

***“Leading with Balance: How Ambidextrous Leadership Enhances Employee Performance via Self-Resilience under the Influence of Creative Self-Efficacy”***

***Muhammad Waqar Aslam***

*MPhil Scholar, Hailiey College Banking and Finance, University of the Punjab, Pakistan*

***Email: [malikwaqarawan19@gmail.com](mailto:malikwaqarawan19@gmail.com)***

***Dr. Waqas Baig***

*Assistant Professor, Hailiey College Banking and Finance, University of the Punjab, Pakistan*

***Email: [wagasbag33@puhcbf.edu.pk](mailto:wagasbag33@puhcbf.edu.pk)***

***Dr. Abid Hussain***

*Senior Subject Specialist Commerce, School Education Department Punjab, Pakistan*

***Email: [Abidsed@gmail.com](mailto:Abidsed@gmail.com)***

***Abstract:***

*The leadership role is essential for inspiring employees to engage in innovative work and provide novel ideas and solutions. The information technology sector is recognized for its inventiveness. Nevertheless, further research is required to examine the influence of ambidextrous leadership on employee performance within the IT sector. This study examines the impact of ambidextrous leadership on employee performance through the self-resilience behavior of employees. This study utilizes a cross-sectional methodology wherein empirical data is collected using scales adapted and modified from prior research. A total of 300 employees from information technology organizations participated in this study. Participants were selected by a systematic sampling method, and the survey was self-administered. To analyze the structural links among opening and closing leadership, self-resilient behavior, and employee performance. The partial least squares structural equation modelling approach is employed with AMOS software. This study's findings demonstrate that ambidextrous leadership significantly and positively influences employee performance. Moreover, it is disclosed that creative self-efficacy significantly moderates between the self-resilience and employee performance. The influence of ambidextrous leadership, succeeded by self-resilience, is more pronounced on employee performance. This study provides significant insights for IT organizations, known for their innovation yet experiencing a high turnover rate in the market.*

***Introduction:***

In the present landscape of digital economic expansion, the Pakistan information technology (IT) sector is crucial for national development. The export revenue, and employment generation; nonetheless, it faces distinct operational and institutional challenges that necessitate robust leadership and employee psychological resources for sustained performance (Rehman, 2025). The IT sector in Pakistan has seen considerable growth in exports and heightened global engagement, prompting government plans and investment efforts to bolster software development and IT-enabled services as a crucial export sector (Hussain & Rizwan, 2024). Simultaneously, infrastructural disruptions—especially sporadic internet slowdowns and alterations in national internet regulation policies—have created significant operational difficulties for companies serving international clients and complying with rigorous service-level agreements (Arshad et al., 2024; Qureshi et al., 2020). Managers in Pakistani IT enterprises face a twofold need due to institutional realities: to seek innovation

and exploration for competitive difference while simultaneously assuring reliable exploitation and disciplined fulfillment of client commitments (Sherani et al., 2023). The leadership's role is crucial in the advancement of the organizational level. Thus, ambidextrous leadership, defined by leaders' capacity to adeptly switch between behaviors that foster experimentation and creativity and those that guarantee focus, accountability, and rigorous implementation, represents a theoretically and practically important strategy for addressing the exploration–exploitation tension within the Pakistani IT sector (Rosing & Zacher, 2023).

Employee performance in IT firms includes multiple dimensions, such as task proficiency, punctuality, adaptability to changing technical requirements, and innovative problem-solving abilities (Sabir et al., 2022). These are leading to a complex outcome shaped by leadership behavior and employees' internal psychological resources. In knowledge-intensive domains such as software development, performance extends beyond mere routine output; it requires innovative problem-solving, sustained concentration under tight deadlines. The ability to regain productivity after infrastructure or communication disruptions (Egorova et al., 2022). The theoretical potential of ambidextrous leadership lies in its dual facilitation of cognitive freedom and psychological safety, which are essential for creative experimentation (opening behaviors), as well as the clarity, standards, and oversight required for reliable execution (closing behaviors) (Jain et al., 2025). Empirical studies across diverse sectors increasingly associate ambidextrous leadership with improved innovative behaviors. The superior performance outcomes, suggesting that leaders who adeptly embody both behavioral types facilitate the reconciliation of short-term performance demands with long-term adaptive capacity (Wahab et al., 2024; Jiang et al., 2023).

Leadership acts are not isolated; employees' psychological resources, particularly self-resilience, act as instantaneous mechanisms that enable the conversion of leadership effects into performance (Zain et al., 2025). Self-resilience, defined as the capacity to rebound from setbacks, navigate stress, and sustain goal-directed performance amid adversity (Suratman et al., 2021). It is an essential personal asset in the Pakistan IT sector, where sudden connectivity interruptions, regulatory uncertainties, and cross-time-zone client expectations can rapidly deplete cognitive and emotional resources. According to Conservation of Resources (COR) theory, leaders' ambidextrous behaviors can be categorized as either resource-generating or resource-protecting: opening behaviors (e.g., tolerance for experimentation) reduce the perceived costs of potential failure. It is thereby conserving psychological resources usually diminished by fear and avoidance; closing behaviors (e.g., clear standards and constructive corrective feedback) restore predictability and control, replenishing resources after setbacks (Wang et al., 2024). Consequently, ambidextrous leadership is anticipated to enhance employee performance indirectly by strengthening resilience; resilient employees are more proficient at handling stressors, sustaining effort, and converting leadership cues into productive work behaviors (Khan et al., 2022). Therefore, positioning resilience as a theoretically robust mediator in leadership-performance models within dynamic IT companies. Empirical research in analogous contexts inside Pakistan has begun to record these mediation pathways, indicating that resilience and related psychological capital categories often represent a crucial element of the relationship between leadership styles and employee outcomes.

Alongside the mediation logic, employees' domain-specific beliefs especially creative self-efficacy (CSE), defined as the confidence in one's capacity to produce creative outcomes (Puozzo & Audrin, 2021). It serve as boundary conditions that affect the degree to which leadership and resilience lead to creative and adaptive performance. Social cognitive theory posits that self-efficacy influences decision-making, effort, perseverance, and resilience in difficult circumstances (Lent & Brown, 2019). Creative self-efficacy broadens this notion to encompass creative activities: individuals with heightened CSE are more predisposed to

conceive ideas, persevere through technical difficulties, and execute inventive solutions in high-pressure situations (Lamb et al., 2025). Therefore, CSE should regulate both the direct influence of ambidextrous leadership on performance and the indirect effect mediated by resilience. This indicates that a leadership strategy promoting experimentation would provide more significant creative outcomes when employees are assured in following their creative instincts (Kusumah & Setiawan, 2025). Moreover, resilient personnel possessing elevated Core Self-Evaluations (CSE) will be more proficient in converting recovered resources into inventive ideas that enhance performance. Research on creative self-efficacy in organizational contexts though scarce in Pakistan's IT sector illustrates its moderating or mediating impact on leadership outcomes, underscoring the practical importance of CSE for workforce development in knowledge-based organizations.

