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# Fostering Employee creativity through TL, employee agility, and psychological safety: An empirical study

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**Abstract**

Management scholars increasingly recognize employee creativity as a critical driver of organizational sustainability and growth. Despite the recognized importance of employee creativity for organizational success, there remains a significant gap in our understanding of how organizations can effectively cultivate and promote it. This study empirically examined the interaction between transformational leadership, employee agility, psychological safety, and their collective effect on employee creativity within organizations. Utilizing a heterogeneous sample of workers from different sectors, the research applies a quantitative methods approach to investigate the relations and underlying mechanisms. Data analysis was conducted using partial least squares structural equation modeling (PLS-SEM) with the SmartPLS software on a sample of 181 respondents. The results confirm that transformational leadership has a positive and significant effect on employee creativity directly and through employee agility. Psychological safety further enhances the impact of employee agility on employee creativity. The findings contribute to management knowledge by highlighting the critical role of leadership in cultivating a safe and supportive environment where agile employees can thrive and generate creative ideas.

**Keywords:** TL, employee agility, psychological safety, employee creativity

## 1 Introduction

The modern business environment requires organization to constantly innovate, adapt, and maintain their competitiveness. In this regard, encouraging employee creativity has been witnessed as a vibrant component of successful organizations. The objective of this research is to explain the complex relationship among TL, employee agility, psychological safety, and their combined impact on employee creativity. We seek to provide a comprehensive understanding of the

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mechanisms that inspire individuals to think creatively and solve challenges by collectively taking a close look at these elements. Leaders play a crucial role in shaping the creative behavior of employees (Shalley & Gilson, 2004). A leader's conduct has been identified as a pivotal factor influencing creativity in the workplace, as reported by Amabile et al. (2004), emphasizing the leader's impact on the overall creative environment of individuals (Jaiswal, 2016). Additionally, individual-level variables, as highlighted by Carson & Runco (1999), Shalley & Gilson (2004), and Sun et al. (2012), significantly contribute to nurturing employee creativity. This study incorporates both perspectives to present an inclusive model for predicting employee's creativity. Previous research has focused on fostering employee creativity through specific leadership styles, such as those examined by Gupta et al. (2012), Mumford et al. (2002), and Reiter-Palmon & Illies (2004). Researchers have emphasized TL (TL) as a strong predictor of worker innovation (Gong et al., 2009; Gumusluoglu & Ilsev, 2009; Wang & Rode, 2010; Wang et al., 2013; Jaiswal & Dhar, (2015)). TL, for example, provides a supportive work environment (Jung et al., 2003) and activates contextual resources, allowing employees to be creative (Jung, 2001). Additionally, studies show that an individual's creative behavior is strongly influenced by their creative self-efficacy (CSE) (Beghetto, 2006; Lemons, 2010; Tierney & Farmer, 2002). Lemons (2010) provided evidence of CSE's usefulness in forecasting employee creativity. Self-efficacy theory by Bandura (1997), states that people assess their own and situational resources' suitability for completing a task. To foster creative behavior among subordinates, leaders can enhance CSE by empowering and supporting them to succeed. By projecting confidence, establishing high expectations, and inspiring creativity in their work, TL seeks to increase their subordinates' sense of self-worth and self-belief (Bass, 1985). Because TL provides clear goals, support, and empowerment, their subordinates are more likely to be extremely effective (Avolio et al., 1999). Despite Bandura's (1997), emphasis on the reciprocal relationship between creative activity and CSE, there has been limited research on how CSE interacts to predict employee creative behavior. Additionally, Richter et al. (2012) have argued that the interaction effect of CSE needs to be investigated. They contend that people are considerably more inclined to actively seek advice and direction when putting creative activity into practice and have a strong belief in their creative self-efficacy. In line with the suggestions made by Richter et al. (2012), this study investigates the moderating influence of CSE in predicting employee creativity from the perspective of TL. The purpose of this study's findings is to advance our understanding of CSE's dynamics in forecasting employee creativity. TL is a multidimensional concept encompassing "charismatic role modeling, inspirational motivation, individualized consideration, and intellectual stimulation" (Avolio, Bass, and Jung, 1999). Charismatic leaders use their ability to evoke strong feelings in their followers, gaining their respect, adoration, and allegiance. Every follower has specific needs that the leader attends to via thoughtful thinking. Through the use of inspiring motivation, the leader presents a convincing future picture and directs followers toward their objectives. By providing followers with an abundance of cognitive resources, a leader can stimulate their minds and inspire them to approach their tasks in creative ways (Avolio et al., 1999).

The consensus is widespread that psychological safety plays a crucial role in elevating the standard of communication. Acknowledging the significant role of psychological safety in existing literature (Lu et al., 2022), this study directs its attention to the impact of psychological safety on communication quality and employees' agility. Scholars like (Elhadidy & Gao, 2024), stress that psychological safety is a crucial component of the workplace because it affects people's sense of security and in turn, their ability to learn, modify their behavior, and engagement at work. People communicate honestly and frankly about their thoughts and reflections when they feel safe This open dialogue improves critical (Petermann & Zacher, 2022). Thinking, learning capacity, communication quality, and information sharing all of which lead to increased employee agility (Khairy et al., 2023). Therefore, an individual's psychological safety perception raises their enthusiasm, which enhances their ability to communicate clearly and quickly.

As suggested by existing literature, employee agility tends to emphasize collaboration, interaction, and the visibility of communication, aspects that are heightened through regular use of Enterprise Social Media (ESM) technology (Fournier et al., 2024). Consequently, this study puts forth and examines the connections between ESM usage and employee agility. As outlined by (Buttigieg et al., 2023), employee agility denotes the proficiency or capability of employees to promptly respond to sudden environmental changes and adapt to these changes for the betterment of their organizations. Employee agility yields various advantages, including improved customer service, learning, and enhancements in product quality (Ajayi & Udeh, 2024).The dimensions of employee agility encompass proactive, adaptive, and resilience aspects (Chong & Zainal, 2024), where, adaptive dimension is about adapting to a new environment, the proactive dimension is about taking actions that positively affect the changed environment, and the resilience dimension is about an individual's positive attitude toward change (Devi, 2024).

