Cultivating Team Learning: Interplay of Ambidextrous Leadership and Psychological Safety

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Abstract

This study aimed to explore the mediating role of psychological safety between ambidextrous leadership and team learning. The data were collected from 339 employees working in the service sector using a self-administered questionnaire. The scales in the questionnaire were adopted from well-known and valid sources. The data were analyzed to test the proposed hypothesis using the PROCESS Macro by Andrew Hayes in SPSS 26 and AMOS 24 for confirmatory factor analysis. The study found that there was a significant effect of ambidextrous leadership on team learning and psychological safety significantly mediated the said relationship. The study added to the literature on the theory of planned behavior by adding the novel variables of team learning and ambidextrous leadership in the context of the service sector organizations. Other studies can be initiated to explore the effects of other psychological variables like emotional intelligence and positive psychological capital to further the relevant literature. The study can be further extended to other workplaces including manufacturing and primary sector organizations.

Keywords: team learning; psychological safety; ambidextrous leadership; team culture.

JEL Classification: J24, O15

1.   Introduction

The way leaders transform organizations and people has been a focus of research in the past century (Ahsan, 2019; Zaman et al., 2017). They do so by making decisions, organizing and effectively allocating resources, developing and managing teams and prioritizing projects (Iqbal et al., 2022). Leadership behavior, in turn, is a significant driver of creativity, innovation and skills building, process implementation, building learning environments and so on (Klonek et al., 2023). The crux of many leadership activities involves team learning and making it effective and seamless.

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This study aims to explore the role of ambidextrous leadership on team learning. Literature suggests that for ambidextrous leadership, both transformational and transactional leadership are required, which influences team integrity, trust, and communication (Ahmed et al., 2024; Iqbal et al., 2022; Rosing & Zacher, 2023; Shafaei et al., 2024). Key elements of effective ambidextrous leadership include informed decisions, motivating employees, and encouraging new ideas. Ambidextrous leadership also indirectly affects team learning through psychological safety. Leaders who provide psychological safety foster higher team learning (Rosing & Zacher, 2023). Positive leader interactions instill energy that promotes cooperation and innovation, while negative interactions hinder psychological safety and innovation (Iqbal et al., 2022). Learning equips employees to handle uncertainty and insecurity more effectively (Iqbal et al., 2022; Rosing & Zacher, 2023).

Ambidexterity is the ability to use both transformational as well as transactional elements in the research on organizational management, especially team learning (Asad et al., 2022; Mueller et al., 2020). However, in the previous studies, to the best of our knowledge, psychological safety has never been explored to work as the mediator between the two (Asad et al., 2022; Klonek et al., 2023; Mueller et al., 2020; Zaman et al., 2017). Therefore, this study aims at this gap and addresses an overlooked aspect in existing research.

Our research contributes to the fields of ambidextrous leadership, psychological safety as well as team learning in many ways (Iqbal et al., 2022). The study also adds to the existing knowledge of the theory of planned behavior. First, while previous research has mainly remained focused on leadership styles including authentic, charismatic, transformational, and ethical leadership, this study is novel in the sense that it examines the relationship between ambidextrous leadership and team learning, while introducing the mediational effect of ambidextrous leadership between the proposed relationship (Asad et al., 2022; Klonek et al., 2023; Mueller et al., 2020; Parker & du Plooy, 2021; Zaman et al., 2017). Theoretically, this research is embedded in the confines of the Theory of Planned Behavior (TBP) that predicts individuals' intentions and the resulting behaviors. Thus our study adds a new dimension to the existing literature (Cauwelier et al., 2016; Ortega et al., 2014). The current study has global connection to literature and advancement of the knowledge. As the study is focused on a general workplace setting, its results can be generalized to the general workplace globally and the benefits both in theory and practice can be extended to any kind of workplace.

1.1   *Ambidextrous Leadership*

Ambidextrous leadership refers to a leader's ability to both discover opportunities and utilize them effectively (Ahmed et al., 2024; Asad et al., 2022; Gouda & Tiwari, 2024). Ambidextrous leaders do not only identify chances but also leverage them to the best of the organization's benefits. While many leaders can find opportunities, they often fail to utilize them effectively. Ambidextrous leaders, however, can create and capitalize on new

opportunities whenever necessary (Ahsan, 2019; Klonek et al., 2023). Leadership is a prestigious position that comes with power and control, allowing leaders to direct the course of events (Mueller et al., 2020). People look up to leaders who bear more responsibilities and, consequently, enjoy greater rewards. However, not everyone is suited for leadership, as it requires specific skills and hard work that may not appeal to everyone. Aspiring leaders must possess various skills, including learning from other leaders.

No one is born with all the necessary leadership qualities; these must be developed through studying the lives of past leaders and working on personal skills (Mueller et al., 2020; Rosing & Zacher, 2023). Effective leaders must be confident and self-assured, demonstrating to their followers that they are trustworthy and competent. An ambidextrous leader takes on more responsibilities than their team members, showcases the feasibility of challenging tasks, and values the ideas and feedback of others (Klonek et al., 2023).

The term 'ambi' comes from Latin, meaning "both," and 'dexter' means favorable, thus making ambidexterity "both favorable" (Ahsan, 2019; Klonek et al., 2023; Rosing & Zacher, 2023). Effective leaders have both transformational and transactional leadership styles which they use according to what the situation demands (Jia et al., 2024; Mueller et al., 2020). Ambidextrous leaders encourage innovation and creativity in their teams, enabling them to handle ambiguous situations and constraints more effectively. This leadership style is positively linked with business success and improved outcomes for both established companies and startups (Zaman et al., 2017). Balancing current performance with future opportunities can be challenging but enhances a company's ambidexterity (Klonek et al., 2023).

Ambidextrous leadership impacts the management team by fostering respect for subordinates, promoting integrity and honesty, enhancing efficiency, and maintaining open communication lines (Mueller et al., 2020). It involves shared leadership across different levels of an organization, addressing tensions, and managing flaws, thus integrating both transformational and transactional leadership as needed (Rosing et al., 2011).

1.2   *Leadership and Team Learning*

Just as the leader's role is crucial for team learning, the process of team learning is equally important for enhancing and refining the leader's skills. (Ahmed et al., 2024; Gouda & Tiwari, 2024; Zaman et al., 2017). Whenever a leader deals with any teamwork, he meets up and deals with several mentalities together. He must deal with every member according to his or her approach and psyche. Every time a leader leads a team he gets so many experiences with leading many minds in all different ways. So, teamwork is very important for the improvisation of leadership qualities. The leader has experience working with different people, he is expected to perform well (Ahsan, 2019; Zaman et al., 2017).

