

Linking Paradoxical Leadership to Organizational Resilience: The Moderating Role of Organizational Learning Climate

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Abstract

In an era of volatility, uncertainty, complexity, and ambiguous business conditions, organizational resilience has become indispensable for sustainable firm survival, and organizations must explore the factors that could contribute to building organizational resilience. Previous studies have investigated the impact of different leadership styles on organizational resilience; however, the influence of paradoxical leadership remains scarce. Based on paradox theory, this study developed a moderated model that examines how paradoxical leadership influences organizational resilience and investigates the moderating effect of the organizational learning climate on the relationship between paradoxical leadership and organizational resilience. By adopting a purposive sampling technique using two-wave data from 319 knowledge workers of Pakistani IT firms, partial least squares structural equation modelling (PLS-SEM) shows that paradoxical leadership significantly impacts organizational resilience, and the organizational learning climate also moderates this relationship. This study's findings offer practical implications for organizations and leaders to enhance organizational resilience by adopting paradoxical leadership practices and fostering a learning-oriented climate. This study also contributes theoretically by demonstrating the impact of paradoxical leadership on organizational resilience, particularly when supported by a strong organizational learning climate, thereby extending paradox theory in the context of the IT sector in Pakistan.

Keywords: Paradoxical Leadership, Organizational Learning Climate, Organizational Resilience, Paradox Theory

1 Introduction

Businesses are in a continuous phase of risks regarding their operations in a highly dynamic environment because of the fast-growing landscape of the organizations (Garrido-Moreno et al., 2024). This complexity has made risk, crisis, and uncertainty integral to today's business landscape and has made them more challenging to remain competitive (Shet, 2024). In such a context, firms need to develop the capabilities to adapt to market variations, recover from disruptions, and cope with challenging circumstances, which are collectively referred to as organizational resilience (OR) (Florez-Jimenez et al., 2025; Hernes et al., 2025). Resilience involves not only recovering from shocks and returning to a stable state but also enduring challenges and embracing opportunities for growth and development (Lengnick-Hall et al., 2011). Thus, organizations with enhanced resilience can endure and adjust to environmental shifts, which can prolong their existence and enhance their sustainability (Sawalha, 2015; Hillmann, 2021; Napier et al., 2024).

Previous studies have found that organizational resilience plays a significant role in determining firm productivity (Shela et al., 2023), performance (Chowdhury et al., 2019), and long-term corporate sustainability (Florez-Jimenez et al., 2024). Consequently, understanding and nurturing organizational resilience has gained unprecedented importance, and it has become crucial to determine the factors that contribute to its development (Förster et al., 2022; Kunz & Sonnenholzner, 2023; Lin & Fan, 2024; Zhang et al., 2025).

Leadership has been acknowledged as a crucial predictor of OR, notably in volatile, uncertain, complex, and ambiguous (VUCA) business environments (Syamsir et al., 2025). Past studies have explored the relationship between different leadership styles (e.g., strategic leadership, transformational leadership, shared leadership, and resilient leadership) and organizational resilience; however, contemporary firms are increasingly defined by paradoxical demands, such as exploration versus exploitation, change versus stability, and autonomy versus control, thus requiring paradoxical leadership (PL) (Pearce & van Knippenberg, 2024; Tekletsion et al., 2024).

Paradoxical leadership, which is characteristic of leaders who seemingly display interdependent contradictory behavior, gives them the ability to adjust to the complex demands of jobs and drive innovative and adaptive responses in rapidly changing business environments (Zhang et al., 2015; Kundi et al., 2023). Based on paradox theory (Smith & Lewis, 2011; Smith & Lewis, 2012), this leadership paradigm promotes the practice of a both/and approach, which helps leaders address contradictions between adaptability and regulation, experimentation, and standardization, and thus contributes to strategic agility and fosters innovation (Lewis et al., 2014; Dashuai & Bin, 2020). Despite its conceptual relevance, there is a knowledge and empirical gap regarding how paradoxical leadership enhances organizational resilience (Udin, 2025).

Paradoxical leadership, based on Eastern philosophical assumptions of Yin and Yang, has been studied more comprehensively in Western societies (Zhang et al., 2015). Given that the effectiveness of OR and leadership exemplifies high heterogeneity, irrespective of culture and industry, researchers have emphasized studying these

constructs in a broader context (Czakon & Czernek-Marszałek, 2025; Zhang et al., 2025). To address this issue and respond to these calls, the current study focuses on information technology companies operating in Pakistan, where paradoxical leadership and resilience are especially relevant (Tekletsion et al., 2024).

Prior research has highlighted the role of learning climate in shaping a firm's ability to adapt and respond to market situations (Awad & Martín-Rojas, 2024). Nevertheless, organizational working culture varies across countries, particularly developed and developing economies (Cheng & Groyberg, 2020). Therefore, investigating how paradoxical leadership fosters organizational resilience in the face of an organizational learning climate (OLC) remains a significant yet underexplored area of research (Chowdhury et al., 2024; Trivedi & Singh, 2025). Addressing this gap, the present study examines the moderating role of organizational learning climate in the association between paradoxical leadership and organizational resilience within IT sector firms in Pakistan and extends the leadership and resilience literature in the context of a developing economy.

2 Literature Review and Hypotheses Development

2.1 Paradoxical Leadership (PL) and Organizational Resilience (OR)

OR is gaining recognition as the key dynamic capability that supports firms in maintaining operations, performance, and rebounding from any unpredictable disruption (Duchek, 2020; Florez-Jimenez et al., 2025). OR has been conceptualized in numerous ways in the literature. There are various dimensions of OR; however, there is no consensus on how to measure them. Following Churchill's approach (1979), Kantur and Iseri-Say (2015) employed both qualitative and quantitative methods to create a scale for measuring OR. They identified three key dimensions: robustness, agility, and integrity. Compared to other measures developed by prior researchers, such as those developed by Mallak (1998), Lee et al. (2013), and Orchiston et al. (2016), the scale developed by Kantur and Iseri-Say (2015) was based on a varied sample of organizations from various business segments. Through rigorous testing, they validated the reliability and validity of their scale, making it suitable for diverse samples from different sectors.

Based on the recommendations of Kantur (2015), the current study considers the operational definition of Kantur and Say (2015), who explained organizational resilience as a multidimensional concept comprising three capabilities: robustness, agility, and integrity. Resilience can be achieved by ensuring that organizations not only predict crises but also adjust to the presence of adversity through robustness, agility, and cohesion (Kantur & Say, 2015; Williams et al., 2017; Li, 2020). According to Kantur and Say (2015), organizational resilience is defined as "the ability to survive in the face of major setbacks or disruptions, to maintain one's position, and to benefit from adverse conditions."

Considering the ambiguity and complexity of the present business world, leadership has become a key determinant of organizational resilience (Wang et al., 2024; Kayyali, 2025). With the growth of global competitive pressure, organizations are facing contradictions between profitability and ecosystem well-being or stability and

innovation, thus creating new tensions among leaders and employees (Zhang & Han, 2019; Zhang et al., 2024). Paradox theory argues that these paradoxes are inherent in organizational settings and become harmful and often lead to counterproductive behaviors when employees experience resource depletion (Smith & Lewis, 2011).

