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The Big Five Personality Traits and Sources of Power Among School Principals: Evidence from the Jeddah Education Administration

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Abstract: This study examines how the Big Five personality traits predict school principals' use of five sources of power: reward, coercive, legitimate, referent, and expert power. Drawing on the Five-Factor Model and French and Raven's power-base typology, the study addresses an underexamined question in educational leadership: whether principals' dispositional characteristics are associated with their preferred mechanisms of influence. A cross-sectional survey was administered to school principals working in the Jeddah Education Administration, and 224 usable responses were analyzed using multiple regression. The findings show that personality traits differentially predict power-source preferences. Referent power had the strongest association with personality, explaining 75.3% of the variance, whereas coercive power had the weakest association, explaining 42.2% of the variance. Extraversion and openness were the most consistent predictors across power sources. Openness positively predicted reward, legitimate, referent, and expert power and negatively predicted coercive power. Extraversion negatively predicted reward, legitimate, referent, and expert power. Conscientiousness positively predicted referent power but negatively predicted expert power, while emotional stability positively predicted referent and expert power. The study contributes to organizational behavior and educational administration by integrating personality theory with power-source preferences in a non-Western educational context. It also offers practical implications for principal preparation, leadership development, and personality-informed coaching in Saudi educational institutions.

Keywords: Big Five personality traits; school principals; sources of power; referent power; expert power; Saudi Arabia; educational leadership

I. Introduction

Leadership in contemporary educational organizations is increasingly shaped by the interaction between formal authority, professional expertise, and relational influence. School principals are expected to interpret policy, motivate teachers, coordinate resources, and sustain performance while responding to reform pressures and changing stakeholder expectations. Evidence from leadership and organizational behavior research shows that personality traits are associated with leadership behavior, commitment, mentoring quality, and managerial effectiveness (Gürbüz et al., 2022; Kumari et al., 2022; Sumadi et al., 2024; Zadok & Benoliel, 2023). These findings suggest that principals' influence strategies cannot be explained by position alone. The present study therefore examines how principals' Big Five personality traits are associated with their use of different sources of power.

Power is central to organizational life because it enables leaders to guide behavior, allocate resources, enforce decisions, and build commitment. French and Raven's (1959) typology distinguishes legitimate, reward, coercive, expert, and referent power; later research continues to show that these bases differ in their psychological and behavioral implications (Fousiani & Wisse, 2022; Yukl, 2023). Positional power may secure compliance through authority, rewards, or sanctions, whereas personal power operates through competence, trust, and identification. In schools, this distinction is particularly important because teachers may comply with formal authority while reserving commitment for principals whom they perceive as competent, fair, and trustworthy. The study therefore treats sources of power as influence mechanisms that may vary according to principals' dispositional tendencies.

Personality provides a theoretically grounded lens for explaining why school principals may prefer certain influence mechanisms over others. The Five-Factor Model conceptualizes personality through five broad traits—extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience—each of which has demonstrated predictive value for work behavior, leadership emergence, performance, and other leadership-related outcomes (Barrick et al., 2001; Costa & McCrae, 1992; John et al., 2008; Judge et al., 2013). Within Saudi and Arab administrative contexts, prior research has similarly linked personality traits and job characteristics to organizational outcomes such as commitment, job stress, burnout, and work involvement (Alkordi, 2012, 2015; Tannous & Alkordi, 2017). These studies suggest that personality is not only relevant to individual attitudes and performance but may also shape how leaders interpret authority, manage relationships, and select appropriate sources of power in Arab organizational settings. However, despite this growing evidence, the direct relationship between the full Big Five taxonomy and leaders' preferences for specific power sources remains insufficiently examined, particularly in Saudi educational administration.

This study addresses this gap by investigating how the Big Five personality traits predict school principals' preferences for different sources of power within the Jeddah Education Administration. The Saudi educational context provides a meaningful setting because formal hierarchy, administrative accountability, and relational expectations may jointly shape the way personality traits are expressed in leadership practice. Cross-cultural research suggests that personality-outcome relationships may vary across collectivist and high-power-distance settings (Gürbüz et al., 2022; Hofstede, 2001; House et al., 2004; Sumadi et al., 2024). Accordingly, this study contributes to theory by integrating personality, power, and cultural context, and it contributes to practice by offering evidence for leadership development and principal preparation.

1.1 Statement of the Problem

School principals must influence teachers through multiple channels, including formal authority, rewards, professional knowledge, relationships, and disciplinary procedures. Prior research shows that leadership behavior and personality traits are associated with commitment, job satisfaction, mentoring quality, and managerial effectiveness (Alkordi, 2012, 2015; Gürbüz et al., 2022; Kumari et al., 2022; Mert & Köksal, 2022; Tannous & Alkordi, 2017). In practice, however, principals may differ substantially in how they use authority, expertise, incentives, or relationships to guide teacher behavior. These differences create an important problem for educational administration because misaligned power use may produce resistance, compliance without commitment, or weakened trust. The problem therefore concerns not only what power principals possess, but how their personalities shape the way they use it.

