



# The Impact of Team Learning and Team Cohesion on the Performance of Small and Micro Enterprises: The Mediating Role of Team Performance

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Received 20/05/2025

Revised 31/05/2025

Accepted 03/07/2025

## Abstract

**Background and Aim:** Small and micro enterprises play a vital role in economic and social development, with enterprise performance directly influencing competitiveness and sustainable growth. This study investigates the structural relationships among four key variables: team learning, team cohesion, team performance, and enterprise performance.

**Materials and Methods:** This study used a Likert 5-point scale to collect a sample of 738 candidates, who are categorized as 305 managers and 433 team members in Guangdong. The original questionnaire was in Chinese. Data were collected via an online survey and analyzed using partial least squares structural equation modeling (PLS-SEM).

**Results:** The results reveal that 1) Team learning significantly impacts team performance ( $\beta=0.39$ ,  $p<0.001$ ). 2) Team cohesion significantly impacts team performance ( $\beta=0.442$ ,  $p<0.001$ ). 3) Team performance significantly enhances enterprise performance ( $\beta=0.579$ ,  $p<0.001$ ). 4) Team performance fully mediates relationships between team learning/cohesion and enterprise performance.

**Conclusion:** These findings highlight the central mediating role of team performance in SMEs and underscore the indirect value of fostering team learning and cohesion to improve overall organizational outcomes.

**Keywords:** Team Learning; Team Cohesion; Team Performance; Enterprise Performance; Small and Micro Enterprises

## Introduction

According to data released by China's Ministry of Industry and Information Technology, as of the end of 2022, the number of small and micro enterprises nationwide exceeded 52 million, accounting for 98.4% of all enterprises (People's Daily Overseas Edition, 2023). These enterprises contributed over 50% of tax revenue, 60% of gross domestic product (GDP), 70% of technological innovation achievements, and approximately 80% of urban employment opportunities (Xu, 2023). Thus, small and micro enterprises constitute a vital component of the national economy, playing an indispensable role in promoting employment, stimulating market vitality, and driving regional economic development. These organizational entities serve as fundamental pillars supporting macroeconomic stability while simultaneously facilitating socioeconomic advancement through their contributions to labor absorption, market diversification, and localized economic resilience. Looking at the global landscape, promoting the healthy and sustainable development of small and micro enterprises has become a widely shared consensus in the international community (Mukhoryanova et al., 2021; Pardo Martínez & Cotte Poveda, 2022; Sarangi, 2023).

However, in stark contrast to their significant economic contributions, small and micro enterprises face severe survival challenges, with statistics revealing that a large proportion of these enterprises fail within 3 to 5 years of establishment, exhibiting closure rates reaching 60% to 70% globally (Gamage et al., 2020; Yoo & Jung, 2024; Madzimure & Tau, 2021). In China, small and micro enterprises are a general term for small enterprises, micro enterprises, family workshops, and individual industrial and commercial households. According to the "Regulations on the Criteria for the Classification of Small and Medium-sized Enterprises" (Ministry of Industry and Information Technology of the People's Republic of China, 2012), small and micro enterprises are referred to the small and micro categories within small and medium-sized enterprises, and their classification mainly based on indicators such as the number of employees, operating income, and total assets, combined with the characteristics of the industry. For example, in the industrial sector, enterprises with 20 or more employees and operating income of 3 million yuan or more are classified as small enterprises; those with fewer than 20 employees or operating income of less than 3 million yuan

are classified as micro enterprises (Ministry of Industry and Information Technology of the People's Republic of China, 2012). According to Chinese classification systems, small and micro enterprises fall within the broader category of small and medium-sized enterprises (SMEs). Therefore, in this study, the term "SMEs" is used specifically to refer to small and micro enterprises. Due to limitations in resources and management capabilities, small and micro enterprises often lack systematic strategic management and effective performance evaluation mechanisms, making it difficult to formulate clear development paths and measure organizational outcomes. Additionally, talent shortages and insufficient team collaboration are significant obstacles to business development, restricting innovation capacity and market competitiveness (Mardikaningsih et al., 2022).

