



**INFLUENCE OF ETHICAL LEADERSHIP ON INNOVATIVE WORK PERFORMANCE. THE EMPIRICAL STUDY THAT BASED ON MEDIATING ROLE OF PSYCHOLOGICAL OWNERSHIP ON LAHORE, PAKISTAN**

**Khalil Nasir Khan\***

Ph.D Scholar, Lincoln University College, Malaysia.

Email: [Khalilnasir9161@gmail.com](mailto:Khalilnasir9161@gmail.com)

**Fahad Saddique\*\***

Ph.D. Scholar, Institute of Management Science, Lahore, Pakistan

Email: [Fahad.saddique@gmail.com](mailto:Fahad.saddique@gmail.com)

**Sher Zaman\*\*\***

PhD Scholar Business Administration Gomal University DI Khan KPK, Pakistan

Email: [Sherzamanfuu@gmail.com](mailto:Sherzamanfuu@gmail.com)

**Abstract:**

*This research aims to examine the effects of ethical leadership on innovative work performance and the mediating role of psychological ownership. This study adopts a quantitative, cross-sectional survey design with closed-ended questionnaires administered to university teaching staff of Pakistan. A total of 250 respondents were included in the data analysis using SPSS software. The results indicate that ethical leadership has a positive and significant impact on innovative work performance. Furthermore, psychological ownership partially mediates the relationship between ethical leadership and innovative work performance. These results highlight the importance of ethical leadership and psychological ownership in encouraging employee innovative behavior. This study provides empirical evidence for the human resource management literature, particularly in the context of an emerging economy and psychological ownership theory. This study helps policymakers and business owners.*

**Keywords:** Ethical Leadership, Innovative Work Performance, Psychological Ownership, Teaching Staff, Pakistan.

**Introduction:**

Creating a workplace where employees feel free to think creatively, innovate, and be their best selves is crucial to success in today's knowledge-based economy. In fact, this is becoming increasingly vital for firms that want to develop their workers, enhance their key skills, and participate globally (Al-Matrooshi et al., 2016). Firms are now exploring various strategies to motivate their employees to create and innovate (Amabile et al., 2016). Researchers have also attempted to determine which form of leadership is most conducive to organizational growth (Sosik et al., 2018) and how to foster a culture of innovation through a process called liberal development in the workplace. An ethical leader will provide the conditions necessary for employee growth. Moreover, there is evidence that ethical leadership is directly related to many long-term characteristics of successful leadership, including job engagement, employee satisfaction, job commitment, and overall organizational performance (Newman et al., 2014). Likewise, it is considered critical for successful businesses to keep their employees engaged in their work to maintain a productive workplace (Strom et al., 2014). Employee engagement at work creates both positive organizational and personal outcomes, including, but not limited to, greater, greater productivity, higher job satisfaction, and improved operational effectiveness (Blomme et al., 2015). Distant or disinterested work, on the other hand, produces negative effects for the employee and the organization (Markos et al., 2010). However, in the new business landscape, a company's ability to produce creative products that add value to society has evolved into what is known as a company's "core competency" (Scott et al., 2004).

Consequently, various organizations are seeking ways to promote employee innovation and creativity effectively (Hon et al., 2016). A means of creating a productive working climate that allows individuals to reach their highest potential is through ethical leadership (Asif et al., 2019). Additionally, empirical evidence suggests that ethical leadership positively affects psychological ownership (Ahmad et al., 2018). Ethical leaders may influence psychological ownership through behaviors that support others, healthy environments, constructive feedback, trustworthiness, interpersonal justice, fairness, and healthy decision-making (Feng et al., 2018). When organizations encourage employees to participate in workplace innovations, these employees tend to be highly engaged (Asif et al., 2019). Ethical leadership and providing employees with psychological and social support within the team enhance employee commitment and enthusiasm (Bormann et al., 2017), motivating them to work diligently and ultimately contributing to the organization's success through innovation (Mushtaq et al., 2022). Ethical leadership impacts creativity in the workplace. Furthermore, because of their positive attitudes and sense of psychological ownership, employees meet all performance requirements (Fishbein et al., 2010). This study investigated ethical leadership in innovative work performance. In addition, psychological ownership served as a mediator in the relationship between ethical leadership and innovative performance in the education industry.