This study has its significance as it examines the complex relationship among employee creativity, psychological safety, and leadership styles. By exploring this mechanism, the study hopes to make a significant contribution to the academia and its real-world application in organizational management field. Comprehending the impact of TL on psychological safety and its subsequent effect on employee creativity is vital for organizations who aim to augment innovation and flexibility in the ever-changing contemporary business environment. Furthermore, the study aims to offer a valuable perspective on the factors influencing creative behavior in the workplace by examining the moderating influence of creative self-efficacy. The research findings have the potential to impact leadership practices, human resource initiatives, and organizational policies by providing concrete recommendations for fostering an atmosphere at work that supports and encourages employee creativity. In the end, the study aims to advance our understanding of the mechanisms underlying innovation and success in modern work environments by adding to the growing body of knowledge on leadership, creativity, and organizational performance.

This study's main objective is to investigate the complex relationship between organizational agility, creative self-efficacy, psychological safety, and leadership styles in the context of employee creativity. The study's specific goal is to find out how various leadership styles, with a particular emphasis on TL, affect workers' perceptions of psychological safety. The objective of the research is to determine whether employees' creative behavior and psychological safety at work are positively correlated. Furthermore, the research endeavors to assess the manner in which creative self-efficacy moderate the relationship between psychological safety, employee creativity, and leadership style. The major objective is to assess the collective impact of these factors on organizational agility, while taking its dimensions such as innovation, adaptability, and responsiveness.

## 2 Literature Review

The employee creativity literature has highlighted the multidimensional nature of factors influencing creative behavior within the workplace. Particularly, Shalley and Gilson (2004) emphasized the specific role of leadership in determining employees' creative activities, highlighting the impact of leaders on the work environment. According to by Gong et al. (2009) and Wang et al. (2013), TL has emerged as a strong predictor of employee creativity, promoting a supportive climate and organizing resources for innovative efforts. As explained by explored by Beghetto (2006) and Lemons (2010), creative self-efficacy (CSE), is identified as an important influencer, with individuals' beliefs in their creative abilities affecting their actual creative behavior. Further, research has emphasized the importance of psychological safety in promoting creativity (Prieto & Talukder, 2023). This shows that overall literature emphasizes the association of leadership, self-perception, and the work environment in fostering and developing employee creativity.

Literature on TL provides a broader understanding of its effect on organizational dynamics and employee outcomes. Avolio et al. (1999) defined TL as a multidimensional notion that includes intellectual stimulation, personalized consideration, inspirational motivation, and charismatic role modeling. Numerous studies, including those by Gumusluoglu and Ilsev (2009) and Gong et al. (2009), highlighted the valuable impact of TL on a range of organizational factors, such as employee motivation, performance, and satisfaction. TL has been found to be a key predictor of employee creativity (Jung et al., 2003; Wang & Rode, 2010; Jaiswal & Dhar, 2015), with leaders cultivating a positive work environment that organizes resources for creative activities. Additionally, organizational creativity and adaptation have been connected to this leadership style (Bass, 1985; Wang et al., 2013). Researchers like Reiter-Palmon and Illies, (2004) and Mumford et al. (2002) have also emphasized the role of TL in encouraging creative thinking and problem-solving within teams.

Despite positivity attached with TL, some of the studies have highlighted potential challenges in the effectiveness of TL style (Bass, 1998). Factors like organizational culture, follower's characteristics, and contextual circumstances have been examined to understand the significance of TL's impact. A strong correlation between employee creativity and TL has been shown in the research, underscoring the transforming power of leaders in promoting a creative work environment. TLs' "charismatic role modeling, inspirational motivation, individualized consideration, and intellectual stimulation" have been repeatedly proved to have a positive impact on employee creativity (Avolio et al., 1999). Studies conducted by Wang et al. (2013) and Gong et al. (2009) highlight how TL encourages and excite workers, fostering an environment that is favorable to creative thinking. Charismatic leaders who exhibit exciting visions for the future, boost their followers' intrinsic motivation and inspire them to think creatively (Bass, 1985). According to Jung et al. (2003), TL's intellectual stimulation component includes managers pushing employees to challenge presumptions, exercise critical thinking, and consider novel concepts, all of which raise increased creativity. Furthermore, the importance of TL in promoting a collaborative work environment that not only supports creativity but also gives employees the freedom and tools they need to express their creative ideas is highlighted by Jaiswal and Dhar, (2015) and Wang and Rode, (2010). This supports the theory that TL creates a psychologically safe environment, which is important for encouraging creative behavior. It is important to understand that there can be a number of variables that may affect TL and employee creativity relationship. According to Reiter-Palmon & Illies (2004), the type of creative job being done and the surrounding circumstances may have an impact on the way TL fosters creativity. The extant literature has continually demonstrated the positive impact of TL on employee creativity. TL has a critical role in creating a climate at work that not only promotes innovation but also gives employees the motivation and support they need to articulate and carry out their creative ideas. The multidimensional nature of TL aligns with the complex and dynamic process of employee creativity, thus making it an important area of interest for both researchers and practitioners.

Literature has emphasized the employee agility's importance as a dynamic and adaptable ability inside organizations. According to (Mer & Virdi, 2024), employee agility is the ability of employees to quickly react to and adjust to changing situations for the advantage of their organizations. Researchers have also emphasized the benefits of employee agility, such as improved learning, better customer service and higher quality products (Akkaya et al., 2024). The characteristics of employee agility, which include proactive, adaptive, and resilience components (Jo & Hong, 2022), add to a more thorough comprehension of how people function well in dynamic work environments. The literature further emphasizes the importance of fostering an organizational culture that supports employee agility, identifying it as a valuable asset for achieving long term objectives in modern business landscape.

The literature highlights the dynamic character of these constructs within organizational contexts and indicates a complex relationship between employee creativity and agility. Employee creativity which involves generation novel and distinct ideas interrelates with employee agility, which is defined as the ability to react quickly to changes in the environment (Amabile, 1996). According to research, creative activities are more common in agile people who are skilled at adjusting to new situations (Nuraini, 2024) .