Team learning involves structured tasks or activities that help organizations develop essential capacities, improve interpersonal relations, solve problems, and achieve goals. Often facilitated by external consultants, it aims to diagnose group functions, identify difficulties, and suggest improvements (Kozlowski & Bell, 2007; Van Offenbeek, 2001). Collaborative innovation in learning communities fosters curiosity and a shared focus on both individual and collective learning.

For team learning to be productive, the team itself must be strong. Effective team building, which is crucial for successful learning, involves factors such as coaching, training, collaboration, skills, solutions, support, and motivation. Each factor is vital and interdependent; for instance, without motivation, coaching may not lead to the practical application of new skills, and without collaboration, members cannot learn from each other, leading to repeated mistakes. A good team requires a mentor to provide direction, which in team learning is referred to as coaching. This initial stage is crucial for effective training, as well-trained members develop better skills. Good training programs and drills not only polish existing skills but also teach new ones, enabling members to solve problems more efficiently and with better approaches that are less time-consuming, cost-effective, and low-risk (Ellis et al., 2003).

Leaders play a crucial role in organizations, serving as the backbone by influencing team members' effectiveness and efficiency (Ellis et al., 2003; Zain, 2024). They promote team learning in both adaptive and developmental tasks, motivating members towards goals and fostering an environment where everyone can share knowledge and ideas freely (Van Woerkom & Croon, 2009). Good leaders ensure team unity despite diverse backgrounds, skills, and behaviors among members, finding common ground and collaborative motivation. Without strong leadership skills, key aspects of team learning are compromised.

Teams are the primary units for learning and knowledge creation in organizations, involving exploratory and exploitative learning. Social interaction is foundational in workplace relationships, enhancing the frequency and quality of information exchange. Deep interactions with external partners help bridge knowledge gaps, aiding firms in identifying, understanding, and exploiting valuable external knowledge (Kozlowski & Bell, 2007; Van Woerkom & Croon, 2009). Collaborating with diverse external partners is crucial for innovation, as it provides access to various knowledge types(Ellis et al., 2003; Van Offenbeek, 2001).

Absorptive capacity, the ability to acquire, process, and use external information, is vital for employee learning in project-based organizations (Kozlowski & Bell, 2007; Van Offenbeek, 2001; Van Woerkom & Croon, 2009). Managers play a key role in enhancing employees' learning abilities by effectively assimilating and transferring information. In Pakistani organizations, project managers face challenges related to employee learning and

team confidence, highlighting the need for increased social interaction to boost learning (Van Woerkom & Croon, 2009).

Team performance benefits from employees' involvement and coordination, influenced by individual personality traits. Research shows significant relationships between personality characteristics and team performance, with factors like locus of control and self-esteem predicting outcomes as effectively as cognitive ability (Ahmed et al., 2024; Cauwelier et al., 2016; Ortega et al., 2014). Individual differences, such as extroversion, also impact team contributions (Edmondson & Lei, 2014; Parker & du Plooy, 2021).

1.3   *Psychological Safety*

Psychological safety, defined by Maslow (1943) in his hierarchy of needs, is essential for employee well-being and productivity. It enables people to work in teams effectively. When employees feel safe psychologically from the negative consequences to self-image, organizational status, career prospects and, psychological safety is supposed to be present, which in turn harnesses members' ability to innovate, take risks, and make independent decisions (Cauwelier et al., 2016; Parker & du Plooy, 2021; Vella et al., 2024). As such, psychological safety is a perception where employees perceive that their work environment is free from stress and pressure, and conducive to stress-free work. Psychological safety has been defined on three levels: individual, group/team, and organization (Cauwelier et al., 2016; Edmondson & Lei, 2014; Maslow, 1943; Parker & du Plooy, 2021). At workplaces, employees might face interpersonal risks and uncertainties due to organizational or personal reasons, which can lead to a lack of confidence and ineffective communication (Ortega et al., 2014).

Leaders must have the ability to make interaction members in a team feel positive emotions (Edmondson & Lei, 2014), which could significantly impacts workplace dynamics. This presence signifies and influences follower performance through the variance in emotions experienced by individuals at work (Ortega et al., 2014; Vella et al., 2024). Affective presence, an important personality trait among leaders, affects the followers or team members during interactions. It is not common to notice that researchers use trait effects to leverage leaders' individual differences impacting followers' innovative behavior (Edmondson et al., 2004; Talib et al., 2019; Wanless, 2016). Trait affect is intrapersonal in nature and can affect self-reported feelings of leaders. Positive affective presence from leaders enhances followers' feelings of safety and collaboration and gives rise to creativity and a sense of common goals and their pursuit (Frazier et al., 2017). On the other hand, negative feelings toward leaders reduce psychological safety and innovation (Newman et al., 2017).

Effective leaders recognize and leverage individual trait differences to enhance team performance, fostering enthusiasm, trust, and strong collaboration, which are crucial

for organizational innovation. Positive affective presence from leaders promotes a safe environment for interpersonal risk-taking and constructive innovative behavior (Talib et al., 2019). In contrast, poor interpersonal relations, marked by inadequate collaboration and communication, diminish psychological safety, innovation, productivity, and customer satisfaction.

1.4   *Psychological Safety and Team Learning*

It's all about individual capability of their own learning, it also allows the employees to grow themselves and make themselves able to face all the doubts and solve them in a better way. It can be divided into three levels: individual ,team and organizational level.. For example, individual must be mentally strong before achieving the goals or doing their jobs because they encounter numerous challenges while achieving success wither in an organization or in a team (Asad et al., 2022; Bransby et al., 2024; Zaman et al., 2018). when in organization have learning orientation, it means they have an ambidextrous leader who allow their members to openly learn and make a better environment for employees that's why the employees team learning also can be influence they may learn in a good way and the teams give best result and are obviously psychologically safe. This all happens because organizations have a good ambidextrous leader who provides them with a good learning environment so they can learn what they want and develop themselves and compete with different uncertainty in effective way (Bucic et al., 2010; Duc et al., 2020).

It can be said that it is the thinking of the team members overall e.g., the thoughts of the members about the specific goals (Han et al., 2022; Zacher & Rosing, 2015). That is how they can easily achieve their goals. The team learning can be better when they have an ambidextrous leader because he can influence on learning commitment and know how to share vision and mission and take suggestions from team members and have open mindedness in every decision and intra knowledge sharing about how to achieve goals (Bouwmans et al., 2019; Bransby et al., 2024; Bucic et al., 2010).

