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Impact of Big 5 Personality & Intelligence on Transformational Leadership Process and Managerial Performance: A Case of the Middle East Gulf Region

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ABSTRACT

The objective of this study was to investigate the impact of emotional intelligence (EI) and the Big Five personality traits on the attainment of success in leadership positions within hospital administration. The researchers predicted the association between emotional intelligence (EI) and neuroticism, anticipating a negative link. Additionally, they projected a positive relationship between EI and the Big Five personality traits, specifically openness to experience, agreeableness, openness to new ideas, and extraversion. The primary objective of this study is to fill a void in the existing body of research by examining the relationship between personality, emotional intelligence (EI), and leadership effectiveness and performance. Our results indicate that the association between individual differences, leadership, and performance exist. This study did not examine the firm's performance metrics, but the disturbances' absorption of measurement errors in the endogenous regressors, which are independent of the exogenous, and minimize coefficient estimate biasesas as held by (Antonakakis et al., 2020). Individual predictors had a low to moderate effect on variation, but their aggregate influence accounted for 56% of transformational leadership variance and 26% of management leadership effectiveness variance. Our study supported merits consideration due to the implementation of controls such as age and managerial experience, the utilization of a longitudinal measure of effectiveness, and the mitigation of common method variance through the use of measures from different sources for predictors and criteria.

KEYWORDS

Personality traits, Transformational leadership, Emotional intelligence, Leadership effectiveness, Managerial performance.

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Impacto da Personalidade e Inteligência das Big 5 no Processo de Liderança Transformacional e no Desempenho Gerencial: Um caso da região do Golfo no Oriente Médio

RESUMO

O objetivo do estudo foi investigar o impacto da inteligência emocional (IE) e dos traços de personalidade Big Five na obtenção de sucesso em posições de liderança na administração hospitalar. Os pesquisadores previram a associação entre inteligência emocional (IE) e neuroticismo, antecipando uma ligação negativa. Além disso, projetaram uma relação positiva entre a IE e os traços de personalidade Big Five, especificamente Abertura à experiência, agradabilidade, Abertura a novas ideias e extroversão. O objetivo principal deste estudo é preencher uma lacuna no corpo de pesquisa existente, examinando a relação entre personalidade, inteligência emocional (IE) e eficácia e desempenho da liderança. Nossos resultados indicam uma associação entre diferenças individuais, liderança e desempenho. Este estudo não examinou a métrica de desempenho da empresa, mas a absorção dos distúrbios dos erros de medição nos regressores endógenos, que são independentes dos exógenos, minimiza vieses de estimativa de coeficientes, como sustentado por (Antonakakis et al., 2020). Os preditores individuais tiveram um efeito baixo a moderado na variação, mas sua influência agregada foi responsável por 56% da variância da liderança transformacional e 26% da variância da eficácia da liderança gerencial. Nosso estudo apoiou a consideração do mérito devido à implementação de controles como idade e experiência gerencial, a utilização de uma medida longitudinal de eficácia e a mitigação da variância comum do método através do uso de medidas de diferentes fontes para preditores e critérios.

PALAVRAS-CHAVE

Traços de personalidade, Liderança transformacional, Inteligência emocional, Eficácia da liderança, Desempenho gerencial.

1. INTRODUCTION

Who should hold the power? This problem is pervasive, with nearly every country, organization, group, and institution worldwide being engaged in some capacity. The trajectory of each community will be determined by the manner in which it responds. Hogan, (Alazzam et al., 2020a; House & Mitchell, 1974) believes that adverse consequences may arise, in the absence of identifying the appropriate solution to an issue, such as economic contraction, diminished organizational efficiency, team failures, declining revenues, military defeats, and national failures. Inadequate leadership has been identified as a significant contributing factor to organizational issues and the lack of success among business owners and senior executives, as evidenced by a range of research (Yukl, 1971). Inadequate leadership has been associated with various undesirable results, including low morale, disobedience, and even industrial sabotage. Effective leadership is characterized by the ability to facilitate the endeavors of others in pursuit of a shared goal, as well as the capacity to persuade others regarding the necessary actions and methods (Alazzam & Alshunnaq, 2023; Alazzam et al., 2020b; Dvir et al., 2002).

Various leadership theories examine the aspects that influence a leader's decision-making process in relation to goal pursuit. According to the works of (Judge et al., 2002; Luthans, 2002), it is widely acknowledged that establishing performance standards, defining a timeline, and articulating the anticipated degree of achievement are fundamental elements of the initial framework. According to existing scholarly literature, transformational leaders are characterized by their ability to establish a compelling vision that effectively inspires and motivates their followers by aligning with their aspirations and beliefs. Goal setting is a widely recognized and commonly employed strategy among leaders who adopt a transformational leadership style (Youssef & Luthans, 2012).