In such contexts, paradoxical leadership can be especially useful because of a leader's ability to combine seemingly conflicting behaviors and offer structure and autonomy at the same time, be in control and flexible, and be attentive to individual needs and organizational goals (Zhang et al., 2015; Qiang et al., 2023).

Therefore, Zhang et al. (2015), based on the philosophy of Yin and Yang, described the way through which leaders can handle the people while balancing the paradoxes arise in managing people. According to Zhang et al. (2015), paradoxical leadership behavior (PLB) refers to actions that appear to be in conflict but are interconnected, aimed at addressing competing demands within the workplace simultaneously and over time. In simpler terms, paradoxical leaders use these behaviors to effectively manage contradictions within the organization, ensuring optimal functioning and balance in meeting various organizational demands.

As described by Zhang et al. (2015), PL encompasses five distinct paradoxical behaviors aimed at addressing followers' contradictory expectations. These behaviors include the following: (i) harmonizing self-centeredness with another centeredness, (ii) upholding a balance between distance and closeness towards followers, (iii) treating supporters uniformly while allowing for individualization, (iv) enforcing both work demands and behavioral flexibility, and (v) retaining the decision regulator while promoting autonomy among followers. These paradoxical behaviors enable leaders to effectively navigate the complex demands of their roles and create a harmonious working environment

Because the concept of OR implies a balance of paradoxical requirements, including stability versus adaptation, control versus flexibility, and exploitation versus exploration, paradoxical leadership is a suitable approach for navigating organizations through complex and uncertain environments (Chaudhary et al., 2024).

Paradoxical leaders promote conditions that allow individuality, divergent views, and tensions to serve as learning opportunities, enhancing employees' abilities to constructively solve contradictory demands (Smith & Lewis, 2011; Tripathi et al., 2025). Such a balancing approach supports organizational learning and growth and ultimately fosters firms' capacity for resilience (Do et al., 2022).

Recognizing employees' individuality enables paradoxical leaders to invite different work styles and produce synergies that boost employees' knowledge and skills. This results in subordinates learning to act under conditions of risk and handle conflicting demands, which contributes to establishing an adaptive culture, supporting experimentation, reducing conflict between exploration and exploitation, and strengthening firms' robustness (Zhang et al., 2018; Mao & Weathers, 2019). Furthermore, paradoxical leadership presents situational support that aids employees in decreasing stress under difficult business circumstances (Hobfoll et al., 2018) and managing paradoxes, as suggested by paradox theory (Smith & Lewis, 2011). Balancing paradoxes results in agility and robustness in an organization, which can

endure disruption, remain stable and innovative, and enhance OR. Therefore, we propose the following hypothesis:

Hypothesis 1: Paradoxical leadership has a positive relationship with organizational resilience.

2.2 Moderating Role of Organizational Learning Climate (OLC) in the Relationship Between Paradoxical Leadership (PL) and Organizational Resilience (OR)

Organizations consistently face external pressures, necessitating rapid and effective adaptation to new conditions. This indicates that employees must acquire new skills to meet the demands arising from these changed conditions. In such scenarios, an organization's ability to foster employee learning becomes particularly crucial for its survival (Do et al., 2022). Moreover, a supportive learning environment is one of the pivotal factors influencing employees' preparedness to engage in organizational change (Fu et al., 2023). Given the strategic importance of employee education, organizations should prioritize creating a supportive environment for professional development and actively promote the advancement of their workforce (Nair et al., 2023).

Organizational learning climate refers to employees' shared perception of firm policies and practices designed to motivate, recognize, and strengthen learning behavior (Nikolova et al., 2014). The learning climate improves organizational outcomes by fostering knowledge sharing, openness to experience, and continuous improvement. Past studies have found a meaningful relationship between organizational learning climate and organizational outcomes, such as organizational performance (Budihardjo, 2014), organizational effectiveness (Budihardjo, 2013), organizational innovation (Uddin et al., 2016), and sustainable business models (Ademi et al., 2024). Owing to the relevance of the learning climate to organizational outcomes and as a necessity for fast-paced developing organizations, the current study attempts to examine the moderating role of the learning climate in the relationship between PL and OR in IT firms.

A strong learning climate encourages employees to learn new skills, develop competencies, and respond effectively to environmental variations (Eldor, 2017). Employees contribute to firms' adaptability and flexibility, thus enhancing the agility dimension of organizational resilience. A supportive learning climate also helps organizations achieve a competitive advantage by differentiating themselves from rivals (Dhananjaya Dahanayake & Gamlath, 2013; Messarra & El-Kassar, 2013). This characteristic contributes to a firm's robustness, enabling it to withstand difficult situations and recover after disruption in an opportunistic manner. The learning climate also encourages employees to share knowledge, establish cohesion, and integrate them to achieve organizational outcomes, thus facilitating the enhancement of the integrity dimension of OR.

Previous studies have also found a significant relationship between the organizational learning climate and corporate performance (Budihardjo, 2014), organizational resilience (Evenseth et al., 2022), and the sustainable firm performance of exporting firms. However, empirical evidence is scarce and a new contextual framework is

required to generalize the results (Ullah et al., 2025). Hence, the present study, based on past literature, argumentation, and evidence, attempts to identify its moderating role in the relationship between PL and OR, in that when employees perceive a strong learning climate that encourages experimentation, knowledge sharing, and embracing paradoxes, the ability of paradoxical leaders to balance conflicting demands, encourage learning, and foster adaptability is translated more effectively to organizational resilience.

Hypothesis 2a: An organizational learning climate is positively associated with organizational resilience.

Hypothesis 2b: An organizational learning climate moderates the relationship between paradoxical leadership and organizational resilience such that the relationship between paradoxical leadership and organizational resilience is enhanced when the organizational learning climate is high.

Conceptual Framework

1.1.

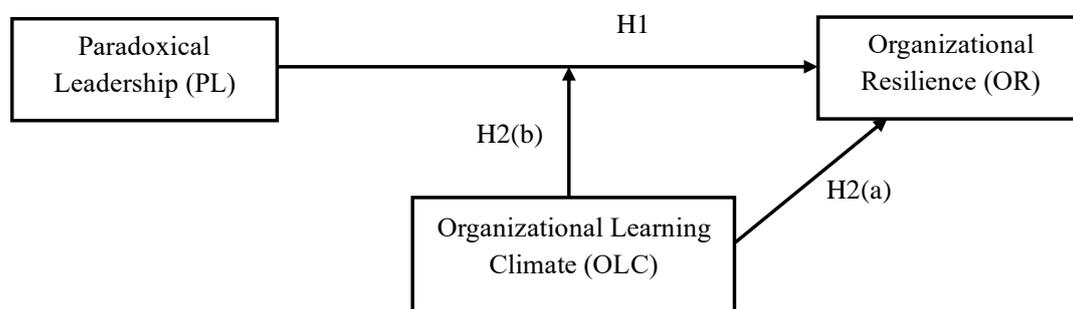


Figure 1: Conceptual Framework

3 Methodology

3.1 Sampling Procedures and Data Collection

A non-probability purposive sampling design was employed to gather data by distributing a self-administered questionnaire. Data were collected from knowledge workers employed in IT sector firms operating in the hub cities of Pakistan, including Rawalpindi, Lahore, Karachi, and Islamabad. Employees were contacted via email and telephone through the platform of the Pakistan Software Export Board (PSEB). This study used a time-lagged research design to minimize common method bias (CMB) (Podsakoff et al., 2012) and potential endogeneity due to reverse causality. Demographic information and responses regarding paradoxical leadership were collected in the first wave (Time-1), whereas information about organizational

resilience and organizational learning climate was gathered after six weeks in the second wave (Time-2), and responses were matched through unique codes.