When the members of the group cooperate with each other peacefully, free from uncertainty, conflict, or disputes, while doing their teamwork they create a supportive environment that enhances collaboration, boosts productivity, and enables them to achieve their shared goals efficiently (Harvey et al., 2019; Zhao et al., 2023). The less social people create more negativity in organization the reason behind the negativity is that they are less motivated and less encouraged. And having a low social orientation (Asad et al., 2022; Van Offenbeek, 2001; Zaman et al., 2017). Employees experiencing negative social interaction with their leaders decreases innovativeness in performing tasks because their leader is not an ambidextrous leader who can handle negativity and manage various uncertainties that's why the people are not social and feel risk while interacting in teams and not open to share their ideas, vision and accept differences In contrast, when an organization has a strong leader,

they provide a positive environment that strengthen psychological safety, enhances team learning, and encourages open communication. Such leaders promote a learning environment, reward innovation, and motivate employees, ultimately leading to better performance and results (Bouwmans et al., 2019; Iqbal et al., 2022; Tang et al., 2021; Van Offenbeek, 2001).

2. Theoretical Framework and Hypothesis

2.1 Overarching Theory: Theory of Planned Behavior

This study borrowed its tenets from the theory of planned behavior. The theory was first proposed by Icek Ajzen on the theory of reasoned actions. The theory is useful to explain how intentions result into behaviors and reasoned actions (Ulker-Demirel & Ciftci, 2020). The theory can be explained by three key components: (1) attitude towards the behavior, (2) subjective norms, and (3) perceived behavioral control (Conner, 2020).

The current study borrows its conceptual framework from the theory as following. Ambidextrous leadership serves as the attitude forming element through its provision of creating the dynamic environment of exploration (Blue, 1995; Conner, 2020). As a result, the team members feel psychologically safe which results in the norms leading to support and trust in the team. Finally, the team learning is the result of the change in the attitude and norms team learning takes place which is an outcome of the behavioral change and reasoned action (Ulker-Demirel & Ciftci, 2020). Figure 01 shows these relationships in the form of a theoretical framework.

2.2 Theoretical Framework

Research Model of Ambidextrous Leadership Impact on Team Learning: Mediating role of psychological safety
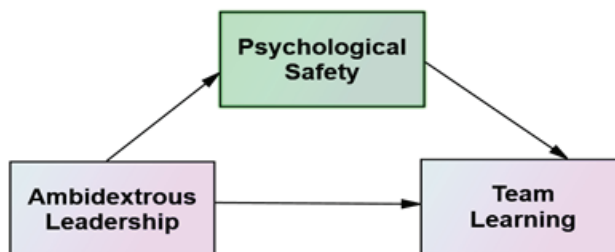

Figure 1: Figure of the Confirmatory Factor Analysis

Ambidextrous leaders are responsible for motivating and supporting their employees to feel free when bringing new ideas (Mueller et al., 2020; Rosing & Zacher, 2023). They influence their team members to work efficiently, respect each other's differences, cultures, norms, and values, and maintain strong interactions among themselves (Bransby et al., 2024; Klonek et al., 2023; Rosing & Zacher, 2023). Furthermore, ambidextrous leaders use both opening and closing behaviors, depending on the situation. Opening leadership refers to a leader's behavior in teamwork, such as encouraging innovation, experimentation, promoting independent thinking, and providing support (Rao-Nicholson et al., 2016; Zhao et al., 2023). This leadership style positively impacts exploratory learning, enhancing knowledge and skills.

Leaders exhibiting open behavior motivate their members to introduce innovations and integrate new knowledge with existing knowledge. While, closing leadership behaviors aim to reduce differences in team members' behavior, facilitating helpful actions and goal achievement (Rosing & Zacher, 2023). This style affects exploitative learning, focusing on existing knowledge and skills. Leaders in closing leadership encourage their members to combine existing knowledge to create new, useful, and innovative knowledge and skills. Both leadership styles together support team learning and innovation. For instance, if top managers and team workers collaborate effectively on a project, they can achieve their goals, whether they involve innovation or other objectives.

In project-based organizations, absorptive capacity is crucial for employee learning. It involves a manager's ability to identify, acquire, transform, and use external information (e.g., scientific and technological information) to enhance the organization's learning and gain a competitive advantage through adaptation (Rosing & Zacher, 2023). In recent years, the role of managers has become increasingly important for developing employees' learning abilities. Today, project managers often face challenges related to employee learning and team confidence. In such situations, a manager's ability to identify information, transfer it to employees, provide effective coaching, and build strong collaboration and communication among team members can significantly enhance employee learning (Tang et al., 2021). In this context, we can argue that ambidextrous leadership positively affects team learning. Hence the hypothesis:

H1: Ambidextrous Leadership has a positive association with team learning.

In any organization, team performance can be improved through individual-level collaboration among employees (Cauwelier et al., 2016; Ortega et al., 2014). Given that people with different personality traits work together, employees are often assessed based on the Big Five personality traits to determine the strengths they bring to team output. For example, highly extroverted individuals tend to be more social, confident, and may exhibit strong leadership abilities in team performance compared to non-extroverts. One of the major

elements that is affected both by the ambidextrous leadership is psychological safety. Recent literature suggests that there is ambidextrous leadership improves psychological safety (Ahmed et al., 2024; Gouda & Tiwari, 2024). Furthermore, the literature on psychological safety suggests a positive relationship between ambidextrous leadership and psychological safety (Sacramento et al., 2024; Vella et al., 2024).

H2: Psychological safety mediates the association between ambidextrous leadership and team learning.

3.   **Research Methodology**

3.1   *Participants: Population, Sampling Technique, Sample Size*

The current study observes similarities in characteristics among items of the same nature, drawing its population from this observed group's behavior. Specifically, the study examines employees working in residences in Quetta, with a sample size of 399 respondents who completed the required questionnaires, yielding a response rate of 100%. We collected data from more than 300 respondents since we intended to run CFA, a multivariate technique for data validation. This is a recommended threshold as by Hair (2009). Data collection utilized the survey method, with a focus on random sampling (job-oriented individuals) within a specified time. This approach contrasts with other techniques such as strata and cluster sampling. The method was chosen to ensure the collection of robust data suitable for generalizing responses to the entire population, while also considering resource and time constraints.

3.2   *Research Instrument and measurements*

In our research methodology, questionnaires were chosen as the primary data collection method due to their effectiveness in gathering quantitative data. We distributed our questionnaire to various institutions, including banks and educational organizations. The survey questionnaire included three factors Ambidextrous Leadership, Team Learning, and Psychological Safety alongside other demographic variables. We adopted the 7-item scale developed by Edmondson (1999) to measure psychological safety that involved questions relating to employees' perceptions of various workplace aspects including interpersonal relations, idea generation, risk-taking, and the overall work environment. The scales had a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree).