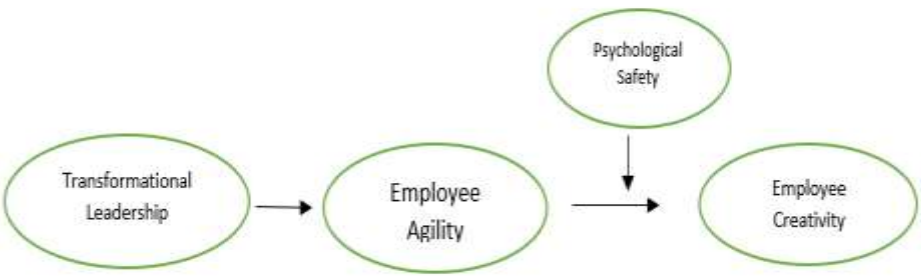
Proactive dimension of creativity, where people actively seek out chances for innovation, is in line with the proactive dimension of employee agility, which involves behaviors that positively impact changed environments (Zhou & George, 2001). The adaptive aspect of creativity, which entails modifying cognitive processes to novel settings is similar to adaptive agility which is the capacity to adapt to new surroundings. The psychological components of creativity, such as overcoming challenges and staying motivated , is correlated with resilience, an employee agility attribute that emphasizes a positive attitude toward change (Khan, 2024).Furthermore, cultivating an environment at work that encourages employee adaptability can help to establish a creative culture. Organizations, for example may improve employee agility and creativity, by promoting learning and offering tools for skill development (Shalley et al., 2004). It is crucial to recognize that individual differences, organizational culture and contextual factors can all have an impact on employee agility and creativity relationship. Subsequent investigations need to examine more deeply into these nuances in order to furnish a thorough comprehension of the reciprocal influences between employee creativity and agility in various organizational contexts. The body of research on the interdependent dynamics of TL, employee creativity, and employee agility highlights the complex interactions between these concepts in the context of organizations. TL has been found to be a powerful catalyst for promoting employee agility and creativity. It is characterized by charismatic role modeling, inspirational motivation, customized consideration, and intellectual stimulation (Avolio et al., 1999).

Research has underscored that TL inspires and motivates employees to adjust quickly to changes in the environment (Gong et al., 2009; Wang et al., 2013). Leader's ability to articulate an exciting vision for the future and intellectual stimulation generates a helpful climate for employees to face dynamic challenges with agility (Jung et al., 2003). Early research has demonstrated that TL is positively correlated with employee agility dimensions, like proactivity, adaptability and resilience. Literature also suggests that TL plays an important role in shaping a work environment favorable to employee creativity. This leadership style creates a culture that values innovation, encourage risk taking and provides the freedom of action that is essential for creative thinking (Bass, 1985; Wang & Rode, 2010). Under TL, employees are more likely to involve in creative behaviors, like generating novel ideas and approaches (Gumusluoglu & Ilsev, 2009; Jaiswal & Dhar, 2015). The correlation among TL, employee agility and creativity highlight the potential for a concerted relationship. TL provides a basis for creative pursuits by empowering employees to adapt skillfully to changing conditions through the cultivation of agility (Bass, 1998; Wang et al., 2013). Further research is necessary since the relationship is dependent on variables like individual differences, task characteristics and organizational culture. Literature on leadership domain emphasizes the crucial role of TL in determining a work environment that promotes both employee agility and creativity. TL is positioned as a major force behind dynamic and innovative organizational cultures due to the synergies between these factors, which support organizational innovation and flexibility Research on psychological safety and employee agility highlights the important role of a favorable work environment in development of adaptive and agile behaviors among employees. Psychological safety has been described as the climate in which people feel free to take interpersonal risks without worrying about the consequences. This climate has been found to be a primary driver of employee agility. According to research by Ajayi (2024),employee vitality, which is characterized as a positive and energetic state of mind and psychological safety are positively correlated. People feel comfortable expressing their opinions, sharing creative ideas,

and actively participating in decision making processes when they have this psychological safety (Chong et al., 2024). Such an environment inspires employees to be more proactive, adapt to changes and display resilience during uncertainties, characterized as dimensions of employee agility.

Psychological safety is also linked to better communication quality and knowledge sharing behavior Gupta et al. (2012). A culture characterized by open communication channels that values different perspectives contribute to the development of agile individuals who can effectively work together and face to dynamic challenges. However, it is essential to acknowledge that the relationship between psychological safety and employee agility may vary based on contextual factors and organizational characteristics. Research by Fournier et al. (2024) advocates that the impact of psychological safety on learning and behavior change may depend on the level of psychological safety expected by employees. Research emphasizes on the positive relationship between psychological safety and employee agility. Organizations that encourage a psychologically safe environment provide a basis for employees to adapt rapidly, work together effectively, and engage in creative problem-solving activities, ultimately leading to higher organizational agility in the face of change and uncertainty (May et al., 2004). Employee agility is characterized by an atmosphere that fosters proactivity, flexibility in the face of change, and resilience in the face of uncertainty. Moreover, better communication and knowledge exchange are associated with psychological safety (Mittal et al., 2013). Agile people are better able to collaborate and adapt to changing circumstances when they have open communication channels and are part of a culture that supports different points of view.

### 2.1 Theoretical Model




H1: TL significantly and positively impacts employee agility

H2: Employee Agility has a significant and positive correlation with employee creativity

H3: Employee agility significantly mediates the relationship between TL and employee creativity

H4: Psychological safety has significant moderating effect on the relationship of TL and employee creativity.