## **2. Literature Review and Hypotheses**

### **2.1. Ethical Leadership and Innovative Work Performance:**

It has been stated that demonstrating appropriate behaviors toward professional subordinates "appears to improve decision-making" (Brown et al., 2005). In addition, they practice what they preach and have strong notions of fairness and courtesy. Employees develop an understanding of ethics based on their supervisor's or co-workers' views (Ferrell et al., 2021). As a means of demonstrating commitment to their supervisor, employees generally align with their supervisor's ethical opinions (Mayer et al., 2009). According to the Social Learning Theory, role models influence ethical behavior (Mayer et al., 2009). A leader accomplishes this by developing positive outcomes for employees while reducing negative outcomes (Colquitt, 2001). Ethical leaders build confidence in their subordinates, empower them, and help shape their beliefs about the organization. When CEOs and organizations are perceived as fair, their employees are more likely to collaborate and therefore put forth greater creative effort (Asif et al., 2019). Additionally, ethical leaders foster honesty, trustworthiness, integrity, compassion, and equality amongst their peers (Northouse et al., 2021), and foster an environment that provides opportunities for employee contribution, leading to increased creativity (Asif et al., 2019). Research has repeatedly demonstrated that ethical leaders encourage risk-taking and innovation among their subordinates (Buonomo et al., 2021). Similarly, research demonstrates that ethical leadership increases organizational commitment (Alam et al., 2021). Creativity at work is also positively influenced by ethical leadership, as it is associated with higher levels of employee engagement (Buonomo et al., 2021). Research indicates that employee diversity fosters creativity (Yun et al., 2019). By fostering a culture that encourages these types of endeavors, a leader may cultivate creativity and innovative thinking within an organization (Lestari et al., 2021). Ethical leadership allows employees to utilize their abilities to achieve goals and create innovations. (Zhu et al. 2004). Ethical leadership stimulates employees to seek innovative solutions for the good of all employees (Brown et al., 2005). Employees will exhibit more innovation and creativity if they view their supervisor as committed (Peitz et al., 2015). Ethical leaders create a culture of creativity amongst employees (Chughtai et al., 2015). As discussed above, the following hypotheses were formulated

H1: Ethical Leadership has significant positive influence on the innovative work performance.

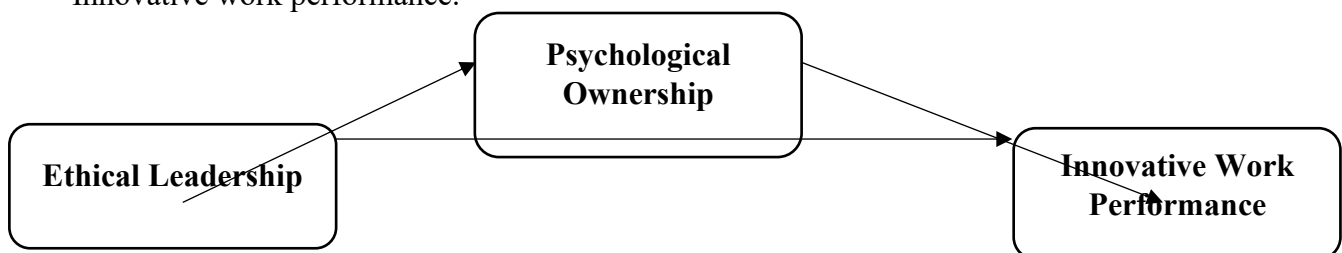
## 2.2 Mediating role of Psychological Ownership:

Psychological Ownership Theory (POT) provides an effective model for illustrating how ethical leadership results in better imaginative job performance by employees in relation to their jobs and their organizations. Psychological ownership is a cognitive-affective state: when workers perceive their organizations or jobs as belonging to them, they feel a sense of duty, concern, and proactivity (Pierce et al., 2003), because the organization is seen as "theirs". Psychological ownership was identified as one of several important mediating variables that link ethical leadership to positive worker outcomes, including creative job behavior. Ethical leadership that includes elements such as fairness, honesty, and models of good moral character will build workers' confidence in their employers, create conditions for increased autonomy, and provide workers with a perception of control (which are all necessary antecedents to psychological ownership) ultimately resulting in a level of psychological ownership from employees in their jobs. Empirical studies have demonstrated that ethically led organizations can be characterized by a culture that supports values, encourages emotional commitment, and creates feelings of ownership among workers towards their jobs. Therefore, workers develop a sense of psychological ownership which encourages them to go beyond what is expected of them within their job roles (Avey et al., 2012). The research demonstrates a strong relationship between ethical leadership and psychological ownership. Furthermore, it has been demonstrated that psychological ownership acts as a mediator for the effects of ethical leadership on employee performance/attitudes. Studies published in top-tier journals demonstrate that psychological ownership partially mediates the relationship between ethical leadership and outcomes such as information sharing and in-role performance (Khalil et al., 2023). As a method to increase imaginative job performance, psychological ownership provides a substantial motivational force. Workers are more inclined to take risks, generate novel ideas, and deliver creative solutions when they feel a sense of ownership over both their organizational responsibilities and the organization itself. Previous studies demonstrate that ethical leadership promotes innovation-related behaviors indirectly through internal psychological states. In addition, previous studies (Zahra, 2017) highlight that psychological ownership is directly related to ethical leadership and innovation-related outcomes. Thus, workers who feel a sense of ownership over their job functions are inherently motivated to improve and innovate their task performance. As per above discussion following hypothesis are formulated:

H2: Ethical Leadership has positive relationship with psychological ownership.

H3: Psychological ownership has positive relationship with innovative work performance.

H4: Psychological ownership has partial mediating role among the Ethical Leadership and Innovative work performance.



### Conceptual Frame Work

**3.1. Methodology:** The current study is important as it examines how ethical leaders influence teachers' (job) innovation in Lahore, Pakistan. As a mediator, psychological ownership has been selected. All personal identifiable information of the participants has remained



confidential throughout the data collection process. The methods for this study and the analysis methodology are based on research by F. Saddique, Khalil, and N. Mushtaq et al. on the energy sector; however, these studies were part of various interdisciplinary studies from 2020 to 2026. Surveys were distributed to school teachers in Lahore, Pakistan. Only 250 of the 350 surveys distributed were returned.

**Table.3.1 Variables, No. of Items, Sample Items and Reference:**

Variable	Items	Reference
Ethical Leadership	5	Brown, 2005.
Psychological Ownership	4	Avey et al., 2009
Innovative Work Performance	5	Khalil et al., 2024

**Table: 3.2. Sample Distribution:**

	Characters	F	%
<b>Gender</b>	Male	151	60.4
	Female	99	39.5
<b>Ages</b>	Below 25	45	18
	26-35	90	36
	35-45	105	42
	Above 45	10	4
<b>Qualification</b>	Graduation	31	12.4
	Master	70	28
	M. Phil	107	42.8
	PhD	41	16.4
<b>Experience</b>	Below One Year	30	12
	1 - 5 years	70	28
	6-10 Years	102	40.8
	Above 10 years	48	19.2

**Explanation:** According to Table 3.2 above, 350 people completed and returned the questionnaires. Of this amount, 250 were returned. There were 151 male respondents (approximately 60.4%) and 99 female respondents (approximately 39.6%). The respondent's age was divided into four categories. The largest group of respondents was in the 35-45 age range (105, or 42%); however, the remaining respondents were all 40 years or older (10). The respondents' qualifications were also categorized into four different groups. The largest number of respondents held an MPhil degree from a university (107 or 42.8%); however, the smallest number of respondents had a graduation (31 or 12.4%). Lastly, based on their work experience, the respondents could be grouped into one of four categories. The largest number of



respondents had 1-5 years of experience (102, or 40.8%), whereas the fewest had less than 1 year of experience (30, or 12%).

**Table#, 3.3: Reliability Analysis:**

Variable	No of Items	Cronbach's Alpha
Ethical Leadership	5	0.89
Psychological Ownership	4	0.82
Innovative Work Performance	5	0.81

**Explanation:** The reliability test of each scale was examined using Cronbach's alpha. See table #3.3. All the above values are higher than 0.70, which indicates that the measurements were accurate and acceptable enough for future research

**3.4. Correlation Analysis:**

**Correlation Analysis Table:**

Variables	1	2
1. Ethical Leadership	1	
2. Psychological Ownership	0.497**	1
3. Innovative Performance	0.403**	0.248**

**\*\* Correlation is Shown Significant at 0.01 level, \*Correlation is Significant at 0.05 level**

**Explanation:** Ethical leadership has a strong positive correlation with psychological ownership ( $r = 0.497, p = 0.00$ ) and an extremely positive relationship with innovative work performance ( $r = 0.403, p = 0.000$ ). Psychological ownership has a moderate/positive relationship to innovative work performance ( $r = 0.248, p = 0.005$ ).