This research focuses on improving the organizational effectiveness and performance of SMEs, particularly through enhancing team learning and team cohesion. By exploring how these two factors contribute to team performance and enterprise performance, the study aims to provide SMEs with actionable management strategies for overcoming the challenges posed by limited resources. Specifically, this study aims to investigate the structural relationships among team learning, team cohesion, team performance, and enterprise performance, with a specific focus on the mediating role of team performance. By investigating how these factors impact team and enterprise performance, this research provides practical pathways for SMEs to optimize management practices, improve operational efficiency, and foster innovation. Ultimately, the research aims to help these enterprises build stronger, more resilient teams, supporting their long-term success and contributing to the achievement of Sustainable Development Goal (SDG), which promotes decent work and economic growth.

## Objectives

1. To examine the positive effects of team learning and team cohesion on the team and enterprise performance of small and micro enterprises.
2. To investigate how team performance mediates the relationship between team learning and enterprise performance.
3. To explore how team performance mediates the relationship between team cohesion and enterprise performance.

## Literature review

### 1. Team Learning

Team learning is the process through which team members integrate individual knowledge into collective understanding via knowledge sharing, reflection, and interaction, encompassing behaviors like information exchange and knowledge integration that enhance a team's ability to address complex tasks and adapt to changes (Edmondson, 1999; Decuyper et al., 2010; Van den Bossche et al., 2006; Argote et al., 1995).

### 2. Team Cohesion

Team cohesion is the psychological bonding force that motivates members to remain in a team and commit to achieving shared goals, comprising both interpersonal attraction and task commitment dimensions that serve as a critical psychological foundation for team performance (Festinger, 1950; Carron, 1982).

### 3. Team Performance

Team performance refers to a team's capacity to achieve its goals and objectives, serving as both a means and standard for evaluating and managing team behavior (van der Hoek et al., 2016). It requires team members to align their actions and available resources in pursuit of collective goals (Salas, Reyes, & Woods, 2017). Research has shown that certain team values, particularly benevolence and achievement values, significantly contribute to team performance outcomes (Peterson, Park, & Sweeney, 2020).

### 4. Enterprise Performance

Enterprise performance is directly linked to the realization of organizational goals through effective team performance (O'Neill & Salas, 2017). The overall performance of an organization is significantly impacted by the quality of teamwork within it (Ingram, 1996; Delarue et al., 2008), suggesting that enterprise performance can be enhanced through fostering effective team dynamics and alignment with organizational objectives.

#### 5. Hypothesis Research

The hypotheses proposed in this study are grounded in established organizational theories, including Social Exchange Theory (Homans, 1958); Team Learning Theory (Edmondson, 1999); Team Cohesion Theory (Festinger, 1950); Resource-Based View (Sessa & London, 2008); Transformational Leadership Theory (Bass, 1985; Lord & Brown, 2001); Social Identity Theory (Tajfel & Turner, 1979) and Organizational Learning Theory (Hedlund, 2010; Decuyper et al., 2010).

Team learning, as a collaborative process, enables members to acquire new knowledge, improve skills, and adapt to changing environments (Edmondson, 1999). When team members engage in collective learning, it leads to enhanced problem-solving abilities and more efficient task execution, thereby improving overall team performance. Thus, H1 proposes that team learning has a positive effect on team performance in SMEs.

According to social exchange theory, when team members share a strong sense of unity and common goals, it leads to improved collaboration and communication (Liu et al., 2010). High team cohesion fosters trust, reduces conflict, and enhances mutual support, which directly contributes to higher team performance (Evans & Dion, 1991). Thus, H2 suggests that team cohesion positively influences team performance in SMEs, is proposed.