The empirical importance of this study lies in its focus on Saudi educational administration, a context that remains underrepresented in research integrating leader personality and power-source preferences. Saudi and regional studies have demonstrated that personality traits, job characteristics, and leadership behaviors are consequential for employee attitudes, leadership practices, organizational change, and work-related outcomes (Alkordi, 2012, 2015, 2024; Alkordi & Gregory, 2025; Tannous & Alkordi, 2017). More recently, Ali Assiri (2025) found that the Big Five personality traits significantly predicted several leadership practices among academic department chairs across Saudi public universities, providing direct Saudi evidence that leaders' personality profiles influence how they perform their leadership roles. In the Arab school context, Alassaf and Alsaud (2007) found that Jordanian secondary-school principals differed in their use of legitimate, expert, referent, coercive, and reward power and that these power sources were significantly related to teachers' achievement motivation. Related educational research has also shown that principals' use of softer power bases, particularly expert, referent, and personal reward power, represents an important mechanism through which leadership behavior influences school effectiveness (Hameiri & Nir, 2014).

Nevertheless, the available Saudi and Arab literature has generally examined personality and leadership practices or principals' power sources as separate research streams. It has not directly established how school principals' Big Five personality traits predict their preferences for reward, coercive, legitimate, referent, and expert power. By analyzing data from 224 school principals in Jeddah, the present study connects these previously separate streams, offers context-specific evidence from a non-Western educational system, and establishes a foundation for comparative research across Saudi, Arab, and international school settings.

1.2 Importance of the Study

The theoretical importance of this study lies in its integration of two major organizational behavior constructs: personality and power. The Big Five framework explains stable differences in how individuals think, feel, interact, and respond to work demands (Costa & McCrae, 1992; John et al., 2008), while French and Raven's (1959) framework explains

how leaders influence others through different power bases. Connecting these frameworks allows the study to move beyond general leadership effectiveness and examine the more specific question of which personality traits predict particular influence mechanisms. This theoretical integration is important because it offers a more differentiated account of leadership behavior in schools.

The empirical importance of this study lies in its focus on Saudi educational administration, a context that remains underrepresented in the literature integrating leaders' personality traits with their use of power sources. Prior Saudi and regional research has demonstrated the relevance of personality, job characteristics, and leadership to employee outcomes, leadership behavior, and organizational change (Alkordi, 2012, 2015, 2024; Alkordi & Gregory, 2025; Tannous & Alkordi, 2017). More recently, Ali Assiri (2025) found that the Big Five personality traits significantly predicted leadership practices among academic department chairs in Saudi public universities, supporting the proposition that leaders' personality profiles influence how they exercise their roles. Similarly, Alqahtani et al. (2021) identified several core leadership practices among Saudi secondary-school principals, including setting direction, developing people, and managing organizational relationships. Together, these studies confirm the importance of individual characteristics and leadership behavior within Saudi educational institutions.

Despite these contributions, recent Saudi research has generally examined personality and leadership practices separately from leaders' choices of influence and power strategies. Specifically, neither Ali Assiri (2025) nor Alqahtani et al. (2021) directly examined whether school principals' personality traits predict their preferences for reward, coercive, legitimate, referent, and expert power. This unresolved relationship represents a distinct empirical gap in the Saudi educational leadership literature.

The practical importance of the study is that its findings can inform principal selection, preparation, coaching, and professional development. Personality assessment should not be used as a rigid screening device, but it can help identify leaders' likely influence tendencies and developmental needs. For example, a principal who relies heavily on positional power may benefit from training in expert credibility, trust building, and collaborative influence. This practical contribution links the study's findings to leadership development systems that aim to expand principals' behavioral repertoires rather than promote a single ideal personality profile.

1.3 Objectives of the Study

This study aims to examine how the Big Five personality traits predict school principals' use of different sources of power in Saudi educational institutions. Specifically, the study seeks to:

1. Examine the effect of school principals' Big Five personality traits on their use of reward, coercive, legitimate, referent, and expert power.
2. Identify which Big Five personality traits most strongly predict each source of power.
3. Compare the predictive sensitivity of personal power sources, namely referent and expert power, with positional power sources, namely reward, coercive, and legitimate power.
4. Provide evidence-based implications for principal preparation, leadership development, and administrative practice in Saudi educational institutions.