**3.5. Regression Analysis**

**3.5.1. Model between Ethical Leadership and Innovative Work Performance**

Variable	R <sup>2</sup>	B	t	Sig
Ethical Leadership	0.163	0.293	6.93	0.000

**Dependent Variable: Innovative Work Performance\*  $p < 0.05$**

**Explanation:** Table 3.5.1 presents preliminary results from a regression analysis investigating how ethical leadership influences a worker's ability to produce something creatively. Because the ANOVA Sig value is  $.00 < .05$ , the model is deemed adequate and may be used as evidence supporting hypothesis 1. A R-squared of .163 shows that for every one unit of ethical leadership an employee has, they will have a 16.3 percent greater ability to develop innovative work. Also, since the p-value of .00 is less than .05, there is a statistically significant relationship between an organization's level of ethical leadership and its employees' ability to create new and innovative ideas. Finally, a B coefficient of .293 shows by how much a one-unit increase in ethical leadership will affect an employee's ability to develop new products and/or services. Thus, hypothesis 1 is accepted.

**3.5.2. Model between Ethical Leadership and Psychological Ownership**

Variable	R <sup>2</sup>	B	t	Sig
Ethical Leadership	0.247	0.489	9.018	0.000

**Dependent variable: Psychological Ownership, \*p < 0.05.**

**Explanation:** The statistical output from Table 3.5.2. provides the results of the analysis conducted to determine whether ethical leadership is associated with psychological ownership. Since the p-value (sig) associated with the ANOVA statistic is  $.00 < .05$ , it is appropriate for the model as well. A statistically meaningful relationship exists, as the p-value (.000) is less than .05. Therefore, we can conclude that a unit change in ethical leadership would be expected to result in a 24.7% (.247) difference in psychological ownership. The beta value is =0.489 Thus, Hypothesis 2 has been supported.

**3.5.3. Model between Psychological Ownership and Creative Work Performance**

Variable	R <sup>2</sup>	B	t	Sig
Psychological Ownership	0.062	0.185	4.034	0.000

**Dependent Variable: Innovative Work Performance, \*p < 0.05**

**Explanation:** Table 3.5.3 presents the results of an investigation into the effects of psychological ownership on innovative work performance. Based upon the ANOVA sig. = .000 (less than .05), we can say this model fits well, as it has an acceptable R-squared value (.062), indicating that for each unit increase in Psychological Ownership, there would be a 6.2% increase in Innovative Work Performance. The coefficient's t-value of .000 is significantly greater than .05, showing a strong relationship between the two variables. The b-value of .185 indicates that greater involvement with Psychological Ownership is associated with higher Innovative Work Performance. Therefore, hypothesis H3 is supported.

**3.5.4 Mediation Analysis:**

**Table 3.5.4: Mediation analysis using through Bootstrap**

Relationships	$\beta$	P	Bootstraps @		Hypotheses
			95% LL	UL	
<b><i>EL → PO → IWP</i></b>					
Direct effect	0.047	***	0.12	0.368	
Indirect effect	0.270	***	0.22	0.419	

**Note: EL=Ethical Leadership, PO=Psychological Ownership, IWP=Innovative Work Performance, \*\*\*p<0.01**

**Explanation:** The mediating variable hypothesis was evaluated using 1000 bootstrap samples, with 95% confidence intervals and upper and lower limits established. In the role of psychological ownership as a mediator between ethical leadership and innovative work performance, the indirect effect (0.047, LL = 0.12, UL = 0.368, P = 0.01) was smaller than the direct effect ( $\beta = 0.270$ ,  $P < 0.01$ ). There was no “0” value between upper and lower limits; therefore, Hypothesis H4 is accepted. Psychological ownership is shown to have a partial positive mediating association between ethical leadership and innovative work performance.