The core elements of successful leadership encompass the strategic utilization of the organization's financial assets, engaging in competitive endeavors to secure supplementary resources, maintaining a reasonable equilibrium between risk-taking and expansion, and upholding the company's unwavering commitment to fundamental objectives, such as customer satisfaction and robust sales performance (Gu et al., 2020). An effective leader can establish and maintain effective networks, both within and beyond the organization. The capacity to establish and sustain networks is crucial for the achievement of a leader. Leaders who possess a strong sense of passion are more inclined to motivate and encourage their colleagues to achieve their utmost capabilities. Given the significance of job performance, perceived stress, and work engagement as key determinants of success in modern leadership, it is of academic interest to explore the potential existence of trait-based leadership resources that exhibit a high association with these outcomes (Hu et al., 2018).

The objective of the study was to investigate the impact of emotional intelligence (EI) and the Big Five personality traits on the attainment of success in leadership positions within hospital administration. The researchers predicted the association between emotional intelligence (EI) and neuroticism, anticipating a negative link. Additionally, they projected a positive relationship between EI and the Big Five personality traits, specifically openness to experience, agreeableness, openness to new ideas, and extraversion. The primary objective of this study is to fill a void in the existing body of research by examining the relationship between personality, emotional intelligence (EI), and leadership effectiveness and performance, as highlighted by (Al Azzam, 2019; Blanch et al., 2016; Yildiz & Yildiz, 2015). The present study was conducted in the context of the Middle East's Gulf region. One the major reason for conducting this research pertains to fact that limited research on the topic of personality traits and leadership had been conducted purely in context of the Middle East and the Gulf region—in present global context this region is pivotal in terms of both investment and global economic stability.

This study comprises five main parts. The first part comprises of introduction to the research topic, followed by a comprehensive review of the literature, and the third part comprises of formulation of the research model and hypothesis. The fourth part consists of results and discussion, and the last part consists of the conclusion of the study along with its limitations and future direction.

2. LITERATURE REVIEW

According to (House & Mitchell, 1974) work performance can be defined as the set of behaviors or acts that contribute to the achievement of organizational objectives. According to (Kelloway et al., 2013), an individual's job performance can be delineated into three primary components: task performance, environmental performance, and counterproductive work behavior (CWB). The inclusion of contextual performance, encompassing duties that fall outside the purview of job descriptions, does not constitute a resource for organizations. Consequently, the present study

prioritizes task performance as the focal point, given its historical prominence in scholarly discourse (Burns, 1978; French & Raven, 1959). The achievement of task success is contingent upon one's aptitude for strategic planning and organizational skills, the caliber of the task itself, one's commitment to achieving desired outcomes, and the efficiency with which the task is executed. To effectively assist team members in the attainment of the company's goals and objectives, a proficient leader must possess a set of essential abilities. Previous research has examined the association between workplace success and several factors, such as emotional intelligence (EI), the Big Five personality traits, work engagement, and stress (Alazzam et al., 2023; Alok, 2014). According to a meta-analysis conducted by (Si & Wei, 2012), it was observed that emotional intelligence (EI) has a comparatively lower impact on work success when compared to the Big Five personality traits. This finding was consistent across several methods of measuring emotional intelligence (i.e., ability or trait-based) and diverse approaches to measuring task success (i.e., self-rating, peer rating, supervisor rating, or objective evaluation).

2.1. PERSONALITY TRAITS

An effective approach to get insight into the application of personality theories in empirical research is to examine the contributions of influential theorists within the discipline. Freud's psychoanalytic perspective on personality encompassed three distinct components, namely the id, ego, and super-ego (Gu et al., 2018). Purvanova et al. (2006) claimed that personality serves to resolve internal conflicts. Rogers investigated the phenomenon of reconciling one's identity and the inherent necessity of aligning one's self-perception with their conscious understanding of reality (Skarlicki & Latham, 1997). The personality model proposed by De Vries (2012) and Saleh et al. (2020), classifies persons based on their levels of neuroticism and introversion/extroversion.

Currently, there exists a lack of consensus over the precise definition of the term "personality" (Gillet & Vandenberghe, 2014). Personality researchers claim that several methodologies are available to delineate an individual's qualities. According to Vollrath (2000), personality can be defined as enduring patterns of behavior and self-relations. Young et al. (2018) define personality as a stable collection of characteristics and tendencies that contribute to the psychological behavior of individuals, exhibiting continuity over time. These attributes are not solely influenced by immediate social and biological pressures, making them complex to comprehend the character of an individual can be considered a dependable indicator of their potential reactions in specific situations. Personality definitions commonly emphasize the enduring characteristics of an individual (Judge & Ilies, 2002), establishing personality traits as valuable indicators in the examination of human behavior.

The concept of traits was initially recognized as intrinsic individual attributes in the earliest scholarly investigations on leadership (Angelo et al., 2004). There is a lack of consensus among leadership researchers on the contemporary relevance of the Great Man idea, which held that personality traits were inherent and unchangeable from birth (Brown, 1967; Fiedler, 1967) . In 1948, Stogdill conducted a comprehensive investigation consisting of 124 distinct research studies aimed at examining the common attributes exhibited by leaders. The fundamental focus of these investigations was to distinguish between the features of leaders and followers (Stogdill, 1948). According to Stogdill, there exists a positive correlation between adaptability, extroversion, dominance, and leadership qualities (Gandolfi & Stone, 2018).

