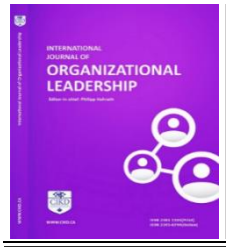


INTERNATIONAL JOURNAL OF ORGANIZATIONAL LEADERSHIP

WWW.CIKD.CA

journal homepage: https://www.ijol.cikd.ca

Does Ethical Leadership Shape Organizational Efficiency? The Mediating Role of Perceived Organizational Support in the Healthcare Sector

Badr Alnasser[1], Rakesh Kumar[2*]

[1,2]Department of Health Management, College of Public Health and Health Informatics, University of Ha'il, Saudi Arabia

Keywords:
Ethical leadership, Organizational efficiency, Perceived organizational support, Healthcare professionals, Saudi Arabia

Received
04 October 2025
Received in revised form
27 October 2025
Accepted
29 October 2025

***Correspondence:**
ra.kumar@uoh.edu.sa

ABSTRACT

This research investigates the role of Ethical Leadership (EL) in affecting Organizational Efficiency (OE) among healthcare professionals working in the Kingdom of Saudi Arabia (KSA). Additionally, Perceived Organizational Support (POS) was examined as playing a mediating role. Guided by EL Theory and social exchange perspectives, the study aimed to address a theoretical gap. It extended the outcomes of EL beyond attitudinal variables to include operational efficiency. It is a serious issue in healthcare settings. A structured questionnaire was administered to healthcare professionals in more than one hospital. There were 368 valid replies that were subjected to analysis. EL, POS, and OE were assessed using a standardized, proven scale. The study employed Structural Equation Modeling (SEM) as the analysis technique. This approach allowed for the examination of direct, indirect, and mediating relationships, with bootstrapping applied to ensure the robustness of the results. The findings revealed that EL positively influenced both OE and POS. POS, in turn, markedly increased efficiency and partly moderated the association between EL and OE. These findings validate that EL enhances efficiency directly by encouraging principled behavior and lucidity. It also enhances efficiency by developing supportive organizational climates. This study contributes theoretically by linking EL to efficiency outcomes and highlighting POS as a key mediating factor. Practically, the findings suggest that healthcare organizations can enhance efficiency by cultivating ethical leaders and institutionalizing supportive practices.

In modern organizations, leadership and ethics are increasingly recognized as critical determinants of employee well-being and organizational performance. The global healthcare environment has been marked by recurring ethical scandals, organizational failures, and growing concerns about transparency, accountability, and responsibility (Vian, 2020). These challenges reinforce the importance of leadership that not only pursues performance goals but also upholds fairness and integrity. Within this context, positive organizational environments anchored in strong codes of ethics are viewed as essential for sustaining trust and minimizing workplace deviance (Chen & Liu, 2022). They are also critical for fostering long-term efficiency. Healthcare represents a sector where ethical considerations and OE intersect. Healthcare organizations face pressure to deliver high-quality care in resource-constrained settings while ensuring patient safety and satisfaction (WHO, 2023). Inefficiency may manifest as errors, prolonged waits, resource wastage, and burnout, putting sustainability and outcomes at risk (Corbett, 2023).

Organizational efficiency is the extent to which organizations are more effective in using resources, waste less, and have effective output in comparison to input (Abdi & Hashi, 2023). In healthcare, efficiency is crucial as it has a direct bearing on patient outcomes as well as organizational sustainability. Research illustrates that inefficiency is a cause of increased healthcare expenditures, disengagement of employees, and substandard service (Long, 2024). Efficiency is not merely about financial performance but also about timely service provision as well as appropriate diagnosis. It entails effective team collaboration as well as lower staff turnover (Thana et al., 2025). Research on leadership's effect on efficiency is still scanty even though it is crucial. Conversely, many studies have assessed leadership in terms of attitudinal outcomes, e.g., satisfaction, commitment, and trust (Ahmed, 2023; Deng et al., 2023; Yuan et al., 2021). This imbalance underscores the need to broaden leadership research beyond psychological constructs to performance indicators focused on efficiency. Against this background, EL has become a salient construct that emphasizes integrity, equity, and care for others (Hyusein & Eyupoglu, 2023).

Existing literature highlights that EL contributes to reducing workplace misconduct and enhancing overall employee satisfaction (Aftab et al., 2022; Tufan et al., 2023). Therefore, it promotes a more positive organizational climate. It also and generates climates of trust and psychological safety (Iqbal & Parray, 2024). EL occurs through leadership behavior that serves as a standard bearer for fairness and accountability (Glomseth & Bentzen, 2025). By doing so, employee behaviors are channeled in favor of organizational aims. However, most prior studies in healthcare emphasize attitudinal or relational outcomes rather than operational performance metrics, such as efficiency (Amer et al., 2022; Papadakis & Katsaprakakis, 2023). This gap is critical because EL's potential to drive efficiency remains underexplored despite strong theoretical justification. To examine how EL influences efficiency, it is necessary to consider POS as a mediating factor.

Ethical leaders, through their fairness, transparency, and integrity, act as agents of the organization and signal support to employees (Abdi & Hashi, 2023; Hyusein & Eyupoglu, 2023). When leaders make principled decisions and allocate resources equitably, employees perceive these actions as organizational support (Hetrick et al., 2022). Similarly, when leaders treat employees with dignity, such behaviors are interpreted as evidence that the organization values and cares for them (Gibson et al., 2022). In turn, high levels of POS motivate employees

to reciprocate. Employees demonstrate stronger commitment, exert greater effort, and engage in cooperative behaviors (Pham et al., 2023). These responses collectively enhance efficiency within organizations. Although POS has been widely studied as an antecedent of commitment and performance, its mediating role is underexamined. Specifically, limited research investigates how it links EL to OE. This study addresses that gap by positioning POS as the central factor connecting EL to efficiency in healthcare organizations.

The hypothesized model proposes that EL improves OE both directly and indirectly through POS. Directly, ethical leaders establish clear expectations, reduce ambiguity, and prevent unethical shortcuts that may harm efficiency (Mitchell et al., 2023). Indirectly, ethical leaders foster a sense of organizational support that motivates employees to exert greater effort and cooperate with colleagues (Zhang et al., 2023). They also encourage proactive problem-solving behaviors, all of which strengthen efficiency. Strong links between EL and outcomes such as trust and engagement have been well established in healthcare (Karikumpu et al., 2024; Singh & Vashist, 2024). However, limited evidence exists regarding its influence on efficiency. Empirical validation of POS as a mediator between EL and OE remains scarce. This gap is especially evident within healthcare settings. Addressing these gaps provides important theoretical and practical contributions. It clarifies the process through which EL promotes operational outcomes in healthcare organizations.

The KSA provides a unique and timely context for this study. The healthcare sector is undergoing rapid transformation under Vision 2030 (OHI, 2021). This national initiative emphasizes efficiency, quality, and sustainability in public services. Saudi healthcare organizations face dual pressures of addressing growing patient demands and adapting to structural reforms aimed at enhancing efficiency. The cultural context, characterized by hierarchical structures, collectivist values, and emphasis on ethical conduct, offers fertile ground for examining EL. Research on leadership and organizational behavior has primarily been conducted in Western contexts, raising questions about its cross-cultural applicability (Den Hartog & De Hoogh, 2024). Situating this study in Saudi healthcare extends the external validity of EL and POS theories. It also generates insights relevant for policymakers and practitioners operating in similar cultural and institutional environments. These contributions strengthen both theoretical development and the practical application of EL within diverse healthcare systems.