Theoretical components collectively endorse a comprehensive mediated-moderated model in which ambidextrous leadership directly and indirectly affects employee performance, the latter through enhanced self-resilience, while creative self-efficacy moderates the strength of these relationships. The model incorporates ambidexterity theory in organizational leadership, emphasizing the necessity to balance exploration and exploitation, so providing a multi-level explanation tailored to the requirements of the Pakistan IT sector. Empirically assessing this model in Pakistan is crucial for several reasons. First, the export-driven IT sector and remote delivery model necessitate service continuity and innovative capacity for firm survival and growth. Second, identified infrastructural vulnerabilities and regulatory ambiguities, particularly concerning national internet governance and intermittent slowdowns, often lead to resource depletion and task disruption, thereby underscoring the significance of resilience as a buffer and performance enhancer. Third, Pakistan's nascent yet swiftly evolving leadership development and HR practices in technology firms suggest that contextualized evidence can inform tailored interventions ranging from ambidextrous leadership training to resilience-building programs and CSE enhancement workshops that are likely to yield measurable performance improvements.

Research in this domain should methodologically prioritize multi-source evaluations of employee performance, incorporating supervisor assessments, relevant objective key performance indicators (KPIs). These are validated self-report scales for adaptive and creative performance, to mitigate common-method bias and accurately represent the complex nature of performance in IT positions. Validated scales for ambidextrous leadership generally distinguish between opening and closing behaviors, facilitating a comprehensive review of whether leadership acts bolster resilience and performance. Resilience assessments require cultural adaptation and psychometric validation for Pakistani populations to guarantee construct equivalence. Concise versions of creative self-efficacy measures have been developed for workplace surveys; nevertheless, they need also undergo evaluation for measurement invariance.

Longitudinal or time-lagged designs, which evaluate leadership and resilience in earlier phases alongside subsequent performance, would improve causal inference and substantiate the hypothesis that leadership influences resource trajectories that dictate later performance. Ultimately, potential control variables such as role complexity, job autonomy, tenure, remote work intensity, and exposure to cross-border client demands must be recognized for their possible impact on both resilience and performance in IT settings. From a managerial and policy perspective, the integrated model offers clear recommendations: training programs aimed at cultivating leaders' ambidextrous skills (knowing when to initiate and when to conclude) are anticipated to produce the dual benefits of innovation and reliable execution. The resilience-focused strategies (stress management, social support systems, structured post-incident evaluations) will enhance leadership effectiveness by preserving and replenishing

employees' psychological resources. The targeted improvement of creative self-efficacy (through mastery experiences, role modelling of innovative problem-solving, and constructive feedback) will ensure that the innovation opportunities established by leaders are realized by employees. In Pakistan's IT sector, marked by swift expansion, international client engagement, and periodic systemic disruptions, investments in leadership, resilience, and innovative self-confidence can improve operational reliability and augment innovative capacity, thus advancing the industry's strategic objectives of export growth and global competitiveness.

In conclusion, ambidextrous leadership functions as a theoretically robust and practically viable approach for enhancing employee performance in Pakistan's IT sector. However, its full efficacy depends on intervening psychological resources (self-resilience) and contextual factors (creative self-efficacy). The empirical analysis of this mediated-moderated model in Pakistan enriches leadership and resource-based theories within non-Western, digitally oriented contexts. While offering pragmatic guidance for managers and policymakers aiming to sustain IT sector performance amidst structural and operational volatility. This study seeks to assess (a) the direct positive influence of ambidextrous leadership on employee performance. Second, the mediating function of self-resilience in this relationship. Third, moderating effect of creative self-efficacy on both direct and indirect pathways. Thereby offering theoretical clarity and practical relevance for Pakistan's rapidly evolving yet contextually limited IT sector.

## Literature Review

### Theory Building

An ambidextrous leadership is a leadership approach that motivates, encourages and makes employees feel they are significant contributors to organizational growth and creates conducive work environments for their associates. The concept of an 'ambidextrous organization' was initially introduced by Duncan (1976) and later adopted by Tushman (1997). It refers to the challenge of effectively managing both the exploitation of existing competencies and the exploration of new fields of knowledge to succeed in organizational ambidexterity. Tushman and O'Reilly (1996) argued that organizations must jointly utilize their current capabilities and explore new opportunities, necessitating a leadership style that can balance these two ostensibly opposing forces. Ambidextrous Leadership has now been explicitly described for the process of innovation. Because of this, its innovative invention performance is enhanced compared to more traditional leadership models (Qammar & Abidin, 2020). Ambidextrous leadership usually has two sub-concepts: opening and closing behavior (Jiang et al., 2023). By balancing both behaviors, ambidextrous leaders can make an organization's culture that can simultaneously improve and develop novel ideas, leading to long-term success and growth (Alizadeh & Jetter, 2019). OLB has to do with discovery and coming up with new ideas. The behavior includes pushing people to try new things, take risks, be creative, and look for new possibilities (Ali et al., 2023). Leaders who show OLB are usually more at ease with doubt and uncertainty, and they can handle situations that are complicated and constantly changing (Uslu, 2015). Rosing and Zacher, (2023) claim that this implies allowing employees the freedom to complete specific tasks. According to Rosing et al., (2011) closing leadership behavior prevents some organizations from achieving their goals. Here, a leader works to lessen workplace differences, intervenes often, establishes procedures and standards, and carefully monitors organizational objectives. Closing leaders only let their followers carry out duties in specified ways while closely supervised (Rosing et al., 2011). However, in both approaches, ambidextrous leadership ultimately changes employees' work environments, gives them the tools to do their jobs effectively, and makes them more motivated (Zacher & Rosing, 2015).

### **Opening leadership behavior on employee performance**

Opening Leadership Behavior (OLB) can have a significant impact on the performance of employees. Leaders who display opening behaviors are generally more accessible and open to receiving input from their employees (Chakraborty & Paul, 2023). This fosters a sense of engagement among employees, as they feel valued and empowered to contribute their thoughts and perspectives. A study by Rosing and Zacher (2023) revealed that open leaders prioritize clear and transparent communication. This aids employees in comprehending their roles, objectives, and expectations more effectively, leading to improved performance outcomes. Furthermore, research findings from Zacher and Rosing (2015) have demonstrated that when leaders are receptive to input and ideas from their team members, they consider a more comprehensive range of perspectives in the problem-solving process. Opening behaviors, such as honesty, integrity, and transparency, contribute to the establishment of trust between leaders and employees. When employees trust their leaders, they are more likely to be motivated to perform at their utmost and align with the organization's goals (Hong et al., 2015). It discovered that leaders who exhibit opening behaviors often cultivate a positive work culture in which employees feel motivated and inspired to excel. Recognition, encouragement, and support from leaders can enhance morale and drive employees to perform at higher levels. Effective communication and a trust-based culture help prevent misunderstandings and conflicts within the team. When employees feel comfortable expressing their concerns or addressing issues openly, conflicts can be resolved more efficiently, thus minimizing disruptions to performance (Zacher & Rosing, 2015). Considering the points above, it is appropriate to put forward the following hypothesis:

H1: Opening leadership positively impacts employee performance.

### **Closing leadership behavior (CLB) on employee performance**

Closing leadership behaviour (CLB) pertains to the actions and conduct displayed by leaders that concentrate on completing tasks thereby furnishing employees with a distinct sense of purpose and comprehension regarding the expectations placed upon them. CLB emphasizes the completion of tasks and efficacy, which can incentivize employees to concentrate on their respective duties and produce outcomes within predetermined timeframes (Schindler et al., 2015). Moreover, providing support and resources empowers employees to surmount challenges and impediments, culminating in enhanced performance (Downey et al., 1975). CLB fosters a sense of accountability among employees by holding them accountable for their assigned tasks and resultant outcomes. Furthermore, CLB fosters employee collaboration and teamwork, enabling them to strive towards shared goals and objectives collectively. By highlighting the significance of collaborative efforts and utilizing individual strengths, leaders cultivate a collaborative work environment where employees provide support and assistance to one another, ultimately augmenting overall performance (Walrave et al., 2017). CLB plays a pivotal role in influencing employee performance by promoting the clarity of goals, task orientation, accountability, feedback and support, and team collaboration. Leaders who embody effective CLB traits can positively impact employee performance and make valuable contributions to the organization's overall success (De Jong & Den Hartog, 2007). By the statements above, the following hypothesis is formulated:

H2: Closing leadership positively impacts employee performance.