Additionally, it is posited that leaders possess a greater level of intelligence quotient (IQ) compared to their followers. Indeed, Stogdill could not specifically identify any universally applicable leadership attributes. Stogdill's research suggests that the development of leadership skills cannot be attributed to a singular, universally applicable formula. Researchers such as Bamford et al. (2013) have lauded the five-factor model for its ability to maintain consistency across many theoretical frameworks and cultural contexts. Walumbwa and Schaubroeck (2009) have observed that the Big Five paradigm has been used in various circumstances and languages. The Big Five personality qualities, namely extraversion, agreeableness, conscientiousness, openness, and neuroticism, constitute a widely recognized framework in the field of personality psychology, multiple studies have yielded findings indicating that certain personality traits can serve as dependable predictors of one's level of achievement in a professional context (De Vries, 2012; Judge et al., 2002).

2.2. PERSONALITY TRAITS AND EMOTIONAL INTELLIGENCE

Psychologists have devoted extensive time and effort to elucidate the precise amalgamation of characteristics and qualities that can anticipate an individual's behavior (Bono & Judge, 2004). There was initial disagreement among early researchers in the field of emotional intelligence (EI) about its conceptualization as a mere extension of previously examined personality traits. However, further empirical investigations conducted by Deinert et al. 2015 and Grijalva et al. (2015) conducted a study to examine the associations among various parameters, including emotional intelligence (EI), career ambivalence, personality traits, professional decision-making self-efficacy, and perceived social support. In their study, Di Fabio and Saklofske (2014) examined a sample of 361 students enrolled at the University of Florence. The researchers discovered that emotional intelligence (EI) contributed a substantial amount of additional explanatory power, beyond that which was already accounted for by personality traits, in connection to both professional decision-making and self-efficacy. This finding was reported on page 177 of their publication. The study conducted by Di Fabio and Saklofske (2014) revealed a substantial correlation between emotional stability and the emotional and personality-related employment difficulties encompassed by the Big Five. There exists empirical evidence that establishes a connection between emotional intelligence (EI) and effective leadership. Graen and Uhl-Bien (1995) and Greco and Kraimer (2020) asserts that leadership and EI are subjects that have undergone extensive investigation and discourse within the realm of organizational sciences. Researchers are currently investigating non-cognitive variables that have the potential to forecast an individual's behavioral inclinations. This line of inquiry has been prompted by previous studies, such as the work conducted by Blake et al. (2022), which established a correlation between intelligence and leadership abilities (Gandolfi & Stone, 2016, 2017).

2.3. THE RELATIONSHIP BETWEEN EI AND TRANSFORMATIONAL LEADERSHIP

The significance of transformational leadership theory in the realm of organizational sciences has garnered the attention of numerous researchers Prati et al. (2003), Rooy and Viswesvaran (2004) and Skinner and Spurgeon (2005). The authors Avolio, Dumdum, and Avolio show a strong association between superior transformative leadership and enhanced subordinate performance, as evidenced by many meta-analyses conducted by Walter et al. (2011). Limited empirical study has been conducted on the factors contributing to transformative leadership despite its evident significance in achieving organizational outcomes (Miao et al., 2017). Numerous studies have established a correlation between a leader's intelligence quotient (IQ) and personality

traits and their proficiency in assuming the roles of a transformational leader and an effective leader (Di Fabio & Saklofske, 2014; Cavazotte et al., 2012). However, several inquiries persist, particularly concerning the relationship between IQ and emotional intelligence (EQ) (Prati et al., 2003; Rooy & Viswesvaran, 2004; Skinner & Spurgeon, 2005). Research on the correlation between emotional intelligence (EQ) and leadership sometimes fails to consider the presence of measurement error or to control for both aptitude and personality factors concurrently (Petrides et al., 2007). The limitations imposed on research designs can pose significant challenges as they have the potential to significantly skew the reported outcomes pertaining to the impacts of novel predictors, particularly in cases where there exists a correlation between existing and new predictors. The presence of biased coefficients in studies investigating the relationship between emotional intelligence and transformative leadership raises concerns regarding the credibility of the results and the practical implications proposed by scholars O'Boyle et al. (2011) and Walter et al. (2011).

The theoretical implications and practical suggestions are compromised due to a failure to adhere to evidence-based practice standards (Hjalmarsson & Dåderman, 2020; Miao et al., 2017). This study investigates the impact of emotional intelligence on transformational leadership and the effective performance of leaders in managing work units. It also considers a comprehensive range of individual differences, as identified in existing literature, that serve as predictors of leadership, such as intelligence and the five-factor model. In addition, we utilize a well-established emotional intelligence evaluation that has been prominently discussed in scholarly articles (Siegling et al., 2014). In contrast to transactional leaders, transformational leaders are perceived as agents of constructive transformation within their businesses and communities (O'Boyle et al., 2011). These individuals, commonly referred to as exemplars of behavior, can offer their followers a novel outlook. Consequently, there is an elevation in morale, a surge in motivation, and a stimulation of followers towards achieving bigger feats and conquests (Hana & Kirkhaug, 2014). Bono et al. (2014) and Broome (2013) delineate four fundamental constituents of transformative leadership. Charismatic leaders exert a profound influence on their followers, engendering a strong desire to mimic their actions, adopt their beliefs, and copy their behavior. Leaders who effectively motivate their followers to pursue ambitious goals and make significant contributions towards the betterment of society are commonly referred to as "motivational inspirations." Nevertheless, there is a correlation between intellectual stimulation and leaders that inspire (Rodell & Judge, 2009).