In order to measure the ambidextrous leadership we used a 13-item scale by Rosing et al. (2011). The scales measures employees' perceptions towards their leaders in terms of ambidextrous leadership skills. Respondents rated statements such as "My manager motivates me to take risks" and "My manager fosters an environment for new ideas" using a 5-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree).

Finally, the team learning scale was the biggest scale of all. It has several sub-sections including Absorptive Capacity of Project Manager, Employee Learning, and Project Innovation Performance. We used a 10-item scale developed by Zahra and George (2002) to measure team learning. We have run the confirmatory factor analysis and estimated the convergent and discriminant validity statistics for the entire scale on each section separately to ensure integrity of the original scale.

4.   Data Analysis Technique

4.1   *Data screening, cleaning, and transformation*

The first step of the data analysis process was to screen the dataset for its participant's engagement, missing values and any transformation needed. We used a case-wise standard deviation to detect any unengaged responses. Similar technique has been used by Rejer et al. (2024) in their study. Further missing data analysis was done and checked if the missing values occurred only randomly using the Little's test. Any missing values were transformed using the k-nearest neighbor technique (Monsen, 2024). Finally, outliers were detected using the boxplot and cases with extreme outliers were removed.

As the proposed analysis was based on OLS, it was imperative to test if the estimates were BLUE- Best Linear Unbiased Estimator. To do this, we made use of techniques suggested in Field (2024). We tested the normality of data using the P-P plots in SPSS 26. Further, the homoscedasticity was tested by plotting the standardized residuals against the predicted values and finally multicollinearity was detected using the VIF scores. There were no traces of these issues.

4.2   *Data Validity and Reliability*

To estimate the reliability and validity of the data we used Cronbach alphas as well as the composite reliability statistics in AMOS 24 through CFA. Both the discriminant and convergent validity were tested.

4.3   *Mediation Analysis*

To test the proposed mediation, we used the PROCESS add-on in SPSS developed by Andrew Hayes. The statistical procedure involved Ordinary Least Squares (OLS) based regression models. First, assumptions of the Best Linear Unbiased Estimators (BLUE) were tested to ensure the validity of the regression results. These assumptions include linearity, independence of errors, homoscedasticity, and normality of residuals. Linearity was assessed through scatterplots of the variables, independence of errors was examined using Durbin-Watson statistics, homoscedasticity was evaluated through scatterplots of residuals against

predicted values, and normality of residuals was assessed using histograms and Q-Q plots. The significance of the indirect effect was measured using bootstrapping with 5,000 resamples.

5.   Results

Table 1
Demographics

Demographic Variable	Frequency	Percent	Valid Percent	Cumulative Percent
1 Gender				
Male	150	44.2	44.2	44.2
Female	189	55.8	55.8	100.0
Total	339	100.0	100.0	
2 Age				
20-30 Years	79	23.3	23.3	23.3
31-40 Years	88	26.0	26.0	49.3
41-50 Years	85	25.1	25.1	74.3
51-above Years	87	25.7	25.7	100.0
Total	339	100.0	100.0	
3 Education				
Bachelors	55	16.2	16.2	16.2
Masters	104	30.7	30.7	46.9
MS	89	26.3	26.3	73.2
PHD	84	24.8	24.8	97.9
other Any	7	2.1	2.1	100.0
Total	339	100.0	100.0	
4 Experience				
less or 1 year	90	26.5	26.5	26.5
2-3 Years	82	24.2	24.2	50.7
4-6 Years	85	25.1	25.1	75.8
6 and above Years	82	24.2	24.2	100.0
Total	339	100.0	100.0	

The tables present demographic characteristics of the study sample, including gender, age, education, and experience. Gender distribution shows most male respondents (44.2%) compared to female respondents (55.8%). The age distribution indicates that respondents aged 31-40 years constitute the largest group (26.0%), followed by those aged 41-50 years (25.1%). In terms of education, the majority hold a master's degree (30.7%), followed by those with a bachelor's degree (16.2%). Experience-wise, a significant portion of respondents reported having 4-6 years of experience (25.1%). These demographic variables

provide insights into the composition of the study sample and are crucial for understanding the characteristics of the participants.

5.1   *Correlation analysis*

The current study used correlation analysis to determine the correlation among variables. The present study assumed that ambidextrous leadership and team learning could be highly and significantly correlated. Also, the study hypothesized the mediating role of psychological safety to make valid the proposed hypotheses and thus correlations between all these variables were tested.

Table 2 shows information related to correlation among variables. Results show that ambidextrous leadership is significantly correlated with all variables. Ambidextrous leadership had a correlation of $(r=0.185, p<0.05)$ with psychological safety. It also had other correlations with Absorptive capacity $(r=0.283, p<0.05)$, Leader affective $(r= -0.143, p<0.05)$, Innovation $(r=0.170, P<0.05)$, employee learning $(r=0.104, p<0.05)$, project innovation performance $(r=0.044, p<0.05)$, learning orientation $(r=0.089, p<0.05)$, innovation work behavior $(r=0.188, p<0.05)$. The correlation shows that the scale is valid. The diagonal value of correlation in column and row are the same and high in column and row as well which means there is no issue in scale.

5.2   *Confirmatory Factor Analysis: Discriminant and Convergent Validity*

Figure 02 gives the overall confirmatory factor analysis and the final items that were included in the analysis. It also gives the loadings and estimates of the items that load on the factors. The CFA results are given in table 3 to indicate the discriminant and convergent validity of the scales used and the data collected. The model fit estimates have also been reported in the notes to table 3.

The results of the mediation analysis are divided into three models. In model 1, Ambidextrous Leadership significantly affected the mediator, Psychological Safety (est. = 0.1723; t = 3.855, p = 0.0001). In model 2, both Ambidextrous Leadership (est. = 0.9853; t = 7.5587; p = 0.000) and Psychological Safety (est. = 1.1756; t = 4.8282; p = 0.000) significantly affected team learning. Finally, in model 3, Ambidextrous Leadership significantly affected team learning (est. = 1.1878; t = 9.3181; p = 0.000).