Despite the growing body of literature on EL, significant gaps remain. First, although EL has been linked to trust and satisfaction, its relationship with OE is not adequately examined. Second, POS has been widely examined as a predictor of performance and commitment. However, its mediating role between EL and OE remains under-investigated. Third, the healthcare sector in non-Western contexts, including Saudi Arabia, remains underrepresented in leadership research. This underrepresentation limits the generalizability of existing theories. This study addresses these gaps by examining the impact of EL on OE in Saudi healthcare. It further investigates POS as a mediating factor in this relationship. It makes three contributions. Theoretically, it extends EL Theory by including efficiency as a critical outcome. Empirically, it identifies POS as a mediator linking EL to OE. Contextually, it provides evidence from Saudi healthcare, strengthening cross-cultural leadership understanding.

Review of Literature and Hypotheses Development

EL has emerged as a leading leadership construct over the past two decades (Gamarra & Girotto, 2022). Additionally, ethical leaders are characterized by their adherence to ethical norms and consistent moral behavior (Yuan et al., 2023). They also model values that promote ethical conduct among employees. Unlike transactional or transformational leaders, ethical leaders explicitly integrate morality into leadership practices (Tan, 2024). Their influence is particularly relevant in sectors where ethical dilemmas frequently occur, such as healthcare. OE involves optimizing resources to achieve outputs effectively, with minimal waste and maximum productivity (Detwal et al., 2023). In healthcare, efficiency extends beyond operations. It is directly tied to patient outcomes, quality of care, and sustainability of systems (Mishra & Jain, 2025). Nevertheless, leadership research often prioritizes attitudinal outcomes rather than efficiency-related measures (Den Hartog & De Hoogh, 2024; Glomseth & Bentzen, 2025).

Theoretically, EL enhances efficiency by reducing uncertainty, minimizing conflict, and clarifying expectations. Leaders who demonstrate fairness and accountability create a culture of responsibility. In such cultures, employees understand that ethical shortcuts are not tolerated and that resources must be managed prudently (Chen, 2022). Ethical leaders also establish trust-based relationships that encourage collaboration and reduce dysfunctional politics. These practices align employees' efforts with organizational goals and increase efficiency (Bentzen, 2023). Empirically, leadership has been consistently linked to performance outcomes across sectors. For example, Houston et al. (2022) demonstrated that EL reduces deviant behaviors, which indirectly enhance performance. Similarly, Kehyayan et al. (2025) found that ethical leaders promote clarity and reduce ambiguity, thereby preventing waste of resources in healthcare. Nevertheless, research directly testing the relationship between EL and OE remains scarce in healthcare contexts. This persistent gap highlights the need for stronger empirical validation. Therefore, this research expects to test the following hypotheses.

Hypothesis 1: EL positively influences OE.

POS refers to personnel beliefs regarding the degree to which a firm values its contributions and ranks their welfare (Kurtessis et al., 2015). It has a foundation in Social Exchange (SE) theory. According to SE theory, people repay good treatment from the organization in positive ways like commitment, effort, and loyalty (Homans, 1958). Employees who perceive organizational support feel they owe it to repay with better performance and greater organizational goal congruence (Arefin et al., 2022). EL plays a central role in shaping POS because leaders are regarded as agents of the organization (Al Halbusi et al., 2020). When leaders make principled decisions and allocate resources fairly, employees perceive these actions as signs of organizational support. Treating employees with dignity further reinforces this perception. Conversely, leaders who act unethically can undermine POS, fostering perceptions of exploitation or neglect (Almeida et al., 2022; Hassan et al., 2023).

Several empirical studies support the relationship between EL and POS. Ilyas et al. (2023) and Cheng et al. (2022) found that EL enhances perceptions of organizational fairness and support. These perceptions subsequently predict job satisfaction and employee commitment. Similarly, Cheng et al. (2024) reported that employees interpret EL behaviors as signals of organizational support, which strengthens engagement. Recently, Nejati et al. (2020) demonstrated that EL predicts POS. This relationship subsequently reduced employees'

turnover intentions. Theoretically, this connection is explained by SE theory, which emphasizes the role of reciprocity (Ahmad et al., 2023). Ethical leaders provide fairness, respect, and transparency as valuable social resources (Cheng et al., 2024; Glomseth & Bentzen, 2025). Employees reciprocate by perceiving greater support from their organizations (Cheng et al., 2022; Ilyas et al., 2023). In doing so, EL strengthens the psychological contract between employees and organizations (Islam et al., 2023; Ivana et al., 2025). This process reinforces employees' perceptions of organizational care, commitment, and value. Therefore, this research expects to test the following hypotheses.

Hypothesis 2: EL positively influences POS.

The connection between POS and efficiency is explained by SE theory as proposed by Homans (1958) and Organizational Support (OS) theory as proposed by (Eisenberger et al., 1986). Employees who perceive strong organizational support are motivated to exert effort and demonstrate resilience in challenging situations (Cai et al., 2024; Sihag & Dhoopar, 2022). They also engage in cooperative behaviors that facilitate efficiency within organizations. POS also minimizes uncertainty and role ambiguity, prompting employees to set personal aims in line with organizational goals (Imran et al., 2020). In stress-intensive and highly-worked healthcare settings, POS becomes especially crucial for maintaining performance. Supported employees are less prone to burnout and more likely to exhibit discretionary effort and team collaboration (Burawat, 2023). They are also more willing to engage in proactive problem-solving, thereby improving operational effectiveness. In turn, supportive climates in healthcare foster trust and effective communication, minimizing errors and building cross-departmental coordination (Crossette-Thambiah et al., 2024; Li et al., 2025).

Research evidence indicates a stable and significant relationship between POS and employees' performance outcomes. In their meta-analysis, Liu et al. (2021) found that POS is positively related to job performance and firm commitment. Saks et al. (2022) identified a positive link between POS and outcomes such as engagement and performance across various contexts. In healthcare contexts, research indicates that POS decreases turnover and boosts productivity (Prysmakova & Lallatin, 2023). Despite these findings, direct testing of the relationship between POS and OE remains limited, particularly in non-Western healthcare systems. This gap highlights the importance of further inquiry into efficiency outcomes. Consequently, examining POS as a determinant of efficiency provides both empirical novelty and practical significance. This issue is especially important in healthcare systems such as those in Saudi Arabia. In this context, efficiency pressures are central to ongoing reforms and long-term organizational sustainability (IMF et al., 2025). Therefore, this research expects to test the following hypotheses.

Hypothesis 3: POS positively influences OE.

