intelligence tests were developed to measure an individual’s analytic ability (Dunkel, De Baca, Woodley, & Fernandes, 2014). The focus of leadership studies has progressed into three stages of conceptual, empirical, and methodological advances: (a) behavioral and attitude research; (b) behavioral, social-cognitive, and contingency research; and (c) transformational, social exchange, team, and gender-related research (Lord, Day, Zaccaro, Avolio, & Eagly, 2017).

Modern work environments’ dynamic and competitive nature has increased organizations’ reliance on leadership to improve performance and productivity (Nafukho & Muyia, 2014). Current research supports that leadership effectiveness is centered on the interaction between the leader, the follower, and the situation (Clarke, 2006; Nesbit, 2012; Thory, 2013a). O’Neil (2007) concluded “identifying personality traits and characteristics play an important role in predicting a leader’s effectiveness over time” (p. 32).

Emotional Intelligence

In the past two decades, EI has become a popular and often-used construct in psychology and other social sciences (Bajerski, 2016). EI was first introduced by Salovey and Mayer (1997) as the ability “to accurately perceive emotions, to access and generate emotions to assist thoughts, to understand emotions and emotional knowledge, and to reflectively regulate emotions so as to promote emotional and intellectual growth” (p. 5). Goleman (1995, 1998) then elevated the status and recognition of EI and emphasized the characteristics of EI relevant to leadership performance and effectiveness. EI is considered a practical workforce concept widely accepted for organizational uses such as hiring, training, development, and team building (Joseph et al., 2015).

Goleman (1995) developed the Emotional Competency Model of EI which is divided into the following four domains: self-awareness, social awareness; self-management; and relationship management. The definitions and applications of EI are varied across psychology and HRD fields. Researchers take different approaches to studying and measuring emotions as they affect job and organizational performance

(Northouse, 2015). Whereas researchers in psychology once viewed emotions as disruptive, disorganized, and characteristic of poor adjustment, current theories hold that emotions play an important role in organizing, motivating, and directing human activity (Salovey & Mayer, 1997). Wechsler (1958), who is acknowledged by many to have developed the Intelligence Quotient (IQ) test, included an individual's capacity to perform decisively and deal with social and environmental pressures as the definition of general intelligence. While intellect and ability are important factors influencing individuals' behavior, Reiff et al. (2001) argued that intelligence was a broader construct than reflected in IQ. Goleman (1995, 1998) posited that EI traits could explain the differences among high-performing and productive employees that were unaccounted for by IQ. This original notion of EI depicted problem-solving skills involving emotions (Cote & Levine, 2014). The Bar-On (1997a) version of EI allowed researchers to consider a cross-section of emotional and social competencies, skills, and facilitators that determine how effectively individuals understand themselves and others as well as express, relate, and cope with routine demands (Olatoye & Aderogba, 2012).

Three theoretical models have emerged in the field of EI based on prevailing theories of EI. These include abilities, traits, and mixed models which consist of both abilities and traits (Farnia & Nafukho, 2016; McCleskey, 2014). According to Farnia and Nafukho (2016), the leading models based on the respective EI theories are Mayer and Salovey's Ability model (1997), Bar-On's Emotional-Social Intelligence model (1997a), and Goleman's (1998) Emotional Competencies model which is a mixture of ability and trait models.

Mayer and Salovey's Ability Model

Mayer and Salovey (1997) coined emotional intelligence when developing their model. According to Mayer and Salovey (1997), EI involved the ability of individuals to examine their emotions and the emotions of others, to manage their own emotions and thinking, and in turn influence the emotions of others. The original Salovey and Mayer model consisted of abilities such as one's ability to perceive, appraise, and express emotions (Petrides & Furnham, 2001). Eysenck, Eysenck, & Barrett (1985) defined traits as dispositions separate from abilities.

The Salovey and Mayer (1997) model combines the psychological impressions of emotion and intelligence and is designed to measure perceived emotion, the use of emotions to facilitate thought, and manage emotions. This model allowed researchers to consider EI as a form of intelligence that evolved (Van Rooy & Viswesvaran, 2004). The model's premise was to allow researchers to assess EI through performance-based tests to measure abilities (Salovey & Mayer, 1997). The original Multifactor Emotional Intelligence Scale (MEIS) (Mayer, Caruso, & Salovey, 1999) was amended into the Mayer Salovey Caruso Emotional Intelligence Test (MSCEIT).