The bootstrapping results show that Psychological Safety significantly mediated the relationship between Ambidextrous Leadership and team learning (BootLLCI = 0.0409; BootULCI = 0.1479) as both the upper and lower limits were positive. The R square of Psychological Safety on Ambidextrous Leadership is 0.0831, indicating that 8.31% of the variance in the dependent variable is explained by the independent variable. The R square

of Psychological Safety on team learning is 0.3786, meaning that 37.86% of the variance in the dependent variable is explained by the independent variable. Similarly, the total effect of team learning has an R square of 0.2867, indicating that 28.67% of the variance in the dependent variable is explained by the independent variable.
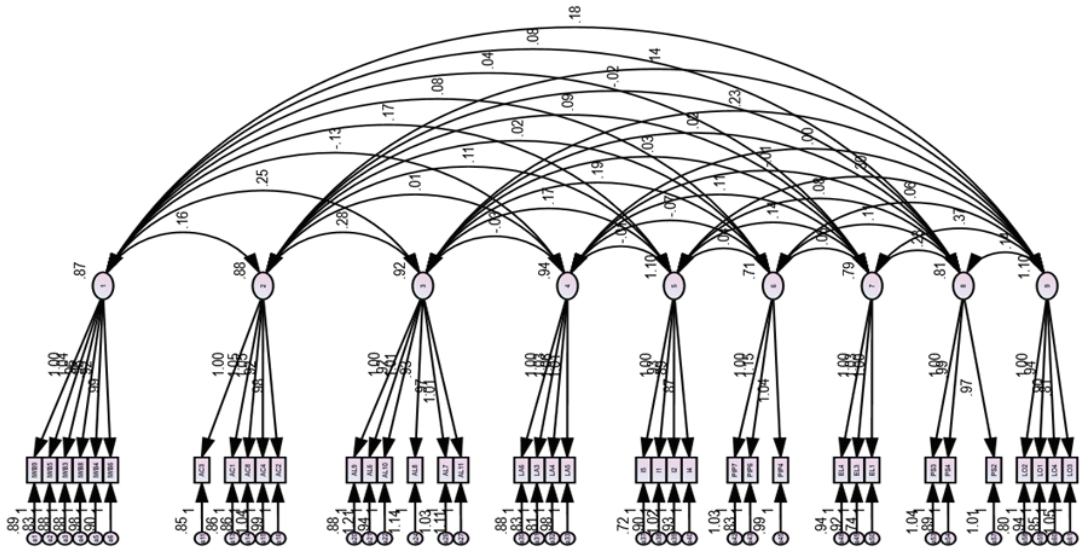

Figure 2: Results of the Confirmatory Factor Analysis (CFA)

Table 2
Correlations

		1	2	3	4	5	6	7	8	9
Ambidextrous Leadership	AL	0.694								
Psychological Safety	PS	0.185**	0.699							
Team Learning	AC	0.283***	0.308***	0.675						
	LA	-0.143*	0.014	-0.037	0.728					
	I	0.170*	0.115†	0.169*	-0.01	0.717				
	El	0.104	0.025	0.231**	-0.091	0.047	0.676			
	PIP	0.044	0.112	0.032	0.134†	0.154*	0.083	0.695		
	LO	0.089	-0.029	0.018	-0.006	0.088	0.140†	0.291***	0.669	
	IWB	0.188**	0.145*	0.226**	0	0.271***	0.069	0.392***	0.148*	0.708

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

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

Table 3
Reliability, Convergent and Discriminant Validity

Scales	Component	CR	AVE	MSV	MaxR (H)	1	2	3	4	5	6	7	8	9
Ambidextrous Leadership	1	0.848	0.582	0.08	0.849	0.694								
Psychological Safety	2	0.827	0.501	0.095	0.829	0.185**	0.699							
Team Learning	3	0.834	0.546	0.095	0.836	0.283***	0.308***	0.675						
	4	0.818	0.53	0.02	0.819	-0.143*	0.014	-0.037	0.728					
	5	0.808	0.514	0.074	0.813	0.170*	0.115†	0.169*	-0.01	0.717				
	6	0.716	0.547	0.053	0.721	0.104	0.025	0.231**	-0.091	0.047	0.676			
	7	0.737	0.583	0.154	0.738	0.044	0.112	0.032	0.134†	0.154*	0.083	0.695		
	8	0.709	0.548	0.085	0.709	0.089	-0.029	0.018	-0.006	0.088	0.140†	0.291***	0.669	
	9	0.8	0.501	0.154	0.805	0.188**	0.145*	0.226**	0	0.271***	0.069	0.392***	0.148*	0.708

The Results of CFA show that the data were highly valid. All the values of CR's for the main two components of Ambidextrous leadership and Psychological Safety and the seven sub-components of Team learning were above .7 indicating that the data were highly reliable (Hu & Bentler, 1999; Malhotra et al., 2020). Convergent validity was established using the Average Variance Extracted (AVE's) and all values were above the threshold of .5; thus, there was convergent validity in all the components. Finally, the discriminant validity was established by comparing the values of Maximum Shared Variance (MSV) and AVEs. All the values of MSVs were below AVE, thus there was discriminant validity among all the components. Finally, the data fit values were also above the required cutoffs indicating good model fit (CMIN/DF=1.474; GFI=.879; CFI-.972; RMSEA=.038; PCLOSE=1).

5.3 Results of the Mediation Analysis

Table 4
Results of the Regression Analyses

Models	R	R-sq	MSE	F(HC0)	df1	df2	p
Model 1 Ambidextrous Leadership on Psychological Safety	0.2883	0.0831	35.4652	14.8614	1	337	0.0001
	coeff	**se(HC0)**	**t**	**P**	**LLCI**	**ULCI**	
constant	14.5956	1.8837	7.7486	0.000	10.8904	18.3008	
AL	0.1723	0.0447	3.855	0.0001	0.0844	0.2602	
	R	**R-sq**	**MSE**	**F(HC0)**	**df1**	**df2**	**p**
Model 2 Amb. Leadership and Psy. Safety on Team Learning	0.6153	0.3786	332.389	70.8688	2	336	0
	coeff	**se(HC0)**	**t**	**p**	**LLCI**	**ULCI**	
constant	93.3293	5.6851	16.4164	0.000	82.1464	104.5122	
Al	0.9853	0.1304	7.5587	0.000	0.7289	1.2417	
PS	1.1756	0.2435	4.8282	0.000	0.6967	1.6546	

Table to be continued...