1.4 Research Hypotheses

Based on the study objectives and theoretical framework, the following hypotheses were formulated:

- H1: The Big Five personality traits significantly predict the use of reward power among school principals in the study sample.
- H2: The Big Five personality traits significantly predict the use of coercive power among school principals in the study sample.
- H3: The Big Five personality traits significantly predict the use of legitimate power among school principals in the study sample.
- H4: The Big Five personality traits significantly predict the use of referent power among school principals in the study sample.
- H5: The Big Five personality traits significantly predict the use of expert power among school principals in the study sample.

II. Theoretical Framework and Literature Review

The theoretical foundation of this study combines the Five-Factor Model of personality with French and Raven's power-base typology. The Five-Factor Model explains relatively stable individual differences, whereas the power-base typology explains the mechanisms through which leaders influence followers (Costa & McCrae, 1992; French & Raven, 1959; John et al., 2008). This combination is appropriate because principals' influence behaviors are shaped both by institutional role expectations and by dispositional tendencies. The following subsections review the two frameworks and then identify the gap that motivates the present study.

2.1 The Big Five Personality Traits

The Five-Factor Model is one of the most established frameworks for explaining personality in organizational research. It identifies five broad traits: extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience (Costa & McCrae, 1992; John et al., 2008). Meta-analytic and theoretical research shows that these traits predict performance, leadership emergence, job satisfaction, commitment, and other work outcomes (Barrick et al., 2001; Judge et al., 2013). Recent studies continue to refine these relationships by showing that personality effects often operate through affective, relational, and contextual mechanisms (Gürbüz et al., 2022; Kumari et al., 2022; Mert & Köksal, 2022). Therefore, the Big Five model provides a strong basis for examining why principals differ in their preferred forms of influence.

Each trait has theoretical relevance to school leadership. Extraversion is associated with sociability, assertiveness, and interpersonal visibility; agreeableness reflects cooperation, trust, and concern for others; conscientiousness reflects discipline, reliability, and rule orientation; emotional stability reflects composure under pressure; and openness reflects curiosity, flexibility, and receptiveness to change. Evidence from leadership research shows that personality traits are associated with mentoring quality, teacher commitment, transformational leadership, and managerial performance (Kumari et al., 2022; Sumadi et al., 2024; Zadok & Benoliel, 2023). In Saudi and regional public-sector contexts, earlier studies similarly indicate that personality and job characteristics are linked to stress, burnout, work involvement, and commitment (Alkordi, 2012, 2015; Tannous & Alkordi, 2017). These findings suggest that personality may also shape how principals use power.

2.2 Sources of Power in Organizational Contexts

Power is a core leadership construct because it explains how leaders influence others' behavior and secure cooperation. French and Raven's (1959) framework identifies five sources of power: reward, coercive, legitimate, expert, and referent power. Reward, coercive, and legitimate power are typically considered positional because they derive from formal authority, control over outcomes, and the recognized right to direct others. Expert and referent power are typically considered personal because they derive from knowledge, competence, respect, admiration, and identification. This distinction is central to the present study because personality may be more strongly associated with personal power than with structurally assigned power.

Contemporary power research supports the view that the meaning and consequences of power depend on how leaders construe and enact it. Fousiani and Wisse (2022) show that leaders' construal of power as responsibility or opportunity has implications for the quality of leader-member exchange, while Yukl (2023) emphasizes that effective leadership requires appropriate use of power and proactive influence tactics. In school settings, legitimate power may be necessary for policy implementation, reward power may support motivation, coercive power may enforce rules, expert power may build credibility, and referent power may encourage trust-based commitment. These differences make it necessary to examine power bases separately rather than treat power as a single construct.

2.3 Integrating Personality and Power

The integration of personality and power remains underdeveloped despite its theoretical importance. Karkoulian et al. (2009) examined the relationship between personality traits and sources of power in Lebanese organizations and found that agreeableness was positively associated with several power bases, while neuroticism was positively associated with coercive power and negatively associated with referent power. Yahaya et al. (2011) further linked personality, power use, and leadership styles among Malaysian managers, showing that referent power aligned with transformational leadership whereas formal power bases aligned more closely with transactional leadership. These studies provide important foundations, but they do not fully explain how all Big Five traits predict each power base in educational settings.

Trait activation theory offers a useful explanation for why personality-power relationships may vary across contexts. According to Tett and Burnett (2003), traits are expressed when situational cues make trait-relevant behavior appropriate, useful, or expected. In Saudi schools, formal hierarchy, accountability, and collective relational norms may activate some traits while constraining others. For example, openness may be expressed through adaptive use of legitimate, expert, or reward power, whereas lower openness may be associated with coercive control. This theoretical

logic supports the present study's focus on the interaction between individual traits and context-specific sources of influence.