## 3 Methodology

TL dimensions like charismatic role modeling, inspirational motivation and individualized consideration were assessed through instruments like the Multifactor Leadership Questionnaire (MLQ) (Bass & Avolio, 1995) and the Global TL Scale (GTL). Sample items from these scales are those that assess a leader's capacity to speak positively about the future, offer fresh insights into issues, and give each person their own special attention (Bass & Avolio, 1995). Although less standardized, the employee agility scale frequently includes items that evaluate proactivity, adaptability, and resilience, capturing people's capacities to quickly adjust to changes in their work

environment. Measures of employee creativity include the creative behavior inventory (CBI) and the creative self-efficacy scale (Tierney & Farmer, 2002), measures behaviors experimenting different approaches to problem solving and showing confidence in coming up with original ideas. In terms of psychological safety, measures like the Psychological Safety Questionnaire and the Psychological Safety Scale (Khan et al., 2024) include questions about how comfortable a person is asking questions, how comfortable they are taking risks, and how confident they are that their mistakes will not have a negative outcome. These measures offer useful resources for comprehending the complex connections between TL, employee agility, creativity, and psychological safety in diverse organizational settings.

**Research Design**

Study focused service employed in software houses within Lahore city of Pakistan. For sample collection, we initially obtained a list of software houses from Pakistan association of software house (PASHA) and established communication with the human resource managers at these establishments. During these discussions, we outlined our need for participation from employees in our research. It was crucial to emphasize to the participants that their responses would exclusively use for research purposes, and we assured them of the confidentiality of their data. Subsequently, we distributed questionnaires to the employees as per the schedule provided by the HR managers. In order to facilitate electronic submissions, we also employed Google Forms. Information collected from various sources meticulously organized in an Excel format. This Excel file subsequently utilized for the ensuing analysis through Partial Least Squares Structural Equation Modeling (PLS SEM). We received 185 responses, of which four were considered incomplete and therefore excluded from the final sample, resulting in 181 participants. The Multifactor Leadership Questionnaire (MLQ) scale, which consists of 20 items, adopted from (Bass & Avolio, 2004). Subsequently, the employee agility questionnaire taken from Ajayi et al. (2024) and this adaptation carried out in a systematic and coherent manner. The scale utilizes 14 questions to assess the three dimensions of employee agility, which include proactivity, adaptability, and resilience. Employee creativity the scale included six items adapted from Devi et al. (2024). Additionally, psychological safety evaluated using a 7-item scale that was adapted from Gong et al. (2009).

**Results**

Following the techniques described by Jo et al. (2022) conducted a two-stage analysis in this study using the PLS Structural Equation Modeling (PLS SEM) methodology. This includes assessment of measurement model and structural. The Confirmatory Factor Analysis (CFA) is utilized to examine the discriminant and convergent validity of the measurement model in order to determine its validity. We also used composite reliability (CR), which is thought to be more reliable than Cronbach's Alpha, to evaluate the model's validity. Construct validity is assessed through the examination of measures for convergent and discriminant validity.

We examined every item for CR, using a minimum acceptable item load level of 0.50 in accordance with criteria. Factor loadings for all items are presented in Table 1, and all values surpass the 0.50 value, supporting the presence of CR in the dataset. An item is eliminated and the analysis is redone to evaluate the loadings if it drops below the 0.50 level. A graphic depiction of the model, complete with factor loadings, is provided in Figure 1. Furthermore, Table 1 shows the consistency of the items, all variables show a high degree of consistency among the items, reaching a value of 0.7. Adhering to the principles established by Bu ghetto et al. (2006) our study comprehensively estimates both discriminant and convergent validity, which are essential components of construct validity. To confirm convergent validity, we rely on the Average Variance Extracted (AVE), where an AVE value exceeding 0.50 is considered a requisite for demonstrating convergent validity, as recommended by Khairey et al. (2023). As shown in Table 1, the AVE values are 0.513, 0.659, 0.543, and 0.558, all of which meet the proven standard,

supporting the convergent validity of our study.

Table 1 Reliability & Convergent Validity

| Variable | Items | Factor Loading | Cronbach's alpha | CR (rho_a) | CR (rho c) | (AVE) |
|---|---|---|---|---|---|---|
| Employee Agility | EA1 | 0.659 | 0.926 | 0.927 | 0.936 | 0.513 |
| | EA2 | 0.668 | | | | |
| | EA3 | 0.714 | | | | |
| | EA4 | 0.691 | | | | |
| | EA5 | 0.786 | | | | |
| | EA6 | 0.803 | | | | |
| | EA7 | 0.81 | | | | |
| | EA8 | 0.79 | | | | |
| | EA9 | 0.771 | | | | |
| | EA10 | 0.76 | | | | |
| | EA11 | 0.577 | | | | |
| | EA12 | 0.631 | | | | |
| | EA13 | 0.677 | | | | |
| | EA14 | 0.639 | | | | |
| Employee Creativity | EC1 | 0.786 | 0.895 | 0.898 | 0.92 | 0.659 |
| | EC2 | 0.86 | | | | |
| | EC3 | 0.895 | | | | |
| | EC4 | 0.851 | | | | |
| | EC5 | 0.752 | | | | |
| | EC6 | 0.713 | | | | |
| Phycological Safety | PS1 | 0.771 | 0.82 | 0.891 | 0.876 | 0.543 |
| | PS2 | 0.817 | | | | |
| | PS3 | 0.837 | | | | |
| | PS4 | 0.767 | | | | |
| | PS5 | 0.567 | | | | |
| | PS6 | 0.742 | | | | |
| | PS7 | 0.836 | | | | |
| TL | TL1 | 0.715 | 0.849 | 0.929 | 0.867 | 0.558 |
| | TL2 | 0.752 | | | | |
| | TL3 | 0.727 | | | | |
| | TL4 | 0.738 | | | | |
| | TL5 | 0.672 | | | | |
| | TL6 | 0.682 | | | | |
| | TL7 | 0.777 | | | | |
| | TL8 | 0.789 | | | | |
| | TL9 | 0.78 | | | | |
| | TL10 | 0.781 | | | | |
| | TL11 | 0.761 | | | | |
| | TL12 | 0.716 | | | | |
| | TL13 | 0.549 | | | | |
| | TL14 | 0.562 | | | | |
| | TL15 | 0.672 | | | | |
| | TL16 | 0.502 | | | | |
| | TL17 | 0.679 | | | | |
| | TL18 | 0.511 | | | | |
| | TL19 | 0.566 | | | | |