While EL can directly enhance OE, the process underlying this relationship requires deeper examination. A promising factor is POS as a mediator, consistent with SE theory (Kurtessis et al., 2015). Ethical leaders demonstrate fairness, respect, and care, which strengthen POS and motivate employees to reciprocate with commitment, effort, and cooperation (Cheng et al., 2022; Ilyas et al., 2023). These reciprocal behaviors contribute significantly to greater OE. Theoretically, mediation occurs because EL signals organizational support, which then

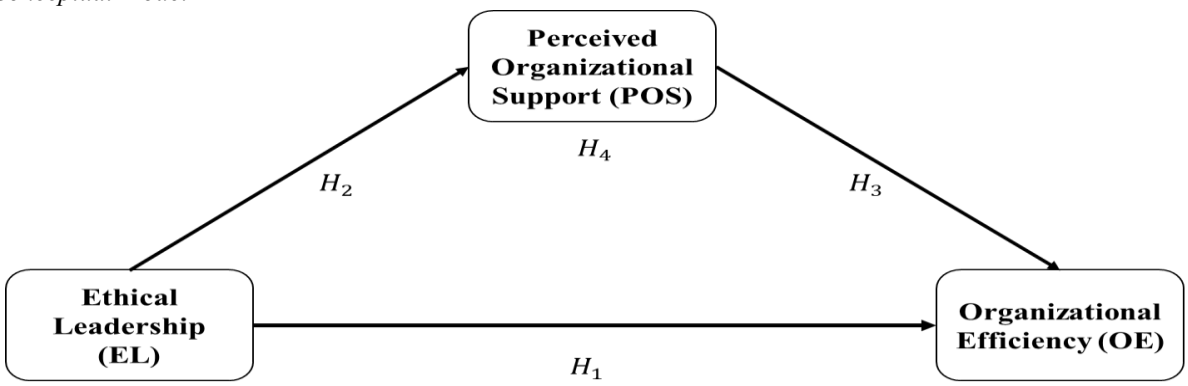
becomes the psychological foundation for efficiency-oriented behaviors. Employees without strong POS may not internalize or act upon leaders' ethical behaviors in a meaningful way (Prysmakova & Lallatin, 2023). By integrating POS into the EL–OE pathway, this study clarifies how leadership exerts influence. The study demonstrates that EL promotes efficiency through both direct effect and relational processes. It also reinforces the importance of support as a central explanatory factor in organizational outcomes.

Mediation by POS has been examined in relation to attitudinal outcomes such as engagement and satisfaction (Yu, 2024). However, fewer studies have investigated its role between EL and OE. Empirical findings support this logic. According to Pham et al. (2024), POS serves as an indirect factor in linking EL and workers' outcomes. Likewise, Xu et al. (2025) demonstrated that POS mediated the connection between EL and turnover intentions. Despite these contributions, evidence directly linking EL, POS, and efficiency remains limited in healthcare contexts. It is also scarce in non-Western settings such as Saudi Arabia, where cultural and institutional dynamics may alter expected relationships. Understanding POS as a mediator in the EL–OE framework fills a crucial gap. It provides both theoretical extension and empirical verification through testing. It also offers more insight into why, in the long run, EL turns into sustainable OE. Therefore, this research expects to test the following hypotheses.

Hypothesis 4: POS mediates the relationship between EL and OE.

Figure 1 shows the conceptual model for this study. It is based on the study's aims, literature, and theoretical framework, such as SE and OS theories, as well as relevant hypotheses.

Figure 1
Conceptual Model



Method

Research Design

This research took a quantitative approach, suitable for studying relationships between variables through statistical testing and objective measurement. Quantitative techniques help in hypothesis testing through a systematic approach. They also yield generalizable results, especially when studying cause-and-effect relationships among constructs such as EL, POS, and OE (Creswell & Creswell, 2014). A positivist approach guided the study, assuming an objective, measurable, and perception-independent reality. Positivism is appropriate for testing theories and establishing statistical associations from observable data (Saunders & Lewis, 2017). Deductive reasoning also applied, starting in this case from established theories. In

particular, it leveraged EL Theory and SE theory prior to developing hypotheses for empirical testing. Deduction is appropriate when theoretical assumptions are to be confirmed or rejected through hypothesis-driven testing (Bryman, 2016). Through this design, rigor and good alignment with the set study aims and theoretical foundations were achieved.

Participants

The subjects in this research were healthcare professionals in Saudi Arabian hospitals, including doctors, nurses, allied health professionals, and administrative personnel. These subjects were selected because they have firsthand experience with leadership practices and organizational support systems. Given their roles, they are best suited to evaluate the effect of EL on efficiency outcomes. Healthcare professionals work in challenging settings where leadership and efficiency have substantial effects on patient care and the survival of healthcare organizations. This fact supports their choice as the target population (Al-Sawai, 2013). The sample intentionally included both clinical and non-clinical personnel to capture diverse viewpoints on organizational procedures. Including this type of diversity enhances generalizability to other healthcare functions in different settings. By targeting healthcare professionals in the Kingdom of Saudi Arabia, this research contributes to the literature that frequently privileges Western settings. It accordingly provides useful insights into leadership dynamics in a non-Western healthcare system where efficiency and ethical practice are paramount.

Sampling

The minimum sample size was determined using the item response theory rule of thumb. According to this rule, at least ten responses are recommended for each questionnaire item (Hair et al., 2019). Since there were 36 survey measurement items, the minimum required was 360 participants. Four hundred responses were shared among the target participants. However, 368 valid responses were received for the final data set. The research adopted purposive sampling to enlist healthcare professionals with firsthand experience in organizational leadership practices and efficiency processes. Purposive sampling was adopted because the researcher can intentionally select participants whose information is most pertinent to the study objectives (Berndt, 2020). It is particularly appropriate for healthcare research, for which knowledge about contexts and expertise is key to informative responses. The sampling design ensured representation from key departments, including emergency, surgery, and internal medicine.

Instruments

Data were collected using a structured survey based on proven scales from prior research. EL was assessed using 10 statements adapted from Islam et al. (2023). POS was assessed using the abbreviated six-item survey developed by Bahadır et al. (2022). OE was measured from a nine-item adapted version of prior organizational performance studies (Zehir & Zehir, 2023). A five-point Likert-type Scale was adapted. Organizational research extensively validates Likert-type scales as effective at measuring attitudes and perceptions, with strong validity and reliability. Pretesting with a small group of professionals ensured clarity and cultural appropriateness. Reliability and validity testing confirmed strong psychometric properties of the adapted scales.

Analysis

The data were analyzed using PLS-SEM, estimated with Smart-PLS 4 software. PLS-SEM was selected because it is suitable for complex models involving mediation and studies with predictive objectives (Hair et al., 2019). Unlike covariance-based SEM, PLS-SEM requires fewer distributional assumptions. This method is suitable for small to medium sample sizes, making it appropriate for the current dataset (n = 368). It allows for simultaneous estimation of measurement and structural models, thereby ensuring rigorous evaluation of construct reliability, validity, and hypothesized relationships. Following established guidelines, convergent and discriminant validity were assessed. This approach ensured rigorous evaluation of mediation effects.

Results

Participant Summary

Table 1 reports the demographic details of the sample (N = 368). The majority of the participants were men (69.6 percent) with women representing 30.4 percent of the group. Respondents were comparatively young, with 39.1 percent between the ages of 20 and 29 years, and 28.3 percent between the ages of 30 and 39 years. Only 6.5 percent of participants were 60 years or older. Regarding education, the largest group held a master's degree (43.5 percent). This was followed by doctorates (17.4 percent), while 6.5 percent held diplomas. Professionally, more than half of the participants were doctors (52.2 percent), and nearly one third were nurses (28.3 percent). Departmental representation was greatest in emergency units (41.3 percent) and surgery (28.3 percent). Lower percentages came from internal medicine (13.0 percent) and pediatrics (10.9 percent).

Table 1

Demographic Summary

Attributes	Categories	N	%
Gender	Male	256	69.6%
	Female	112	30.4%
Age	20-29	144	39.1%
	30-39	104	28.3%
	40-49	56	15.2%
	50-59	40	10.9%
	60+	24	6.5%
Education	Diploma	24	6.5%
	Bachelor's	40	10.9%
	Master's	160	43.5%
	Doctorate	64	17.4%
	Others	80	21.7%
Specialization	Doctor	192	52.2%
	Nurse	104	28.3%
	Allied Health Professional	32	8.7%
	Administrative Staff	16	4.3%
	Others	24	6.5%
Départements	Emergency	152	41.3%
	Surgery	104	28.3%
	Internal Medicine	48	13.0%
	Pediatrics	40	10.9%
	Administrations	16	4.3%
	Others	8	2.2%

Common Method Bias

Common Method Bias (CMB) occurs when errors arise from methodological artifacts, such as using the same response format for all survey items (Kock, 2017). To assess CMB potential in this research study, a full collinearity test was applied in line with Kock's guidance. The process checked VIF values for every construct in the measurement model. All results showed that VIF values remained well below the conservative cut-off point of 3.3, thereby affirming the absence of detrimental collinearity. The result supports the evidence that CMB is not substantial in the present analysis.