Bar-On EI Model

The Bar-On Model (1997a) helps researchers understand EI as an "array of noncognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p. 14). The Bar-On definition of EI incorporated abilities, personality, motivation, and affective dispositions (Nafukho & Muyia, 2014). The Bar-On Emotional Quotient Inventory (EQ-I) contains 133 items that assess an individual's response to gain a total Emotional Quotient (EQ) score. The EQ score is based on the following five composite scales that include 15 subscale scores: "Intrapersonal (comprising Self-Regard, Emotional Self-Awareness, Assertiveness, Independence, and Self-Actualization); Interpersonal (comprising Empathy, Social Responsibility, and Interpersonal Relationship); Stress Management (comprising Stress Tolerance and Impulse Control); Adaptability (comprising Reality-Testing, Flexibility, and Problem-Solving); and General Mood (comprising Optimism and Happiness)" (Bar-On, 2006, p. 15).

According to Farnia and Nafukho (2016), the Bar-On Model offers a broader view than Salovey and Mayer's ability model by allowing researchers to measure EI as a part of social intelligence. The Bar-On Model was developed after considering and reviewing interrelated emotional and social competencies. The

attributes beyond cognitive intelligence are intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood (Farnia & Nafukho, 2016).

Goleman’s Mixed Model of EI

EI was made popular by Goleman’s (1995, 1998) publications in which he discussed EI in both personal and professional settings (Farnia & Nafukho, 2016; Viskupicova, 2016). The Emotional and Social Competency Inventory (ESCI) model’s predecessor to the Emotional Competency Inventory model includes the following areas: self-awareness; social awareness; self-management; and relationship management (Boyatzis, 2006). Goleman believed the EI skills measured in the ESCI model could be developed and transformed to help improve job performance (Goleman, 1998). The Goleman model was the foundation for the Emotional Competence Inventory (ECI) (Boyatzis, Goleman, & Rhee, 1999). The ECI is a self-report assessment used to measure EI (Boyatzis, 2007).

The original Emotional Competence Inventory (ECI) measurement of EI consisted of 18 competencies that measured an individual’s self-assessment of social and EI abilities. The model was revised in 2006. The 2006 model, the Emotional and Social Competency Inventory (ESCI), was modified to reflect how an individual’s emotions effect interpersonal interactions with others (Boyatzis, 2016). The ESCI contains 12 competencies compared to the 18 in the original ECI model. Additionally, the ESCI model reviewed the competencies on a 360-degree scale. The ESCI model includes the following four clusters and competencies:

- Self-Awareness concerns knowing one’s internal states, preferences, resources, and intuitions;
- Self-Management refers to managing one’s internal states, impulses, and resources;
- Social Awareness refers to how people handle relationships and awareness of others’ feelings, needs, and concerns; and
- Relationship Management concerns the skill or adeptness at inducing desirable responses in others. According to Boyatzis et al., (1999), relationship management is where EI and social intelligence becomes most visible.

The ESCI model of EI contains 12 competencies that are arranged within the four clusters listed above. Figure 1 below depicts the four ESCI clusters and 12 related competencies:

**FIGURE 1
ESCI MODEL**

Self-Awareness	Social Awareness	Self-Management	Relationship Management
Emotional Self-Awareness	Empathy	Achievement Orientation	Conflict Management
	Organizational Awareness	Adaptability	Coach and Mentor
		Emotional Self-Control	Influence
		Positive Outlook	Inspirational Leadership
			Teamwork

Boyatzis, 2007

Other Mixed Models

Petrides, Furnham, and Mavroveli (2007) characterized EI models as either ability or trait models. Trait EI was conceptualized as involving personality-related characteristics as opposed to ability EI which was theorized as a cognitive ability that belonged to the psychometric intelligence construct (Petrides & Furnham, 2001). The research results conducted by Petrides et al. (2007) associated EI with traits rather than abilities because of the difficulty in measuring EI as a cognitive ability. Therefore, Petrides et al. (2007)

contended it was not feasible to measure EI attributes as individuals held crucial information necessary to judge one's level of emotional ability.

Following the principles of Petrides et al. (2007), the Mayer and Salovey model is characterized as an ability measurement tool. In contrast, the Bar-On and Goleman models are associated with trait or mixed models. Although discrepancies exist between the trait and ability EI models, Farnia and Nafukho (2016) identified recognition, awareness, and regulation of emotions as common among the EI model variations. Mayer, Roberts, and Barsade (2008) concluded that mixed EI can be sectioned into the following four content areas: (a) achievement motivation; (b) control-related qualities that theoretically overlap with the personality trait of conscientiousness; (c) gregariousness and assertiveness (two facets of extraversion); and (d) self-related qualities, such as general self-efficacy.

Previous meta-analytic studies reported mixed findings regarding EI measures, and ability EI measures were only moderately intercorrelated (Joseph & Newman, 2010; Van Rooy & Viswesvaran, 2004). Joseph and Newman (2010) revealed mixed EI measures exhibited a higher validity ($p = .47$) for predicting job performance as compared to ability EI measures ($p = .18$). Other meta-analyses also supported mixed EI measures as a stronger indicator of job performance beyond cognitive ability and personality traits (Joseph & Newman, 2010; O'Boyle et al., 2011).