The study considered knowledge workers who are operationalized as employees engaged in knowledge-intensive tasks in their jobs and have a minimum qualification of a bachelor's degree with at least one year of professional experience as the unit of analysis (Drucker, 1969; Joo et al., 2016; Yang & Zhang, 2023). Knowledge workers were chosen as the unit of analysis because of their importance in building and sustaining organizational resilience (Yang & Zhang, 2023). Therefore, the samples included data analysts, web designers, programmers, web developers, and researchers from IT companies. Four hundred and fifty questionnaires were distributed, of which 332 were returned, providing a response rate of 73.7 %. After eliminating inappropriate and unmatched responses, we were left with 319 cases for analysis.

The demographic details are provided in Table 1, which shows that 203 participants (64%) were men, while 116 (36%) were women. In terms of age, 114 respondents (36%) were younger than 25 years, 104 (32%) were between 25 and 30 years, 97 (30%) were in the 31–40 year age group, and four respondents (2%) were older than 40 years.

Regarding educational qualifications, four (1%) respondents had secondary-level education or below, 14 (4 %) had completed higher secondary education, 102 (32 %) held a bachelor's degree of 14 years, and 171 (54%) possessed a bachelor's degree of 16 years. In addition, five (2 %) respondents reported professional qualifications, and eight (3%) held computer-related certifications or diplomas.

Regarding professional experience, 146 respondents (46%) had less than five years of experience, 84 (26%) reported five to eight years, 52 (16%) had eight to ten years, and 37 respondents (12%) reported more than ten years of professional experience. Concerning organizational tenure, the majority of respondents (279, 87%) had been employed in their current organization for less than five years, followed by 32 respondents (10%) with five to eight years, and 8 respondents (3%) with more than eight years of organizational experience.

Finally, in terms of job designation, 96 respondents (30%) were staff members, 132 (41%) were supervisors or team leaders, 37 (12%) held middle management positions, and 54 respondents (17%) worked in senior management roles.

Table 1

Demographics

| Demographics | Frequency(f) | Percentage(%) |
|---|--------------|---------------|
| Gender | | |
| Female | 116 | 36 |
| Male | 203 | 64 |
| Qualification/Education | | |
| University Graduation (14 years) | 102 | 32 |
| University Graduation (16 years) | 171 | 54 |
| M.Phil./MS | 45 | 13 |
| PhD | 1 | 1 |
| Age | | |
| Below than 25 years | 114 | 36 |
| 25 years to 30 years | 104 | 33 |
| 31 years to 40 years | 97 | 30 |
| More than 40 years | 4 | 1 |
| Total Years of Professional Experience | | |
| Less than 5 years | 146 | 46 |
| 5 years to 8 years | 84 | 26 |
| More than 8 years to 10 years | 52 | 16 |
| More than 10 years | 37 | 12 |
| Total Years of Professional Experience in Current Organization | | |
| Less than 5 years | 279 | 87 |
| 5 years to 8 years | 32 | 10 |
| More than 8 years | 08 | 3 |
| Designation/Job Position | | |
| Middle Manager | 37 | 12 |
| Senior Manager | 54 | 17 |
| Staff | 96 | 30 |
| Supervisor/Team Leader | 132 | 41 |
| Grand Total | 319 | 100 |

Source: Provided by the Authors

3.2 Measurement and Scales

Responses for the study's constructs (i.e., paradoxical leadership, organizational learning climate, and organizational resilience) were collected using a 5-point Likert scale (1=strongly disagree) to (5=strongly agree).

3.2.1 Organizational Resilience

The scale of Kantur and Say (2015) was adopted in this study to measure organizational resilience. The scale used in the current research had a high level of internal consistency, with Cronbach's alpha coefficient of 0.94, indicating that the items coherently measured the same underlying construct.

3.2.2 Paradoxical Leadership

The 22-point scale of Zhang et al. (2015) was used to measure paradoxical leadership. The instrument in this study exhibited prominent levels of reliability, as indicated by a Cronbach's alpha of 0.95.

3.2.3 Organizational Learning Climate

Organizational learning climate was assessed using a 9-item scale by Nikolova et al. (2014). The internal consistency of the scale was 0.93.

3.2.4 Control Variables

To rule out alternative explanations, a set of control variables was included to cover both individual and organizational-level characteristics. Employee age, gender, experience, and educational status, as these can influence workplace perspectives, skills, and decision-making, were considered control variables at the individual level. At the organizational level, company size, measured by the total number of employees, and company age, measured by the years since establishment, were included. Gender was also included because of its well-documented influence on key outcomes and predictors in social science research (Callanan & Davis, 2012). In addition, previous empirical studies have reported that age, experience, and education among workers can impact organizational resilience (Liang & Cao, 2021); therefore, these variables were included to control for the estimated effects to be closer to the relationships of interest and to minimize the potential threat of omitted variable bias and endogeneity in the estimated relationships. The current study found no effect of demographic variables on the dependent and independent variables; therefore, they were not included in the model.

3.2.5 Common Method Variance

The current study collected data using a self-administered questionnaire; therefore, various procedural and statistical remedies were applied to minimize the potential threat of common method variance (CMV). A time-lagged study design with a temporal gap of six weeks was employed as a procedural remedy to mitigate the effect of consistency bias in addressing CMV (Podsakoff et al., 2003). Moreover, respondents were informed of their anonymity and confidentiality to reduce social desirability bias.

Besides the procedural remedies, the full collinearity variance inflation (VIF) approach was employed as a statistical test to assess the potential presence of CMV, following the recommendation of Kock (2015). The results showed all VIF values less than 3.3 below the recommended threshold, demonstrating common method bias not a potential threat to the findings' validity, as shown in Table 2.