The literature suggests that leadership effectiveness Appelbaum et al. (1999), Avolio and Bass (1995) and Silins (1994), work satisfaction, organizational commitment, and intentions to leave as well as other aspects have been extensively studied (Coxen et al., 2016). Furthermore, it has been found that leaders exhibit higher levels of trait emotional intelligence (EI) compared to their subordinates. Additionally, research has shown a positive correlation between trait EI and personality traits such as extraversion, agreeableness, conscientiousness, and openness (Gorjian & Finkelman, 2016). The effectiveness of executives is influenced by the levels of their executive intelligence (EI) traits. Consequently, it may be inferred that the assessment of resource elements necessitates the evaluation of typical emotional intelligence (Klerk & Stander, 2014).

3. RESEARCH MODEL

Based upon the extensive study of literature following research model was adapted from Cavazotte et al. (2012) (Figure 1).
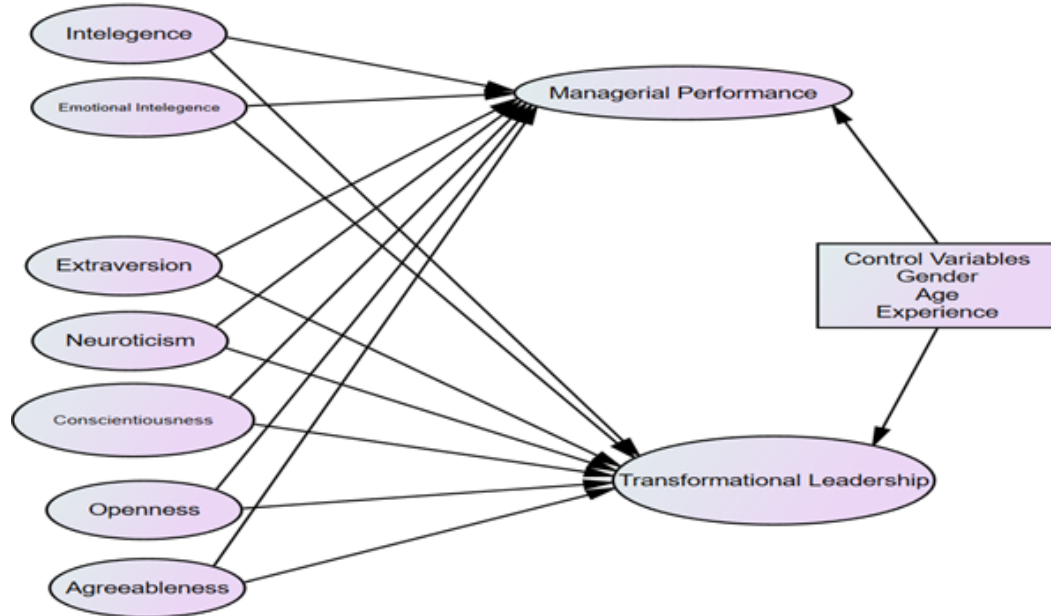

Figure 1. Research Model
Source: Adapted from Cavazotte et al. (2012)

3.1. RESEARCH HYPOTHESIS

Based on the review of the literature and research model following hypotheses were developed for this research:

- H1. A leader's intelligence positively impacts transformational leadership.
- H2. A leader's extraversion positively impacts transformational leadership.
- H3. A leader's conscientiousness positively impacts transformational leadership.
- H4. A leader's willingness regarding openness to new experiences positively impact transformational leadership.
- H5. A leader's agreeableness positively impacts transformational leadership.
- H6. A leader's neuroticism adversely impacts transformational leadership.
- H7. A leader's emotional intelligence positively impacts transformational leadership.
- H8a. The intelligence of the leader mediates the effects of transformational leadership on managerial performance.
- H8b. The personality traits of a leader mediate the effects of transformational leadership on managerial performance.
- H8c. The emotional intelligence of a leader mediates the effects of transformational leadership on managerial performance.

4. METHODOLOGY

4.1. DATA COLLECTION AND PROCEDURE

The data for the present research was collected via research questioners, the sample size of the data was 341, and all of the questions were evaluated using a 5-point Likert scale, except for the questions related to intelligence. These questions comprised of questions from GMAT[1]. The questions were related to testing the cognitive abilities of the managers, as these questions are normally used in standardized testing by the universities and many of the corporations in which respondents were employed. Such tests have been shown to have a strong correlation with IQ (particularly when non-linearity is considered (Frey & Detterman, 2004). These findings lend credence to the use of proxies (Ree & Carretta, 1994) in establishing a causal link between IQ and individual outcomes.