Personality Traits

A historical review of influential personality theorists reveals how personality theories have been used in research. Freud's psychoanalytic view of personality consisted of three parts: the id; ego; and super-ego (Ara, Ghari, & Esfandiari, 2017; O'Neil, 2007). Freud concluded personality resolved unconscious conflict (Ewen, 2014). Rogers (1951) studied the actualization of a person's self-concept and an individual's desire to experience "oneself in a way that is consistent with one's conscious view of what is", p.83). Eysenck et al. (1985) developed a personality model that categorized two dimensions of an individual's personality into neuroticism and introversion-extroversion (Siegling, Nielsen, & Petrides, 2014).

A universal definition of personality has not emerged (Ewen, 2014). Nonetheless, personality researchers have provided numerous definitions of personality. Burger (2013) defined personality as consistent behavior patterns and intrapersonal interactions that originate within an individual. Maddi, Wadhwa, Haier's (1996) definition of personality stated personality was "a stable set of characteristics and tendencies that determine those commonalities and differences in the psychological behavior of people that have continuity in time and that may not be easily understood as the sole result of the social and biological pressures of the moment" (p. 9). Fontana (2000) noted that personality predicts an individual's actions in certain situations. Most definitions of personality focus on consistent characteristics of the person (Ormel, VonKorff, Jeronimus, & Riese, 2017), making personality traits reliable indicators in the study of human behavior.

Traits were initially identified as inherent qualities of an individual in the early scientific research on leadership (Ozbag, 2016). As leadership research evolved, the Great Man theory that assumed traits were genetically predetermined at birth (Borgatta, Bales, & Couch, 1954) was no longer universally accepted. Later, Stogdill (1948) conducted 124 separate inquiries that examined the personal qualities of individuals in leadership roles. Most of these studies focused on determining the characteristic differences between leaders and followers (Stogdill, 1948). Stogdill found indicators of higher intelligence in leaders versus followers and positive relationships between adjustment, extroversion, dominance, and leadership traits. However, Stogdill did not find traits that were universal to all leaders. Stogdill's studies revealed a "person does not become a leader by virtue of the possession of some combination of traits" (1948, p. 63).

Personality traits largely result from the interaction between the individual and the environment (Littunen, 2000). The terms personality *traits* and *characteristics* are used interchangeably in personality development literature, and Geukes, van Zalk, and Back (2017) recently concluded that the interplay between the individual and the environment forms personality characteristics. Jung (1969) categorized personality originally identified by Freud (Pierce, 2005). According to Adamski (2013), Jung classified personality based on inherent and environmental circumstances and is credited for distinguishing observable characteristics from psychological traits (Arnold & Silvester, 2005). Jung theorized two main

types of characteristics, introversion and extroversion, and is noted for expanding the view of culture and personality (Chen, 2011).

The Five-Factor Model

Sir Francis Galton (1884) is among the first to categorize personality traits by counting dictionary words reflecting human character (Goldberg, 1999). The taxonomy of personality began to systematically form following McDougall's (1932) revelation that personality "may be broadly analyzed into five distinguishable but separate factors, namely intellect, character, temperament, disposition, and temper..." (p. 15). Cattell (1957) developed a categorization of individual differences that consisted of 36 related personality dimensions. According to Barrick and Mount (1991), Tupes and Chistal (1961) reanalyzed replicated Cattell's (1957) correlations and found the five-factor model provided statistically significant correlations of analyzed data. The results of an empirical study conducted by Norman (1963) supported previous studies that identified five personality factors: extraversion, emotional stability, agreeableness, conscientiousness, and culture. Norman's (1963) study is important because it provided personality labels commonly referred to in current personality literature. The emerging consensus of the early factor models remained dormant during the 1970s (McCrae & John, 1992). Digman (1990) reanalyzed the earlier five-factor model data sets and Goldberg (1990) extended the model into the most widely accepted model of personality (Costa, Alves, Neto, Marvao, Portela, Costa (2014); Magalhaes, Costa, & Costa, 2012; Polzehl, 2015).

The five-factor model has been recognized for the reliability generated across various theoretical frameworks and geographical cultures (Bono & Judge, 2004; Costa & McCrea, 1992; McCrae & Costa 1999). The Big Five model has been translated into several languages and applied to different cultures and contexts (Shane, Nicolaou, Cherkas, & Spector, 2010). The Big Five personality factors include extraversion, agreeableness, conscientiousness, openness, and neuroticism (Costa & McCrea, 1992; Goldberg, 1990). Numerous studies have identified certain personality dimensions as indicators of job performance outcomes (Barrick & Mount, 1991; Hertz & Donovan, 2000; Judge, Heller, & Mount, 2002b).