| | |
|---|---|
| TL20 | 0.869 |

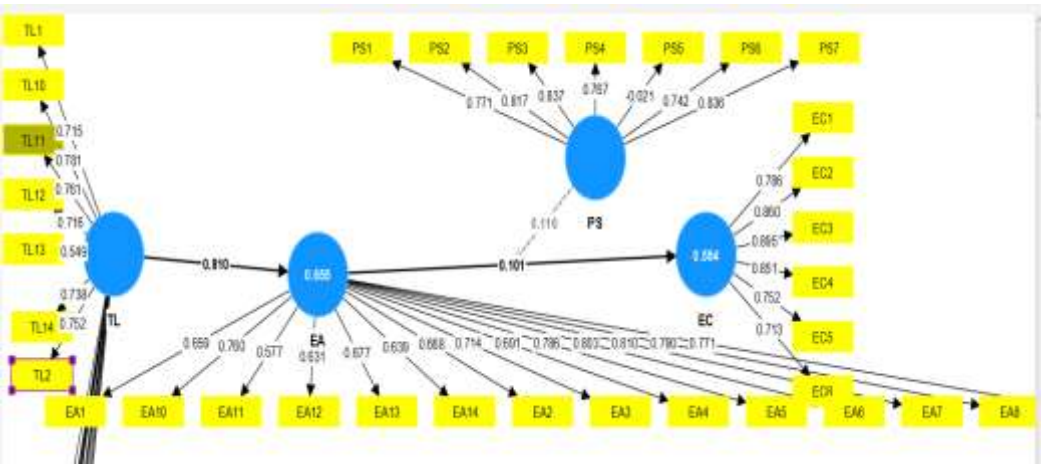



Figure 1 Measurement Model

As indicated by Hair et al. (2010), discriminant validity pertains to the degree of differentiation between one variable and other variables within the study. In order to assess this component, we utilize a diagnostic tool called the Heterotrait-Monotrait Ratio (HTMT), in accordance with the protocol outlined by Henseler et al. (2015). Table 2 displays the results of the HTMT test. The HTMT Ratio values in Table 2 are in accordance with the standards put out by Clark & Watson (1995) . According to these criteria, the HTMT ratio should preferably be less than 0.85 (HTMT < 0.85) or, depending on the situation, lower than 0.90 (HTMT < 0.90), following the recommendations made by Gold et al. (2001). According to our analysis, every value in Table 2 is higher than the cutoff of 0.90, which is different from the suggested cutoff given by Gold et al. (2001).

Table 2 Heterotrait-Monotrait Ratio (HTMT)

| | EA | EC | PS | TL |
|---|---|---|---|---|
| EA | | | | |
| EC | 0.623 | | | |
| PS | 0.797 | 0.80 | | |
| TL | 0.815 | 0.48 | 0.7 | |

In our study, the possibility of multicollinearity was assessed by closely examining the values of the variables. If any of the variables have a value greater than 5, multicollinearity is present. However, as Table 3 shows, every value is below the cut-off value of 5, indicating that there is no issue of multicollinearity.

Table 3 Multicollinearity VIF

| | EA | EC | PS | TL |
|---|---|---|---|---|
| EA | | 2.002 | | |
| EC | | | | |
| PS | | 2.092 | | |
| TL | 1 | | | |

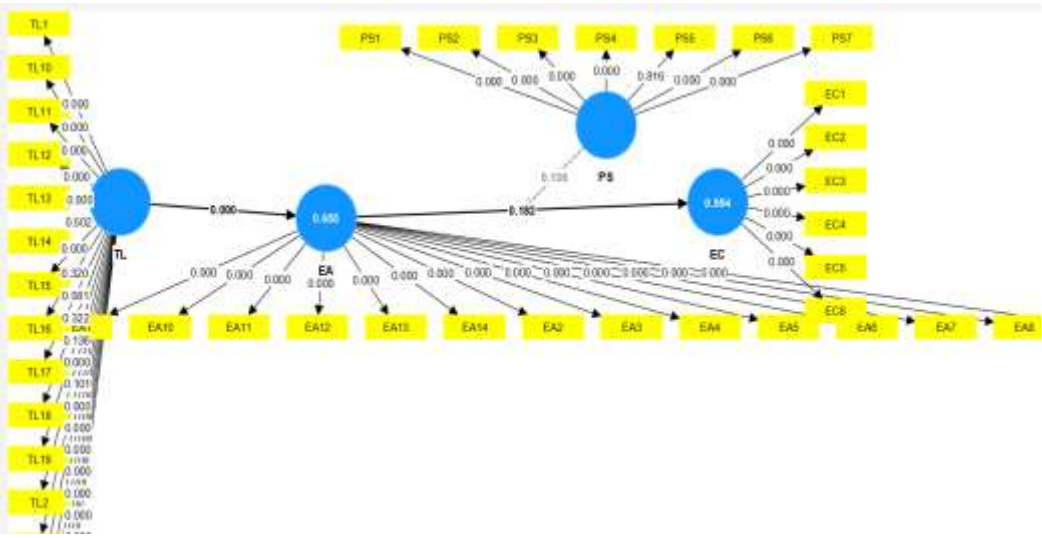



Figure 2 Structural Model

*Table 4 Path Analysis*

| Hypothesis | Relation | Beta | SD | T value | P values | LL | UL | Decision |
|---|---|---|---|---|---|---|---|---|
| H1 | TL -> EA | 0.810 | 0.025 | 32.5 | 0 | .76 | 0.85 | Supported |
| H2 | EA -> EC | 0.101 | 0.076 | 3.337 | 0.082 | .06 | 0.24 | Supported |
| H3 | TL -> EA -> EC | 0.082 | 0.062 | 5.312 | 0.019 | .05 | 0.198 | Supported |
| H4 | PS x EA -> EC | 0.116 | 0.077 | 6.493 | 0.036 | .04 | 0.32 | Supported |

The relationships between the study variables are shown in this section. Table 4 provides a thorough overview of the suggested correlations between the variables and shows the outcomes of a path analysis carried out with SEM PLS. Findings reveal a statistically significant relationship among TL and Employee Agility (EA) (β = 0.81, t = 32.5; LL = 0.761, UL = 0.859), thereby supporting for H1. Similarly, Employee Agility (EA) is also significantly linked to Employee Creativity (EC) (β = 0.101, t = 3.337; LL = 0.063, UL = 0.248), supporting H2.