Measurement Model's Assessment

Table 2 reports convergent validity and study construct reliability. All factor loadings (Figure 2) exceeded the suggested .70 cut-off, ranging from .89 to .98, thus establishing strong item reliability (Hair et al., 2019). VIFs uniformly fell below the critical 5 threshold, indicating that multicollinearity was not present in this data set. Internal consistency received strong support, with Cronbach's Alpha (CA) ranging from .98 to .98, indicating acceptable levels of internal consistency across all constructs. Composite Reliability (CR) levels also exceeded .98 for all constructs, thus establishing support for measurement robustness. Average Variance Extracted (AVE) in establishing convergent validity exceeded the suggested .50 threshold at all levels, ranging from .86 to .94 (Hair et al., 2019). Overall, these results collectively confirm that EL, OE, and POS have excellent psychometric properties.

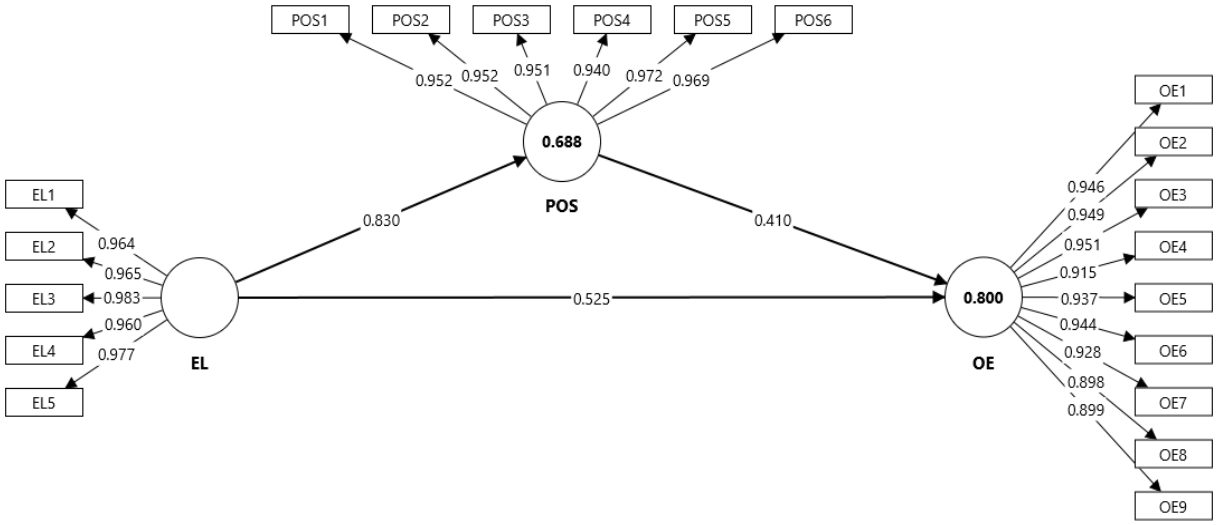
Table 2

Convergent Validity and Reliability

Constructs and Factors	FL	VIF	CA	CR (rho_a)	CR (rho_c)	AVE
Ethical Leadership			0.98	0.98	0.98	0.94
EL1	.96	2.19				
EL2	.96	1.98				
EL3	.98	3.90				
EL4	.96	1.84				
EL5	.97	2.90				
Organizational Efficiency			.98	.98	.98	.86
OE1	.94	2.25				
OE2	.94	2.59				
OE3	.95	2.78				
OE4	.91	1.60				
OE5	.93	2.27				
OE6	.94	2.23				
OE7	.92	1.94				
OE8	.89	1.60				
OE9	.89	1.32				
Perceived Organizational Support			.98	.98	.98	.91
POS1	.95	2.07				
POS2	.95	1.87				
POS3	.95	3.45				
POS4	.94	2.19				
POS5	.97	3.47				
POS6	.96	3.40				

Figure 2

Measurement Model



The findings related to discriminant validity are presented in Table 3. The values on the diagonal are inter-construct correlations indicating $\sqrt{AVE}$. It meets the criteria of discriminant validity (Fornell & Larcker, 1981). For example, inter-construct correlations of EL $\sqrt{AVE}$ = .97) was greater than OE ($\sqrt{AVE}$ = .86). It was also greater than the inter-construct correlations of POS ($\sqrt{AVE}$ = .83). Similarly, OE ($\sqrt{AVE}$ = .93) and POS ($\sqrt{AVE}$ = .95) surpassed their respective inter-construct correlations. HTMT ratios were below the conservative threshold of .85 (Henseler et al., 2015). They ranged between .74 and .79, which confirmed adequate discriminant validity. Descriptive statistics indicated relatively high levels of EL, OE, and POS with mean values of = 3.95, 4.08, and 4.00, respectively. Collectively, these results confirm discriminant validity and support their inclusion in subsequent structural model testing.

Table 3

Discriminant Validity and Reliability

	Fornell Larcker Criterion			Descriptive Statistics		HTMT Ratios		
Factors	EL	OE	POS	Mean	STD	EL	OE	POS
EL	**.97**			3.95	1.19			
OE	.86	**.93**		4.08	1.13	.79		
POS	.83	.84	**.95**	4.00	0.95	.74	.76	

Note. N = 368, EL = Ethical Leadership, OE = Organizational Efficiency, POS = Perceived Organizational Support, α = Cronbach Alpha, Min = Minimum Value, Max = Maximum Value, Mean = Average Value, STD = Standard Deviation.

Table 4 reports the model fit indices for the measurement model of this study. The Standardized Root Mean Square Residual (SRMR) value was .03, indicating a satisfactory model fit. This value is below the .08 threshold for acceptable fit and also meets the .05 criterion for good fit, indicating strong model adequacy. The discrepancy measures (d_ULS = .23; d_G = 1.43) were relatively low, suggesting acceptable model fit since smaller values are generally preferred. The chi-square statistic was significant (χ^2 = 2349.51). However, this result was expected due to the sensitivity of the chi-square to large sample sizes (Hair et al., 2019). The Normed Fit Index (NFI) was .91, surpassing the .90 threshold that indicates acceptable model fit. Collectively, these findings confirm that the structural model demonstrates an overall fit ranging from acceptable to good.

Table 4

Model Fit Indices

Indices	Saturated model	Estimated model	Threshold	Decision
SRMR	0.03	0.03	< 0.08 (acceptable), < 0.05 (good)	Good Fit
d_ULS	0.23	0.23	Should be close to zero; lower = better	Acceptable (very low)
d_G	1.43	1.43	Should be close to zero; lower = better	Acceptable (relatively low)
Chi-square	2349.51	2349.51	Non-significant desired, but sensitive to sample size	Acceptable
NFI	0.91	0.91	≥ 0.90 acceptable, ≥ 0.95 good	Acceptable

Structural Model Assessment

Table 5 summarizes the explanatory and predictive power of the structural model. The coefficient of determination (R^2) values were strong, with OE equal to .80 and POS equal to .68. Both exceeded the recommended .26 threshold for substantial explanatory power (Hair et al., 2019). The Stone–Geisser's Q^2 values were also high (OE = .74; POS = .68). These results confirm predictive relevance, as values above zero demonstrate meaningful prediction. Effect size (f^2) values further highlighted the relationship strength. EL showed a very large effect on OE (f^2 = 2.20) and on POS (f^2 = .42). POS demonstrated a medium effect on OE (f^2 = .26). Collectively, these findings indicate that the model possesses substantial explanatory and predictive capacity.