Conscientiousness

Conscientiousness was described by Digman (1990) as the will to achieve. Individuals scoring high in conscientiousness are believed to display self-discipline (Botwin & Buss, 1989; John, 1989), plan accordingly (Hogan & Ones, 1997), and strive for academic achievement (Digman, 1990). Individuals who score low in conscientiousness are more likely to display spontaneous and impulsive behavior (McCrea & Costa, 1999).

Openness

This dimension of personality has been interpreted by some scholars as intellect (Borgatta, 1964; Digman & Takemoto-Chock, 1981; Hogan & Ones, 1997) and labeled as openness to experience by McCrae and Costa (1999). Traits common to this dimension include creativity, culture, imagination, curiosity, intelligence, art appreciation, adventurousness, and open-mindedness (John & Srivastava, 1999).

Extraversion

Extraverts are often perceived as full of energy and enjoy interacting with people. This trait is marked by enthusiasm, assertiveness, sociability, and activity (Botwin & Buss, 1989; Judge et al., 2002b; McCrae & Costa, 1999).

Agreeableness

Individuals who score high in agreeableness are considered to be cooperative rather than competitive or antagonistic toward others. Traits that describe this personality dimension are trusting, good-natured, compassionate, helpful, and flexible (Barrick & Mount, 1991).

Neuroticism

This dimension of personality has also been referred to as narcissism and emotional stability (Borgatta, 1964; McCrae & Costa, 1999). Researchers generally agree this category of personality is connected to a low tolerance for stress and a high tendency for negative emotions such as anger, anxiety, or depression (Digman, 1990).

Personality Traits and Emotional Intelligence

For decades, psychologists have attempted to detect, measure, and modify personality characteristics and traits that impact an individual's behavior (Sevdalis, Petrides, & Harvey, 2007). Empirical research addressed the early debates among EI scholars regarding the notion that EI was simply an extension of personality traits studied in the past (Andrei, Siegling, Aloe, Baldaro, & Petrides, 2016).

Di Fabio, Palazzeschi, Asulin-Peretz, and Gati (2013) examined the relationships between EI, career indecision, indecisiveness, personality traits, career decision-making self-efficacy, and perceived social support. Di Fabio et al. (2013) surveyed 361 students attending the University of Florence and found EI "added significant incremental variance beyond that accounted for by personality traits about career decision-making and self-efficacy" (p. 177). The Di Fabio et al. (2013) study showed that emotional stability was strongly correlated with all three aspects of the emotional- and personality-related career difficulties of the Big Five.

Di Fabio et al. (2013) also found that career indecision had an inverse relationship with perceived social support and career decision self-efficacy. Indecision also correlated with an external factor, perceived social support (Di Fabio et al., 2013). Study participants who reported difficulties in managing anxiety also reported chronic indecisiveness. The study showed that emotional stability was strongly correlated with all three aspects of the Big Five Questionnaire's emotional- and personality-related career difficulties (BFQ). Di Fabio et al. (2013) concluded that increasing EI could reduce both indecision and indecisiveness. The study supported EI as a critical factor contributing to improving individual social skills that can lead to improved career decision-making abilities.

Di Fabio and Saklofske (2014) conducted a quantitative study similar to that of Di Fabio et al. (2013) designed to examine the roles of self-reported and ability EI, fluid intelligence, and personality traits on career decision-making, career self-efficacy, career indecision, and indecisiveness. The study was administered to 194 junior and senior Italian high school students. This study was representative of the growing interest in the role of EI in managing organizational performance enhancement and making career decisions. Di Fabio and Saklofske (2014) considered the role of EI and personality traits and their impact on organizational performance. Di Fabio and Saklofske (2014) found that both self-reported and assessed EI scores added significant variance beyond personality traits in making career decisions and career indecision and indecisiveness. Trait EI played a significant role in integrating emotional experiences related to career decision-making.

Di Fabio and Saklofske (2014) used the MSCEIT to measure ability-based EI. The researchers used the Bar-On Emotional Intelligence Inventory to measure the self-reported EI and the Trait Emotional Intelligence Questionnaire (Petrides & Furnham, 2001) as an additional self-reported EI measure. Participants' personality traits were measured with the Big Five Questionnaire. Considering the independent variables, fluid intelligence and personality traits were the most significant predictor variables. Di Fabio and Saklofske (2014) focused on various measures of EI (i.e., ability, fluid, trait, and self-report) to add more breadth and depth to the measure of EI than had been achieved by comparable quantitative studies.