### **Mediating Role of Self Resilience**

Organizations operating in the contemporary digital economy must simultaneously pursue exploration (innovation, learning) and exploitation (efficient delivery, quality control). A duality that is especially pronounced in information technology (IT) firms (Shah et al., 2024). Ambidextrous leadership the capability of leaders to enact both "opening" behaviors that encourage experimentation and "closing" behaviors that ensure discipline and execution is

theorized to resolve the exploration exploitation tension at the team and organizational level (Gianzina & Paroutis, 2025). Thereby, foster improved employee outcomes, including performance. Empirical meta-analyses and sectorial studies suggest ambidextrous leadership enhances innovative behaviors and contributes to performance by shaping psychological climate and work design (Duran, 2025). However, the direct leader performance link is frequently complemented by intervening psychological mechanisms that explain how leadership translates into sustained employee output (Sakina & Dou, 2025).

Self-resilience an individual's capacity to recover from setbacks, maintain functioning under stress. It also adapt to change demands is a central psychological resource in knowledge-intensive work settings (Suratman et al., 2021). Conservation of Resources (COR) theory provides a useful theoretical lens: ambidextrous leaders can act as resource generators and protectors by creating psychologically safe spaces for experimentation (reducing the loss potential associated with failure). It also offers clear structures and feedback that restore control after setbacks (Wang et al., 2024). Through these processes, leadership is posited to strengthen employees' resilience, which in turn enables them to sustain effort, adapt to interruptions, and produce consistent performance outcomes. Several studies across sectors have documented resilience as a mediator between workplace inputs (e.g., leadership, organizational support) and outcomes such as performance, engagement and innovative behaviour, suggesting a robust mediating role for resilience in leadership–outcome models (Cheng, 2024; Ouyang et al., 2022; Alghamdi, 2018).

The Pakistan IT sector presents a distinctive and urgent context for testing this mediation model. Pakistan's IT and broader ICT industry has shown rapid export growth and increasing global integration, becoming a significant contributor to foreign exchange earnings and employment (Rehman, 2025). At the same time, firms in Pakistan face pronounced infrastructural and institutional challenges notably episodic internet slowdowns, national firewall testing activities, and regulatory uncertainty. Which generate frequent operational disruptions that can deplete employees' cognitive and emotional resources and threaten service continuity for overseas clients (Hussain & Rizwan, 2024). These contextual stressors magnify the relevance of resilience as a resource: in contexts where external disruptions are recurrent, leadership that can both enable creative problem solving and impose effective delivery standards may be especially valuable insofar as it helps employees conserve and replenish resources essential for performance (Cheng, 2024). Policy briefs and sector diagnostics underscore both the growth potential of Pakistan's digital ecosystem and the fragility introduced by infrastructure instability, reinforcing the need for empirical attention to how leadership and resilience interact to sustain performance (Qureshi et al., 2020).

Empirical evidence linking ambidextrous leadership to employee performance has grown in recent years, with studies demonstrating both direct effects and indirect effects through mediators such as organizational citizenship behaviour, psychological empowerment, and innovative work behaviour. Research in Pakistani ICT and telecom contexts has begun to explore ambidextrous leadership's role in shaping innovation and performance outcomes; several local studies report positive associations and identify psychological resources (including self-resilience and trust) as partial mediators, pointing to the plausibility of resilience as a key mechanism in this context (Arshad et al., 2024; Qureshi et al., 2020). Notably, both cross-sectional and longitudinal designs in related sectors have found that leaders who skillfully alternate between opening and closing behaviors improve team adaptability and output, but the magnitude and pathways of these effects vary depending on employee resources and contextual stressors (Wang et al., 2024). This heterogeneity underscores the need to test mediation explicitly in Pakistan's IT firms rather than assume uniform effects.

Studies that directly investigate resilience as a mediator provide conceptual and empirical templates for the proposed model. Research across cultural and organizational contexts has shown that resilience mediates relationships between workplace antecedents (leadership styles, perceived organizational support) and outcomes including job performance and innovative behavior (Abdullahi et al., 2025; Sihag & Dhoopar, 2023). Mechanistically, resilience operates by enabling employees to maintain task focus, recover quickly from interruptions, and sustain discretionary effort. These capacities that link closely to both routine and adaptive dimensions of performance in IT work (e.g., timely bug fixing, novel architectural solutions, client problem resolution) (Ismail et al., 2024). While much of this research is international, recent Pakistani studies (in telecom, ICT and adjacent sectors) affirm that resilience is measurable and functions similarly to international findings. Although, researchers caution about the importance of cultural adaptation of measures and the contextual salience of social support and collective coping strategies.

The interaction of leader behaviors, resilience, and performance is further complicated by contextual moderators (e.g., task complexity, remote work intensity) and individual differences (e.g., creative self-efficacy). Nevertheless, focusing on resilience as the mediator offers both theoretical and practical leverage. Theoretically, it integrates ambidexterity theory with COR theory: ambidextrous leadership supplies contextual conditions that preserve or enhance employee resources, which resilience then converts into performance (Abdullahi et al., 2025). Practically, the mediator model directs managerial interventions: if resilience transmits leadership benefits to performance, organizations can combine ambidextrous leadership training with resilience-building programs (stress management, structured debriefs, peer support networks) to amplify performance gains. Especially salient prescription for Pakistani IT firms coping with infrastructural disruptions and client deadlines.

Despite these advances, important gaps remain. First, many empirical studies in Pakistan have used cross-sectional designs and single-source measures, which limits causal inference and raises common-method concerns; longitudinal, time-lagged, or multi-source designs are needed to establish the temporal sequence implied by mediation. Second, while resilience has been studied in Pakistani samples, validated workplace-specific resilience scales for IT professionals are limited, so careful scale adaptation and psychometric testing are required. Third, sector-specific moderators (such as exposure to cross-border clients, degree of remote work, and frequency of internet disruptions) likely condition the mediation pathway, but have received limited empirical scrutiny. Addressing these gaps with robust methodology in Pakistan's IT context will strengthen theory and yield actionable insights for managers and policymakers seeking to sustain performance under volatility.

In sum, the literature supports the theoretical plausibility and practical importance of self-resilience as a mediator between ambidextrous leadership and employee performance, and the Pakistan IT sector provides a high-relevance empirical setting due to its growth trajectory and exposure to disruptive infrastructural risks. Empirical research that employs validated, culturally adapted measures, multi-source data, and designs capable of testing mediation over time will therefore make important contributions to leadership theory and provide concrete guidance to IT managers aiming to bolster performance through integrated leadership and resilience strategies.