2.4 Research Gap and Study Contribution

The literature reveals three main gaps. First, personality research has focused extensively on performance, satisfaction, commitment, stress, and leadership style, but less on leaders' selection of power sources (Barrick et al., 2001; Judge et al., 2013; Kumari et al., 2022). Second, power research has examined leader influence, follower reactions, and power construal, but has less often treated personality as a systematic antecedent of power-source preference (Fousiani & Wisse, 2022; Yukl, 2023). Third, the available integrative studies are limited in trait coverage, sector, and cultural scope (Karkoulian et al., 2009; Yahaya et al., 2011). These gaps limit theoretical understanding of how leaders' dispositions shape influence behavior.

The present study addresses these gaps in three ways. It examines the full Big Five taxonomy rather than a restricted subset of traits; it analyzes all five power bases rather than treating power as a single construct; and it situates the inquiry within Saudi educational administration, where hierarchy and relational norms may shape the expression of personality. This contribution is aligned with recent calls for culturally situated organizational research and with evidence that personality-leadership relationships may operate differently across Middle Eastern and Gulf contexts (Gürbüz et al., 2022; Hofstede, 2001; House et al., 2004; Sumadi et al., 2024). The study therefore advances a more nuanced and culturally grounded model of personality-based power use.

III. Methodology

3.1 Research Design

This study used a cross-sectional descriptive-analytical design to examine whether school principals' Big Five personality traits predict their use of different sources of power. Survey-based designs are common in organizational behavior when the aim is to test relationships among psychological and behavioral constructs (Podsakoff et al., 2012; Sekaran & Bougie, 2016). Because the design is cross-sectional, the study uses predictive rather than causal language. This design is appropriate for the research objective because it allows the study to test the relative contribution of five personality traits to each power source.

3.2 Population and Sample

The study population consisted of school principals affiliated with the Jeddah Education Administration. The population included 954 schools across primary, intermediate, and secondary levels. A simple random sampling procedure was used after determining the required sample size using the Krejcie and Morgan (1970) formula. Of 274 distributed questionnaires, 234 were returned, and 10 incomplete questionnaires were excluded. The final sample consisted of 224 usable responses, representing 81.75% of the distributed surveys.

This sample size is appropriate for multiple regression analysis because it exceeds common minimum recommendations for models with several predictors (Hair et al., 2019; Tabachnick & Fidell, 2019). The focus on principals is also theoretically justified because principals are the formal leaders responsible for policy implementation, teacher evaluation, resource coordination, and school-level decision-making. Therefore, they represent the most appropriate respondents for examining the relationship between personality traits and power-source preferences in school administration.

Table 1
Distribution of Schools Affiliated with the Jeddah Education Administration

Educational Level	Boys' Schools	Girls' Schools	Total
Primary	249	211	460
Intermediate	149	122	271
Secondary	118	105	223
Total	516	438	954

3.3 Study Instrument

The questionnaire consisted of three sections. The first section collected demographic information. The second section measured the Big Five personality traits through 30 items covering extraversion, agreeableness, conscientiousness, emotional stability, and openness to experience. The third section measured sources of power through 20 items representing reward, coercive, legitimate, referent, and expert power. The personality section was informed by established Big Five research (Costa & McCrae, 1992; Goldberg, 1993; John et al., 2008), while the power section was grounded in French and Raven's (1959) typology and Hinkin and Schriesheim's (1989) power-base scale.

The term conscientiousness is used throughout the manuscript because it is the correct Big Five construct. Earlier translated wording such as self-monitoring or self-control was removed to avoid conceptual confusion. Self-monitoring is a distinct construct and should not be treated as equivalent to conscientiousness. This clarification improves construct validity and aligns the manuscript with international personality research terminology.

3.4 Validity and Reliability

Content validity was established through expert review and pilot feedback. Specialists in administration and organizational behavior reviewed the questionnaire for clarity, relevance, and construct representation. Their feedback was used to refine item wording before final administration. This procedure is appropriate because content validity requires expert judgment about whether the items adequately represent the theoretical domain being measured (Sekaran & Bougie, 2016).

Internal consistency was assessed using Cronbach's alpha. The coefficients ranged from .738 to .798, exceeding the commonly accepted .70 threshold for exploratory and applied organizational research (Nunnally & Bernstein, 1994). These values indicate satisfactory reliability for the personality dimension, the power dimension, and the full questionnaire. Reliability therefore supports the use of the instrument for testing the study hypotheses.

Table 2
Reliability Coefficients for Study Variables

Variable	Number of Items	Cronbach's Alpha
Personality dimension	30	.783
Power dimension	20	.798
Full questionnaire	50	.738

3.5 Data Analysis

Data were analyzed using SPSS. Descriptive statistics and reliability coefficients were first examined, followed by multiple regression analyses for each power source. Each regression model included the five Big Five traits as predictors and one power source as the dependent variable. Preliminary checks for normality, linearity, multicollinearity, and homoscedasticity were conducted to support the appropriateness of regression analysis (Field, 2018; Hair et al., 2019). The regression approach directly aligns with the hypotheses because each hypothesis concerns whether the Big Five traits significantly predict a specific source of power.