Colomeischi (2015) conducted a quantitative study analyzing burnout as a problem in education. The study included 575 teachers working in varying levels of education. The sample consisted of 375 women. Both rural and urban teachers were surveyed. EI was the study's independent variable, and burnout was the dependent variable. The educational context was selected as it provided the foundation and premise for burnout to occur. The premise of the study was that teacher burnout can hinder the quality of education. The personality traits of teachers, along with EI, were considered to be internal factors. The study provided a glimpse into internal issues and personalities that influence burnout. The study hypothesized an inverse

relationship between high teacher EI and burnout existed. Additionally, certain personality traits of teachers were hypothesized to be linked to burnout (Colomeischi, 2015).

Comomeischi's (2015) study found that teachers with higher EI scores experienced lower levels of burnout. Additionally, teachers with higher levels of life satisfaction were less likely to become exhausted and feel unaccomplished. Colomeischi's (2015) results supported other studies regarding personality traits and job performance, as the results supported the hypothesis that teachers' personality traits affected their feelings of burnout and exhaustion. As the Cavazotte, Moreno, and Hickmann (2012) study found, neuroticism negatively affected job performance. In Colomeischi's (2015) study, neuroticism increased burnout. Additionally, Colomeischi (2015) emphasized the importance of personality and that participants' characteristics be considered studying burnout. Teachers with high self-esteem were also more likely to preserve a sense of fulfillment while working in stressful situations than teachers with low self-esteem (Comomeischi, 2015). The role of the following personality traits had an inverse relationship with teacher burnout: extroversion; agreeableness; conscientiousness; and emotional stability (Colomeischi, 2015). Colomeischi (2015) recommended EI training and development to reduce burnout and improve the quality of educational environments.

Joseph et al. (2015) conducted a meta-analysis to compare mixed and ability measures of EI. Ability EI refers to EI as a facet of intelligence, and mixed EI involves a combination of self-perceived EI, personality, and cognitive abilities (Joseph et al., 2015). According to Joseph et al. (2015), "mixed EI measures have sampled from several well-established construct domains, including conscientiousness, extraversion, general self-efficacy, self-rated performance, ability EI, emotional stability, and cognitive ability" (p. 301).

Mixed EI measures may fail to display incremental validity when controlling for the common psychological causes of mixed EI and job performance (Joseph et al., 2015). Joseph et al.'s (2015) study showed that after controlling for the seven established psychological constructs, the relationship between job performance and mixed EI was near zero. The results also revealed mixed EI was linked with performance results through supervisor-rated job performance measures (Joseph et al., 2015). The study supported the construct validity of mixed EI measures and added to existing theoretical explanations for a high correlation between mixed EI and job performance. Past researchers have routinely contended that mixed EI measurements were an overall better predictor of job performance than ability EI measurements (O'Boyle et al., 2011).

Joseph et al.'s (2015) study offered insights that the value of mixed EI as a predictor of job performance can be supported through ability EI, self-efficacy, self-rating job performance, personality, and cognitive ability. Joseph et al.'s (2015) study supported previous meta-analytic results suggesting that mixed EI predicts supervisor ratings of job performance (Joseph & Newman, 2010; O'Boyle et al., 2011). Joseph et al. (2015) additionally concluded that mixed EI would be a good indicator of job satisfaction. Joseph and colleagues (2015) also argued that researchers could use a single mixed EI measurement tool to secure a portion of the criterion-related validity that would otherwise be acquired by using a series of personality measurements. Joseph et al. (2015) concluded mixed EI results were indicative of a construct of personality and self-perceptions and may be used as part of a hiring, training, and development selection system.

EI and Leadership Effectiveness

According to George (2000), EI and leadership are "the most researched and debated topics in the organizational sciences" (p. 1028), and EI has been positively correlated with effective leadership (Zaccaro, Kemp, & Bader, 2004). Previous studies that revealed correlations between intelligence and leadership prompted researchers to pursue additional non-intellective traits that could predict an individual's behavioral tendencies (Ramchunder & Martins, 2014). The role of EI in improving leadership performance and development has made EI an appealing construct for HRD scholars and practitioners.

Studies on the effect of trait EI on leader performance are founded on the notion that certain personality characteristics are required for a leader to exert influence (Judge et al., 2009). Cavazotte et al. (2012) investigated the effects of intelligence, EI, and personality traits on transformational leadership and leadership performance in an organizational context. Cavazotte et al. (2012) conducted a quantitative study

that included leadership and managerial performance as dependent variables. The independent variables included EI, intelligence, and the BigFive personality traits. Study participants included 134 managers employed by a large Brazilian energy company. Cavazotte et al. (2012) defined leader effectiveness based on organizational outcomes. The study results indicated leader effectiveness was directly impacted by transformational behaviors and indirectly impacted by individual personality characteristics mediated through transformational behaviors. Additionally, the study revealed that when individual personality traits and abilities were controlled for, the effect of EI on leadership effectiveness was not significant. Cavazotte et al. (2012) called for future quantitative research based on sound measurement instruments and research designs to measure and assess EI and EI constructs that contribute to effective organizational leadership.