### **Moderating Role of Creative Self-Efficacy**

The contemporary information technology (IT) sector in Pakistan operates at the intersection of rapid export-oriented growth and recurring infrastructural and regulatory disruptions, creating a work environment in which individual psychological resources critically shape performance outcomes. Pakistan's IT exports have expanded in recent years even as firms contend with episodic internet slowdowns, firewall testing and other connectivity shocks

that interrupt workflows and heighten uncertainty for employees working with international clients (Qureshi et al., 2020). These contextual stressors amplify the relevance of constructs such as self-resilience employees' capacity to recover from setbacks and sustain functioning under stress. The creative self-efficacy (CSE) the belief in one's capability to produce creative outcomes because resilience and creative confidence jointly determine whether employees can both maintain routine productivity and generate novel solutions under pressure (Abdullah et al., 2017).

A substantive literature links self-resilience to better job outcomes: resilient employees are more likely to recover quickly from interruptions, maintain task focus, and mobilize adaptive coping strategies that protect performance when external demands increase (Jaiswal & Dhar, 2016). Conservation of Resources (COR) theory provides the dominant explanatory lens, suggesting resilience functions as a resource reservoir that buffers resource loss and enables resource gain. When workplace conditions threaten resources (e.g., internet outages, shifting client demands), resilient individuals are comparatively better at conserving cognitive and emotional capacity and translating limited resources into effective task performance (Halbesleben et al., 2014). Empirical studies across organizational contexts show consistent positive associations between resilience and indicators of employee performance, adaptive work behaviour and sustained productivity (Varshney & Varshney, 2024). Which is particularly salient for IT personnel whose tasks require both sustained concentration and problem solving under time pressure.

However, the translation of resilience into observable performance is not automatic. Creative self-efficacy (CSE) moderates whether and how resilient employees convert recovered resources into adaptive and innovative behaviors that managers evaluate as high performance. Grounded in social cognitive theory, CSE shapes the selection, initiation and persistence of creative action: individuals high in CSE are more likely to attempt novel solutions, persist through setbacks, and apply creative approaches when confronted with technical constraints (Chughtai & Khalid, 2022). Thus, even when two employees demonstrate comparable levels of resilience after a disruption, the employee with higher CSE is more likely to engage in resourceful problem solving that not only restores baseline performance but also produces value-adding innovations (e.g., efficient workarounds, improved automation scripts) that supervisors recognize as enhanced performance (Zhang et al., 2023). Conversely, resilient employees low in CSE may revert to conservative, risk-minimizing strategies that secure minimal acceptable outcomes but do not yield superior performance. Recent empirical work underscores this moderating logic, showing that CSE amplifies the effect of personal resources on creative behaviour and performance across diverse workplace settings.

In the Pakistani context, a growing body of local research supports the joint importance of resilience and creative self-beliefs. Studies conducted in Pakistani telecom and ICT sectors report that leadership interventions which bolster resilience and CSE produce higher levels of innovative performance and adaptive outcomes (Arshad et al., 2024). For instance, multi-construct investigations in Pakistan have found that creative self-efficacy interacts with leader behaviors and resilience to predict innovative employee outcomes, implying that CSE operates as a boundary condition in translating psychological resources into performance gains (Khan et al., 2022). These findings suggest that the CSE moderator is not only conceptually plausible but empirically relevant within Pakistan's technology landscape, where employees frequently confront resource disruptions and where creative problem solving can salvage client deliverables and preserve firm reputation.

Mechanistically, the moderation process can be understood through three interrelated pathways. First, CSE affects motivation to enact creative strategies: resilient employees with high CSE interpret recovered resources as an opportunity to explore alternative solutions. The

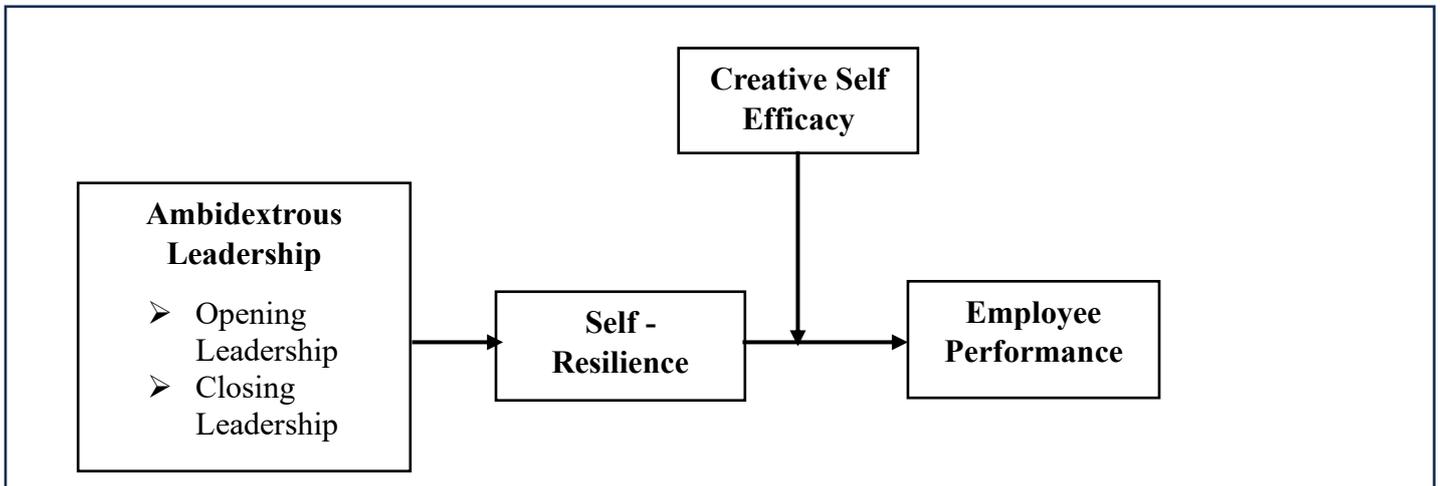
increasing discretionary effort and creative initiatives that elevate performance. Second, CSE shapes cognitive framing and risk tolerance: high-CSE individuals appraise obstacles as solvable challenges rather than insurmountable threats, which encourages persistence and experimentation. The behaviors that are crucial when infrastructural constraints force novel technical responses (Mou, 2024). Third, CSE influences skill deployment and learning: confident employees are more likely to apply and refine problem-solving repertoires (e.g., scripting, automation, architectural refactoring) that convert resilience into durable performance improvements rather than merely restoring pre-disruption status. Together, these pathways explain why CSE strengthens the slope between resilience and performance rather than simply shifting baseline performance (Meirun et al., 2024).

Methodological considerations in testing this moderation in Pakistan's IT firms are critical. First, performance measurement must capture both routine and creative/adaptive dimensions—supervisor ratings, objective delivery KPIs, and validated self-report scales of adaptive/creative performance should be combined to reduce single-source bias. Second, reliable measurement of CSE and resilience requires validated instruments and possible cultural adaptation; while international scales for CSE and resilience have strong psychometric track records. Pakistani samples may exhibit distinct response patterns that necessitate confirmatory factor analyses and measurement invariance testing. Third, research designs should ideally be time-lagged (e.g., measure resilience and CSE at time 1 and performance at time 2) to better support directional inferences regarding moderation. Finally, contextual controls degree of remote work, frequency of connectivity disruptions, role complexity, and leader ambidexterity should be included given their potential confounding influence on both resilience and performance. Pakistani sector reports and industry accounts documenting frequent internet slowdowns and regulatory tests underscore the importance of including such context variables in empirical models.