Table 2

Full Collinearity Statistics (VIF)

| Constructs | VIF |
|---------------|-------|
| OL -> OR | 1.007 |
| OL x PL -> OR | 1.006 |
| PL -> OR | 1.000 |

Note: VIF = Variance Inflation Factor

Source: Provided by Authors

4 Data Analysis

Partial least squares structural equation modeling (PLS-SEM) was employed to empirically evaluate the proposed conceptual framework. It is well-suited for analyzing complex models, such as those with hierarchical structures or mediating and moderating effects (Chin et al., 2003; Khoi & Van Tuan, 2018). Hair et al. (2019) also suggested PLS-SEM as the primary analytical method in scenarios such as when the structural model is intricate and involves numerous constructs, indicators, or relationships. In this study, paradoxical leadership, organizational learning climate, and organizational resilience were conceptualized as latent variables measured through multiple indicators. Additionally, the study aimed to examine the impact of paradoxical leadership on organizational resilience and evaluate the moderating influence of organizational learning climate in this relationship. In line with the methodological recommendations, PLS-SEM enables the simultaneous evaluation of both the measurement and structural models (Chin et al., 2003).

Therefore, by simultaneously examining the outer and inner models, PLS-SEM facilitates the provision of an appropriate analytical approach to provide an integrated assessment of measurement properties and structural paths while maximizing the explained variance of the endogenous construct, aligning with the methodological explanations provided by Chin et al. (2003) and Hair Jr et al. (2021). To evaluate the model's measurement instruments and the significance of the path coefficients, we used SmartPLS version 4. Moreover, the statistical significance of the estimated path coefficients was evaluated using bootstrapping with 5000 samples, as recommended by Henseler et al. (2015) to provide rigorous results.

4.1 Reflective Measurement Model Evaluation

The reflective measurement model was assessed through evaluating the indicators' reliability, internal consistency reliability, convergent validity, and discriminant validity. Outer loadings were used to determine the indicators' reliability, and the findings indicated that most of the values exceeded the threshold of 0.708 recommended by Hair et al. (2019) as shown in Table 3. Although a few indicators had values slightly below the recommended threshold, they remained above 0.40 and did not affect the convergent validity of the construct; therefore, they were retained, as suggested by Hair and Alamer (2022).

Further, we used Cronbach's alpha (CA) and composite reliability (CR) to assess internal consistency reliability using consistent bootstrapping procedures

recommended by Hair Jr et al. (2021). The results indicated that the values of CA and CR for paradoxical leadership were 0.94 and 0.95, respectively. Moreover, the Cronbach's alpha and composite reliability values for organizational learning climate (CA=0.93, CR=0.94) and organizational resilience (CA=0.94, CR=0.95) demonstrated satisfactory reliability. The values of CA were found to be above 0.65 (Vaske, 2008), and the CR values surpassed 0.70 (Fornell & Larcker, 1981); thus, adequate internal consistency and construct reliability were confirmed, as shown in Table 3.

The authors then used average variance extracted (AVE) values to determine the convergent validity of the constructs after evaluating internal consistency reliability. The AVE values showed satisfactory results for the convergent validity for PL (0.52), OLC (0.64) and OR (0.67), meeting the minimum threshold criteria of more than 0.50 as suggested by (Hair & Alamer, 2022).

Finally, the Heterotrait-Monotrait (HTMT) ratio was used to evaluate the discriminant validity of the study's model constructs. The values met the recommended threshold of < 0.85, and in addition, their corresponding confidence intervals did not exceed this limit, as suggested by Henseler et al. (2015); thus, providing evidence of satisfactory discriminant validity. The results are presented in Table 4.

Table 3

Measurement Model

| Constructs | Items Code | Outer Loadings | CA | CR | AVE |
|---------------------------------|------------|----------------|------|------|------|
| Organizational Learning Climate | | | 0.93 | 0.94 | 0.64 |
| | OLC 1 | 0.783 | | | |
| | OLC 2 | 0.820 | | | |
| | OLC 3 | 0.807 | | | |
| | OLC 4 | 0.789 | | | |
| | OLC 5 | 0.815 | | | |
| | OLC 6 | 0.797 | | | |
| | OLC 7 | 0.775 | | | |
| | OLC 8 | 0.816 | | | |
| | OLC 9 | 0.810 | | | |
| Organizational Resilience | | | 0.94 | 0.95 | 0.67 |
| | OR1 | 0.786 | | | |
| | OR2 | 0.839 | | | |
| | OR3 | 0.830 | | | |
| | OR4 | 0.844 | | | |
| | OR5 | 0.835 | | | |
| | OR6 | 0.833 | | | |
| | OR7 | 0.808 | | | |
| | OR8 | 0.798 | | | |
| | OR9 | 0.813 | | | |
| Paradoxical Leadership | | | 0.94 | 0.95 | 0.52 |

| Constructs | Items Code | Outer Loadings | CA | CR | AVE |
|------------|------------|----------------|----|----|-----|
| | PL1 | 0.738 | | | |
| | PL2 | 0.775 | | | |
| | PL3 | 0.754 | | | |
| | PL4 | 0.745 | | | |
| | PL5 | 0.723 | | | |
| | PL6 | 0.706 | | | |
| | PL7 | 0.742 | | | |
| | PL8 | 0.710 | | | |
| | PL9 | 0.768 | | | |
| | PL10 | 0.744 | | | |
| | PL11 | 0.713 | | | |
| | PL12 | 0.705 | | | |
| | PL13 | 0.688 | | | |
| | PL14 | 0.761 | | | |
| | PL15 | 0.741 | | | |
| | PL16 | 0.697 | | | |
| | PL17 | 0.698 | | | |
| | PL18 | 0.666 | | | |
| | PL19 | 0.677 | | | |
| | PL20 | 0.696 | | | |
| | PL21 | 0.691 | | | |
| | PL22 | 0.746 | | | |

Note: OLC=Organizational Learning Climate, OR=Organizational resilience, PL=Paradoxical leadership

Source: Provided by the authors.

Table 4

Discriminant Validity (HTMT ratio)

| Constructs | HTMT ratio | 2.5% | 97.5% |
|------------|------------|-------|-------|
| OR <-> OLC | 0.247 | 0.128 | 0.366 |
| PL <-> OLC | 0.066 | 0.080 | 0.151 |
| PL <-> OR | 0.345 | 0.223 | 0.467 |

Note: OLC=Organizational Learning Climate, OR=Organizational resilience, PL=Paradoxical leadership, HTMT=Heterotrait-Monotrait

Source: Provided by Authors

4.2 Structural Model Evaluation

The structural model was tested using a bootstrapping process with the Smart PLS software, with 5,000 subsamples and the bias-corrected standard error (BCa) technique

to estimate robust significance estimates for the proposed relations. The resulting hypothesized model is shown in Table 5, producing a root mean square residual (SRMR) of 0.07, signifying a satisfactory model fit and a far lesser value of 0.08, as proposed by Hu and Bentler (1999). The structural model was also evaluated for explanatory power through the R-square (R^2). Hair et al. (2011) pointed out that R-squares of 0.75, 0.50, and 0.25 represent strong, moderate, and weak explanatory powers, respectively. The R-square value was moderate in the current analysis but significant for organizational resilience ($R^2 = 0.26$), which shows that the share of explained variance is sufficiently large, and the actual relationship is supported. The predictive relevance of the model was considered based on the Q-square statistic of Stone–Geisser. The Q^2 had a value greater than zero (Q^2 predict = 0.193), which proves that the model is relevant in the prediction (Hair Jr et al., 2021), and is presented in Table 5. Finally, variance inflation factor (VIF) values were examined for all constructs to assess the presence of multicollinearity. All VIF values were less than three, indicating no issues with multicollinearity (Becker et al., 2015); thus, it supports the fact that single-order constructs were used. Table 5 shows the entire VIF statistics.