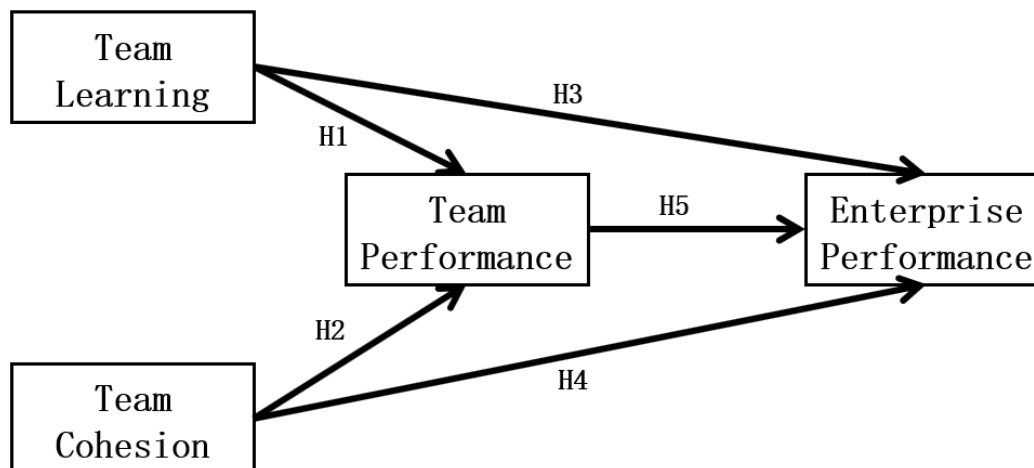
As teams within SMEs become more adept through learning, their ability to innovate, adapt, and improve processes enhances the enterprise's overall performance (Decuyper et al., 2010). Learning teams are better positioned to navigate market uncertainties and implement effective strategies that drive organizational success. Thus, H3 hypothesizes that team learning positively affects enterprise performance, is proposed.

When teams are cohesive, they work more effectively towards shared organizational goals, increasing their ability to execute strategies that contribute to improved business outcomes (Bi, 2013). Team cohesion strengthens the alignment between individual efforts and organizational objectives, thus enhancing the enterprise's performance. Thus, H4 builds on this by proposing that team cohesion positively affects enterprise performance, is proposed.

As team performance improves, SMEs are more capable of achieving their goals, which leads to greater organizational success (Sessa & London, 2008). The collective output of high-performing teams significantly impacts the efficiency, productivity, and profitability of the organization. Thus, H5 states that team performance has a positive effect on enterprise performance, which is proposed.

The mediation hypotheses (H6 and H7) explore the indirect effects of team learning and cohesion on enterprise performance through team performance. H6 proposes that team performance mediates the relationship between team learning and enterprise performance. As teams learn, their performance improves, which in turn leads to better organizational outcomes (Hedlund, 2010). Similarly, H7 suggests that team performance mediates the positive effect of team cohesion on enterprise performance. High team cohesion results in better team performance, which ultimately boosts enterprise performance (Zaccaro et al., 2001).

## Conceptual Framework



**Figure 1** Conceptual Framework

The direct hypotheses H1 to H5 are based on established literature and widely accepted organizational theories regarding team dynamics and performance.

H1: Team learning has a positive effect on the team performance of small and micro enterprises.

H2: Team cohesion has a positive effect on the team performance of small and micro enterprises.

H3: Team learning has a positive effect on the enterprise performance of small and micro enterprises.

H4: Team cohesion has a positive effect on the enterprise performance of small and micro enterprises.

H5: Team performance has a positive effect on enterprise performance of small and micro enterprises.

The mediation hypotheses H6 and H7 are logical extensions of the direct hypotheses, relying on the notion that team performance mediates the relationship between team learning/cohesion and enterprise performance.

H6: Team performance mediates the positive effect of team learning on enterprise performance of small and micro enterprises.

H7: Team performance mediates the positive effect of team cohesion on enterprise performance of small and micro enterprises.

## Methodology

### 1. Population and Samples

The population consists of all SMEs in Guangdong Province, China, due to its status as the largest economic province, hosting over 6.8 million SMEs by 2023 (Xi & Liu, 2023). Guangdong's diverse economic system, including manufacturing, services, and high-tech industries, provides a varied sample pool (Gong et al., 2022). Additionally, its high degree of marketization and abundant enterprise resources enhance data representativeness and reliability. These factors ensure both data accessibility and the external validity of the research findings, making Guangdong an ideal region for this study.