IV. Results

4.1 Overall Model Fit

The regression models showed statistically significant prediction across all five power sources. Adjusted R^2 values ranged from 42.2% for coercive power to 75.3% for referent power. This pattern indicates that personality traits explain meaningful variance in principals' power-source preferences, although the strength of prediction differs by power base. Referent power showed the strongest model, suggesting that relationship-based influence is particularly sensitive to individual differences.

Table 3
Multiple Regression Model Fit for Each Power Source

Hypothesis	Dependent Variable	R (%)	Adjusted R^2 (%)	F	p
H1	Reward power	51.4	48.1	4.358	.005
H2	Coercive power	44.3	42.2	2.514	.002
H3	Legitimate power	54.7	53.2	5.850	.002
H4	Referent power	77.5	75.3	9.522	< .001
H5	Expert power	57.3	53.1	4.284	.001

4.2 Hypothesis Testing

The following tables present the regression results for each dependent variable. To avoid duplicating the discussion section, this results section reports only the statistical direction, significance, and hypothesis decision. Interpretation of theoretical meaning is reserved for Section 5.

H1 Decision—Reward Power

Reward power was significantly predicted by extraversion and openness. Extraversion had a negative coefficient, indicating that higher extraversion was associated with lower reported use of reward power, whereas openness had a positive coefficient, indicating that higher openness was associated with greater use of reward power. Agreeableness, conscientiousness, and emotional stability were not statistically significant predictors. Therefore, H1 was partially supported.

Table 4
Regression Results: Reward Power

Predictor	B	t	p	Decision
Extraversion	-0.585	-4.716	< .001	Significant
Agreeableness	-0.136	0.649	.519	Not significant
Conscientiousness	0.054	0.268	.790	Not significant
Openness	0.372	2.621	.011	Significant
Emotional stability	0.005	0.021	.983	Not significant

H2 Decision—Coercive Power

Based on the reported *p* values, coercive power was significantly predicted only by openness. Openness had a negative coefficient, indicating that higher openness was associated with lower use of coercive power. Extraversion, agreeableness, conscientiousness, and emotional stability were not statistically significant predictors. Therefore, H2 was partially supported.

Table 5
Regression Results: Coercive Power

Predictor	B	t	p	Decision
Extraversion	-0.323	-2.354	.380	Not significant
Agreeableness	-0.075	-0.320	.755	Not significant
Conscientiousness	0.247	1.108	.273	Not significant
Emotional stability	-0.071	-0.449	.337	Not significant
Openness	-0.276	-0.968	.005	Significant

H3 Decision—Legitimate Power

Based on the reported *p* values, legitimate power was significantly predicted by extraversion and openness. Extraversion had a negative coefficient, whereas openness had a positive coefficient. Agreeableness, conscientiousness, and emotional stability were not statistically significant predictors. Therefore, H3 was partially supported.

Table 6
Regression Results: Legitimate Power

Predictor	B	t	p	Decision
Extraversion	-0.416	-2.561	.002	Significant
Agreeableness	-0.423	-1.810	.450	Not significant
Conscientiousness	-0.355	-1.602	.240	Not significant
Openness	0.495	3.164	.002	Significant
Emotional stability	0.786	2.905	.499	Not significant

H4 Decision—Referent Power

Based on the reported *p* values, referent power was significantly predicted by all five personality traits. Extraversion and agreeableness had negative coefficients, whereas conscientiousness, emotional stability, and openness had positive coefficients. Therefore, H4 was supported.

Table 7
Regression Results: Referent Power

Predictor	B	t	p	Decision
Extraversion	-0.303	-0.604	.007	Significant
Agreeableness	-0.641	-2.657	.010	Significant
Conscientiousness	0.823	0.745	< .001	Significant

Predictor	B	t	p	Decision
Emotional stability	0.429	2.655	.010	Significant
Openness	0.927	4.472	< .001	Significant

H5 Decision—Expert Power

Expert power was significantly predicted by extraversion, conscientiousness, openness, and emotional stability. Extraversion and conscientiousness had negative coefficients, whereas openness and emotional stability had positive coefficients. Agreeableness was not a statistically significant predictor. Therefore, H5 was partially supported.