Table 5

Structural Model Evaluation

| Constructs | R^2 | Q^2 | VIF | SRMR |
|------------|-------|-------|-------|------|
| OR | 0.26 | 0.193 | 1.007 | 0.07 |

Note: OR=Organizational resilience, R^2 = Coefficient of determination, Q^2 = Predictive relevance, VIF = Variance inflation factor, SRMR=Root means squared residual

Source: Provided by Authors

4.3 Alternative Model Testing

To further examine the robustness of the proposed model, the authors tested alternative models as per the recommendations of Hair Jr et al. (2021) in partial least squares structural equation modeling (PLS-SEM). First, a reverse causality model was estimated in which paradoxical leadership was predicted through organizational resilience. The results indicated that the reverse causality model explained 11% of the variance in OR, as compared to the proposed model, which explained 25.5% of the variance in OR. Second, a model without a moderating variable was estimated and it was found that only 12% of the variance in OR was explained, as compared to the proposed model. Third, OR was predicted by a moderating variable (OLC), which demonstrated only 5% of the variance in OR. The results demonstrate that the hypothesized model offers a better representation of the relationships among variables, as presented in Table 6.

Table 6

Alternative Model Results

| Alternative Models | Relationships | R^2 |
|--------------------|---------------|-------|
| Model 1 | OR -> PL | 0.11 |

| | | |
|---------|-----------|-------|
| Model 2 | OLC -> OR | 0.059 |
| Model 3 | PL->OR | 0.12 |

Note: PL=Paradoxical leadership, OLC=Organizational learning climate, OR=Organizational Resilience

Source: Provided by Authors

4.4 Path Coefficients (Direct Effects)

The path coefficients were evaluated using the bias-accelerated method of bootstrapping with 5,000 resamples in accordance with the recommendation of Hair (2014). Table 7 presents the findings on the direct effects.

The analysis of direct effects demonstrated that paradoxical leadership and organizational resilience had a positive and statistically significant positive relationship ($\beta=0.36$, $p=0.000$); thus, Hypothesis 1 was supported. In addition, organizational learning climate was significantly correlated with organizational resilience ($\beta=0.24$, $p=0.000$); thus, Hypothesis 2a was statistically confirmed.

Table 7

Direct and Moderating Effects

| Direct Hypotheses | Relationship | Path Coefficient (β) | P values | Results |
|-------------------|--------------|------------------------------|----------|---------|
| Hypothesis 1 | PL -> OR | 0.36 | 0.000 | Proved |
| Hypothesis 2a | OLC -> OR | 0.24 | 0.000 | Proved |
| Hypothesis 2b | PLxOLC->OR | 0.25 | 0.002 | Proved |

Note: PL=Paradoxical leadership, OLC=Organizational learning climate, OR=Organizational Resilience

Source: Provided by Authors

4.5 Moderating Effect

The interactive effect of paradoxical leadership and organizational learning climate ($\beta=0.25$, $p=0.002$) also showed a substantial impact in determining organizational resilience, as shown above in Table 7, suggesting that when the interactive effect is added to the model, it increases the impact of paradoxical leadership on organizational resilience, as shown in Figure 2. The results also show that the explained variation in organizational resilience increases by 14% when the OLC is added on the model as a moderating factor (R^2 increased from 12% to 26%) as shown in Tables 5 and 6.

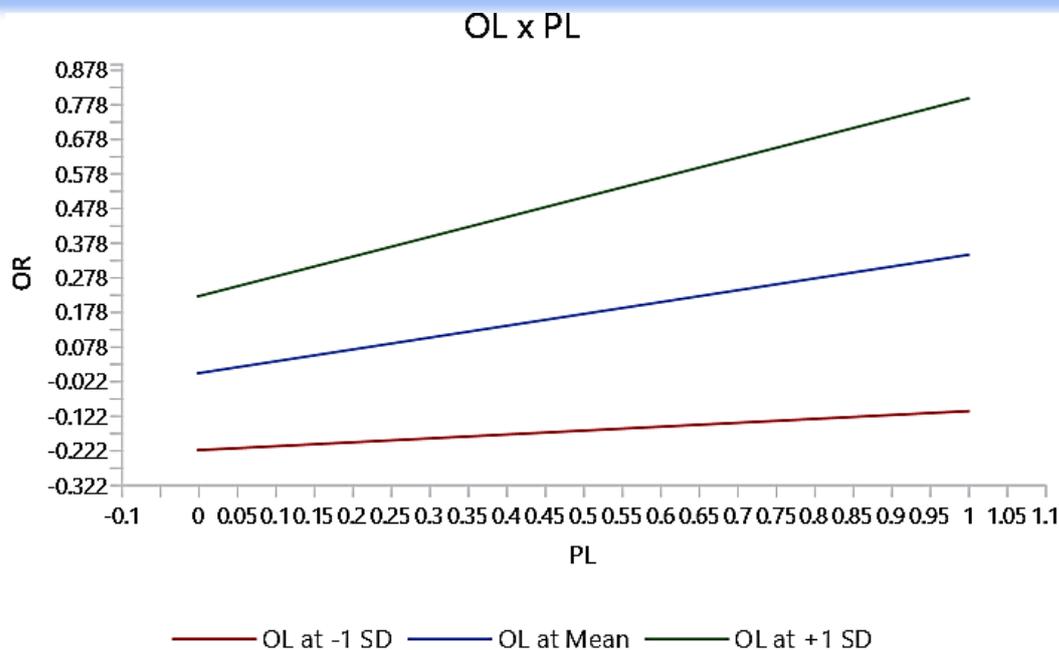


Figure 2: Moderating Effect of Organizational Learning Climate

5 Discussion

This study discusses the impact of PL on organizational resilience. Empirical studies have found that the overall impact of PL on OR is statistically significant, and PL behaviours considerably increase an organization's ability to survive disruption and adapt positively to demanding environments. Leaders who simultaneously manage conflicting demands, such as maintaining stability while embracing flexibility or balancing organizational needs with employees' needs, can enhance a firm's capacity to sustain disruption and adapt to various business conditions. These results are correlated with paradox theory, which argues that managing paradoxes and contradictory demands enables organizations to respond more effectively to complex and dynamic business environments (Smith & Lewis, 2011). In this context, leaders who actively compromise and resolve competing tensions, including ensuring a state of stability and allowing flexibility and balancing organizational needs with employee needs, have a higher chance of promoting organizational flexibility and resilience.