Models	R	R-sq	MSE	F(HC0)	df1	df2	p
	0.5354	0.2867	380.4177	86.8273	1	337	0
		coeff	se(HC0)	T	p	LLCI	ULCI
	constant	110.488	5.2736	20.951	0.000	100.1145	120.8614
	Al	1.1878	0.1275	9.3181	0.000	0.9371	1.4385

Table 5
Total, Direct and Indirect effects of X on Y

Effect	se(HC0)	t	P	LLCI	ULCI	c_ps	c_cs
1.1878	0.1275	9.3181	0	0.9371	1.4385	0.0515	0.5354

Direct effect of X on Y

Effect	se(HC0)	t	P	LLCI	ULCI	c'_ps	c'_cs
0.9853	0.1304	7.5587	0	0.7289	1.2417	0.0427	0.4441

Indirect effect(s) of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
PS	0.2025	0.0626	0.0891	0.3357

Partially standardized Indirect Effects of X on Y:

	Effect	BootSE	BootLLCI	BootULCI
PS	0.0088	0.0026	0.004	0.0141

Completely standardized indirect effects of X on Y

	Effect	BootSE	BootLLCI	BootULCI
PS	0.0913	0.027	0.0409	0.1479

6.   Discussion

Our statistical analysis reveals that the first hypothesis was supported by the empirical evidence that ambidextrous leadership is positively associated with team learning. These findings are consistent with prior literature, further reinforcing the significant and positive relationship between ambidextrous leadership and team learning. Successful project outcomes necessitate leaders who embody ambidexterity, adept at both exploration and exploitation depending on the situation to address challenges and limitations. Leaders must navigate complex environments alongside their team members and try to foster adaptability and efficiency in stable environments.

Hypothesis 01: Ambidextrous leadership affects team learning.

Our first hypothesis proposed if ambidextrous leadership positively affected team learning (Ahmed et al., 2024). We found a significant and positive relationship between the two where ambidextrous leadership significantly affected team learning. existing literature suggests that ambidextrous leadership has the tendency to switch between exploitation and exploration (Gouda & Tiwari, 2024). The exploration side of ambidextrous leadership fosters creativity and innovation which are instrumental in team learning. ambidextrous leaders create a dynamic and conducive environment to learning in teams that help team members perform in an innovative way and maintain high-level performance (Gouda & Tiwari, 2024; Zain, 2024).

Previous studies have emphasized the importance of leaders adapting their styles to suit situational needs (Ahmed et al., 2024; Asad et al., 2022; Klonek et al., 2023; Zaman et al., 2017). Ambidextrous leaders facilitate efficient teamwork, build mutual respect and cultural understanding as well as interpersonal interactions conducive to the achievement of organizational goals. In doing so, they employ both opening and closing behaviors as needed. Opening leadership behaviors encourage experimentation, independent thinking, and innovation among team members, promoting exploratory learning and skill development. Conversely, closing leadership behaviors harmonize team dynamics, facilitating goal achievement and leveraging existing knowledge for exploitative learning and skill enhancement (Ahmed et al., 2024; Gouda & Tiwari, 2024; Iqbal et al., 2022; Mueller et al., 2020; Vella et al., 2024). Together, these leadership styles synergize to support team learning and innovation, enabling organizations to achieve their objectives effectively. In project-based organizations, Absorptive Capacity plays a pivotal role in employee learning. It refers to a manager's ability to identify, acquire, transform, and utilize external information, such as scientific and technological insights, to foster organizational learning and gain a competitive advantage through adaptation and change.

Hypothesis 02: Psychological safety mediates ambidextrous leadership- team learning relationship.

Similarly, our second hypothesis has also been validated, which posits that psychological safety mediates the ambidextrous-leadership and team-learning relationship. In today's successful organizations, collaborative efforts are essential for achieving shared goals. Psychological safety plays a pivotal role in understanding how individuals collaborate toward common objectives. Initially conceptualized by Maslow (1943) within his hierarchy of needs, psychological safety encompasses various factors, among which is the influential presence of a leader.

The result showed that psychological safety mediated the relationship between ambidextrous leadership and team learning. The first part of the finding related to the effect of ambidextrous leadership on psychological safety (Gouda & Tiwari, 2024; Shafaei et al., 2024). The literature of the field suggests that ambidextrous leaders create an environment of trust, support and facilitation that makes team members feel psychologically safe in the team (Bransby et al., 2024; Vella et al., 2024). Consequently, the perception of psychological safety develops an environment that is conducive to learning in teams (Vella et al., 2024). In turn, there occurs an indirect effect of ambidextrous leadership on team learning through psychological safety.

The analysis findings corroborate the assertions of previous literature, such as that by (Bouwmans et al., 2019; Duc et al., 2020; Han et al., 2022), highlighting how a leader's ability to foster positive emotions among followers enhances organizational innovation. Leaders who provoke arousal tend to better promote cooperative behavior among team members. On the other hand, negative provocation on part of leaders can undermine psychological safety and impede individual team behavior (Duc et al., 2020; Han et al., 2022; Zacher & Rosing, 2015). Additionally, a leader's interpersonal relationships with subordinates play a critical role in cultivating trust and psychological safety. As a result, employees reciprocate with commitment extra-role behaviors. Group studies on leadership effectiveness have consistently shown that a leader's interpersonal relations influence team learning and other aspects as well as team performance (Bouwmans et al., 2019; Han et al., 2022).

We argue that learning orientation (LO) is instrumental to an individual's inclination toward self-directed learning, making them able to adapt to uncertain and insecure environments (Iqbal et al., 2022; Klonek et al., 2023; Zhao et al., 2023). This concept encompasses individual, team/group, and organizational levels of learning. Leaders can build a strong team learning environment that reflects the collective inclination of a team toward learning (Rosing & Zacher, 2023; Zhao et al., 2023), encompassing aspects such as learning commitment, shared vision, open-mindedness, and intra-organizational knowledge sharing. Conversely, negative affectivity, rooted in individual personalities, inhibits social interactions and innovation (Zaman et al., 2017).

7.   Conclusion

The study aimed to explore the impact of ambidextrous leadership on team learning, with psychological safety serving as a mediator. We collected data from 339 respondents out of 350 questionnaires distributed. Our results identified a positive and significant relationship between ambidextrous leadership and team learning. Our findings underscored the importance of ambidextrous leadership in nurturing team learning in a supportive environment conducive to dealing with psychological safety. Recommendations for future research include considering both mediator and moderator methods, exploring additional

variables related to ambidextrous leadership, and considering a mixed method data collection method. Limitations of the study include constraints imposed by the COVID-19 pandemic, limitations in accessing data, and time constraints.

7.1   *Theoretical Implications of the Study*

The study has used the theory of planned behavior as the overarching theory to explain the overall model of the study. This study adds to the literature of the study in allocating three important constructs of ambidextrous leadership which serves as the norms setting environment; psychological safety as the element that improves the perceived behavioral control of the team members, and the team learning as the change in the behavior of the members.

The study provides a comprehensive understanding of the framework of how ambidextrous leadership influences the psychological perception to drive behavior that led to learning.

7.2   *Practical Implications*

The results of the study can be used to drive a team environment that is conducive to learning and innovation. It can help remove any leadership related impediments that hamper team trust, perception of safety and support.

7.3   *Future Directions*

Future research can be directed to study the different aspects of ambidextrous leadership in isolation to explore their effects on team learning as well as mediation through psychological safety.