Table 5

Model Exploratory Power

Constructs	Q^2	R^2	F^2	
			OE	POS
EL	-	-	.42	2.20
OE	.74	.80	-	-
POS	.68	.68	.26	-

Hypotheses Testing

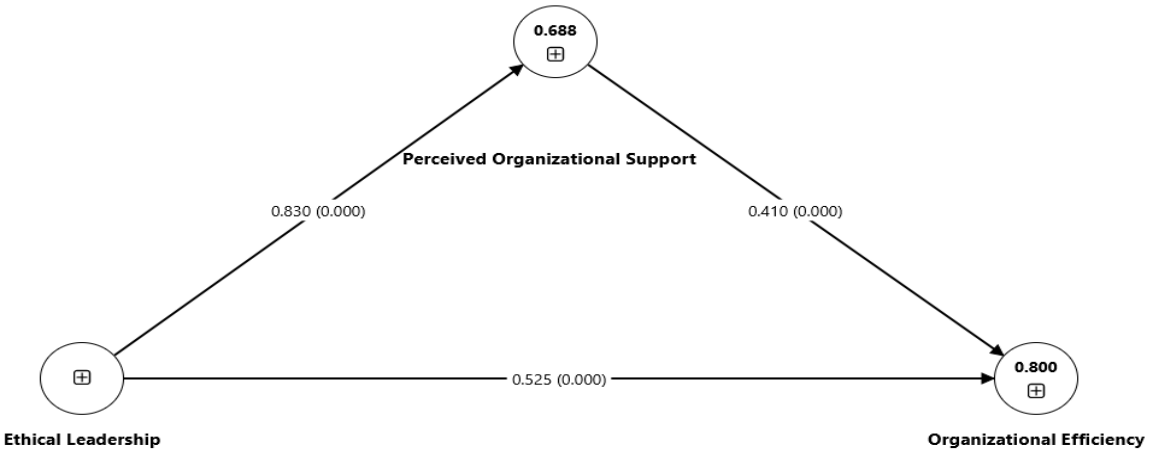
Table 6 presents the SEM results for both direct and indirect effects. EL demonstrated a significant positive effect on OE (β = .52, t = 14.58, p < .001), which supported Hypothesis 1. EL also strongly predicted POS (β = .83, t = 40.08, p < .001), thereby supporting Hypothesis 2. In turn, POS significantly enhanced OE (β = .41, t = 10.43, p < .001), providing evidence for Hypothesis 3. The mediation analysis revealed a significant indirect effect of EL on OE. This effect was transmitted through POS (β = .34, t = 11.34, p < .001). This finding confirmed Hypothesis 4. Collectively, the results indicate that EL exerts both direct and indirect effects on OE. POS functions as a meaningful mediator within the structural model. Finally, Figure 3 indicates the structural model of this study in graphical mode. It indicates the coefficients and P-values of different impacts, as shown in Table 6.

Table 6

SEM Estimates

Direct Effects	Coefficients	STD	*t*	*p*	Results
EL -> OE	.52	.03	14.58	.00	H_1: Supported
EL -> POS	.83	.02	40.08	.00	H_2: Supported
POS -> OE	.41	.03	10.43	.00	H_3: Supported
Indirect Effect					
EL -> POS -> OE	.34	.03	11.34	.00	H_4: Supported

Figure 3
SEM Model



Discussion

This study addresses an important literature gap by linking EL to OE in healthcare. It also tests POS as a mediating factor in KSA's context. Previous research on EL has emphasized attitudinal and behavioral outcomes such as trust, satisfaction, and reduced deviance. Far fewer studies have examined operational outcomes like efficiency (Detwal et al., 2023; Hyusein & Eyupoglu, 2023). Evidence from non-Western healthcare settings also remains limited, further underscoring the contribution of this study. The study demonstrates that EL directly improves OE. It also indirectly enhances efficiency through POS. In doing so, the study extends a predominantly attitude-focused body of literature into the performance domain (Kehyayan et al., 2025). It also provides context-specific evidence from a critical service sector. These findings are grounded in SE and OS perspectives (Ahmad et al., 2023; Cai et al., 2024). Both perspectives emphasize that fair and supportive treatment fosters high-quality exchange relationships. Such relationships, in turn, strengthen commitment and performance (Detwal et al., 2023; Ivana et al., 2025).

The strong positive effect of EL on POS aligns with established findings. Leaders who demonstrate integrity, fairness, and voice effectively communicate organizational care and reliability (Islam et al., 2023; Ivana et al., 2025). Saudi hospitals are often characterized by hierarchical structures and interdependent clinical teams (Alhojairi et al., 2024). Within this context, ethical leader behaviors such as transparent decision making, equitable resource allocation, and respectful communication likely serve as salient cues of organizational benevolence. Under conditions of high workload, particularly in emergency and surgical departments, employees are especially sensitive to fairness and predictability. Consequently, the observed large coefficient from EL to POS is both theoretically coherent and contextually plausible. This empirical pattern is consistent with meta-analytic conclusions (Liu et al., 2021; Prysmakova & Lallatin, 2023). These studies show that EL functions as a robust antecedent of supportive work climates. In turn, such climates reinforce organizational care and strengthen employee perceptions.

The positive effect of POS on OE is consistent with OS and SE theories (Eisenberger et al., 1986; Homans, 1958). Employees who feel valued reciprocate with higher effort, cooperation, and persistence. Additionally, these behaviors contribute to smoother workflows and fewer coordination losses (Crossette-Thambiah et al., 2024; Li et al., 2025). Both outcomes are critical components of efficiency in healthcare. In acute care settings, POS can reduce role ambiguity and promote timely information sharing. It can also limit withdrawal behaviors, thereby shorten cycle times and decreasing rework (Xu et al., 2025; Yu, 2024). It also strengthens efficiency outcomes that directly affect patient safety and throughput. The results of this study therefore, converge with earlier evidence linking POS to performance and citizenship behaviors. However, the findings extend the literature by demonstrating a direct link to OE. This outcome is of heightened importance in healthcare contexts, where patient flow, error reduction, and sustainability are central performance imperatives.

The significant path from EL to OE, beyond POS, indicates partial mediation. It also suggests dual routes through which EL enhances efficiency (Pham et al., 2024; Xu et al., 2025). Directly, ethical leaders establish clear behavioral norms and reduce moral ambiguity. They also discourage counterproductive shortcuts, thereby improving coordination quality and reliability in healthcare processes. Indirectly, EL cultivates POS. This support mobilizes discretionary effort and collaboration, further streamlining operations and enhancing efficiency. This dual pathway is consistent with prior research. Studies show that EL influences performance through relational factors such as trust and psychological safety. It also operates through clearer performance standards and accountability structures. Collectively, the findings converge with established theory and evidence. They also extend the literature by clarifying the efficiency consequences of EL in a non-Western healthcare context.