By employing this methodology, we successfully conducted a comprehensive analysis to evaluate the worldwide impact of each variable on many dimensions of transformative leadership while concurrently mitigating the potential for data distortion. To account for measurement error, we imposed a constraint on the disturbances' variance, specifically (1 ri) vi, for single-indicator variables such as performance, emotional intelligence, intelligence, the Big Five personality traits, and controls. Here, ri represents an estimate of the indicator's reliability, measured by Cronbach's alpha, and vi denotes the observed variance. In order to address the potential issue of endogeneity, we utilized stable individual differences as instrumental variables. We permitted the correlation between the residuals of the dependent and endogenous variables, as suggested by Alogoskoufis and Smith (1991). The subsequent test for multivariate normality yielded a significant result ($p < 0.001$) despite the lack of substantial skewness and kurtosis observed in all continuous variables. To mitigate the bias arising from non-normality, the structural equation models were re-estimated using the normal scores instead of the original data. The estimation of the structural equation modeling (SEM) parameters was conducted using Lisrel 8.80.

Initially, 900 questionnaires were sent via an online link to professionals working at senior and mid-level management in international companies operating in the Middle East and the Gulf region. After several follow-up e-mails and messages, we only received 341 completed questionnaires, accounting for a response rate of 37%. We omitted the names of respondents and their organizations due to privacy concerns of the respondents. The details of the demographics are presented in Table 1.

Almost two-thirds of the respondents were male, working at mid to senior management levels, possessing more than 10 years of professional experience, and were aged above 30 years, which is not surprising, given the nature of their jobs in general. For testing the model, we have used abbreviations for each of the variables, which are listed in Chart 1.

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[1] Graduate Management Admission Test

Table 1
Demographics of study

Gender	Percentage	Frequency
Male	72%	245
Female	28%	96
Position in Organisation	**Percentage**	**Frequency**
Director	6%	21
Senior Management position	20%	68
Mid-level Management position	49%	167
Operational management position	25%	85
Industrial Experience	**Percentage**	**Frequency**
More than 20 years	36%	123
10 to 15 years	41%	140
5 to 10 years	20%	68
1 to 5 years	3%	10
Age group	**Percentage**	**Frequency**
Above 50	37	126
40 to 50	21	71
30 to 40	38	130
20 to 30	4	14

Note. Source: elaborated by the authors (2023).

Chart 1
Variable Abbreviation

Variable	Abbreviation
Gender	Gen
Experience	Exp
Age	Age
Openness	Opn
Conscientiousness	Cons
Neuroticism	Neut
Extraversion	Ext
Agreeableness	Agreb
Intelligence	Intl
Emotional Intelligence	EmIntl
Transformational leadership	TrLead
Managerial performance	MgPer

4.2. RESULTS AND DISCUSSION

The Cronbach alpha coefficients computed for each item were as follows: extraversion (α = 0.73), conscientiousness (α = 0.76), agreeableness (α = 0.73), openness to new experiences (α = 0.72), neuroticism (α = 0.71), and emotional intelligence (α = 0.81). The items were assessed using a five-point Likert scale. The measurement of the leadership attributes exhibited by the managers was conducted using a set of twenty questions derived from the transformational component of the Multifactor Leadership model. The measurement of items pertaining to transformational leadership was conducted using a five-point Likert scale. The scale yielded a composite dependability value of 0.89. The values of Cronbach alpha for different components of personality traits are above the threshold of 0.70 as held by (Blake et al. (2022) and Schaufeli (2021).

The study examined various hierarchical models to assess the impact of disparities in intelligence, emotional intelligence, and other characteristics on the probability of a leader or manager exhibiting genuine transformative qualities. The initial phase of our study was an examination of the impact of several independent variables on the outcome, namely, manager experience, age, and gender. Multiple layered models were examined in order to ascertain the interconnections between intelligence, personality traits, emotional intelligence, and their impact on the effectiveness of transformational leadership and management. Initially, research endeavors were undertaken to investigate the potential association between demographic variables and the constructs of transformative leadership and managerial performance. Subsequently, an analysis was conducted to ascertain the extent to which the Chi-square outcome varied throughout different phases, specifically examining the influence of five psychological attributes, with specific emphasis on intellectual and emotional understanding.

We also took into account a complete model that does not account for any potential measurement inaccuracy. Table 2 present descriptive statistics and Pearson correlation. Tables 3 and 4 present the path coefficients and model fit results, respectively. The model that included only the control variables demonstrated a satisfactory level of fit, as indicated by a Chi-square value and fit indices that closely aligned with commonly recommended benchmarks (Deutsch, 2012; Preacher & Hayes, 2008). Based on the squared multiple correlations of the endogenous variables, it can be inferred that the exogenous determinants are responsible for approximately 21% of the variability observed in transformational leadership and management performance. The results of the study also validated the dependability of the grading method utilized for assessing transformative leadership.

The fit indices underwent more improvement. Consistent with the findings of the preceding phase, the squared multiple correlations for managerial performance and transformational leadership were determined to be 0.53 and 0.60, respectively. The significance attributed to the characteristics of transformational leadership has remained constant throughout. The inclusion of intelligence as a predictor variable rendered the impact of other personality qualities on the dependent variables inconsequential. The effectiveness of transformational leadership is influenced positively by factors such as managerial experience, conscientiousness, and intelligence. Although the presence of these similar factors had a positive impact on managerial performance, it is noteworthy that neuroticism continued to exert a detrimental influence.