Table 8

Regression Results: Expert Power

Predictor	B	t	p	Decision
Extraversion	-0.512	-4.099	< .001	Significant
Agreeableness	-0.229	-1.073	.288	Not significant
Conscientiousness	-0.498	-2.456	.017	Significant
Openness	0.578	4.040	< .001	Significant
Emotional stability	0.823	3.328	.002	Significant

4.3 Summary of Findings

Overall, the findings show that personality traits predict power-source preferences in a differentiated rather than uniform manner. Openness was the most consistently positive predictor, except in the coercive power model where it showed a negative relationship. Extraversion was consistently negative across reward, legitimate, referent, and expert power. Referent power was the most personality-sensitive power base because all five traits were significant predictors. Coercive power was the least personality-sensitive power base because only openness was significant. These patterns provide the empirical foundation for the discussion that follows.

V. Discussion

5.1 Reward Power

The reward power findings indicate that lower extraversion and higher openness are associated with greater use of reward-based influence. Evidence from the regression model shows that extraversion negatively predicted reward power, whereas openness positively predicted it. This pattern suggests that less extraverted principals may rely on structured incentives, recognition, and formal reinforcement rather than highly spontaneous interpersonal persuasion. In contrast, open principals may use rewards as flexible tools to encourage change, innovation, and adaptive teacher behavior. This interpretation aligns with trait activation theory, which argues that traits are expressed differently depending on role expectations and situational cues (Tett & Burnett, 2003). It also fits contemporary leadership evidence showing that openness is linked to leadership effectiveness, mentoring quality, and adaptive outcomes (Kumari et al., 2022; Sumadi et al., 2024; Zadok & Benoliel, 2023). Thus, reward power in Saudi schools appears to reflect both personality-based preference and the structured administrative context in which principals operate.

5.2 Coercive Power

The coercive power model shows that openness is the only significant personality predictor, and its coefficient is negative. Evidence from the regression analysis indicates that principals lower in openness are more likely to use coercive power. This finding is theoretically meaningful because openness reflects flexibility, curiosity, and receptiveness to alternative perspectives, traits that may reduce dependence on punitive or pressure-based tactics. Although Karkoulian et al. (2009) did not directly examine openness, their finding that neuroticism was positively associated with coercive power supports the broader idea that less adaptive dispositional tendencies may increase reliance on control. The nonsignificant effects of the other traits suggest that coercive power may be shaped more by institutional rules and cultural constraints than by most personality traits. This result leads to the broader implication that coercion should be treated as a context-sensitive power base rather than as a simple reflection of leader personality.

5.3 Legitimate Power

The legitimate power findings show that lower extraversion and higher openness predict greater reliance on formal authority. Evidence from the model indicates that extraversion negatively predicted legitimate power, whereas openness positively predicted it. The negative extraversion relationship suggests that less socially expressive principals

may prefer clear, role-based authority channels that reduce ambiguity and provide institutional legitimacy. The positive openness relationship suggests that open principals may use formal authority not merely to enforce rules, but to legitimize change and institutionalize new practices. This interpretation is consistent with French and Raven's (1959) definition of legitimate power as authority rooted in formal position and with contemporary power research emphasizing that leaders' power use depends on how they construe responsibility and influence (Fousiani & Wisse, 2022; Yukl, 2023). Therefore, legitimate power in this study appears to function as both a stabilizing authority mechanism and a possible channel for innovation.

5.4 Referent Power

Referent power produced the strongest and most theoretically important model because all five traits were significant predictors. Evidence from the regression analysis shows that conscientiousness, emotional stability, and openness positively predicted referent power, while extraversion and agreeableness negatively predicted it. The positive effects are theoretically coherent because referent power depends on trust, credibility, admiration, and identification. Conscientious principals may earn respect through reliability; emotionally stable principals may build trust through composure; and open principals may generate identification through receptiveness and inclusion. This interpretation aligns with Karkoulian et al. (2009), who found neuroticism negatively related to referent power, and with Yahaya et al. (2011), who connected referent power with transformational leadership. It is also supported by recent studies linking personality to mentoring quality, teacher commitment, and leadership effectiveness (Kumari et al., 2022; Sumadi et al., 2024; Zadok & Benoliel, 2023). Accordingly, referent power appears to be the power base most sensitive to individual differences.

The negative effects of extraversion and agreeableness on referent power require careful interpretation. Because extraversion and agreeableness are often associated with sociability and warmth, the negative coefficients appear counterintuitive. However, they may indicate that referent power in hierarchical educational settings is not always generated through broad social visibility or dispositional warmth. Less extraverted principals may cultivate influence through fewer but deeper professional relationships, while less agreeable principals may strategically develop relational capital to secure cooperation and legitimacy. This explanation does not imply that low agreeableness is desirable; rather, it suggests that relationship-based influence may be both authentic and strategic. This interpretation connects to contemporary power theory by showing that personal power is shaped not only by personality traits but also by leaders' understanding of influence, responsibility, and institutional role demands (Fousiani & Wisse, 2022; Yukl, 2023).