**4. Discussion:** Employees gain an appreciation of morality from their superiors and peers (Ferrell et al., 2021). To be seen as committed, employees typically follow the ethical assessment provided by their superior (Mayer et al., 2009). Social Learning Theory suggests that role modeling can encourage people to act ethically (Mayer et al., 2009). Ethical leaders



may model desirable behaviors by promoting societal well-being and discouraging undesirable ones (Colquitt, 2001). Ethical leaders can inspire, support, and shape their employees' values. When leaders and companies are perceived as fair, employees are more likely to collaborate and generate new ideas (Asif et al., 2019). Additionally, ethical leaders develop a working relationship with their employees based on honesty, trust, integrity, empathy, and fairness (Northouse et al., 2021), while also fostering a culture that encourages employees to contribute and generate new ideas (Asif et al., 2019). Previous empirical research demonstrates that ethical leaders encourage risk-taking and innovation within their organizations (Buonomo et al., 2021). Empirical research also shows a direct association between ethical leadership and organizational commitment (Alam et al., 2021). Ethical leadership fosters workplace creativity by increasing job engagement (Buonomo et al., 2021). Research also provides evidence of a positive correlation between ethical leadership, job engagement, and a supportive environment in which employees feel valued, leading to increased emotional commitment and a sense of ownership toward their jobs. Increased emotional commitment and a sense of ownership lead to psychological ownership, which encourages employees to go beyond required job duties (Avey et al., 2012). Research also demonstrated that psychological ownership was influenced positively by ethical leadership. Psychological ownership acts as a mediator of the positive effect of ethical leadership on employee performance and attitudes. Studies conducted by reputable researchers provide additional evidence that psychological ownership partially mediates the relationship between ethical leadership and other outcomes such as information sharing and in-role performance (Khalil et al., 2023). Psychological ownership acts as a motivator when attempting to increase inventive job performance. If an individual feels ownership of their tasks and the organization, they are more likely to take risks, generate innovative ideas, and put those ideas into practice. Past research has established that ethical leadership increases innovative-related behaviors indirectly by affecting internal psychological factors. Psychological ownership aligns conceptually with the aforementioned mediating factors that facilitate innovative work behavior. Based upon past research, it can be concluded that ethical leadership has a significant positive influence on innovative work performance. Furthermore, the results indicated that psychological ownership partially mediated the relationship between ethical leadership and innovative work performance

**5. Conclusions:** This research examines how ethical leadership affects workers' innovative work performance. It also aimed to determine the implications of psychological ownership as a mediating role between ethical leadership and innovative work performance. This research was carried out in Pakistan. Our research supports the hypothesis that ethical leadership considerably affects innovative work performance. Our research findings support the idea that psychological ownership partially mediates the relationship between ethical leadership and creative work performance.

#### Reference:

1. Ahmad, I., & Gao, Y. (2018). Ethical leadership and work engagement: The roles of psychological empowerment and power distance orientation. *Management Decision*, 56(9), 1991-2005.
2. Alam, M., Fozia, G. U. L., & Imran, M. (2021). The Impact of Ethical Leadership & Civility on Organizational Commitment: The Mediating Role of Work Engagement. *Journal of Arts & Social Sciences*, 8(1), 173-188.