Table 2

Descriptive statistics and Pearson correlations

Variable	Mean	SD	Gen	Exp	Age	Opn	Cons	Neut	Ext	Agreb	Intl	EmIntl	TrLead
Gen	0.70	0.35	–										
Exp	7.54	4.62	0.53**	–									
Age	31.42	6.10	0.01	-0.11	–								
Opn	4.85	0.40	-0.13	0	–0.05	-0.72							
Cons	4.31	0.43	-0.02	-0.11	–0.61	0.14	-0.76						
Neut	2.00	0.43	0.21	–0.51	0.01	0	0.04	-0.71					
Ext	3.94	0.45	0.13	0.21	–0.38	0.30**	0.30**	–0.20	-0.71				
Agreb	2.12	0.44	-0.1	0.10	–0.02	0.19*	0.41	–0.01	0.30**	-0.73			
Intl	3.80	1.27	-0.04	–0.02	–0.30**	0.30**	0.03	–0.22	–0.04	– 0.20*	–		
EmIntl	4.00	0.35	0.03	0.12	–0.06	0.06	0.06	–0.47**	0.02	0.32**	0.30**	-0.81	
TrLead	2.99	0.83	0	0.36**	–0.28**	0.29**	0.31**	–0.15	0.25**	0.05	0.50**	0.30*	-0.89
MgPer	79.70	8.12	-0.20	0.49**	–0.27*	0.30**	0.40**	–0.20**	0.30**	0.13	0.36**	0.29**	0.63**

*Reliability indexes for measurement scales are reported in the diagonal (Cronbach's alpha), Gender dummy coded (male= 1, female= 0),**0.01,*0.05*
Note. Source: elaborated by the authors (2023).

Table 3

Path coefficients for nested models, starting with control variables.

Variables	Model 1		Model 2		Model 3		Model 4		Model 5	
	Control variables		personality traits		Intelligence		Emotional intelligence		Full model with measurement error	
	TL	PF	TL	PF	TL	PF	TL	PF	TL	PF
Gen	0.07	–0.10	0.20*	0.03	0.21	0	0.20	0.05	0.11	–0.04
Exp	–0.24**	–0.16*	–0.14	–0.30	– 0.12	0	–0.10	0.04	–0.10	–0.04
Age	0.40***	0.41***	0.39***	0.41***	0.41***	0.56***	0.37***	0.38***	0.35***	0.38***
Opn			0.50***	0.42***	0.18	0.15	0.14	0.09	0.14	0.11
Cons			0.41***	0.48***	0.33**	0.41***	0.39**	0.47**	0.25***	0.34***
Neut			–0.21**	–0.39***	– 0.09	–0.26**	–0.27	–0.52	–0.12	–0.22**
Ext			–0.22	–0.10	0.05	0.07	–0.10	–0.11	0.07	0.10
Agreb			–0.23*	–0.14	– 0.05	0.01	0.1	0.31	0.02	0.08
Intl					0.36**	0.31**	0.50**	0.47*	0.40***	0.29***
EmIntl							–0.30	–0.36	–0.07	0

Note. Source: elaborated by the authors (2023)

Table 4
Fit indexes for nested models, starting with control variables.

Variables	Model 1	Model 2	Model 3	Model 4
χ^2	161.64	81.13	59.96	60.30
df	65	59	49	53
p (χ^2)	0	0.03	0.20	0.21
GFI	0.9	0.94	0.95	0.95
AGFI	0.80	0.79	0.75	0.78
RMSEA	0.07	0.03	0.02	0.03
CFI	0.96	0.99	0.99	0.99
Sq. multiple correlation				
Transf. leadership (TL)	0.30	0.70	0.45	0.61
Mngr. performance (PF)	0.30	0.70	0.70	0.61
$\Delta\chi^2$		74.20	11.76	2.30
p ($\Delta\chi^2$)		0	0.01	0.29

Note. Source: elaborated by the authors (2023).

The paradigm's final addition was emotional intelligence. No significant correlation was established between the new predictor and transformative leadership or performance. Results for the transformative leadership assessment technique have not changed. The previous paragraph showed similar predictive effects on performance and leadership. The only relationship that has declined is performance and neuroticism. While managerial expertise remained important, conscientiousness and intelligence increased in value. Model 5 shows bias from measurement error neglect. Some of the 20 coefficient estimates increased, but most decreased. Several coefficients changed signs, and one reached statistical significance. These adjustments may yield results that differ significantly from Model 4. Our analysis suggests that inadequate measurement error characterisation and removal of IQ and attitudes as control variables can lead to erroneous model estimations. We modeled emotional intelligence, intelligence, and the five components as exogenous variables in our research, emphasizing their importance. Even after all these measurements, only H1 and H3, the crucial impacts, were confirmed.