The study further found a support of moderating role of organizational learning climate in the relationship between PL and OR. Specifically, the positive effect of PL on OR is enhanced when a firm provides an environment that facilitates and appreciates learning by allowing experimentation. From the perspective of paradox theory, a learning climate enables employees to embrace contradictions as opportunities rather than hurdles (Smith & Lewis, 2011). Such contextual conditions foster sustainability and innovation by allowing experimentation, facilitating, and encouraging learning opportunities, which can enhance the effectiveness of paradoxical leadership practices in developing resilient organizational responses, that is, robustness, agility, and integrity.

By highlighting the moderating role of OLC in the relationship between PL and OR, this study contributes to the growing knowledge on PL and OR. Previous studies have emphasized the leadership role and learning climate independently, whereas the current study focused on the organizational context through which the effectiveness of PL is translated to the organizational outcome, that is, organizational resilience. The findings suggest that paradoxical leadership enhances organizational resilience more effectively in a learning-oriented environment. The findings of this research extend the existing literature and support prior scholarly calls that emphasize learning climate as a key contributor in determining organizational resilience (Evenseth et al., 2022; Ademi et al., 2024; Jiao & Bu, 2024).

The research findings also provide practical insights for firms operating in complex and dynamic business environments, such as the IT sector. Organizations in this industry face fast-paced technological variations, evolving customer needs, and intensive competitive pressures. The findings of this study suggest that leadership capable of managing conflicting demands can help organizations effectively face these challenging circumstances. The results also demonstrate that leadership alone cannot be beneficial for fostering organizational resilience unless it is supported by contextual conditions that promote and encourage a learning climate. Therefore, the development and enhancement of organizational resilience in such contexts can be achieved by promoting a climate of continuous learning.

Taken together, the results highlight the importance of considering both factors, leadership and organizational context, when developing organizational resilience. Paradoxical leadership provides a mechanism for managing and balancing paradoxes more effectively, whereas the learning climate amplifies its effectiveness by enabling employees to engage in adaptive learning and problem-solving processes. Consequently, organizations that need to enhance organizational resilience in complex dynamic business environments should not only focus on leadership practices but also provide contextual conditions for continuous learning and adaptation.

5.1 Theoretical Contributions

This study makes several theoretical contributions to the literature. First, it extends the growing body of literature examining paradoxical leadership as a crucial antecedent of organizational resilience by empirically demonstrating the role of PL in enhancing OR. Paradox theory suggests that managing competing demands by leaders can help firms navigate challenging circumstances and uncertainty more effectively (Smith & Lewis, 2011); however, the link between PL and OR remains scarce. By providing empirical evidence for this relationship, this study highlights the significance of PL in enhancing firms' adaptive capacity and responding to complex dynamic conditions.

Second, the study contributes by identifying organizational learning climate as a contextual boundary condition that strengthens the impact of paradoxical leadership on organizational resilience. The results indicate that paradoxical leadership relies on the contextual condition that facilitates and appreciates learning by allowing experimentation. In this way, the current study enriches existing research by

demonstrating that leadership alone may not be sufficient to foster organizational resilience unless a supportive learning climate is provided.

This research also makes a novel contextual contribution by examining these theoretical relationships within Pakistan's IT sector, a developing and highly dynamic environment. Earlier studies on paradoxical leadership and resilience have predominantly been conducted in Western contexts, where cultural norms, organizational settings, and leadership perceptions differ significantly. The present study demonstrates such relationships in a different context by focusing on the workforce operating in IT sector firms in Pakistan and providing contextual evidence on leadership and resilience theories. By doing so, this study offers empirical insights into how paradoxical leadership learning climate processes operate in business settings characterized by volatility and uncertainty.

5.2 Managerial Implications

This study offers practical implications for organizations and leaders operating in dynamic and technology-driven environments, such as the IT sector. In a complex dynamic business environment, firms usually face conflicting demands, such as exploration versus exploitation, stability versus variation, and control versus autonomy. The results of the study suggest that managers can enhance organizational resilience and contribute to firms' sustainability by adopting a paradoxical leadership approach, such as providing autonomy while maintaining control over decisions, providing flexibility while enforcing work demands, and autonomy, balancing between to effectively manage these conflicting demands rather than choosing one over another. Furthermore, the significant direct and moderating influence of the organizational learning climate on organizational resilience suggests that contextual resources are vital contributors to organizational resilience. Therefore, firms and managers should encourage experimentation, innovative solutions to problems, and continuous learning not only to enhance organizational resilience but also to provide an amplified leadership impact on building resilience. Firms must provide their employees with a platform and environment to enhance their skills and knowledge to remain competitive in this volatile and dynamic IT sector.

5.3 Research Limitations and Future Directions

In addition to providing theoretical and managerial implications, the current study has several limitations that need to be addressed. A time-lagged design was used in the current study to avoid common method bias; however, this limits the ability to draw strong causal conclusions because of unmeasured variables. A longitudinal research design should be utilized in future studies to better elucidate the contributions of leadership and individual resilience.

The present study collected data from a specific industry (i.e., the IT industry) operating in Pakistan. This limits the generalizability of the results. Organizational, contextual, and cultural aspects vary across countries, affecting how paradoxical leadership is perceived and how organizational resilience is built. Therefore, future research can use this framework by applying probability sampling techniques to other industries and

cultures to enhance external validity and results generalizability. Future studies can also examine the potential understanding of workers' assistance programs, citizenship behavior, and worker engagement as other mediating and moderating variables to broaden the scope of the literature and reinforce the framework.

Moreover, multilevel analysis contributes to methodological rigor. The research considered paradoxical leadership, organizational learning climate, and organizational resilience as one-dimensional constructs; future research should measure the connections among them as multidimensional constructs to explain how certain dimensions interact to produce the results.

References

- Ademi, B., Sætre, A. S., & Klungseth, N. J. (2024). Advancing the understanding of sustainable business models through organizational learning. *Business Strategy and the Environment*, 33(6), 5174-5194.
- Awad, J. A., & Martín-Rojas, R. (2024). Digital transformation influence on organisational resilience through organisational learning and innovation. *Journal of Innovation and Entrepreneurship*, 13(1), 69.
- Becker, J.-M., Ringle, C. M., Sarstedt, M., & Völckner, F. (2015). How collinearity affects mixture regression results. *Marketing letters*, 26(4), 643-659.
- Budihardjo, A. (2013). *Job satisfaction, affective commitment, learning climate and organizational effectiveness: A study on senior managers*. Paper presented at the International conference on business strategy and organizational behaviour (BizStrategy). Proceedings.
- Budihardjo, A. (2014). The relationship between job satisfaction, affective commitment, organizational learning climate and corporate performance. *GSTF Journal on Business Review (GBR)*, 2(4).
- Callanan, V. J., & Davis, M. S. (2012). Gender differences in suicide methods. *Social psychiatry and psychiatric epidemiology*, 47, 857-869.
- Chaudhary, S., Dhir, A., Meenakshi, N., & Christofi, M. (2024). How small firms build resilience to ward off crises: a paradox perspective. *Entrepreneurship & Regional Development*, 36(1-2), 182-207.
- Cheng, Y., & Groysberg, B. (2020). How corporate cultures differ around the world. *Harvard business review*, 8, 8-11.
- Chin, W. W., Marcolin, B. L., & Newsted, P. R. (2003). A partial least squares latent variable modeling approach for measuring interaction effects: Results from a Monte Carlo simulation study and an electronic-mail emotion/adoption study. *Information systems research*, 14(2), 189-217.
- Chowdhury, M., Prayag, G., Orchiston, C., & Spector, S. (2019). Postdisaster social capital, adaptive resilience and business performance of tourism organizations in Christchurch, New Zealand. *Journal of Travel Research*, 58(7), 1209-1226.
- Chowdhury, M., Uddin, M. A., Biswas, S. R., & Hridoy, A. I. (2024). Promoting Human Resource and Innovative Climate to Foster Organizational Resilience During Pandemic Time: The Mediating Role of Employee Resilience. *Global Journal of Flexible Systems Management*, 1-31.