Practically, the moderator perspective yields clear implications for HR and leadership practice in Pakistan's IT industry. Interventions that simultaneously build resilience (stress-management training, structured recovery protocols, peer support mechanisms) and strengthen CSE (mastery experiences through scaled creative tasks, modelling by senior engineers, and constructive feedback that reinforces creative attempts) are likely to have multiplicative effects on performance. In environments prone to disruptions, firms that invest only in resilience without cultivating creative confidence may secure baseline stability but forgo potential performance gains that arise when resilient employees are also empowered to innovate. Conversely, CSE training absent resilience support may produce frustrated creative attempts that burnout under pressure. Therefore, integrated programs that develop both the capacity to recover and the confidence to act creatively will be most effective in converting personal resources into sustained, superior employee performance in Pakistan's IT firms.

In conclusion, the literature converges on a moderated-resource model in which creative self-efficacy conditions the effectiveness of self-resilience for producing higher employee performance. Resilience provides the capacity to endure and recover, whereas CSE determines whether that capacity is channeled into creative, performance-enhancing actions. In Pakistan's IT sector characterized by export growth coupled with infrastructural and regulatory disruptions this interactive dynamic is especially consequential. Future empirical work using culturally adapted scales, multi-source performance measures, and longitudinal designs will be essential to quantify the moderating magnitude of CSE and to inform integrated talent and leadership interventions aimed at sustaining high performance under recurrent external shocks.

### Conceptual Frame Work



### Methodology

The present study adopted a quantitative research approach to examine the influence of ambidextrous leadership comprising opening and closing leadership behaviors on employee performance, with self-resilience serving as a mediating variable and creative self-efficacy as a moderating factor. A deductive research strategy and cross-sectional design were employed, aligning with the theoretical underpinnings of ambidextrous leadership theory. The research focused on employees working in Pakistan's information technology (IT) sector, which plays a vital role in the nation's digital economy and innovation ecosystem. The IT industry was selected due to its dynamic work environment, increasing emphasis on leadership-driven innovation, and growing need for resilience and adaptability among professionals. A convenience sampling technique was used to gather data from employees. A total of 500 questionnaires were distributed between April 2025 and September 2025 out of which 300 valid responses were received and used for analysis. Participants were assured of confidentiality and anonymity to minimize social desirability bias. The collected data were analyzed using SPSS and AMOS.

The present study used established measures evaluating opening leadership behaviour and closing leadership behaviour with both 6 items components for each variable given by the Rosing et al., (2011) which were further validated by the Zacher and Rosing (2015). The employee performance evaluation was conducted using a comprehensive measure of 9 items scale Koopmans et al., (2014). Creative Self-Efficacy was conducted by the 6-item scale of Karwoski et al., (2013). Self-resilience is measured by the 6-item scale of the Bruce Smith et al., (2004).

### Results

The demographic analysis presents the data about the demographics of the research study including age, gender, marital status, organization, experience, and education. Table 1 shows the information collected from the respondents using survey questionnaire.

**Table 1: Demography of the study**

<b>Items</b>			
<b>Gender</b>	Male	190	63.3
	Female	110	36.7
	Total	300	100.0
<b>Age</b>	25-30	30	10.0
	31-35	50	16.7
	36-40	30	10.0
	41-45	90	30.0
	46-50	40	13.3
	50 above	60	20.0
	Total	300	100.0
<b>Marital Status</b>	Married	180	60.0
	Single	120	40.0
	Total	300	100.0
<b>No Of Employees</b>	1-50	100	33.3
	51-100	30	10.0
	101-250	40	13.3
	251-500	70	23.3
	Above 500	60	20.0
	Total	300	100.0
	Total	422	100.0
<b>Qualification</b>	Intermediate	54	18.0
	Graduate	152	50.7
	Masters	62	20.7
	Ph.D.	16	5.3
	Others	16	5.3
	Total	300	100.0
<b>Job Tenure</b>	1-5 year	100	33.3
	6-10 year	90	30.0
	11-15 year	70	23.3
	16-20 year	40	13.3
	Total	300	100.0

The demographic table provides a detailed overview of the respondents' background. Out of 300 participants, 190 (63.3%) were male and 110 (36.7%) were female, showing that the sample was dominated by male respondents. In terms of age, 10% of respondents were between 25–30 years, 16.7% between 31–35 years, 10% between 36–40 years, 30% between 41–45 years, 13.3% between 46–50 years, and 20% were above 50 years, indicating that most participants were middle-aged employees. Regarding marital status, 180 respondents (60%) were married while 120 (40%) were single, suggesting that the majority of employees were married. Concerning organizational size, 33.3% of participants worked in firms with 1–50 employees, 10% in 51–100, 13.3% in 101–250, 23.3% in 251–500, and 20% in organizations

with more than 500 employees, implying that most respondents were from small organizations. Educationally, 18% had completed intermediate education, 50.7% were graduates, 20.7% held master's degrees, while 5.3% each had Ph.D. qualifications or other degrees, showing that most respondents were graduates. In terms of job tenure, 33.3% had 1–5 years of experience, 30% had 6–10 years, 23.3% had 11–15 years, and 13.3% had 16–20 years, which reflects that the majority of employees had less than ten years of service experience. Overall, the data describe a male-dominated, graduate-level, and moderately experienced workforce with a majority belonging to the middle age group and working in small to medium-sized organizations.

### Data Normality Analysis

**Table 2: Data skewness, mean and kurtosis**

Variables	Mean	St. Deviation	Skewness	Kurtosis
<b>Ambidextrous Leadership</b>	3.8872	.57724	-.532	-.402
<b>Self –Resilience</b>	3.6789	.69065	-.636	.142
<b>Creative Self-Efficacy</b>	3.6561	.62657	-.494	-.089
<b>Employee Performance</b>	3.7633	.69457	-.744	.074

The table presents the descriptive statistics of the study variables. Ambidextrous Leadership has a mean of 3.88 and a standard deviation of 0.57, showing a high level with moderate consistency among responses. Self-resilience records a mean of 3.68 and deviation of 0.69, while Creative Self-Efficacy shows a mean of 3.65 with a deviation of 0.63, both indicating positive perceptions. Employee Performance has a mean of 3.76 and a deviation of 0.69, reflecting good performance levels. All variables have negative skewness, showing a left-tailed distribution, and kurtosis values near zero, indicating approximately normal data distribution.

**Table 3: Reliability Analysis**

Variable	Cronbach alpha	No of items
<b>Ambidextrous Leadership</b>	0.812	12
<b>Self –Resilience</b>	0.735	06
<b>Creative Self-Efficacy</b>	0.713	06
<b>Employee Performance</b>	0.843	09
<b>Over all reliability</b>	0.916	33

The table displays the reliability analysis of the study variables using Cronbach's alpha. Ambidextrous Leadership shows a reliability coefficient of 0.812 across 12 items, indicating strong internal consistency. Self-resilience has a value of 0.735 for 6 items, while Creative Self-Efficacy records 0.713 for 6 items, both reflecting acceptable reliability levels. Employee Performance demonstrates the highest reliability with an alpha of 0.843 across 9 items, showing strong consistency among responses. The overall reliability of the instrument is 0.916 for 33 items, which confirms excellent internal consistency and ensures that the measurement scale used in this study is highly reliable.