McCleskey (2014) conducted a literature review investigating the relationship between EI and leadership. The literature review identified areas of focus in recent EI and leadership research, as well as leadership emergence in small groups. According to McCleskey (2014), EI helped researchers understand the emergence of leadership characteristics and personality traits to better explain leader behaviors and effectiveness. Ability, emotional and/or social skills and abilities, and personality traits are the most commonly measured factors of EI (McCleskey, 2014). McCleskey (2014) found that the literature reviewed supported the “validity of EI as a construct related to leadership performance, organizational effectiveness, and important work outcomes” (p. 82). A key strength of McCleskey’s study was the in-depth explanation of EI measurement tools and the statistical validity of each instrument. McCleskey (2014) discussed the lack of effective and valid measurement tools with the biggest complaint being the subjective nature of self-report measures of EI.

Lopes, Grewal, Kadis, Gall, and Salovey (2006) conducted a multilevel analysis to investigate associations between EI and self-report, peer, and supervisor-rated performance measures. Survey data was collected from 44 analysts and administrative staff from a finance department of a Fortune 400 insurance company. EI was measured using the MSCEIT V2.0 (Mayer, Salovey, Caruso, 2004). The data was analyzed using the hierarchical-linear and nonlinear modeling (HLM) program. The results revealed that performance outcomes were positively correlated to EI. Participants scoring higher in EI held positions of higher rank, received better performance measurement scores, and were granted higher merit increases than their counterparts.

Rosete and Ciarrochi (2005) used a correlated regression analysis to analyze the connections between EI, intelligence, personality, and leadership effectiveness of senior executives employed in a large Australian public service organization of the 41 participants, 24 were male and the average age of the respondents was 42. The majority of respondents (75%) had been with the organization for at least 10 years. EI was assessed using the MSCEIT V2.0 (Mayer, Salovey, Caruso, & Sitarenios, 2003). Personality was measured using Conn and Rieke’s (1994) 16 personality factor questionnaire (16PF). Rosete and Ciarrochi (2005) purported the 16PF to be a valid and reliable instrument widely used in the Australian public service sector. Leadership effectiveness scores were derived from the 360degree performance assessment instrument implemented by the organization. Leadership effectiveness scores included a combination of results from direct supervisors and peer and subordinate scores. Each executive was assessed based on his or her ability to achieve organizational outcomes. Leadership effectiveness results included the executives’ rating scores from their direct managers. The organizational outcomes were considered the “what” of performance. Respondents were also rated on their ability to build effective working relationships and achieve performance results which were considered the “how” of performance (Rosete & Ciarrochi, 2005).

Rosete and Ciarrochi (2005) used a correlated regression analysis to analyze the connections between EI, intelligence, personality, and leadership effectiveness. Pearson correlation coefficients were used to analyze the relationship between EI and leadership effectiveness. The “how” of performance ratings revealed that participants with high EI scores had higher performance ratings. Perceiving emotions surfaced as the EI component that contributed the most to the “how” of performance. McCleskey (2014) found that individuals have varying degrees of ability to perceive and manage emotions. Additionally, McCleskey (2014) revealed the controversy surrounding EI which, similar to leadership, suffers from too many unsubstantiated theoretical claims; however, McCleskey (2014) argued that the ability model by Mayer,

Salovey, and associates has the best prospect to advance the field of EI due to the overlap with personality models evident in mixed EI research.

Viskupicova (2016) also studied EI and leadership and examined the relationship between EI and leadership within a Slovakian business environment. The main research question revolved around whether EI involved in business decisions was a factor in determining the effective performance of leaders. Viskupicova (2016) concluded that less than half of Slovakian companies considered EI skills as important when recruiting for management and leadership positions. Viskupicova's (2016) research is relevant to this study in that the main research question revolved around EI involved in business decisions as a factor in determining effective performance of leaders. The study's primary limitation was the lack of a comprehensive analysis of EI and leadership outcomes to support the main research question.

Ramchunder and Martins (2014) sought to gain insight into the link between EI and self-efficacy and to what extent or degree the relationship affected leadership effectiveness. The study was designed to gain psychological insight into EI and self-efficacy and the effects on leadership in a law enforcement context. A quantitative study gathered data from a 107 police officers in the KwaZulu-Natal population of South Africa. Ramchunder and Martins (2014) highlighted the role of emotions in leadership by surveying and analyzing research on EI and leadership and found intelligence and conscientiousness had the highest impact on leadership effectiveness. Results of the study revealed strong correlations between managing one's own emotions and leadership effectiveness. The study's findings supported the notion that managing one's emotions increases leadership effectiveness.