- Czakov, W., & Czernek-Marszałek, K. (2025). In times of fear turn to your competitor: Developing organizational resilience through coopetition. *Industrial marketing management*, 125, 339-354.
- Dashuai, R., & Bin, Z. (2020). How does paradoxical leadership affect innovation in teams: An integrated multilevel dual process model. *Human Systems Management*, 39(1), 11-26.
- Dhananjaya Dahanayake, N., & Gamlath, S. (2013). Learning organization dimensions of the Sri Lanka Army. *The learning organization*, 20(3), 195-215.
- Do, H., Budhwar, P., Shipton, H., Nguyen, H.-D., & Nguyen, B. (2022). Building organizational resilience, innovation through resource-based management initiatives, organizational learning and environmental dynamism. *Journal of Business research*, 141, 808-821.
- Drucker, P. F. (1969). The knowledge society. *New Society*, 13(343), 629-631.
- Duchek, S. (2020). Organizational resilience: a capability-based conceptualization. *Business Research*, 13(1), 215-246.
- Eldor, L. (2017). The relationship between perceptions of learning climate and employee innovative behavior and proficiency. *Personnel Review*.
- Evenseth, L. L., Sydnes, M., & Gausdal, A. H. (2022). Building organizational resilience through organizational learning: A systematic review. *Frontiers in Communication*, 7, 837386.
- Florez-Jimenez, M., Lleo, A., Ruiz-Palomino, P., & Muñoz-Villamizar, A. (2025). Corporate sustainability, organizational resilience, and corporate purpose: a review of the academic traditions connecting them. *Review of Managerial Science*, 19(1), 67-104.
- Florez-Jimenez, M. P., Lleo, A., Danvila-del-Valle, I., & Sánchez-Marín, G. (2024). Corporate sustainability, organizational resilience and corporate purpose: a triple concept for achieving long-term prosperity. *Management decision*.
- Fornell, C., & Larcker, D. F. (1981). Structural equation models with unobservable variables and measurement error: Algebra and statistics. *Journal of marketing research*, 382-388.
- Förster, C., Paparella, C., Duchek, S., & Güttel, W. H. (2022). Leading in the paradoxical world of crises: how leaders navigate through crises. *Schmalenbach Journal of Business Research*, 74(4), 631-657.
- Fu, F., Zha, W., & Zhou, Q. (2023). The Impact of Enterprise Digital Capability on Employee Sustainable Performance: From the Perspective of Employee Learning. *Sustainability*, 15(17), 12897.
- Garrido-Moreno, A., Martín-Rojas, R., & García-Morales, V. J. (2024). The key role of innovation and organizational resilience in improving business performance: A mixed-methods approach. *International Journal of Information Management*, 77, 102777.
- Hair, J., & Alamer, A. (2022). Partial Least Squares Structural Equation Modeling (PLS-SEM) in second language and education research: Guidelines using an applied example. *Research Methods in Applied Linguistics*, 1(3), 100027.

- Hair, J. F. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM)*: sage.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of marketing theory and practice*, 19(2), 139-152.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2-24.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook*: Springer Nature.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135.
- Hernes, T., Blagoev, B., Kunisch, S., & Schultz, M. (2025). From bouncing back to bouncing forward: A temporal trajectory model of organizational resilience. *Academy of management review*, 50(1), 72-92.
- Hillmann, J. (2021). Disciplines of organizational resilience: contributions, critiques, and future research avenues. *Review of Managerial Science*, 15(4), 879-936.
- Hobfoll, S. E., Halbesleben, J., Neveu, J.-P., & Westman, M. (2018). Conservation of resources in the organizational context: The reality of resources and their consequences. *Annual review of organizational psychology and organizational behavior*, 5, 103-128.
- Hu, L. t., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, 6(1), 1-55.
- Jiao, P., & Bu, W. (2024). The impact of organizational learning on organizational resilience in construction projects. *Buildings*, 14(4), 975.
- Joo, B.-K., Park, J. G., & Lim, T. (2016). Structural determinants of psychological well-being for knowledge workers in South Korea. *Personnel Review*, 45(5), 1069-1086.
- Kantur, D., & Say, A. I. (2015). Measuring organizational resilience: A scale development. *Journal of Business Economics and Finance*, 4(3).
- Kayyali, M. (2025). Leadership's Role in Fostering a Resilient Organizational Culture *Enhancing Resilience in Business Continuity Management* (pp. 267-294): IGI Global Scientific Publishing.
- Khoi, B. H., & Van Tuan, N. (2018). *Using SmartPLS 3.0 to analyse internet service quality in Vietnam*. Paper presented at the Econometrics for Financial Applications.
- Kock, N. (2015). Common method bias in PLS-SEM: A full collinearity assessment approach. *International Journal of e-Collaboration (ijec)*, 11(4), 1-10.
- Kundi, Y. M., Aboramadan, M., & Abualigah, A. (2023). Linking paradoxical leadership and individual in-role and extra-role performance: a multilevel examination. *Management decision*.