**Table 4: Correlation Analysis**

Items	AL	SE	CES	EP
Ambidextrous Leadership	1			
Self –Resilience	.710**	1		
Creative Self-Efficacy	.585**	.495**	1	
Employee Performance	.631**	.623**	.398**	1

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\*\* . Correlation is significant at the 0.01 level (2-tailed).

\* . Correlation is significant at the 0.05 level (2-tailed).

The table presents the correlation results among the study variables. Ambidextrous Leadership shows a strong positive relationship with Self-Resilience ( $r = 0.710$ ,  $p < 0.01$ ), indicating that higher leadership flexibility enhances employee resilience. It also correlates positively with Creative Self-Efficacy ( $r = 0.585$ ,  $p < 0.01$ ) and Employee Performance ( $r = 0.631$ ,  $p < 0.01$ ), suggesting that effective ambidextrous leadership boosts creativity and performance. Self-Resilience is positively related to Creative Self-Efficacy ( $r = 0.495$ ,  $p < 0.01$ ) and Employee Performance ( $r = 0.623$ ,  $p < 0.01$ ). Likewise, Creative Self-Efficacy shows a positive link with Employee Performance ( $r = 0.398$ ,  $p < 0.01$ ), reflecting that all variables are significantly and positively associated.

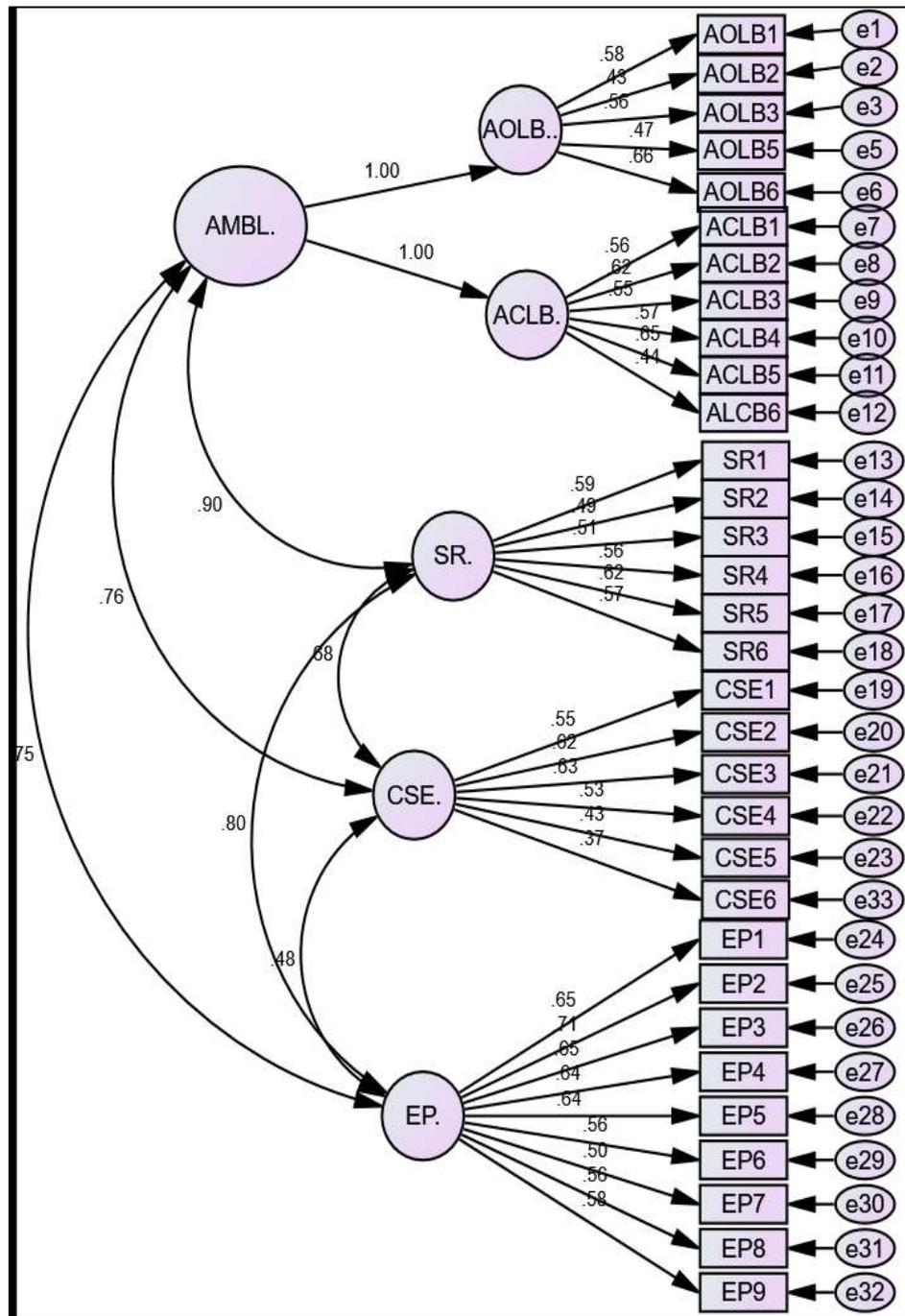


Table 6: Fitness Summary

Model	Hypothesized	Thresholds
CMIN/DF	2.500	< 3
RMR	0.057	Closer to 0
GFI	0.910	≥ 0.9
AGFI	0.901	≥ 0.8
CFI	0.900	≥ 0.9
RMSEA	0.044	< 0.08

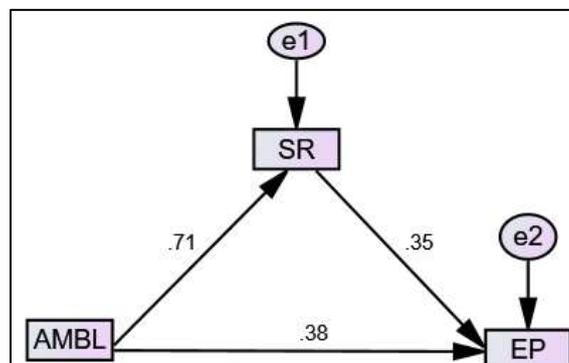
Structural equation model (SEM) determine the relationship among the variables of study by explaining assumptions and information. SEM is used for confirmative and primary model that facilitate to analyze inferential factors. Regression, path evaluation, and factor evaluation are also included in SEM and it is the combination of factor analysis (CFA). And multiple regression. In the present study the model was tested using AMOS 26. CFA (Confirmative Factor Analysis) was applied in the prevailing study and the values of each individual factor was prepared using AMOS 26. Once CFA is used then the model is developed to ascertain suitability and fitness of the model. For model fitness CFI value should fall in the range of 0 to 1. Table 5 is showing that the value of CFI is 0.910 which is indicating that the model is good fit according to the criteria of (Hu & Bentler, 1999). They further illuminated that the value of RMSEA should be less than 0.08 which demonstrate that the fitness of the model. Table 5 display that the value of RMSEA is 0.054, representing that the model is good fit and acceptable (Hu & Bentler, 1999). The model is good fit when the value of GFI and AGFI is above 0.90. In table 5 the value 0.900 and 0.901 highlighting that the model is fir.