5.5 Expert Power

The expert power findings indicate that lower extraversion, lower conscientiousness, higher openness, and higher emotional stability predict greater reliance on expertise-based influence. Evidence from the regression model shows significant negative effects for extraversion and conscientiousness and significant positive effects for openness and emotional stability. The negative extraversion relationship suggests that less extraverted principals may prefer influence grounded in demonstrated competence rather than interpersonal visibility. The positive openness relationship indicates that intellectual curiosity and receptiveness to new ideas may support knowledge acquisition and problem solving. The positive emotional stability relationship suggests that composed principals may communicate expertise with confidence under pressure. These interpretations align with Yukl's (2023) account of expert power as influence derived from valued knowledge and competence and with recent evidence linking openness and emotional stability to leadership and mentoring outcomes (Kumari et al., 2022; Mert & Köksal, 2022; Sumadi et al., 2024).

The negative effect of conscientiousness on expert power is more complex. Conscientiousness usually predicts discipline, dependability, and performance, so a negative coefficient should not be interpreted as indicating lower competence. Rather, highly conscientious principals may express influence through procedural consistency, policy adherence, and formal accountability instead of personal claims of expertise. In hierarchical school systems, conscientious leaders may view authority as something enacted through rule compliance and organizational order. This interpretation is consistent with research showing that conscientiousness relates to commitment and work outcomes but can be expressed differently depending on contextual demands (Gürbüz et al., 2022; Mert & Köksal, 2022). Therefore, expert power appears to depend not only on the possession of knowledge, but also on whether principals choose to use knowledge as an explicit influence strategy.

5.6 Theoretical Contributions

This study contributes to theory by extending the Five-Factor Model into the underexamined domain of power-source preferences. Prior research has shown that personality predicts performance, leadership, commitment, and mentoring outcomes (Barrick et al., 2001; Judge et al., 2013; Kumari et al., 2022), but fewer studies have examined whether personality predicts the specific bases of power leaders prefer. By testing all five traits across all five French and Raven

power bases, this study provides a more complete dispositional account of influence behavior than studies using partial trait sets. This contribution shifts the discussion from whether personality matters for leadership to how personality shapes the mechanisms through which leaders exercise influence.

The study also contributes to culturally situated organizational behavior theory. Evidence from Saudi and Gulf-region research shows that personality, leadership, job characteristics, and commitment may operate within culturally embedded administrative contexts (Alkordi, 2012, 2015; Gürbüz et al., 2022; Sumadi et al., 2024; Tannous & Alkordi, 2017). The present findings support this view by showing that personality-power relationships among Saudi school principals differ across power bases. This suggests that personality is not expressed in isolation; it is activated and constrained by hierarchy, role expectations, and relational norms. The study therefore strengthens the argument that leadership theory must account for culture and institutional context when explaining influence behavior.

A further contribution is the distinction between personality-sensitive and less personality-sensitive power bases. Referent power was predicted by all five traits, while coercive power was predicted only by openness. This pattern suggests that relationship-based influence is especially dependent on dispositional variation because it requires trust, credibility, emotional regulation, and identification. Coercive power, by contrast, may be more strongly governed by rules, sanctions, and institutional constraints. This contribution refines power theory by showing that different power bases have different psychological requirements. It also provides a foundation for future models that treat personality as a distal antecedent of power orientation.

5.7 Practical Implications

The findings offer practical implications for principal preparation and leadership development. Because personality traits predict power-source preferences, personality assessment can be used ethically as a developmental tool rather than as a rigid selection filter. Evidence from this study suggests that principals may have predictable tendencies toward formal, relational, or expertise-based influence. Leadership programs can use this information to help principals recognize their default influence patterns and expand their behavioral repertoire. The practical implication is not to select one ideal personality profile, but to develop leaders who can use different power bases appropriately.

Development programs should particularly strengthen expert and referent power. These personal power bases depend on credibility, professional competence, trust, and identification, and the present study shows that they are strongly associated with personality differences. Training should therefore include instructional leadership, evidence-based decision-making, feedback skills, ethical influence, mentoring, emotional regulation, and relationship building. Such training is especially important for principals who rely heavily on positional authority because it can help them move from compliance-oriented influence toward more constructive and commitment-oriented leadership. This implication connects the empirical findings to practical strategies for improving principal-teacher relationships.

Educational authorities should also adopt a context-sensitive approach to principal placement and promotion. Schools undergoing reform may require leaders who can combine openness, expert power, and legitimate authority to institutionalize change. Schools facing conflict or low morale may require leaders with emotional stability, referent power, and relational competence. Therefore, appointment decisions should consider not only administrative experience but also the leader's capacity to use power ethically and adaptively in a particular school context. This recommendation links personality-informed development to broader goals of school improvement and organizational effectiveness.