References

Ahmed, F., Hu, W., Arslan, A., & Huang, H. (2024). Ambidexterity of HR practices in fortune 500 companies and employee innovation performance: mediating role of inclusive leadership. *Journal of Organizational Change Management, 37*(2), 237-254. https://doi.org/https://doi.org/10.1108/JOCM-05-2022-0139

Ahsan, Z. (2019). Impact of ambidextrous leadership on project success with the mediating Role of innovation and moderating role of self-efficacy CAPITAL UNIVERSITY]. https://thesis.cust.edu.pk/UploadedFiles/Final%20Thesis.pdf.

Asad, M., Dastgeer, G., Uz Zaman, N., Khalid, Z., Brohi, M. A., & Bibi, A. (2022). The role of authentic leadership in shaping performance feedback reactions: the mediating role of trust in leader. *South Asian Journal of Human Resources Management, 9*(1), 33-52. https://doi.org/https://doi.org/10.1177/23220937211059617

Blue, C. L. (1995). The predictive capacity of the theory of reasoned action and the theory of planned behavior in exercise research: An integrated literature review. *Research in nursing & health, 18*(2), 105-121. https://libres.uncg.edu/ir/uncg/f/c_blue_predictive_ 1995.pdf.

Bouwmans, M., Runhaar, P., Wesselink, R., & Mulder, M. (2019). Leadership ambidexterity: Key to stimulating team learning through team-oriented HRM? An explorative study among teacher teams in VET colleges. *Educational Management Administration & Leadership, 47*(5), 694-711. https://doi.org/https://doi.org/10.1177/17411432177 51078

Bransby, D. P., Kerrissey, M., & Edmondson, A. C. (2024). Paradise Lost (and Restored?): A Study of Psychological Safety over Time. Academy of Management Discoveries(ja). https://journals.aom.org/doi/abs/10.5465/amd.2023.0084

Bucic, T., Robinson, L., & Ramburuth, P. (2010). Effects of leadership style on team learning. *Journal of Workplace learning, 22*(4), 228-248. https://doi.org/https://doi. org/10.1108/13665621011040680

Cauwelier, P., Ribière, V. M., & Bennet, A. (2016). Team psychological safety and team learning: a cultural perspective. *The Learning Organization, 23*(6), 458-468. https:// doi.org/https://doi.org/10.1108/TLO-05-2016-0029

Conner, M. (2020). Theory of planned behavior. Handbook of sport psychology, 1-18. https:// shorturl.at/YF2nw.

Duc, L. A., Tho, N. D., Nakandala, D., & Lan, Y.-C. (2020). Team innovation in retail services: the role of ambidextrous leadership and team learning. *Service Business, 14*(1), 167-186. https://doi.org/https://doi.org/10.1007/s11628-020-00412-x

Edmondson, A. (1999). Psychological Safety and Learning Behavior in Work Teams. *Administrative Science Quarterly, 44*(2), 350-383. https://shorturl.at/i5xRO.

Edmondson, A. C., Kramer, R. M., & Cook, K. S. (2004). Psychological safety, trust, and learning in organizations: A group-level lens. Trust and distrust in organizations: Dilemmas and approaches, 12(2004), 239-272. https://shorturl.at/O0qRI.

Edmondson, A. C., & Lei, Z. (2014). Psychological safety: The history, renaissance, and future of an interpersonal construct. Annu. Rev. Organ. Psychol. *Organ. Behav., 1*(1), 23-43. https://shorturl.at/CaoeH.

Ellis, A. P., Hollenbeck, J. R., Ilgen, D. R., Porter, C. O., West, B. J., & Moon, H. (2003). Team learning: Collectively connecting the dots. *Journal of applied Psychology, 88*(5), 821. https://psycnet.apa.org/buy/2003-08045-004.

Field, A. (2024). Discovering statistics using IBM SPSS statistics. Sage publications limited.

Frazier, M. L., Fainshmidt, S., Klinger, R. L., Pezeshkan, A., & Vracheva, V. (2017). Psychological safety: A meta-analytic review and extension. *Personnel psychology, 70*(1), 113-165. https://doi.org/https://doi.org/10.1111/peps.12183

Gouda, G. K., & Tiwari, B. (2024). Ambidextrous leadership: a distinct pathway to build talent agility and engagement. *Human Resource Development International, 27*(1), 133-141. https://doi.org/https://doi.org/10.1080/13678868.2022.2163101

Hair, J. F. (2009). Multivariate data analysis (7th ed.). Pearson.

Han, G., Bai, Y., & Peng, G. (2022). Creating team ambidexterity: The effects of leader dialectical thinking and collective team identification. *European Management Journal, 40*(2), 175-181. https://doi.org/https://doi.org/10.1016/j.emj.2021.06.004

Harvey, J.-F., Johnson, K. J., Roloff, K. S., & Edmondson, A. C. (2019). From orientation to behavior: The interplay between learning orientation, open-mindedness, and psychological safety in team learning. *Human Relations, 72*(11), 1726-1751. https://doi.org/https://doi.org/10.1177/0018726718817812

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. https://doi.org/https://shorturl.at/BJ43d

Iqbal, Z., Ghazanfar, F., Hameed, F., Mujtaba, G., & Swati, M. A. (2022). Ambidextrous leadership and change-oriented organizational citizenship behavior: Mediating role of psychological safety. *Journal of Public Affairs, 22*(1), e2279. https://doi.org/https://doi.org/10.1002/pa.2279

Jia, J., Liu, W., Zhang, S. X., & Luo, W. (2024). The unseen burden: How ambidextrous leadership erodes managers' well-being. *Journal of Business Research, 182*, 114802. https://doi.org/https://doi.org/10.1016/j.jbusres.2024.114802

Klonek, F. E., Gerpott, F. H., & Parker, S. K. (2023). A conceptual replication of ambidextrous leadership theory: An experimental approach. *The Leadership Quarterly, 34*(4), 101473. https://doi.org/https://doi.org/https:/doi.org/10.1016/j.leaqua.2020.101473

Kozlowski, S. W., & Bell, B. S. (2007). Team learning, development, and adaptation. In Work group learning (pp. 39-68). Psychology Press. https://ecommons.cornell.edu/bitstream/handle/1813/74928/Bell93_Team_learning.pdf?se.

Malhotra, N. K., Nunan, D., & Birks, D. F. (2020). Marketing research (5 ed.). Pearson UK. Maslow, A. H. (1943). A theory of human motivation. *Psychological Review, 50*(4), 370-396. https://psycnet.apa.org/doi/10.1037/h0054346

Monsen, K. A. (2024). Exploratory data analysis. In Intervention Effectiveness Research: Quality Improvement and Program Evaluation in Healthcare: A Practical Guide to Real-World Implementation (pp. 105-115). Springer. https://norcalbiostat.github.io/peer_review/MATH130_EDA/s22a/EDA_njjones.pdf.