Ramchunder and Martins' (2014) research highlights the need to study the effects of EI on leader performance as mediated by personality traits, which may have been strengthened by consideration of the personality profiles of the participants. The researchers concluded that EI and self-efficacy impact leadership effectiveness and suggested that future researchers study personality and leadership styles to understand what styles impact effective leadership. Ramchunder and Martins' (2014) research supported the link between EI and leadership, and the authors stated that the extent to which EI accounts for effective leadership remains relatively unknown, which supports the need for quantitative studies focusing on EI predictors and leadership outcomes.

Gregory, Robbins, Schwaitzberg, and Harmon (2017) evaluated the potential use of a 360-degree performance evaluation feedback tool for assessing leadership quality within the healthcare field. Study participants were professional medical association (PMA) committee leaders. Gregory et al. (2017) utilized the 360-degree performance measurement to assess EI to the extent that self-assessments aligned with the ratings of others as a factor in determining leadership quality in leader candidates. The participants completed self-ratings regarding their perceived behavior.

The results of Gregory et al. (2017) study showed that participants who underestimated or accurately estimated their leadership behaviors correlated higher to colleague and staff perceptions than participants who overestimated their leadership behaviors. The conclusions drawn from the study supported EI being positively related to the overall performance ratings of potential leaders. Given the impact PMA members have on healthcare, the study's results supported healthcare organizations' consideration of 360-degree performance review results as a leadership development tool in the healthcare sector. The study results revealed leader candidates who reported humble or accurate self-ratings correlated with higher leadership, teamwork, and communication skills scores as compared to leader candidates with exaggerated self-ratings (Gregory et al., 2017). The study conducted by Gregory et al. (2017) is relevant to this study because the candidate pool consisted of healthcare leaders. The article notes that physicians may lack interpersonal communication skills and leadership training, and that a lack of leadership skills can be a barrier to effective leadership.

Despite the academic research, two inconsistent approaches to EI have emerged in the literature. Goleman (1998) stated,

We're being judged by a new yardstick: not just how smart we are, or by our training and expertise, but also by how well we handle ourselves and each other. This yardstick is

increasingly applied in choosing who will be hired and who will not, who will be let go and who retained, who passed over and who promoted. (p. 3)

Critics of EI argue that the outcomes touted by proponents of EI exceed scholarly support, and other scholars criticize the claims that EI results in improved leadership performance (Weinberger, 2009). Antonakis (2003) stated, “Emotional intelligence (EI) has been embraced by many practitioners and academicians without clear empirical support for the construct” (p. 355).

Personality Traits and Leadership Effectiveness

Researchers and practitioners consider leadership to be crucial to organizational effectiveness (Mathieu, Maynard, Rapp, & Gilson, 2008; Siegling, Nielsen, & Petrides, 2014) and have tried to identify key leadership characteristics crucial to leader effectiveness. Some researchers consider the Big Five personality traits to be the most established model to assess personality (Antonakis, 2003, 2004; Hogan, Curphy, & Hogan 1994; Langford, Dougall, & Parkes, 2017). Judge et al. (2002a) conducted a qualitative review and meta-analysis and found, except agreeableness, that the Big Five personality traits predicted leader emergence and effectiveness. A review of successful team cohesiveness conducted by Ilgen, Hollenbeck, Johnson, and Jundt (2005) found teams that scored high in extraversion, conscientiousness, and agreeableness had higher social cohesion and experienced higher job satisfaction.

Because executives influence employee and organizational behaviors, Ozbag (2016) analyzed the ethical components of executive leadership. To examine the relationship between ethical leadership and employee outcomes, Ozbag (2016) used regression analysis to measure the connections between the Big Five personality traits and leadership. The study participants were business majors attending Kocaeli University, and 144 students responded to the survey. The Turkish version of the Big Five Personality Traits Scale was used to gauge the degree to which neuroticism, extraversion, agreeableness, conscientiousness, and openness to experience were present and correlated to effective leadership.

Ozbag (2016) found neuroticism hurt leadership. Agreeableness, openness to experience, and conscientiousness were precursors to effective leadership. The qualitative and meta-analysis conducted by Judge, Bono, et al. (2002) uncovered similar results regarding negative correlations between neuroticism and leadership effectiveness. The results of Judge et al.’s (2002a) study also suggest that, except agreeableness, the Big Five personality traits predict leader emergence and effectiveness.

Ozbag (2016) found that agreeableness was the most powerful personality trait that predicted effective leadership. The findings of this study were based on student evaluations. Additionally, Ozbag (2016) did not find that extraversion was a predictor of leadership effectiveness. The study added to HRD research by providing information on opportunities to strengthen personality traits that support decision making that can improve leadership effectiveness. Ozbag (2016) suggested collecting information from multiple sources other than self-reports and recommended that future researchers consider peer ratings, customer ratings, and subordinate ratings to provide multiple data sources beyond a leader’s self-assessment. The findings of Ozbag’s (2016) study supported use of the Goleman 360 rating because it allows for data collection from multiple sources beyond just self-reporting.