5.8 Limitations and Future Research Directions

Several limitations should guide interpretation and future research. First, the cross-sectional design prevents causal inference. Although the study shows significant prediction, it cannot establish whether personality traits cause power-source preferences or whether repeated leadership experiences shape power use over time. Future studies should use longitudinal or panel designs to examine whether personality-power relationships remain stable during leadership transitions, school reform, or institutional change. This would strengthen causal understanding and clarify temporal dynamics.

Second, the study relied on self-report data, which raises the possibility of common method bias and social desirability effects. Because the same respondents reported both personality traits and power use, the relationships may be influenced by shared measurement conditions (Podsakoff et al., 2012). Future research should collect multi-source data, including teacher ratings, supervisor evaluations, and objective school indicators. This approach would clarify whether principals' self-perceptions align with how teachers experience their power use.

Third, the study focused on school principals in one Saudi administrative context. This focus provides valuable contextual depth but limits generalizability. Future research should replicate the model across Saudi regions, public and private schools, universities, and non-educational sectors. Comparative studies across Arab, Gulf, and Western contexts would also help determine whether the observed patterns are culturally specific or theoretically generalizable. Such work would strengthen external validity and contribute to a more global theory of personality and power in leadership.

Fourth, this study did not test mediating or moderating mechanisms. Future studies should examine whether leader self-efficacy, emotional regulation, need for power, leader identity, trust orientation, or social identification explains how personality translates into power use. Researchers should also test whether power-source preferences predict teacher commitment, job satisfaction, organizational citizenship behavior, school climate, and student-related outcomes. These extensions would move the literature from prediction toward a fuller explanatory model of personality-based influence.

VI. Conclusions and Recommendations

6.1 Conclusions

This study examined how the Big Five personality traits predict school principals' use of reward, coercive, legitimate, referent, and expert power in the Jeddah Education Administration. The findings show that personality traits differentially predict power-source preferences rather than exerting a uniform effect across all power bases. Referent power showed the strongest association with personality, explaining 75.3% of the variance, while coercive power showed the weakest association, explaining 42.2% of the variance. This pattern supports the conclusion that personal and relationship-based influence is especially sensitive to dispositional variation.

The study also shows that extraversion and openness are the most consistent predictors across multiple power sources. Extraversion was negatively associated with several power bases, suggesting that less extraverted principals may rely more heavily on structured authority, rewards, expertise, or selective relationships. Openness was positively associated with reward, legitimate, referent, and expert power and negatively associated with coercive power, suggesting that open principals may use power more adaptively and less punitively. These findings highlight the importance of examining both personality and context when explaining leadership influence.

Finally, the study demonstrates the value of culturally situated research in educational leadership. In the Saudi school context, formal authority, administrative hierarchy, and relational expectations may shape how personality traits are expressed in power use. Therefore, the findings should be understood as the product of both individual dispositions and the institutional-cultural environment in which principals operate. This conclusion provides a foundation for future research on personality, power, and leadership in non-Western educational systems.

6.2 Recommendations

Educational administrations should use personality assessment as a developmental resource for principal preparation and coaching. Such assessment should not be used as a deterministic selection tool; rather, it should help principals understand their influence tendencies and identify areas for growth. Leadership development programs should then help principals expand their use of constructive influence strategies across formal, relational, and expertise-based power bases.

Professional development should place special emphasis on referent and expert power. Principals need training in professional credibility, instructional leadership, trust building, mentoring, conflict management, ethical influence, and collaborative decision-making. These areas are important because personal power can encourage voluntary commitment rather than mere compliance. Strengthening these competencies may improve teacher motivation, principal-teacher relationships, and school climate.

Future research should extend this study through longitudinal, multi-source, and comparative designs. Researchers should examine the mechanisms through which personality predicts power use and the outcomes associated with different power-source preferences. Such work would help determine whether personality-informed power development improves leadership effectiveness, teacher commitment, and organizational performance in educational institutions. In addition, future studies should concentrate on the role of AI applications and data driven decision making as a mediating factor between personality and power sources.

6.3 Concluding Remarks

The study contributes to organizational behavior and educational leadership by showing that school principals' personality traits systematically predict their preferred sources of power. It addresses an important gap in Arab and Saudi scholarship by integrating the Big Five model with French and Raven's power typology in an educational context. The findings indicate that effective school leadership depends not only on formal authority but also on the ethical, adaptive, and context-sensitive use of influence.

As educational systems face increasing demands for accountability, innovation, and teacher development, understanding the psychological foundations of leadership becomes increasingly important. By clarifying how personality traits shape power use, this study offers a foundation for more effective principal preparation, evidence-based leadership development, and culturally grounded research on educational administration.

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