Moreover, the mediating role of Employee Agility (EA) between TL and EC (β = 0.082, t = 5.312; LL = 0.05, UL = 0.198) is also confirmed H3, The moderating role of Psychological safety (PS) moderate the relationship between Employee Agility (EA) and Employee Creativity (EC) (β = 0.116, t = 6.493; LL = 0.042, UL = 0.322) proof H4 is also supported. Consequently, it inferred that all of our hypotheses are substantiated. Figure 2 offers an overview of the structural model assessment.

### 3.1 Coefficient of Determination (R2)

According to Henseler et al. (2009), the R-squared (R2) statistic is used to determine the percentage of variance within a variable that can be explained collectively by the variables. This statistic provides valuable insights into the model's predictive capacity. Hair et al. (2014) and Henseler et al. (2009), also highlighted R2 as the overall change in the variable attributed to the current set of variables. Researchers offer different interpretations of R2. For example, Chin (1998a) emphasize that R2 value of 0.02 signifies a weak relationship, 0.13 indicates a moderate relationship, and 0.26 denotes a strong relationship.

Additionally, it is pertinent to highlight the significance of the coefficient of determination (R2) as an alternative method for measuring the effectiveness of models in structural equation modeling (SEM). Researchers like Chin (1998a) have formulated guidelines for this evaluation criterion. In

line with these standard, a value of R2 at 0.25, 0.50, and 0.75 represents a weak, moderate and strong relationship, respectively (Chin, 2010).

R2 values for all the understudy variables are presented in Table 5. Based on Table 5, the constructs, specifically "TL", “Employee Agility” and “Physiological Safety” together account for 54.7 % variance in “Employee Creativity "(EC).

Table 5 - R-square of Constructs

| Construct | $R^2$ | Effect |
|---|---|---|
| "Employee Creativity” | 0.547 | Moderate |

## 4 Discussion

Examining relationship of TL, employee agility and psychological safety as key factors reflects the comprehensive nature of the investigation. TL, a focal point of the study, has extensively acknowledged for its ability to create a work environment that encourages innovation and creativity. The charismatic role modeling, inspirational motivation, individualized consideration, and intellectual stimulation inherent in TL have been associated with empowering employees to think creatively, thus fostering a culture of innovation. The inclusion of employee agility in the study recognizes the dynamic nature of today's work environment. The agility of employees, characterized by their ability swiftly respond to changes and challenges, is increasingly recognize as a crucial factor in facilitating creativity. The study thus looks at how TL helps agile employees to overcome uncertainty and make innovative contributions to problem solving and decision-making processes.

Psychological safety is a crucial construct in development of employee creativity. A workplace where employees feel free to voice their opinions, exchange creative ideas, and take calculated risks without fear of repercussions fosters innovation. This study, thus investigated how psychological safety functions as a catalyst for binding both individual and group creative potential when combined with TL and employee agility. The study's empirical methodology strengthens its conclusions by placing the examination of these constructs in actual organizational contexts. Through a systematic investigation of the relationship among TL, employee agility, psychological safety, and employee creativity, the study is expected to make significant contributions to the fields of academic research and real-world organizational management. Additionally, the findings may have effects for organizational interventions and leadership development initiatives. Gaining insight into how TL, employee agility, and psychological safety work together to impact creativity can help guide strategic efforts that aim to boost innovation in the workplace. The study is also helpful in making a better understanding about the multifaceted relationship between creativity, psychological safety, agility, and leadership in the workplace. The empirical investigation of these constructs has advanced the research scholarship and also provide new possibilities for formulation of effective strategies for developing employee creativity in modern organizational setting.

### 4.1 Future research

Research provides promising directions for future research in the domain of employee creativity through TL, employee agility, and psychology. Firstly, longitudinal studies can need to be conducted to examine the influence of these factors on creativity over time. Secondly, cross-cultural perspectives may disclose cultural differences in the effectiveness of leadership and agility in promoting creativity, leading to the adoption of culturally sensitive approaches. Examining the moderating and mediating role of additional factors may expand our understanding of the complex relationship between these variables. Crafting interventions or training plans to improve psychological safety, agility, and leadership abilities offers a chance to evaluate useful methods for encouraging innovatio. Exploring team-level dynamics, the effect of technology on virtual work environments and the ethical considerations of leadership behaviors can provide additional insights into contemporary organizational challenges. Taking a mixed method approach, future

studies can provide a broader understanding of the multidimensional relationships at play. Further, investigating into the boundary conditions and examining the intersection of employee well-being, job satisfaction, and creativity can contribute to a comprehensive perspective. Generally, these prospective research directions have the capacity to extend our knowledge and provide practical insights for organizations pursuing to promote a creative and innovative work environment.

### 4.2 Implications

This study advances our understanding of the complex dynamics that foster creativity in work environments. It highlights the value of TL behaviors, employees' adaptability, and the promotion of psychological safety as interrelated components in creating a creative work environment. Organizations can practically use these insights to guide interventions meant to fostering innovation and leadership development programs. By placing a high priority on TL, encouraging employee flexibility and guaranteeing psychological safety, organizations may support both individual and group creativity and cultivate an innovative and ever improving work environment.