3. Almatrooshi, B., Singh, S. K., & Farouk, S. (2016). Determinants of organizational performance: a proposed framework. *International Journal of productivity and performance management*, 65(6), 844-859.
4. Amabile, T. M., & Pratt, M. G. (2016). The dynamic componential model of creativity and innovation in organizations: Making progress, making meaning. *Research in organizational behavior*, 36, 157-183.
5. Anjum, R., Daud, S., Bhatti, G. A., & Saddique, F. (2026). Evaluation of AI-based mental health interventions using the grey relational analysis. *Grey Systems: Theory and Application*, 16(1), 75-90.
6. Asif, M., Qing, M., Hwang, J., & Shi, H. (2019). Ethical leadership, affective commitment, work engagement, and creativity: Testing a multiple mediation approach. *Sustainability*, 11(16), 4489.
7. Avey, J. B., Avolio, B. J., Crossley, C. D., & Luthans, F. (2012). Psychological ownership: Theoretical extensions, measurement and relation to work outcomes. *Journal of Organizational Behavior*, 33(2), 173–191.
8. Belleflamme, P., & Peitz, M. (2015). *Industrial organization: markets and strategies*. Cambridge University Press.
9. Blomme, R. J., Kodden, B., & Beasley-Suffolk, A. (2015). Leadership theories and the concept of work engagement: Creating a conceptual framework for management implications and research. *Journal of Management & Organization*, 21(2), 125-144.
10. Bormann, K. C. (2017). Linking daily ethical leadership to followers' daily behaviour: The roles of daily work engagement and previous abusive supervision. *European Journal of Work and Organizational Psychology*, 26(4), 590-600.
11. Brown, M. E., Treviño, L. K., & Harrison, D. A. (2005). Ethical leadership: A social learning perspective for construct development and testing. *Organizational behavior and human decision processes*, 97(2), 117-134.
12. Buonomo, I., Farnese, M. L., Vecina, M. L., & Benevene, P. (2021). Other-focused approach to teaching. The effect of ethical leadership and quiet ego on work engagement and the mediating role of compassion satisfaction. *Frontiers in Psychology*, 12, 692116.
13. Chughtai, A., Byrne, M., & Flood, B. (2015). Linking ethical leadership to employee well-being: The role of trust in supervisor. *Journal of Business Ethics*, 128, 653-663.
14. Colquitt, J. A. (2001). On the dimensionality of organizational justice: a construct validation of a measure. *Journal of applied psychology*, 86(3), 386.
15. Feng, J., Zhang, Y., Liu, X., Zhang, L., & Han, X. (2018). Just the right amount of ethics inspires creativity: A cross-level investigation of ethical leadership, intrinsic motivation, and employee creativity. *Journal of Business Ethics*, 153, 645-658.
16. Ferrell, O. C., & Fraedrich, J. (2021). *Business ethics: Ethical decision making and cases*. Cengage learning.
17. Hon, A. H., & Lui, S. S. (2016). Employee creativity and innovation in organizations: Review, integration, and future directions for hospitality research. *International Journal of Contemporary Hospitality Management*, 28(5), 862-885.
18. Khan, K. N. (2025). PSYCHOLOGICAL CAPITAL TO INNOVATION FROM DIGITAL TECHNOLOGY TO CYBERLOAFING IN PAKISTANI UNIVERSITIES. *International Journal of Applied Mathematics*, 38(7s), 722-745.
19. Khan, K. N., Anjum, S., Abbas, M. M., & Jabeen, A. (2024). Unlocking Teacher's Innovative Work Performance with Idiosyncratic Deals. *The Parallels Mediating*



- Models of Pakistani Universities. *International Journal of Social Science Archives (IJSSA)*, 7(2).
20. Khan, K. N., Shah, M. H., & Saddique, F. (2025). Innovative Work Behaviour Amid Faculty Shortage: The Role of Idiosyncratic-Deals, Digital Technology and Perceived Leadership Support. *Journal of Posthumanism*, 5(4), 978-992.
  21. Lestari, S. D., & Juwana, B. (2021). The Effect of Organisation Structure, Competency and Innovation on Firm Performance in The Era of Industry 4.0. *International Journal of Organizational Business Excellence*, 4(1), 1-8.
  22. Markos, S., & Sridevi, M. S. (2010). Employee engagement: The key to improving performance. *International journal of business and management*, 5(12), 89.
  23. Maroof, L., Basit, A., & Khan, K. N. (2022). Responsiveness of Banks' Stability Towards Peak and Trough Phases of Business Cycle: A Comparative Analysis of Islamic Banks and Conventional Banks. *COMSATS Journal of Islamic Finance (CJIF)*, 7(2).
  24. Maroof, L., Basit, A., & Khan, K. N. (2022). Responsiveness of Banks' Stability Towards Peak and Trough Phases of Business Cycle: A Comparative Analysis of Islamic Banks and Conventional Banks. *COMSATS Journal of Islamic Finance (CJIF)*, 7(2).
  25. Mayer, D. M., Kuenzi, M., & Greenbaum, R. L. (2010). Examining the link between ethical leadership and employee misconduct: The mediating role of ethical climate. *Journal of business ethics*, 95, 7-16.
  26. Mayer, D. M., Kuenzi, M., Greenbaum, R., Bardes, M., & Salvador, R. B. (2009). How low does ethical leadership flow? Test of a trickle-down model. *Organizational behavior and human decision processes*, 108(1), 1-13.
  27. Mushtaq, F. S. U. N. N., & Ali, B. L. A. (2023). Implementation of digitalization supply chain helps in gaining of competitive advantages as mediating role in the supply chain performance in construction organization in Pakistan. *Journal of Humanities*, 1(01), 14-27.
  28. Mushtaq, M., Abid, G., Sarwar, K., & Ahmed, S. (2017). Forging ahead: How to thrive at the modern workplace. *Iranian Journal of Management Studies*, 10(4), 783-818.
  29. Mushtaq, N., & Khattak, A. N. (2026). Adoption of Solar Energy Sources and Sustainable Performance for Environment in Power Sector of Pakistan: An Empirical Analysis Based on Mediation Model of Green Innovation. *The Critical Review of Social Sciences Studies*, 4(1), 1690-1701.
  30. Mushtaq, N., & Khattak, A. N. (2026). Deployment of Wind Powered Resources and Ecologically Sound Performance in Pakistan's Energy Sector: An Empirical Research Based on the use of Green Technology Mediation Model. *Journal for Social Science Archives*, 4(1), 466-479. <https://doi.org/10.59075/jssa.v4i1.501>
  31. Mushtaq, N., Badar, M., Akhtar, F., Batool, F., Sandhu, M. E., Khan, M. I., ... & Zia, M. A. (2021). Efficiency of Power Distribution Companies in Pakistan (Application of Non-Parametric Approach).
  32. Mushtaq, N., Mirza, H. H., Rehman, S. U., & Saddique, F. (2020). Efficiency of Power Generation Companies in Pakistan: Application of Non-Parametric Approach. *Ilkogretim Online*, 19(4), 3486-3504.
  33. Mushtaq, N., Saddique, F., Abbas, Z., & Nawaz, M. (2023). How important is Efficiency in any Organization? "Estimating the Efficiency Reform of Power Distribution Companies in Punjab Province, Pakistan" (LESCO, FESCO &