The independent factors' aggregate influence on transformational leadership qualities is normalized in Table 5. Management experience, conscientiousness, and intellect were the only leadership traits with statistically significant benefits. Intelligence had a bigger effect size than the other variables, although their magnitudes were similar. Using a hierarchical framework, we examined how emotional intelligence affects transformational leadership and managerial performance. To achieve accurate and complete findings, we considered personality traits, IQ, and other aspects. Tables 6 and 7 contain all data. The findings matched scholarly literature. The model fit improved when individual variation variables were added to reduce the impact of emotional intelligence on management and transformational leadership. The route coefficients that link emotional intelligence to outcomes were nullified by include the five personality qualities in the final stage.

Table 5
Total effects on transformational leadership dimensions. A

Dimensions	Exogenous variables									
	GE	TS	ME	OE	CO	NE	EX	AGR	IQ	EQ
Intellectual stimulation	0.14	−0.05	0.29***	0.16	0.29**	−0.29	−0.03	0.06	0.40**	−0.23
Individual consideration	0.14	−0.05	0.30***	0.15	0.28**	−0.31	−0.03	0.06	0.40**	−0.25
Motivational inspiration	0.13	−0.04	0.28***	0.14	0.30**	−0.30	−0.03	0.06	0.37**	−0.30
Attributes	0.14	−0.05	0.36***	0.16	0.30**	−0.30	−0.03	0.06	0.42**	−0.24
Behaviors	0.14	−0.05	0.30***	0.14	0.29**	−0.30	−0.03	0.06	0.42**	−0.24

Note. Source: elaborated by the authors (2023).

Table 6
Path coefficients for nested models, starting with emotional intelligence.

	Model 1 EI		Model 2 Int		Model 3 with Control variables		Model 4 5-factors	
	TL	PF	TL	PF	TL	PF	TL	PF
Gen	0.40***	0.41***	0.16	0.34**	0.10	0.31**	−0.30	−0.40
Exp			0.43***	0.30**	0.46***	0.29**	0.50*	0.34*
Age					0.05	−0.10	0.20	0.09
Opn					−0.20	−0.09	−0.06	0.09
Cons					0.40***	0.40***	0.40***	0.40***
Neut							0.20	0.10
Ext							0.39**	0.47**
Agreb							−0.30	−0.49
Intl							−0.04	−0.07
EmIntl							0.22	0.44

Note. Source: elaborated by the authors (2023).

Table 7
Results for the full mediation model.

	Transformational leadership	Managerial performance	Effects on Managerial performance
Gender	0.61	−0.39*	0.49*
Age	−0.20	0.2	−0.12
Mngr experience	0.60***	−0.01	0.51***
Openness	0.2		0.21
Conscientiousness	0.60***		0.60***
Neuroticism	−0.71		−0.60*
Extraversion	−0.79		−0.69
Agreeableness	0.19		0.18
Intelligence	0.59**		0.48**

Note. Source: elaborated by the authors (2023).

We tested a new model where intelligence, the five dispositions, and the variables directly affected emotional intelligence to see if it was linearly dependent. Neuroticism, agreeableness, and IQ path coefficients are significant. The squared multiple correlation between these two sets of variables was 0.75, indicating that later components explained much DV variation. Standard hierarchical regression was performed with control variables first, then five components, then intelligence. The pilot phase found no correlation between emotional intelligence and control characteristics. Next, intelligence and character explained criterion variation. Intellectual, neurotic, and agreeableness had significant coefficients (p 0.001). When measurement error is ignored, this R^2 value is much lower than SEM (0.75), indicating bias.

A new model with direct channels from transformational leadership and controls to management performance was designed to test mediation assumptions. Following Ashton and Lee (2007), we correlated the error variances of the two dependent variables to reduce endogeneity in estimates. Transformational leadership and management performance connections were causative because stable human attributes were exogenous. In general, the mediation model fit the data. GFI= 0.95, AGFI= 0.88, RMSEA= 0.01, and CFI= 0.99 were acceptable. Two-tailed statistics were not significant (2 = 64.77, pb 0.17). 0.56 strongly correlates with transformational leadership and managerial performance. The model explained much of the variance in both DVs, stressing transformational leadership. Our overidentifying constraints to describe the complete mediation hypotheses were not rejected, so the hypothesis is valid. Leadership disruptions correlated strongly and statistically with performance.

This shows that the endogenous regressor requires measurement devices (Hair et al., 2019). Safeguards, intelligence, and 0.05 p value are recommended. The squared multiple correlation between these two sets of variables was 0.75, indicating that later components explained much DV variation. Standard hierarchical regression was performed with control variables first, then five components, then intelligence. The pilot phase found no correlation between emotional intelligence and the control variables. Next, intelligence and character explained criterion variation. Intellectual, neurotic, and agreeableness had significant coefficients (p 0.001). We must account for measurement error because R2 was much lower than SEM. A new model with direct channels from transformational leadership and controls to management performance was designed to test mediation assumptions. Following Antonakakis et al. (2020), we correlated the error variances of the two dependent variables to reduce endogeneity in estimates. Therefore, the measures are reasonable.