## 5 References


Amabile, T. M. (1995). Attributions of creativity: What are the consequences, *Creativity Research Journal, 8*(4), 423–426. doi:10.1207/ s15326934crj0804_10

Amabile, T. M., Schatzel, E. A., Moneta, G. B., & Kramer, S. J. (2004). Leader behaviors and the work environment for creativity: Perceived leader support. *Leadership Quarterly, 15*(1), 5–32. doi:10.1016/j.leaqua.2003.12.003

Avolio, B. J., Bass, B. M., & Jung, D. I. (1999). Re-examining the components of transformational and transactional leadership using the Multifactor Leadership. *Journal of Occupational and Organizational Psychology, 72*(4), 441–462. doi:10.1348/096317999166789

Ajayi, F. A., & Udeh, C. A. (2024). Agile work cultures in it: A conceptual analysis of hr's role in fostering innovation supply chain. *International Journal of Management & Entrepreneurship Research, 6*(4), 1138–1156.

Akkaya, B., Popescu, C., Apostu, S. A., Bagienska, A., & Üstgörül, S. (2024). *The role of leader nurse managers in organizational agility and innovation in perspective of job satisfaction: An empirical study in healthcare organizations*. https://www.researchsquare.com/article/rs-3829297/latest

Buttigieg, S. C., Cassia, M. V., & Cassar, V. (2023). The relationship between transformational leadership, leadership agility, work engagement and adaptive performance: A theoretically informed empirical study. In *Research Handbook on Leadership in Healthcare* (pp. 235–251). Edward Elgar Publishing. https://www.elgaronline.com/edcollchap/book/9781800886254/book-part-9781800886254-21.xml

Bandura, A. (1997). Self-efficacy: The exercise of control. *New York, NY: Freeman*.

Bass, B. M. (1985). Leadership and performance beyond expectations. *New York, NY: Academic Press.*

Beghetto, R. A. (2006). Creative self-efficacy: Correlates in middle and secondary students. *Creativity Research Journal, 18*(4), 447–457. doi:10.1207/s15326934crj1804_4

Chin, W. W. (1998). Commentary: Issues and opinion on structural equation modeling. In *MIS quarterly* (pp. vii–xvi). JSTOR. https://www.jstor.org/stable/249674?casa_token=odF2BzDMOj0AAAAA:QXTg0n-4Tukg6jPX4cNo31GLxhS1-3XfDfTbvdsTbe6b8sbGOTmFeW7zKWXY1yxvVG-r7epJYVWYsQeU2lQl3QwzW0ozaD3MECyWndCESwGNolUilO1p

Clark, L. A., & Watson, D. (2016). *Constructing validity: Basic issues in objective scale development.* https://psycnet.apa.org/record/2015-32022-012

Carson, D. K., & Runco, M. A. (1999). Creative problem solving and problem finding in young adults: Interconnections with stress, hassles, and coping abilities. *Journal of Creative Behavior, 33(*3), 167–188.doi:10.1002/jocb.1999.33.issue-3

Chong, Y. K., & Zainal, S. R. M. (2024). Employee agility's moderating role on the link between employee vitality, digital literacy and transformational leadership with job performance: An empirical study. *Cogent Business & Management*, *11*(1), 2337447. https://doi.org/10.1080/23311975.2024.2337447

Devi, N. C. (2024). Paradoxical leadership and employee creativity: Knowledge sharing and hiding as mediators. *Journal of Knowledge Management*, *28*(2), 312–340.

Diliello, T. C., Houghton, J. D., & Dawley, D. (2011). Narrowing the creativity gap: The moderating effects of perceived support for creativity. *Journal of Psychology, 145(*3), 151–172. doi:10.1080/00223980.2010.548412

Elhadidy, I. A., & Gao, Y. (2024). How does humble leadership stimulate employees' service improvisation in hospitality? A social information processing perspective. *Kybernetes*. https://www.emerald.com/insight/content/doi/10.1108/K-11-2023-2457/full/html

Fournier, P.-L., Bahl, L., van Dun, D. H., Johnson, K. J., & Cadieux, J. (2024). Let's talk about it: The impact of nurses' implicit voice theories on individual agility and quality of care. *International Journal of Operations & Production Management*, *44*(5), 1007–1033.

Gong, Y., Huang, J.C., & Farh, J.L. (2009). Employee learning orientation, TL, and employee creativity: The mediating role of employee creative self-efficacy. *Academy of Management Journal, 52*(4), 765–778. doi:10.5465/AMJ.2009.43670890

Gumusluoglu, L., & Ilsev, A. (2009). TL, creativity, and organizational innovation. *Journal of Business Research, 62*(4), 461–473. doi:10.1016/j.jbusres.2007.07.032

Gupta, V., Singh, S., Kumar, S., & Bhattacharya, A. (2012). Linking leadership to employee creativity: A study of Indian R&D laboratories. *Indian Journal of Industrial Relations, 48*(1), 120–136.

Gold, A. H., Malhotra, A., & Segars, A. H. (2001). Knowledge Management: An Organizational Capabilities Perspective. *Journal of Management Information Systems*, *18*(1), 185–214. https://doi.org/10.1080/07421222.2001.11045669

Gronemus, J. Q., Hair, P. S., Crawford, K. B., Nyalwidhe, J. O., Cunnion, K. M., & Krishna, N. K. (2010). Potent inhibition of the classical pathway of complement by a novel C1q-binding peptide derived from the human astrovirus coat protein. *Molecular Immunology*, *48*(1–3), 305–313.

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

Herrmann, D., & Felfe, J. (2013). Moderators of the relationship between leadership style and employee creativity: The role of task novelty and personal initiative. *Creativity Research Journal, 25*(2), 172–181. doi:10.1080/10400419.2013.783743

Jaiswal, N. K. (2016). Bringing Service Innovation through Servant Leadership and Innovation Climate: A Multilevel Mediation Model. *In Proceedings of the NIDA International Business Conference 2016– Sustainability in Business* (p. 47). Bangkok, Thailand.

Jaiswal, N. K., & Dhar, R. L. (2015). TL, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International Journal of Hospitality Management, 51*, 30–41.

Jung, D. I. (2001). Transformational and transactional leadership and their effects on creativity in groups. *Creativity Research Journal, 13*(2), 185– 195. doi:10.1207/S15326934CRJ1302_6

Jung, D. I., Chow, C., & Wu, A. (2003). The role of TL in enhancing organizational innovation: Hypotheses and some preliminary findings. Leadership Quarterly, 14(4–5), 525–544.doi:10.1016/S1048-9843(03)00050-X

Jo, Y., & Hong, A. J. (2022). Impact of agile learning on innovative behavior: A moderated mediation model of employee engagement and perceived organizational support. *Frontiers in Psychology*, *13*, 900830.