**Mediation**

**Path EL-GDT-EGB**

The table presents the mediation analysis results examining the relationship between Ambidextrous Leadership (AL), Self-Resilience (SR), and Employee Performance (EP). The direct effect of AL on EP without mediation (Dβ W/O Med.) is significant ( $\beta = .532, p = .001$ ), indicating a strong positive impact. When Self-Resilience is introduced as a mediator, the direct effect of AL on EP (Dβ with Med.) decreases to  $\beta = .324 (p = .001)$ , showing that part of the effect is transmitted through SR. The indirect effect (Iβ) of AL on EP through SR is  $\beta = .210 (p = .001)$ , confirming a significant mediating role. Since both the direct and indirect paths remain significant, the mediation is identified as **partial mediation**. This suggests that Ambidextrous Leadership enhances Employee Performance both directly and indirectly by strengthening employees' Self-Resilience, which in turn contributes positively to their performance levels.

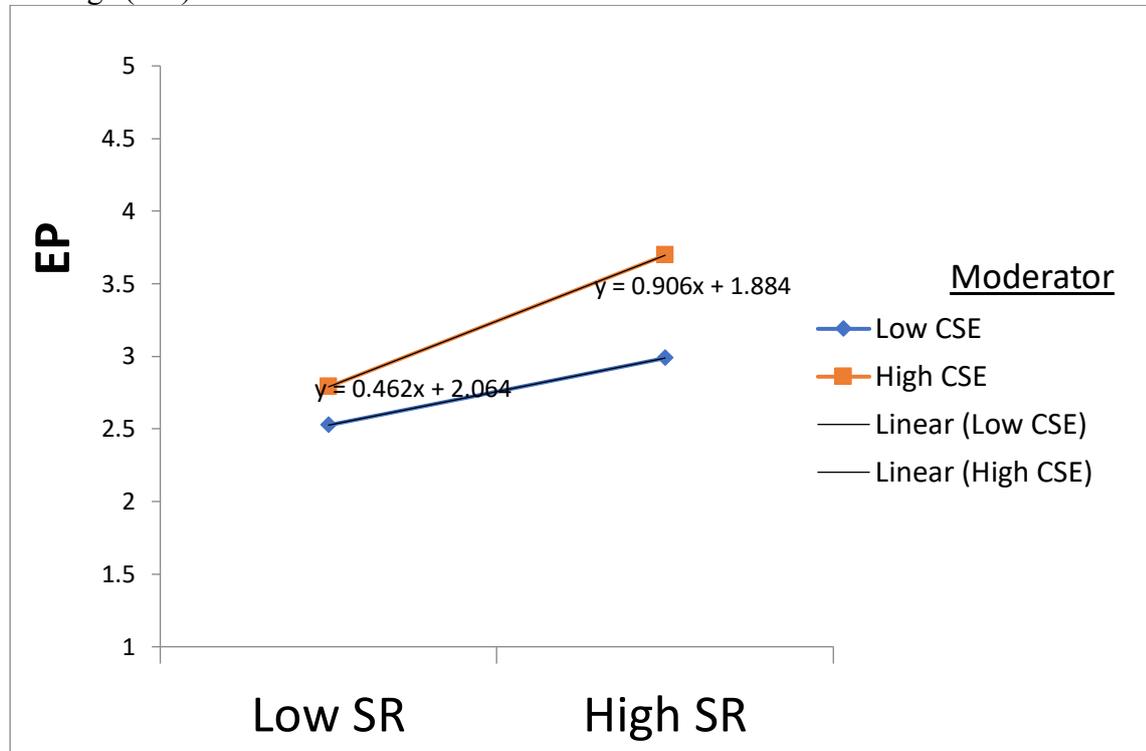
Hypothesis	Dβ W/O Med.	Dβ with Med.	Iβ	Med. Type
AL-SR-EP	$\beta = .532^{***}$ $p = .001$	$\beta = .324^{***}$ , $p = .001$	$\beta = .210^{***}$ $p = .001$	Partial Mediation



*CSE moderates between SR and EP relationship.*

The graph depicts the moderating influence of SE (IV) on EP(DV). All variables' unstandardized regression coefficients (i.e., B) are obtained using linear regression in SPSS. The unstandardized regression coefficients for the first variable, IV (SR), are  $B1 = 0.446 (p$

=0.002). The moderator (CSE) is the second variable, with an unstandardized regression coefficient of  $B2 = 0.343$  ( $p = 0.000$ ). The third variable is the SE (IV), EP(DV), and CSE moderator interaction, which has an unstandardized regression coefficient of  $B3 = 0.250$  ( $p = .000$ ). CSE strengthens the positive association between SR (IV) and, EP according to the findings (DV).



### Discussion and Conclusion

The present study seeks to determine how ambidextrous leadership impacts employees' performance with the mediating role of self-resilience in this relationship, and (c) the moderating effect of creative self-efficacy. The empirical evidence reveals that opening leadership behaviour is positively and significantly related to employee performance. The findings indicate that this leadership dimension—representing the central element of ambidextrous leadership stimulates innovation and creative engagement among employees (Zacher & Rosing, 2015). By empowering subordinates with autonomy and entrusting them with decision-making authority, leaders adopting an opening approach inspire individuals to perform their tasks with creativity and originality. However, in certain circumstances, the extensive delegation of responsibilities may lead to undesirable consequences (Mohiya & Sulphrey, 2021). Furthermore, the effectiveness of opening leadership is recognized primarily when it meaningfully enhances employees' creative capabilities, as not every organizational situation necessitates high levels of innovation. In addition, this leadership style conveys a constructive message that workplace errors should not be viewed negatively but rather as valuable opportunities for learning and professional growth. Through this perspective, opening leadership cultivates a work culture that embraces experimentation, reflection, and continuous improvement.

The results indicate that self-resilience plays a significant mediating role in enhancing employee performance. This suggests that the presence of self-resilience is essential for achieving sustained improvements in employees' work outcomes (Sudibjo & Prameswari, 2021). In this study, self-resilience refers to an individual's psychological ability to adapt to

challenges, recover from difficulties, and remain goal-oriented when confronted with organizational change or uncertainty (Janssen, 2000). Employee performance, on the other hand, reflects the extent to which individuals effectively respond to dynamic work demands and continuously deliver results in a shifting environment. The findings further reveal that ambidextrous leadership substantially contributes to strengthening employees' resilience by fostering confidence, adaptability, and a proactive attitude (Løvaas et al., 2020). Leaders who demonstrate ambidextrous characteristics inspire their teams, promote persistence, and instill the psychological endurance necessary to overcome workplace obstacles (Stanescu et al., 2021). Specifically, opening leadership behavior an essential dimension of ambidextrous leadership encourages employees to approach tasks creatively, experiment with new solutions, and think independently while constructively challenging existing norms (Mascareño et al., 2021). Consequently, opening leadership behaviour exerts a direct and positive influence on both self-resilience and employee performance. Even in uncertain situations, such leadership behaviour helps employees maintain emotional stability and adaptability, which, in turn, strengthens their overall performance. These results suggest that leader-opening behaviour expands the behavioral range of followers by enhancing their coping abilities, self-confidence, and determination to improve existing conditions and predict future outcomes (Karimi et al., 2023). This finding corroborates prior research demonstrating the positive link between leadership flexibility, employee resilience, and improved performance outcomes (Rosing & Zacher, 2023).

The findings further indicate that closing leadership behavior (CLB) exerts a significant and meaningful influence on both self-resilience and employee performance. CLB encompasses leadership practices aimed at minimizing inconsistencies in employees' behaviors through structured guidance, the establishment of clear standards, and systematic evaluation of goal achievement (Rosing & Zacher, 2023). This implies that well-defined objectives and structured work processes enhance employees' capacity to adapt, recover, and maintain motivation in the face of challenges, which subsequently translates into higher performance levels. Therefore, a leadership approach that balances discipline with psychological support can substantially contribute to improving employee outcomes.