Theoretical Implications

This study makes several theoretical contributions by extending EL Theory and reinforcing SE theory. Previous research on EL has largely emphasized attitudinal and behavioral outcomes. These include trust, organizational citizenship behaviors, and reduced workplace deviance. A theoretical gap persisted regarding how EL shapes OE, a performance-oriented outcome of particular importance in healthcare. This study shows that EL directly enhances efficiency. In doing so, it broadens the application of EL Theory beyond ethical climates and employee well-being to include operational effectiveness. This extension strengthens the theory's predictive scope. A second contribution involves confirming the mediating role of POS. Mediators such as trust, empowerment, and psychological safety have been widely highlighted. In contrast, POS has been less frequently examined in leadership–performance links. Finally, this study contributes cultural novelty by validating both theories within KSA healthcare organizations, extending their cross-cultural relevance.

Practical Implications

The findings provide important implications for healthcare managers, policymakers, and organizational leaders. First, EL emerges as a critical driver of organizational efficiency. Leaders who demonstrate fairness, accountability, and transparency enhance coordination, reduce conflict, and motivate employees to align with organizational goals. For healthcare systems facing rising patient volumes, limited resources, and high service demands, fostering

EL can directly strengthen efficiency and service quality. Institutions should prioritize leadership development programs that emphasize integrity, ethical decision-making, and role modeling. Second, the mediating role of POS highlights the importance of supportive climates. Healthcare professionals who feel recognized and resourced are more likely to reciprocate with higher engagement and productivity. Organizations should institutionalize recognition systems, transparent communication, and well-being initiatives to reinforce support. Finally, within Saudi Arabia, respect and collective responsibility are strongly emphasized. In this context, EL and organizational support can enhance trust, loyalty, and sustainable efficiency outcomes.

Limitations and Future Research Directions

Despite its contributions, this study is subject to several limitations that guide future research. First, the use of a cross-sectional survey restricts causal inference. SEM identified significant associations. However, longitudinal or experimental designs are necessary to confirm causality among EL, POS, and efficiency. Second, reliance on self-reported data introduces the possibility of CMB. Third, the research context was limited to KSA healthcare organizations, which restricts generalizability across regions and industries. Cultural features such as collectivism, power distance, and religious values may shape relationships differently elsewhere. Finally, the focus on POS as the sole mediator excluded other factors such as trust, engagement, or psychological safety. Future research should investigate multi-mediator and moderator models to capture boundary conditions.

Conclusion

This study examined the impact of EL on OE among healthcare professionals in KSA. It also analyzed POS as a mediating factor. The results confirmed that EL plays a direct and significant role in strengthening efficiency. They also showed that it exerts an indirect influence through POS. These findings demonstrate that ethical leaders foster fairness and trust. At the same time, they create supportive climates that enable employees to contribute effectively to organizational objectives. The study extends EL Theory to outcomes directly related to efficiency. It also validates the mediating role of organizational support, thereby addressing a critical theoretical and practical gap. The evidence also highlights the importance of EL in high-demand healthcare environments, particularly within non-Western contexts. Collectively, the findings reinforce the conclusion that ethical and supportive leadership practices are essential for sustaining efficiency. They are also critical for promoting adaptability and resilience in healthcare organizations facing resource and service pressures.

Declarations

Acknowledgements

We thank all the study respondents for their valuable contributions.

Disclosure Statement

No potential conflict of interest was reported by the authors.

Ethics Approval

This study was approved by the Research Ethics Committee at University of Ha'il, dated: 08 September 2025, No. H-2025-856. Informed consent was obtained from participants who were involved in this study.

Funding Acknowledgements

Not applicable.

Citation to this article

Alnasser, B., & Kumar, R. (2025). Does ethical leadership shape organizational efficiency? The mediating role of perceived organizational support in the healthcare sector. *International Journal of Organizational Leadership, 14*(4), 882-899. https://doi.org/10.33844/ijol.2025.60538

References

Abdi, A.-N. M., & Hashi, M. B. (2023). Linking ethical leadership and organizational social capital towards enhancing organizational performance in the Somali Public Sector. *International Journal of Organizational Leadership*, *12*(4), 406–424. https://doi.org/10.33844/ijol.2023.60386

Aftab, J., Sarwar, H., Kiran, A., Qureshi, M. I., Ishaq, M. I., Ambreen, S., & Kayani, A. J. (2022). Ethical leadership, workplace spirituality, and job satisfaction: moderating role of self-efficacy. *International Journal of Emerging Markets*, *18*(12), 5880–5899. https://doi.org/10.1108/IJOEM-07-2021-1121

Ahmed, E. I. (2023). A systematic review of authentic leadership literature in educational research from 1997 to 2021. *Educational Management Administration & Leadership*, *52*(6), 1276–1314. https://doi.org/10.1177/17411432221120467

Ahmad, R., Nawaz, M. R., Ishaq, M. I., Khan, M. M., & Ashraf, H. A. (2023). Social exchange theory: Systematic review and future directions [Systematic Review]. *Frontiers in Psychology*, *13*. https://doi.org/https://doi.org/10.3389/fpsyg.2022.1015921

Al-Sawai, A. (2013). Leadership of healthcare professionals: where do we stand? *Oman Med J*, *28*(4), 285–287. https://doi.org/10.5001/omj.2013.79

Al Halbusi, H., Williams, K. A., Ramayah, T., Aldieri, L., & Vinci, C. P. (2020). Linking ethical leadership and ethical climate to employees' ethical behavior: the moderating role of person–organization fit. *Personnel Review*, *50*(1), 159–185. https://doi.org/10.1108/PR-09-2019-0522

Alhojairi, H. M., Elseesy, N. A. M., Mahran, S. M., Banakhar, M. A., & Alsharif, F. (2024). Assessment of nurses' workplace silence behaviour motives: A cross-sectional study. *International Journal of Nursing Sciences*, *11*(5), 553–562. https://doi.org/10.1016/j.ijnss.2024.10.006

Almeida, J. G., Hartog, D. N. D., De Hoogh, A. H. B., Franco, V. R., & Porto, J. B. (2022). Harmful leader behaviors: Toward an increased understanding of how different forms of unethical leader behavior can harm subordinates. *Journal of Business Ethics*, *180*(1), 215–244. https://doi.org/10.1007/s10551-021-04864-7

Amer, F., Hammoud, S., Khatatbeh, H., Lohner, S., Boncz, I., & Endrei, D. (2022). A systematic review: the dimensions to evaluate health care performance and an implication during the pandemic. *BMC Health Services Research*, *22*(1), 621. https://doi.org/10.1186/s12913-022-07863-0

Arefin, M. S., Faroque, O., Zhang, J., & Long, L. (2022). High-performance work systems and organizational citizenship behavior: the role of goal congruence and servant leadership. *International Journal of Emerging Markets*, *18*(11), 5432–5453. https://doi.org/10.1108/IJOEM-03-2019-0209

Bahadır, F., Yeşiltaş, M., Sesen, H., & Olaleye, B. R. (2022). The relation between perceived organizational support and employee satisfaction: the role of relational psychological contract and reciprocity ideology. *Kybernetes*, *53*(1), 102–122. https://doi.org/10.1108/K-04-2022-0520

Bentzen, T. Ø. (2023). The tripod of trust: a multilevel approach to trust-based leadership in public organizations. *Public Management Review*, *25*(12), 2255–2277. https://doi.org/10.1080/14719037.2022.2132279

Berndt, A. E. (2020). Sampling Methods. *Journal of Human Lactation*, *36*(2), 224–226. https://doi.org/10.1177/0890334420906850

Bryman, A. (2016). *Social research methods*. Oxford university press.