- Kunz, J., & Sonnenholzner, L. (2023). Managerial overconfidence: promoter of or obstacle to organizational resilience? *Review of Managerial Science*, 17(1), 67-128.
- Lee, A. V., Vargo, J., & Seville, E. (2013). Developing a tool to measure and compare organizations' resilience. *Natural hazards review*, 14(1), 29-41.
- Lengnick-Hall, C. A., Beck, T. E., & Lengnick-Hall, M. L. (2011). Developing a capacity for organizational resilience through strategic human resource management. *Human Resource Management Review*, 21(3), 243-255.
- Lewis, M. W., Andriopoulos, C., & Smith, W. K. (2014). Paradoxical Leadership to Enable Strategic Agility. *California management review*, 56(3), 58-77. doi:10.1525/cmr.2014.56.3.58
- Li, P. P. (2020). Organizational resilience for a new normal: Balancing the paradox of global interdependence. *Management and Organization Review*, 16(3), 503-509.
- Liang, F., & Cao, L. (2021). Linking employee resilience with organizational resilience: the roles of coping mechanism and managerial resilience. *Psychology Research and Behavior Management*, 14, 1063.
- Lin, J., & Fan, Y. (2024). Seeking sustainable performance through organizational resilience: Examining the role of supply chain integration and digital technology usage. *Technological Forecasting and Social Change*, 198, 123026.
- Mallak, L. (1998). Putting organizational resilience to work. *INDUSTRIAL MANAGEMENT-CHICAGO THEN ATLANTA-*, 8-13.
- Mao, C. X., & Weathers, J. (2019). Employee treatment and firm innovation. *Journal of Business Finance & Accounting*, 46(7-8), 977-1002.
- Messarra, L. C., & El-Kassar, A.-N. (2013). Identifying organizational climate affecting learning organization. *Business Studies Journal*, 5(1), 19-27.
- Nair, S., Kaushik, A., & Dhoot, H. (2023). Conceptual framework of a skill-based interactive employee engaging system: In the Context of Upskilling the present IT organization. *Applied Computing and Informatics*, 19(1/2), 82-107.
- Napier, E., Liu, S. Y., & Liu, J. (2024). Adaptive strength: Unveiling a multilevel dynamic process model for organizational resilience. *journal of Business research*, 171, 114334.
- Nikolova, I., Van Ruysseveldt, J., De Witte, H., & Van Dam, K. (2014). Learning climate scale: Construction, reliability and initial validity evidence. *Journal of vocational behavior*, 85(3), 258-265.
- Orchiston, C., Prayag, G., & Brown, C. (2016). Organizational resilience in the tourism sector. *Annals of Tourism Research*, 56, 145-148.
- Pearce, C. L., & van Knippenberg, D. (2024). Moderated paradoxical leadership: Resolving the innovation team leadership conundrum. *Journal of product innovation management*, 41(1), 3-11.
- Podsakoff, P. M., MacKenzie, S. B., Lee, J.-Y., & Podsakoff, N. P. (2003). Common method biases in behavioral research: a critical review of the literature and recommended remedies. *Journal of Applied Psychology*, 88(5), 879.

- Podsakoff, P. M., MacKenzie, S. B., & Podsakoff, N. P. (2012). Sources of method bias in social science research and recommendations on how to control it. *Annual review of psychology*, 63, 539-569.
- Qiang, Q., Xiaohong, W., & Qianru, S. (2023). Does paradoxical leadership influence employees' proactive work behavior? A study based on employees in Chinese state-owned enterprises. *Frontiers in Psychology*, 14, 1269906.
- Sawalha, I. H. S. (2015). Managing adversity: understanding some dimensions of organizational resilience. *Management Research Review*.
- Shela, V., Ramayah, T., & Noor Hazlina, A. (2023). Human capital and organisational resilience in the context of manufacturing: a systematic literature review. *Journal of Intellectual Capital*, 24(2), 535-559.
- Shet, S. V. (2024). A VUCA-ready workforce: exploring employee competencies and learning and development implications. *Personnel Review*.
- Smith, W. K., & Lewis, M. W. (2011). Toward a theory of paradox: A dynamic equilibrium model of organizing. *Academy of management review*, 36(2), 381-403.
- Smith, W. K., & Lewis, M. W. (2012). Leadership skills for managing paradoxes. *Industrial and Organizational Psychology*, 5(2), 227-231.
- Syamsir, S., Saputra, N., & Mulia, R. A. (2025). Leadership agility in a VUCA world: a systematic review, conceptual insights, and research directions. *Cogent Business & Management*, 12(1), 2482022.
- Tekletsion, B. F., Gomes, J. F. D. S., & Tefera, B. (2024). Organizational resilience as paradox management: A systematic review of the literature. *Journal of Contingencies and Crisis Management*, 32(1), e12495.
- Tripathi, N., van Knippenberg, D., & Patel, C. (2025). Paradoxical Leadership, Experienced Tensions, and Counterproductive Behavior: Moderation by Consistency and Gender. *Journal of leadership & organizational studies*, 15480518251336325.
- Trivedi, K., & Singh, S. (2025). The impact of knowledge sharing on well-being at work— Is organizational learning capability a mediating link? *The learning organization*.
- Uddin, M. A., Fan, L., & Das, A. K. (2016). A study of the impact of transformational leadership, organizational learning, and knowledge management on organizational innovation. *Management dynamics*, 16(2), 42-54.
- Udin, U. (2025). Paradoxical leadership: a bibliometric analysis and research agenda. *Discover Sustainability*, 6(1), 893.
- Ullah, S., Ahmad, T., Shahzad, K., Kukreti, M., Shaukat, M. R., & Sami, A. (2025). Integrating mindful organizing and organizational learning to enhance sustainability performance of exporting firms. *The learning organization*.
- Vaske, J. J. (2008). Survey research and analysis: Applications in parks, recreation and human dimensions. (*No Title*).
- Wang, X., Zhang, Z., & Jia, M. (2024). Taming the black swan: CEO with military experience and organizational resilience. *Asia Pacific Journal of Management*, 1-57.

- Williams, T. A., Gruber, D. A., Sutcliffe, K. M., Shepherd, D. A., & Zhao, E. Y. (2017). Organizational response to adversity: Fusing crisis management and resilience research streams. *Academy of management Annals*, *11*(2), 733-769.
- Yang, J., & Zhang, T. (2023). The Influence of Platform Leadership on Innovation Performance of Knowledge Workers: From the Perspective of Organizational Resilience and Innovation Self-Efficacy. *International Journal of Business and Management*, *18*(3), 107-107.
- Zhang, D., Zheng, W., & Ning, L. (2018). Does innovation facilitate firm survival? Evidence from Chinese high-tech firms. *Economic Modelling*, *75*, 458-468.
- Zhang, I. D., Lam, L. W., Zhu, J. N., & Lee, J. (2024). Why Do Employees Perform Better Under Paradoxical Leaders? The Mediating Role of Group Harmony. *Journal of Business and Psychology*, 1-15.
- Zhang, J., Li, H., & Zhao, H. (2025). The Impact of Digital Transformation on Organizational Resilience: The Role of Innovation Capability and Agile Response. *Systems*, *13*(2), 75.
- Zhang, K., Wang, J., & Wu, Y. (2025). A Study of the Impact of Manufacturing Input Digitization on Firms' Organizational Resilience: Evidence from China. *Sustainability*, *17*(3), 897.
- Zhang, Y., & Han, Y.-L. (2019). Paradoxical leader behavior in long-term corporate development: Antecedents and consequences. *Organizational behavior and human decision processes*, *155*, 42-54. doi:10.1016/j.obhdp.2019.03.007
- Zhang, Y., Waldman, D. A., Han, Y.-L., & Li, X.-B. (2015). Paradoxical Leader Behaviors in People Management: Antecedents and Consequences. *Academy of Management Journal*, *58*(2), 538-566. doi:10.5465/amj.2012.0995