Khairy, H. A., Baquero, A., & Al-Romeedy, B. S. (2023). The effect of transactional leadership on organizational agility in tourism and hospitality businesses: The mediating roles of Organizational Trust and Ambidexterity. *Sustainability*, *15*(19), 14337.

Khan, D. S. (2024). Organizational Behaviour insights: Examining dynamics of Workplace Culture and Employee Interaction in Modern Organizations. *International Journal for Multidimensional Research Perspectives*, *2*(5), 37–53.

Lu, L., Zhou, K., Wang, Y., & Zhu, S. (2022). Relationship between paternalistic leadership and employee innovation: A meta-analysis among chinese samples. *Frontiers in Psychology*, *13*, 920006.

Lemons, G. (2010). Bar drinks, rugas, and gay pride parades: Is creative behavior a function of creative self-efficacy. *Creativity Research Journal, 22*(2), 151–161. doi:10.1080/10400419.2010.481502

Mittal, S., & Dhar, R. L. (2015). TL and employee creativity: Mediating role of creative self-efficacy and moderating role of knowledge sharing. *Management Decision, 53*, 894–910. doi:10.1108/ MD-07-

2014-0464
Moghimi, S., & Subramaniam, I. D. (2013). Employees' creative behavior: The role of organizational climate in Malaysian SMEs. *International Journal of Business and Management, 8*(5), 1–12. doi:10.5539/ijbm.v8n5p1
Mumford, M. D., Scott, G. M., Gaddis, B., & Strange, J. M. (2002). Leading creative people: Orchestrating expertise and relationships. *Leadership Quarterly, 13*(6), 705–750. doi:10.1016/S1048-9843(02)00158-3
Mer, A., & Virdi, A. S. (2024). Fostering Creativity, Innovative Service Behaviour, and Performance Among Entrepreneurs in the VUCA World Through Employee Engagement Practices. In *VUCA and Other Analytics in Business Resilience, Part A* (pp. 59–76). Emerald Publishing Limited. https://www.emerald.com/insight/content/doi/10.1108/978-1-83753-902-420241003/full/html
Nuraini, N. (2024). Creating Environments for Continuous Employee Development and Learning. *Economics and Digital Business Review*, *5*(1), 769–789.
Preacher, K. J., Rucker, D. D., & Hayes, A. F. (2007). Assessing moderated mediation hypotheses: Theory, methods, and prescriptions. *Multivariate Behavioral Research, 42*(1), 185–227. doi:10.1080/00273170701341316
Petermann, M. K., & Zacher, H. (2022). Workforce agility: Development and validation of a multidimensional measure. *Frontiers in Psychology*, *13*, 841862.
Prieto, L., & Talukder, M. F. (2023). Resilient Agility: A Necessary Condition for Employee and Organizational Sustainability. *Sustainability*, *15*(2), 1552.
Reiter-Palmon, R., & Illies, J. J. (2004). Leadership and creativity: Understanding leadership from a creative problem-solving perspective. *Leadership Quarterly, 15*(1), 55–77. doi:10.1016/j.leaqua.2003.12.005
Richter, A. W., Hirst, G., van Knippenberg, D., & Baer, M. (2012). Creative self-efficacy and individual creativity in team contexts: Cross-level interactions with team informational resources. *Journal of Applied Psychology*, *97*(6), 1282–1290. doi:10.1037/a0029359
Runco, M. A., Illies, J. J., & Eisenman, R. (2005). Creativity, originality, and appropriateness: What do explicit instructions tell us about their relationships. *Journal of Creative Behavior*, *39*(2), 137–148. doi:10.1002/jocb.2005.39.issue-2
Runco, M. A., & Jaeger, G. J. (2012). The standard definition of creativity. *Creativity Research Journal, 24*(1), 92–96. doi:10.1080/ 10400419.2012.650092
Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *Leadership Quarterly, 15*(1), 33–53. doi:10.1016/j.leaqua.2003.12.004
Simmons, A. L., Payne, S. C., & Pariyothorn, M. M. (2014). The role of means efficacy when predicting creative performance. *Creativity Research Journal, 26*(1), 53–61. doi:10.1080/10400419.2014.873667
Sun, L.-Y., Zhang, Z., Qi, J., & Chen, Z. X. (2012). Empowerment and creativity: A cross-level investigation. *Leadership Quarterly, 23*(1), 55– 65. doi:10.1016/j.leaqua.2011.11.005
Tierney, P., & Farmer, S. M. (2002). Creative self-efficacy: Its potential antecedents and relationship to creative performance. *Academy of Management Journal, 45*(6), 1137–1148. doi:10.2307/3069429
Tierney, P., & Farmer, S. M. (2011). Creative self-efficacy development and creative performance over time. *Journal of Applied Psychology, 96*(2), 277–293. doi:10.1037/a0020952
Wang, C.-J., Tsai, H.-T., & Tsai, M.-T. (2014). Linking TL and employee creativity in the hospitality industry: The influences of creative role identity, creative self-efficacy, and job complexity. *Tourism Management, 40*, 79–89. doi:10.1016/j.tourman.2013.05.008
Wang, P., & Rode, J. C. (2010). TL and follower creativity: The moderating effects of identification with leader and organizational climate. *Human Relations, 63*(8), 1105–1128. doi:10.1177/0018726709354132
Wang, P., Rode, J. C., Shi, K., Luo, Z., & Chen, W. (2013). A workgroup climate perspective on the relationships among TL, workgroup diversity, and employee creativity. *Group & Organization Management, 38*(3), 334–360. doi:10.1177/1059601113488163
Zhou, Q., Hirst, G., & Shipton, H. (2012). Promoting creativity at work: The role of problem-solving demand. *Applied Psychology*, *61*(1), 56–80. doi:10.1111/apps.2012.61.issue-1