Burawat, P. (2023). Examining generational differences in the workplace: narcissism, work centrality, and the impact on employee engagement and discretionary effort. *Industrial and Commercial Training*, *55*(4), 509–543. https://doi.org/10.1108/ICT-05-2022-0035

Cai, M., Wang, M., & Cheng, J. (2024). The effect of servant leadership on work engagement: The role of employee resilience and organizational support. *Behavioral Sciences*, *14*(4).

Chen, C.-H. (2022). The mediating effect of corporate culture on the relationship between business model innovation and corporate social responsibility: A perspective from small- and medium-sized enterprises. *Asia Pacific Management Review*, *27*(4), 312–319. https://doi.org/https://doi.org/10.1016/j.apmrv.2022.01.001

Chen, Q., & Liu, Z. (2022). Hospitality's ethical values and unethical employee behaviour: The mediating roles of work values and the moderating role of perceived organisational support [Original Research]. *Frontiers in Psychology*, *Volume 13 - 2022*. https://www.frontiersin.org/journals/psychology/articles/10.3389/fpsyg.2022.1063797

Cheng, J., Zhang, L., He, M., & Yao, Y. (2024). How does ethical leadership influence work engagement in project-based organizations? A sensemaking perspective. *Leadership & Organization Development Journal*, *45*(4), 683–701. https://doi.org/10.1108/LODJ-03-2023-0139

Cheng, J., Zhang, L., Lin, Y., Guo, H., & Zhang, S. (2022). Enhancing employee wellbeing by ethical leadership in the construction industry: The role of perceived organizational support [Hypothesis and Theory]. *Frontiers in Public Health*, *Volume 10 - 2022*. https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2022.935557

Corbett, C. J. (2023). OM forum—the operations of well-being: An operational take on happiness, equity, and sustainability. *Manufacturing & Service Operations Management*, *26*(2), 409–430. https://doi.org/10.1287/msom.2022.0521

Creswell, J. W., & Creswell, J. D. (2014). *Research desing: qualitative, quantitative and mixed methods approaches* (Vol. 54). United State of America: Sage Publications.

Crossette-Thambiah, G., Berleant, D., & AbuHalimeh, A. (2024). An information quality framework for managed health care. *Journal of Healthcare Leadership*, *16*(null), 343–364. https://doi.org/10.2147/JHL.S473833

Den Hartog, D. N., & De Hoogh, A. H. B. (2024). Cross-cultural leadership: What we know, what we need to know, and where we need to go. *Annual Review of Organizational Psychology and Organizational Behavior*, *11*, 535–566. https://doi.org/10.1146/annurev-orgpsych-110721-033711

Deng, C., Gulseren, D., Isola, C., Grocutt, K., & Turner, N. (2023). Transformational leadership effectiveness: an evidence-based primer. *Human Resource Development International*, *26*(5), 627–641. https://doi.org/10.1080/13678868.2022.2135938

Detwal, P. K., Agrawal, R., Samadhiya, A., Kumar, A., & Garza-Reyes, J. A. (2023). Revolutionizing healthcare organizations with Operational Excellence and Healthcare 4.0: a systematic review of the state-of-the-art literature. *International Journal of Lean Six Sigma*, *15*(1), 80–102. https://doi.org/10.1108/IJLSS-04-2023-0061

Eisenberger, R., Huntington, R., Hutchison, S., & Sowa, D. (1986). Perceived organizational support. *Journal of Applied Psychology*, *71*(3), 500–507. https://doi.org/10.1037/0021-9010.71.3.500

Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, *18*(1), 39–50. https://doi.org/10.1177/002224378101800104

Gamarra, M. P., & Girotto, M. (2022). Ethical behavior in leadership: a bibliometric review of the last three decades. *Ethics & Behavior*, *32*(2), 124–146. https://doi.org/10.1080/10508422.2020.1863799

Gibson, C., Thomason, B., Margolis, J., Groves, K., Gibson, S., & Franczak, J. (2022). Dignity Inherent and earned: The experience of dignity at work. *Academy of Management Annals*, *17*(1), 218–267. https://doi.org/10.5465/annals.2021.0059

Glomseth, R., & Bentzen, T. H. (2025). Leadership ethics, integrity, leadership virtues, and police leadership. In R. Glomseth & T. H. Bentzen (Eds.), *Police leadership: A norwegian approach* (pp. 163-176). Springer Nature Switzerland. https://doi.org/10.1007/978-3-031-92644-0_9

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, *31*(1), 2–24. https://doi.org/10.1108/EBR-11-2018-0203

Hassan, S., Kaur, P., Muchiri, M., Ogbonnaya, C., & Dhir, A. (2023). Unethical leadership: Review, synthesis and directions for future research. *Journal of Business Ethics*, *183*(2), 511–550. https://doi.org/10.1007/s10551-022-05081-6

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115–135. https://doi.org/10.1007/s11747-014-0403-8

Hetrick, A. L., Mitchell, M. S., Villarosa-Hurlocker, M. C., & Sullivan, T. S. (2022). The consequence of unethical leader behavior to employee well-being: Does support from the organization mitigate or exacerbate the stress experience? *Human Performance*, *35*(5), 323–344. https://doi.org/10.1080/08959285.2022.2123486

Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, *63*(6), 597–606. https://doi.org/10.1086/222355

Houston, L., Ferris, D. L., & Crossley, C. (2022). Does value similarity matter? Influence of ethical leadership on employee engagement and deviance. *Group & Organization Management*, *49*(4), 943–976. https://doi.org/10.1177/10596011221124790

Hyusein, A., & Eyupoglu, S. Z. (2023). Ethical leadership and perceived organisational politics: The mediating role of social loafing. *International Journal of Organizational Leadership*, *12*(2), 125–143. https://doi.org/10.33844/ijol.2023.60354

Ilyas, S., Abid, G., & Ashfaq, F. (2023). Enhancing the perceived organizational support, perceived ethical-philanthropic CSR and subjective well-being: the role of ethical leadership. *International Journal of Ethics and Systems*, *39*(4), 713–736. https://doi.org/10.1108/IJOES-04-2022-0084

IMF, ME, & SA. (2025). *Saudi Arabia: 2025 Article IV Consultation-Press Release; and Staff Report*. IMF.

Imran, M. Y., Elahi, N. S., Abid, G., Ashfaq, F., & Ilyas, S. (2020). Impact of perceived organizational support on work engagement: Mediating mechanism of thriving and flourishing. *Journal of Open Innovation: Technology, Market, and Complexity*, *6*(3).

Iqbal, J., & Parray, Z. A. (2024). Leading with integrity: illuminating the pathway to positive job outcomes through ethical leadership and CSR. *Social Responsibility Journal*, *21*(2), 320–336. https://doi.org/10.1108/SRJ-08-2023-0464

Islam, T., Khatoon, A., Cheema, A. U., & Ashraf, Y. (2023). How does ethical leadership enhance employee work engagement? The roles of trust in leader and harmonious work passion. *Kybernetes*, *53*(6), 2090–2106. https://doi.org/10.1108/K-09-2022-1343

Ivana, P. R., Marumpe, D. P., Daud, I., & Yakin, I. (2025). Impact of psychological contract breach and ethical leadership on turnover intention: Emotional exhaustion as mediator. *Journal of Management Science (JMAS)*, *8*(1), 243–253. https://doi.org/10.35335/jmas.v8i1.601

Karikumpu, V., Häggman-Laitila, A., Romppanen, J., Kangasniemi, M., & Terkamo-Moisio, A. (2024). Trust in the leader and trust in the organization in healthcare: A concept analysis based on a systematic review. *Journal of Nursing Management*, *2024*(1), 8776286. https://doi.org/10.1155/2024/8776286