- IESCO). *Traditional Journal of Law and Social Sciences*, 2(01), 44-59.
34. Nawaz, M., Khan, S. A., Rana, S. L., & Saddique, F. (2020). Role Of Human Resource Best Practices To Improve Quality Education Of Pakistani Schools. *International Journal of Management (IJM)*, 11(11).
  35. Naz, F., Manzoor, A., Khan, K. N., & Ali, L. (2021). Islamic Equities Volatility and US Economic Influence: Case of Emerging Market. *COMSATS Journal of Islamic Finance (CJIF)*, 6(2).
  36. Newman, A., Kiazad, K., Miao, Q., & Cooper, B. (2014). Examining the cognitive and affective trust-based mechanisms underlying the relationship between ethical leadership and organizational citizenship: A case of the head leading the heart. *Journal of business ethics*, 123(1), 113-123.
  37. Northouse, P. G. (2021). *Leadership: Theory and practice*. Sage publications.
  38. Nwagwu, F. S. N. M. U., & Naeem, A. R. (2024). *Traditional Journal of Law and Social Sciences*.
  39. Nwagwu, U., Niaz, M., Chukwu, M. U., & Saddique, F. (2023). The influence of artificial intelligence to enhancing supply chain performance under the mediating significance of supply chain collaboration in manufacturing and logistics organizations in Pakistan. *Traditional Journal of Multidisciplinary Sciences*, 1(02), 29-40.
  40. Pierce, J. L., Kostova, T., & Dirks, K. T. (2003). The state of psychological ownership: Integrating and extending a century of research. *Review of General Psychology*, 7(1), 84–107.
  41. Saddique, F., & Khan, M. I. (2026). Impact of Adoption of Artificial Intelligence in Sustainable Supply Chain Performance in Manufacturing Organization of Pakistan: The Mediating Role of Supply Chain Integration. *The Critical Review of Social Sciences Studies*, 4(1), 1763-1776.
  42. Saddique, F., & Khan, M. I. (2026). Unlock the Sustainable Supply Chain Performance Through Artificial Intelligence and Moderator Digital Leadership in Pakistan Context. *Journal for Social Science Archives*, 4(1), 500–511. <https://doi.org/10.59075/jssa.v4i1.504>
  43. Saddique, F., Khan, K. N., Joyia, S. Z., & Jabeen, A. (2024). IMPACT OF INTERNET OF THINGS ON SUSTAINABLE SUPPLY CHAIN PERFORMANCE: THE EMPIRICAL PARALLEL MEDIATION MODELS. *PAKISTAN ISLAMICUS (An International Journal of Islamic & Social Sciences)*, 4(02), 76-89.
  44. Saddique, F., Mushtaq, N., Abbas, Z., & Nawaz, M. (2023). Creative performance of healthcare professionals (nurses) in hospitals Lahore, Pakistan. *Traditional Journal of Law And Social Sciences*, 2(01), 60-72.
  45. Saddique, F., Mushtaq, N., Hasan, R., Rehman, Z. U., & Ali, M. (2022). Access and Secure Storage Based Block Chain Scheme with IPFS Implemented in Electronic Medical Record in Lahore, Pakistan. . *Netw. Commun. Syst. JNACS*, 5(4).
  46. Saddique, F., Mushtaq, N., Imran, Z., Nawaz, M., & Usman, M. (2021). Impact of Green Supply Chain Management Practices on Environment Performance and Competitive Advantage.
  47. Saddique, F., Patel, K. R., Niaz, M., Chukwu, M. U., & Nwagwu, U. (2023). Impact of supply chain transformation on supply chain performance: the empirical study that bases on mediating role of supply chain resilience on construction organization on Pakistan. *Asian Journal of Engineering, Social and Health*, 2(9), 1072-1086.