4.3. Discussion

Our findings demonstrate that organizational outcomes show that transformative behavior directly affects leadership effectiveness and indirectly affects individual attributes. After assessing all control and substantive factors, intelligence and conscientiousness appear to affect transformative leadership and indirectly leadership effectiveness. Management experience affected transformative leadership and effectiveness, although neuroticism only affected the latter. The association between emotional intelligence and transformative leadership was statistical. Adjusting for IQ and character lessened the effect.

Our study is the first to examine how intelligence affects transformative leadership and leadership effectiveness in a sample of managers from a single firm using subordinate-assessed measures and objective, practical, and wide performance criteria. Our findings imply intellect is an underestimated predictor of transformational leadership and organizational success, adding to diversity studies. More process research would explain how intelligence-driven talents like creative

problem-solving and strategic thinking effect transformative leadership. To add to individual variation research, we investigate this process in a culturally unique environment and evaluate its effects on organizational performance through transformational leadership.

We found that conscientiousness is more important than expected for transformational leadership and leadership efficacy in managerial professions, while neuroticism is detrimental. These findings differ slightly from earlier findings of Bono and Judge (2004) while they are completely inline with those of Cavazotte et al. (2012). Bono and Judge (2004) discovered that extraversion, openness, and conscientiousness all predicted leadership potential. Bono and Judge found extraversion in transformative leadership, which reduced conscientiousness. The values revealed by Judge et al. (2002) are surprisingly similar to the first results in our correlation matrix for the five components and transformational leadership. In this study, we controlled for the organizational context, leaders' experience, intelligence, gender, and age to investigate these associations further. Under these conditions, only conscientiousness led to effective transformational leadership. Our findings associating conscientiousness with transformational leadership are supported by strong studies on professional advancement (Deinert et al., 2015; Grijalva et al., 2015; Hana & Kirkhaug, 2014; Harms & Credé, 2010).

It may be difficult to inspire, stimulate, motivate, and care for skilled followers when work relationships grow and corporate goals become more complex. This inclination may have been influenced by business culture as we only analyzed one organization. Reconfirming these findings requires more research using the same method. Lack of evidence tying emotional intelligence to IQ should be seen as exploratory research in a new field, not as evidence against it. Our findings underline the necessity of employing adequate controls when studying emotional intelligence in leadership because ignoring factors like likeability, personality, and experience might inflate empirical results, putting conclusions into doubt. Emotional intelligence predicts transformative leadership and leadership effectiveness better than other factors, but other individual variations should be considered. We tested a novel model linking transformational leadership, controls, and management performance to support mediation assumptions. Following (Antonakakis et al., 2020), we correlated the error variances of the two dependent variables to decrease estimation endogeneity. In general, the mediation model fits data. The GFI, AGFI, RMSEA, and CFI were satisfactory, but the two-tailed statistics were not ($2 = 64.77$, pb 0.17). A 0.56 correlation between transformative leadership and managerial performance is good. Focusing on transformative leadership, the model explained much variation in both DVs. Data support the hypothesis. Leadership conflict and performance were statistically connected along with leadership conflict and performance were statistically connected, showing that the endogenous regressor needs external evaluation.

5. CONCLUSION

The firm's performance metric could not be assessed in this study, but potential biases in coefficient estimates are minimized by the disturbances' absorption of measurement errors in the endogenous regressors, which are independent of the exogenous regressors (Antonakakis et al., 2020). While each predictor had a modest to moderate impact on variation, their combined influence accounted for 56% of transformational leadership variance and 26% of managerial leadership effectiveness variance. Our analyses show that individual differences, leadership, and performance are linked, and controls like age and managerial experience, a longitudinal measure of effectiveness, and measures from different sources for predictors and criteria mitigate common method variance. Scholars and academics dispute most on the emotional intelligence

subtype. Previous research has used analogous controls to evaluate the incremental validity of emotional intelligence tests (Harms & Credé, 2010; Hjalmarsson & Dåderman, 2020). Our analysis supports these findings. Therefore, there is no theoretical basis to imply that emotional intelligence is less important for leadership in the Middle East and the Gulf than elsewhere. Given the current research, it is premature to conclude that emotional intelligence is a precondition for transformational leadership due to methodological constraints.

However, emotional intelligence and leadership are hotly debated. Neuroticism negatively impacts managerial leaders' performance, stressing the importance of emotional stability in these situations. To determine the specific influence of emotional intelligence and other emotion-related traits on organizational leaders' performance, further research using rigorous measurements and research methodologies will be needed.

5.1. LIMITATIONS AND FUTURE DIRECTION

We did not analyze transactional leadership despite its impact on managerial performance.

There may be an overstatement of the performance benefits of transformational leadership despite substantial research on the subject.

Our study assessed the five components and emotional intelligence using the same technique.

Even if the latter are thought to be exogenous due to a strong hereditary bias, common method effects may persist. However, the correlations between emotional intelligence and personality traits like neuroticism and agreeableness are much higher than those of the five factors, which are sometimes non-significant or close to zero, suggesting that method effects are not the main cause of the association.

Finally, the instrumental-variable strategy avoided any common-method bias between transformational leadership and performance related to subordinates' performance judgments.

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