Kehyayan, V., Yasin, Y. M., & Al-Hamad, A. (2025). Toward a clearer understanding of value-based healthcare: A concept analysis. *Journal of Nursing Management*, *2025*(1), 8186530. https://doi.org/10.1155/jonm/8186530

Kock, N. (2017). Common method bias: A full collinearity assessment method for PLS-SEM. In H. Latan & R. Noonan (Eds.), *Partial least squares path modeling: Basic concepts, methodological issues and applications* (pp. 245-257). Springer International Publishing. https://doi.org/10.1007/978-3-319-64069-3_11

Kurtessis, J. N., Eisenberger, R., Ford, M. T., Buffardi, L. C., Stewart, K. A., & Adis, C. S. (2015). Perceived organizational support: A meta-analytic evaluation of organizational support theory. *Journal of Management*, *43*(6), 1854–1884. https://doi.org/10.1177/0149206315575554

Li, M., Li, X.-H., Min, K.-Y., & Yang, J.-T. (2025). Artificial intelligence applications in fangcang shelter hospitals: Opportunities and challenges. *Chinese Medical Sciences Journal*, *40*(3), 197–202. https://doi.org/10.24920/004510

Liu, S., Yang, X., & Mei, Q. (2021). The effect of perceived organizational support for safety and organizational commitment on employee safety behavior: a meta-analysis. *International Journal of Occupational Safety and Ergonomics*, *27*(4), 1154–1165. https://doi.org/10.1080/10803548.2019.1694778

Long, T. (2024). Why are employee assistance programmes under-utilised and marginalised and how to address it? A critical review and a labour process analysis. *Human Resource Management Journal*, *34*(4), 1134–1153. https://doi.org/https://doi.org/10.1111/1748-8583.12547

Mishra, S., & Jain, K. (2025). Innovations in Healthcare: A systematic literature review. *Journal of Business Research*, *194*, 115364. https://doi.org/10.1016/j.jbusres.2025.115364

Mitchell, M. S., Rivera, G., & Treviño, L. K. (2023). Unethical leadership: A review, analysis, and research agenda. *Personnel Psychology*, *76*(2), 547–583. https://doi.org/10.1111/peps.12574

Nejati, M., Brown, M. E., Shafaei, A., & Seet, P.-S. (2020). Employees' perceptions of corporate social responsibility and ethical leadership: are they uniquely related to turnover intention? *Social Responsibility Journal*, *17*(2), 181–197. https://doi.org/10.1108/SRJ-08-2019-0276

OHI. (2021). *Saudi health sector transformation accelerated under Vision 2030 and pandemic*. https://www.globalhealthsaudi.com/en/overview/industry-insights/saudi-health-sector-transformation-accelerated-under-vision2030-and-pandemic.html

Papadakis, N., & Katsaprakakis, D. A. (2023). A review of energy efficiency interventions in public buildings. *Energies*, *16*(17).

Pham, L. N. T., Nguyen, D. T., Vo, A. H. K., & Nguyen, L. D. (2024). Well-being of migrant workers in Taiwan during COVID-19 pandemic: the role of perceived organisational support, employee resilience and ethical leadership. *International Journal of Manpower*, *45*(6), 1132–1149. https://doi.org/10.1108/IJM-04-2023-0179

Pham, N. T., Jabbour, C. J. C., Pereira, V., Usman, M., Ali, M., & Vo-Thanh, T. (2023). Common good human resource management, ethical employee behaviors, and organizational citizenship behaviors toward the individual. *Human Resource Management Journal*, *33*(4), 977–1000. https://doi.org/10.1111/1748-8583.12493

Prysmakova, P., & Lallatin, N. (2023). Perceived organizational support in public and nonprofit organizations: Systematic review and directions for future research. *International Review of Administrative Sciences*, *89*(2), 467–483. https://doi.org/10.1177/00208523211033822

Saks, A. M., Gruman, J. A., & Zhang, Q. (2022). Organization engagement: a review and comparison to job engagement. *Journal of Organizational Effectiveness: People and Performance*, *9*(1), 20–49. https://doi.org/10.1108/JOEPP-12-2020-0253

Saunders, M., & Lewis, P. (2017). *Doing research in business and management*. Pearson.

Sihag, P., & Dhoopar, A. (2022). Organizational resilience and employee performance: the mediation of perceived organizational support in the Indian HEIs. *International Journal of Productivity and Performance Management*, *72*(9), 2674–2696. https://doi.org/10.1108/IJPPM-07-2021-0387

Singh, A., & Vashist, H. (2024). Ethical leadership in health-care organizations – a scoping review. *Leadership in Health Services*, *38*(1), 136–152. https://doi.org/10.1108/LHS-04-2024-0035

Tan, C. (2024). Integrating moral personhood and moral management: A confucian approach to ethical leadership. *Journal of Business Ethics*, *191*(1), 167–177. https://doi.org/10.1007/s10551-023-05447-4

Thana, L., Wistow, G., Durand, M. A., Pacho, A., Rehackova, L., Douglas, N.,…Mays, N. (2025). Frontline staff perspectives on multi-disciplinary team working and the effectiveness of integrated service delivery: Findings from the evaluation of the Integrated Care and Support Pioneers in England. *Journal of Health Services Research & Policy*, *30*(1_suppl), 36S–47S. https://doi.org/10.1177/13558196251349388

Tufan, C., Namal, M. K., Arpat, B., Yesil, Y., & Mert, I. S. (2023). The mediating effect of organizational justice perception on the relationship between ethical leadership and workplace deviant behaviors. *Sustainability*, *15*(2).

Vian, T. (2020). Anti-corruption, transparency and accountability in health: concepts, frameworks, and approaches. *Global Health Action*, *13*(sup1), 1694744. https://doi.org/10.1080/16549716.2019.1694744

WHO. (2023). *Patient safety*. World Health Organization. https://www.who.int/news-room/fact-sheets/detail/patient-safety#:~:text=system%20and%20organizational%20factors:%20the,challenges%20related%20to%20natural%20environment.

Xu, H., Wu, C., Chen, C., Yan, B., Zha, N., Zhang, K.,…Lang, H. (2025). The effect of illegitimate tasks on work withdrawal behavior of intensive care unit nurses: The chain mediating effect of perceived organizational support and thriving at work. *Intensive and Critical Care Nursing*, *90*, 104136. https://doi.org/10.1016/j.iccn.2025.104136

Yu, J. (2024). Impacts of psychological contract fulfillment on work attitudes and behaviors during the COVID-19 pandemic: mediating role of perceived organizational support. *Current Psychology*, *43*(16), 14851–14860. https://doi.org/10.1007/s12144-022-03746-z

Yuan, L., Chia, R., & Gosling, J. (2023). Confucian virtue ethics and ethical leadership in modern China. *Journal of Business Ethics*, *182*(1), 119–133. https://doi.org/10.1007/s10551-021-05026-5

Yuan, Y., Kong, H., Baum, T., Liu, Y., Liu, C., Bu, N.,…Yin, Z. (2021). Transformational leadership and trust in leadership impacts on employee commitment. *Tourism Review*, *77*(5), 1385–1399. https://doi.org/10.1108/TR-10-2020-0477

Zehir, S., & Zehir, C. (2023). Effects of total quality management practices on financial and operational performance of hospitals. *Sustainability*, *15*(21).

Zhang, C., Xiao, Q., Liang, X., Klarin, A., & Liu, L. (2023). How does ethical leadership influence nurses' job performance? Learning goal orientation as a mediator and co-worker support as a moderator. *Nursing Ethics*, *31*(4), 406–419. https://doi.org/10.1177/09697330231185939