48. Saddique, F., Ramzan, B., Sanyal, S., & Alamari, J. (2023). Role of digital leadership towards sustainable business performance: A parallel mediation model. *Journal of Infrastructure, Policy and Development*, 7(3), 2416.
49. Scholar, F. S. P. D., Fatima, H., Hassan, M., Scholar, N. M. P. D., & Asghar, K. A. (2023). Impact of ethical leadership on creative work performance: the empirical mediating roles of work engagement and attitude toward performing wells in construction organizations in Pakistan.
50. Scott, G., Leritz, L. E., & Mumford, M. D. (2004). The effectiveness of creativity training: A quantitative review. *Creativity research journal*, 16(4), 361-388.
51. Shah, M. H. (2025). Strengthening Innovative Work Behavior via Psychological Capital: A Moderated Mediation Framework. *FishTaxa-Journal of Fish Taxonomy*, 36(1s), 90-101.
52. Sharif, S., Lodhi, R. N., Iqbal, K., & Saddique, F. (2022). Gender disparity in leadership boosts affective commitment and tacit knowledge sharing about libraries. *International Journal of Organizational Analysis*, 30(5), 1212-1234.
53. Sharif, S., Lodhi, R. N., Siddiqueg, F., & Munir, M. A. (2021). Service quality of higher education digital library (DL) and loyalty behaviors: Testing the mediating role of student satisfaction. *Library Philosophy and Practice*, 1-22.
54. Shinta, D., Khan, K. N., & Nadeem, M. (2025). Evaluating Generative AI Initiatives in Human Resources: Multiple Criteria Decision Analysis. *Management Science and Business Decisions*, 5(2), 5-19.
55. Sosik, J. J., Chun, J. U., Ete, Z., Arenas, F. J., & Scherer, J. (2018, July). Examining how leader character strengths and ethical leadership relate to leader outcomes. In *Academy of Management Proceedings* (Vol. 2018, No. 1, p. 10213). Briarcliff Manor, NY 10510: Academy of Management.
56. Strom, D. L., Sears, K. L., & Kelly, K. M. (2014). Work engagement: The roles of organizational justice and leadership style in predicting engagement among employees. *Journal of leadership & organizational studies*, 21(1), 71-82.
57. Unlocking Innovativeness through the Idiosyncratic Deals of University Teachers in Pakistan. The Empirical Mediating Role of Attitude Toward Performing Wells. (2024). *INTERNATIONAL JOURNAL OF HUMAN AND SOCIETY*, 4(1), 1227-1236. <https://ijhs.com.pk/index.php/IJHS/article/view/506>
58. Yun, J. J., Lee, M., Park, K., & Zhao, X. (2019). Open innovation and serial entrepreneurs. *Sustainability*, 11(18), 5055.
59. Zahra, T. T. (2017). Exploring the process of ethical leadership: The mediating role of employee voice and psychological ownership. *Journal of Business Ethics*.
60. Zhu, W., May, D. R., & Avolio, B. J. 2004). The impact of ethical leadership behavior on employee outcomes: The roles of psychological empowerment and authenticity. *Journal of Leadership & Organizational Studies*, 11(1), 16-26.