Moreover, when leaders clearly communicate goals, set behavioral expectations, and outline procedural boundaries, employees develop stronger emotional stability and persistence, enabling them to work confidently and efficiently under pressure (Babu et al., 2024). Prior studies have established that opening leadership behaviour enhances creative and adaptive performance (Rosing & Zacher, 2023; Qalati et al., 2022). Extending these findings, the current results suggest that closing leadership behaviour nurtures resilience-driven performance by encouraging employees to adhere to structured routines while maintaining psychological endurance. Employees often align their behaviors with their leaders, viewing them as influential figures whose conduct provides a behavioral framework for stability and achievement. Consequently, leaders who adopt closing behaviors such as defining schedules, reinforcing regulations, implementing corrective measures, and monitoring progress help employees sustain focus and consistency, reducing uncertainty and strengthening their capacity to perform effectively.

Although limited research has examined the adverse effects of an imbalance between opening and closing leadership behaviors (Caniëls & Veld, 2019), the present findings highlight that adopting closing leadership practices, such as routine setting and performance monitoring, reinforces the link between CLB and employee performance through the mediating role of self-resilience. Previous evidence also suggests that such leadership behaviors direct employees' attention toward goal achievement and performance excellence (Qalati et al., 2022; Zacher et al., 2016). When leaders emphasize clarity, order, and responsibility, employees rely

on proven strategies to meet objectives efficiently, which enhances their confidence and resilience in demanding situations (Zacher & Rosing, 2015). Over time, this disciplined and supportive environment promotes sustained employee growth and contributes to the development of improved services and outcomes that support organizational progress and long-term success.

The results further reveal that creative self-efficacy (CSE) significantly moderates the relationship between self-resilience and employee performance. This finding indicates that the positive influence of self-resilience on employee outcomes becomes stronger when individuals possess higher levels of creative self-efficacy. Self-resilience enables employees to recover from setbacks, maintain emotional balance, and remain focused under pressure (Khan et al., 2022) however, when coupled with strong creative self-efficacy the belief in one's ability to generate and implement creative ideas employees are more likely to translate resilience into proactive and productive performance behaviors (Prayag & Dassanayake, 2023). Individuals with high creative self-efficacy tend to perceive challenges as opportunities for innovation rather than as threats, allowing them to apply resilient coping strategies more effectively to achieve superior performance outcomes.

Moreover, employees with strong self-belief in their creative capabilities are more inclined to take initiative, experiment with new approaches, and find resourceful solutions in times of uncertainty (Khan et al., 2021). This interaction suggests that creative self-efficacy amplifies the motivational and adaptive functions of self-resilience by transforming psychological endurance into tangible work achievements. Conversely, employees with lower creative self-efficacy may not fully utilize their resilience potential, as doubts about their creative capacity may limit their ability to perform innovatively and efficiently. Hence, the moderating effect of creative self-efficacy underscores its critical role in strengthening the link between self-resilience and employee performance, confirming that both emotional adaptability and creative confidence are essential for sustained excellence in dynamic organizational settings.

### **Implications of the study**

#### **Practical implication**

This study highlights the key factors that enhance employees' self-resilience within organizations and explains how this resilience contributes to improved performance outcomes. Employees who possess strong personal identities and clear individual goals, combined with interdependent self-construal, are more likely to exhibit resilient behaviors under supportive leadership conditions. Closing leadership, in this context, represents a collaborative exchange between leaders and subordinates that emphasizes clear expectations, structured guidance, and the recognition of employee achievements through appropriate rewards. Leaders who adopt closing behaviors acknowledge employees' needs and reinforce desirable outcomes, thereby fostering mutual trust and accountability within the leader–follower relationship. The findings further demonstrate how ambidextrous leadership comprising both opening and closing dimensions enhances employee performance by promoting adaptability and perseverance. Specifically, opening leadership behaviour inspires creativity and exploration, while closing leadership reinforces discipline and goal attainment, together cultivating a resilient workforce capable of maintaining high performance under dynamic conditions. Additionally, the moderating effect of creative self-efficacy strengthens this relationship, suggesting that employees with higher confidence in their creative abilities can better leverage their self-resilience to achieve superior performance outcomes. This investigation contributes to the understanding of how leadership balance affects individual adaptability by examining three distinct scenarios such as a balanced condition, where both opening and closing leadership behaviors coexist and support resilience development, an unbalanced condition favoring

opening leadership, where creativity is encouraged but structure may be lacking and an unbalanced condition dominated by closing leadership, where structure prevails but flexibility may be constrained. The present study carries important implications for industry professionals, researchers, and practitioners, particularly within the IT sector, where adaptability, creative confidence, and resilience are vital for sustained employee performance and organizational success.

### **Theoretical implication**

This study extends the theoretical foundations of Ambidextrous Leadership Theory by emphasizing the pivotal role of ambidextrous leadership in enhancing employee self-resilience and performance within the IT sector (Stanescu et al., 2021). By integrating these frameworks, the research refines existing leadership models and contributes to a deeper understanding of the behavioral dynamics that connect leadership practices with employee adaptability and productivity (Qalati et al., 2022). This investigation bridges the conceptual gap between leadership behaviour and individual psychological resources, particularly highlighting how opening and closing leadership styles collectively foster resilience, motivation, and sustained employee effectiveness (Qalati et al., 2022). Moreover, by analyzing the mediating effect of self-resilience and the moderating role of creative self-efficacy, the study provides valuable insights into the underlying mechanisms through which ambidextrous leadership influences employee performance. Self-resilient employees are better equipped to handle organizational challenges, while creative self-efficacy enhances their confidence to apply innovative solutions effectively. This demonstrates that ambidextrous leadership not only shapes behavioral outcomes but also strengthens employees' psychological capacity to perform under pressure. Consequently, the findings underscore the importance for organizations to cultivate a resilient, adaptive, and creativity-supportive work environment to achieve sustained performance and innovation excellence.

### **Limitations and Future Directions**

This study is limited to the IT sector, and therefore, future research is encouraged to examine other industries with different operational structures to validate the generalizability of the findings. Expanding the scope across sectors would provide a stronger foundation for interpreting results and making informed decisions regarding ambidextrous leadership practices and their impact on employee performance. Furthermore, the present study collected data exclusively from employees of large IT firms located in the southern region of India. To develop a more comprehensive understanding, future investigations could include start-ups or small- and medium-sized enterprises (SMEs) within the IT sector, as leadership dynamics and employee resilience may differ across organizational sizes and contexts. Subsequent studies could also incorporate a broader set of demographic and contextual variables such as gender differences, organizational culture, employee satisfaction, and work engagement to explore how these factors shape the relationship between leadership behaviour, self-resilience, and employee performance. Finally, the use of cross-sectional data in this study limits causal inferences. Employing longitudinal or mixed-method approaches in future studies could provide deeper insights into the temporal development of self-resilience and creative self-efficacy under different leadership conditions. Moreover, limited empirical evidence exists on how creative self-efficacy moderates the relationship between ambidextrous leadership and employee performance through self-resilience. Thus, future research should undertake more extensive investigations to clarify these psychological and behavioral mechanisms, offering a richer understanding of how leadership flexibility and employee creativity jointly drive sustained organizational success.

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