McElravy and Hastings (2014) examined the relationship between leadership, EI, and personality traits in youth leaders in development programs such as 4-H and Future Farmers of America (FFA). The goal of the quantitative study was to gain insight into the traits of future leaders and examine the transfer of leadership from the Baby Boomer generation to younger generations in agricultural communities. McElravy and Hastings (2014) used regression analysis to examine leadership, EI, and personality traits in youth leaders. The study was conducted at a conference in the summer of 2012, and participants were comprised of students attending public and private schools in Nebraska. Students were categorized into two groups. One group (n=74) contained incoming sixth graders. The other group (n=83) consisted of students who had completed sixth through twelfth grade. The older group self-selected to attend.

Targeted students were members of career and vocational associations such as Future Business Leaders of America (FBLA), Delta Epsilon Chi, Distributive Education Clubs of America (DECA), Family, Career

and Community Leaders of America (FCCLA), Future Farmers of America (FFA), Health Occupations Students of America (HOSA), and SkillsUSA.

Participants voluntarily completed a set of surveys that included the Youth Leadership Life Skills Development scale (YLLSDS), the Trait Emotional Intelligence Questionnaire – Adolescent Short Form (TEIQ-ASF), and the Big Five Inventory – Youth Form (BFI). Of the 157 students invited to participate, 115 completed the surveys. The majority of participants were female (64%). The results of the quantitative study revealed trait-based EI to be the best predictor of self-perceived leadership traits and skills. McElvay and Hastings (2014) did not find personality traits significant predictors of self-perceived leadership skills. Neuroticism was found to be partially related to self-perceived leadership skills. Extraversion, openness, and agreeableness were found to all be positively related to self-perceived leadership in youth (McElvay & Hastings, 2014).

SUMMARY

This paper highlighted relevant theoretical and empirical work that measures the relationship between EI and the Big Five personality dimensions on leader effectiveness. While IQ and certain personality traits have indicated leadership efficacy (Bono & Judge, 2004), many doubts surround the contribution of EI to leadership effectiveness (Antonakis et al., 2009; Schulte, Ree, & Carretta, 2004). As the interest in EI and leadership effectiveness has grown, various calls have been made for more empirical research supporting the unique role of EI on leadership effectiveness. Antonakis (2003) called for empirical studies that control for personality types to support the claims that EI contributes to organizational hiring, promotion, or retention decisions.

FIGURE 3 LITERATURE REVIEW SUMMARY

Leadership Effectiveness

The Great Man Theory Thomas Carlyle (19 th Century)	Held that effective leaders are born with innate leadership abilities
Situational Leadership Hersey et al., (1969)	Emphasized that effective leaders adapt their style to the follower's level of development or style
Trait Leadership McCall and Lombardo (1983)	Identified primary traits that could lead to leadership success or failure
Transformational Leadership Theory Bass (1990)	Defined transformational leaders in terms of how the leader transforms followers' abilities Transformational leaders effectively invoke charisma and possess morals and ethics

Emotional Intelligence

Salovey and Mayer (1990)	First introduced Emotional Intelligence (EI)
Goleman (1995, 1998)	Elevated EI's status with the best-selling 1995 and 1998 EI books Recognized by Time magazine in 2011 as one of top 25 most influential books of all time

Emotional Intelligence Models

Ability Model - Mayer and Salovey (1997) Multifactor Emotional Intelligence Scale (MEIS 1997) Mayer-Salovey Caruso Emotional Intelligence Test Model (MSCEIT) (1999)	Salovey and Mayer models measure EI based on the following four abilities: perceived emotions; use of emotions to facilitate thought; understanding of emotions; and managing emotions
Mixed Model - Bar-On Model (1997a)	Bar-On Emotional-Quotient Inventory (EQI) measures EI based on the following five domains: intrapersonal skills; interpersonal skills; adaptability; stress management; and general mood
Goleman's competency EI Model	Goleman's competency model measures EI based on the following four domains: self-awareness; social awareness; self-management; and relationship management

Personality

Sir Francis Galton (1884)	Noted as among the first to categorize personality traits by counting dictionary words that reflected human character
Jung (1933)	Classified personality based on inherent/environmental circumstances and is credited for distinguishing observable characteristics from psychological traits
Cattell (1957)	Applied empirical analysis to construct 36 related personality dimensions
Goldberg (1990)	Well known for the five-factor model or the Big Five. The Big Five is widely recognized as a leading personality indicator include the following five categories: neuroticism; extraversion; openness; agreeableness; and conscientiousness

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