Mueller, J., Renzl, B., & Will, M. G. (2020). Ambidextrous leadership: A meta-review applying static and dynamic multi-level perspectives. *Review of Managerial Science, 14*, 37-59. https://doi.org/https://doi.org/10.1007/s11846-018-0297-9

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human resource management review, 27*(3), 521-535. https://doi.org/http://dx.doi.org/10.1016/j.hrmr.2017.01.001

Ortega, A., Van den Bossche, P., Sánchez-Manzanares, M., Rico, R., & Gil, F. (2014). The influence of change-oriented leadership and psychological safety on team learning in healthcare teams. *Journal of Business and Psychology, 29*, 311-321. https://doi.org/https://doi.org/10.1007/s10869-013-9315-8

Parker, H., & du Plooy, E. (2021). Team-based games: Catalysts for developing psychological safety, learning and performance. *Journal of Business Research, 125*, 45-51. https://doi.org/https://doi.org/10.1016/j.jbusres.2020.12.010

Rao-Nicholson, R., Khan, Z., Akhtar, P., & Merchant, H. (2016). The impact of leadership on organizational ambidexterity and employee psychological safety in the global acquisitions of emerging market multinationals. *The International Journal of Human Resource Management, 27*(20), 2461-2487. https://doi.org/https://doi.org/10.1080/09585192.2016.1204557

Rejer, I., Jankowski, J., Dreger, J., & Lorenz, K. (2024). Viewer Engagement in Response to Mixed and Uniform Emotional Content in Marketing Videos—An Electroencephalographic Study. *Sensors, 24*(2), 517. https://doi.org/https://doi.org/10.3390/s24020517

Rosing, K., Frese, M., & Bausch, A. (2011). Explaining the heterogeneity of the leadership-innovation relationship: ambidextrous leadership. *Leadership Quarterly, 22*(5), 956-974. https://doi.org/https://doi.org/10.3390/s24020517

Rosing, K., & Zacher, H. (2023). Ambidextrous leadership: A review of theoretical developments and empirical evidence. Handbook of organizational creativity, 51-70. https://shorturl.at/pHA6U.

Sacramento, C., Lyubovnikova, J., Martinaityte, I., Gomes, C., Curral, L., & Juhasz-Wrench, A. (2024). Being open, feeling safe and getting creative: The role of team mean openness to experience in the emergence of team psychological safety and team creativity. *Journal of Product Innovation Management, 41*(1), 12-35. https://doi.org/https://doi.org/10.1111/jpim.12699

Shafaei, A., Nejati, M., Omari, M., & Sharafizad, F. (2024). Inclusive leadership and workplace bullying: a model of psychological safety, self-esteem, and embeddedness. *Journal of Leadership & Organizational Studies, 31*(1), 41-58. https://doi.org/https://doi.org/10.1177/15480518231209018

Talib, M., Bibi, Z., & Zaman, N. U. (2019). Mediating Effect of Psychological Safety on the relationship between Ethical Leadership and Employee's Work Passion: Case Study of HEI's of Baluchistan, Quetta. J. Manag. Sci, 14, 192-202. https://www.qurtuba.edu.pk/jms/default_files/JMS/13_4/13_4_21.pdf.

Tang, S., Nadkarni, S., Wei, L., & Zhang, S. X. (2021). Balancing the yin and yang: TMT gender diversity, psychological safety, and firm ambidextrous strategic orientation in Chinese high-tech SMEs. *Academy of Management Journal, 64*(5), 1578-1604. https://doi.org/https://doi.org/10.5465/amj.2019.0378

Ulker-Demirel, E., & Ciftci, G. (2020). A systematic literature review of the theory of planned behavior in tourism, leisure and hospitality management research. *Journal of Hospitality and Tourism Management, 43*, 209-219. https://doi.org/https://doi.org/10.1016/j.jhtm.2020.04.003

Van Offenbeek, M. (2001). Processes and outcomes of team learning. *European journal of work and organizational psychology, 10*(3), 303-317. https://doi.org/http://dx.doi.org/10.1080/13594320143000690

Van Woerkom, M., & Croon, M. (2009). The relationships between team learning activities and team performance. *Personnel Review, 38*(5), 560-577. https://doi.org/https://doi.org/10.1108/00483480910978054

Vella, S. A., Mayland, E., Schweickle, M. J., Sutcliffe, J. T., McEwan, D., & Swann, C. (2024). Psychological safety in sport: A systematic review and concept analysis. *International Review of Sport and Exercise Psychology, 17*(1), 516-539. https://doi.org/https://doi.org/10.1080/1750984X.2022.2028306

Wanless, S. B. (2016). The role of psychological safety in human development. *Research in Human Development, 13*(1), 6-14. https://doi.org/http://dx.doi.org/10.1080/15427609.2016.1141283

Zacher, H., & Rosing, K. (2015). Ambidextrous leadership and team innovation. *Leadership & Organization Development Journal, 36*(1), 54-68. https://doi.org/https://doi.org/10.1108/LODJ-11-2012-0141

Zahra, S. A., & George, G. (2002). Absorptive Capacity: A Review, Reconceptualization, and Extension. *Academy of Management Review, 27*(105-120). https://www.jstor.org/stable/4134351.

Zain, F. (2024). Ambidextrous leadership: Insights from a comprehensive systematic review. *Implementasi Manajemen & Kewirausahaan, 4*(1), 68-85. http://jurnal.uwp.ac.id/feb/index.php/manajemen/article/download/430/274.

Zaman, N. U., Bibi, Z., & Karim, J. (2018). Why Girls Disown Business Education: A Qualitative Study. *Bulletin of Education and Research, 40*(2), 41-63. https://files.eric.ed.gov/fulltext/EJ1209667.pdf.

Zaman, N. U., Bibi, Z., Mohammad, J., & Karim, J. (2017). The mediating role of positive psychological capital between perceived leadership styles and workplace advice network closeness. *Pakistan Journal of Commerce and Social Sciences (PJCSS), 11*(1), 66-89. https://hdl.handle.net/10419/188282.

Zhao, F., Hu, W., Ahmed, F., & Huang, H. (2023). Impact of ambidextrous human resource practices on employee innovation performance: the roles of inclusive leadership and psychological safety. *European Journal of Innovation Management, 26*(5), 1444-1470. https://doi.org/10.1108/EJIM-04-2021-0226