The sample is selected using a convenience sampling method due to the large number and wide distribution of SMEs in Guangdong. Based on the Yamane formula, with an estimated 30 million employees in SMEs, the target sample size is 400 valid employee questionnaires (Yamane, 1967). To address potential issues with convenience sampling, this study took several steps: First, we ensured sample diversity by selecting small and micro enterprises from different regions, industries, and sizes to improve representativeness. Additionally, we used other sampling methods, such as randomizing some of the

convenience samples. Finally, we acknowledged the limitations of convenience sampling and analyzed possible biases. The study targeted 400 valid questionnaires, based on an estimated 30 million employees in Guangdong SMEs (Southern Metropolis Daily, 2023), and eventually collected 738 valid responses after reaching out to 80-90 enterprises.

## 2. Questionnaire Design

The questionnaire was developed by adapting and integrating validated scales from established literature to ensure reliability and validity. All scales were carefully selected based on their proven psychometric properties and relevance to the SME context. Given that the variables in this study pertain to both employees and managers, the questionnaire is designed in two versions: the employee questionnaire measures “team learning” and “team cohesion,” while the manager questionnaire assesses “team performance” and “enterprise performance.” This dual-source approach was adopted to minimize common method bias and ensure that performance evaluations come from managerial perspectives while team dynamics are assessed by team members themselves. The questionnaire employs a self-administered Likert 5-point scale format, where 1 = “completely disagree,” 2 = “somewhat disagree,” 3 = “neutral,” 4 = “somewhat agree,” and 5 = “completely agree.” The 5-point scale was used as research indicates this allows for the greatest reliability while still allowing for expression of moderate opinions, eliminating the 3-point scale limitation and the burden placed on the respondents by a 7-point scale which can decrease confidence in making differentiation among items (Jian-Peng et al., 2019). The questionnaire is a self-administered Likert 5-point scale based on the following source:

**Table 1** Scale Design

Variable	Dimension	No. of Items	Source	Version
Team Learning	Thinking about Work, Reflecting on Work	9	Edmondson (1999), Schippers et al. (2007)	Employee
Team Cohesion	Affective Consistency, Goal Consistency, Behavioral Consistency	12	Henry et al. (1999), Carron et al. (1985), Chang and Bordia (2001)	Employee
Team Performance	Task Performance	4	Zellmer-Bruhn and Gibson (2006)	Manager
Enterprise Performance	Single Dimension	4	Matear et al. (1998), Walton (1985)	Manager

## 3. Data Collection and Analysis

The survey for this study was distributed and collected via the Wenjuanxing platform(<https://www.wjx.cn/>) from July to August 2024. The questionnaire was conducted in Chinese, and later, when writing the article, the researchers translated key information into English.

Data analysis was conducted using SPSS 23 and AMOS 23 to verify the hypotheses. Key statistical methods included descriptive statistics, reliability analysis, validity analysis, correlation analysis, regression analysis, and structural equation modeling.

Cronbach’s  $\alpha$  was used to assess the reliability of the scales, with a threshold of  $\alpha > 0.7$  considered acceptable (Cortina, 1993). Validity was evaluated using KMO and Bartlett’s test, with a KMO value above 0.8 deemed appropriate for analysis (Kaiser, 1974). All adapted scales demonstrated acceptable reliability in previous studies, with Cronbach’s alpha coefficients exceeding 0.70. Scales with lower reliability or validity were either discarded or revised. The scales were slightly modified to ensure appropriateness for the Chinese SMEs context while maintaining their psychometric integrity.

## 4. Ethical Considerations

Ethical approval for this study was obtained from Ethics Committee in Human Research at the National Institute of Development Administration (NIDA) prior to data collection. (Protocol ID No. ECNIDA 2024/0190)



## Results

### 1. Demographic Characteristics

**Table 2** Respondent Demographics

The age and size of the enterprise				
Variables	Min	Max	Mean	SD
Age of enterprise	0.5	5	1.88	1.163
Size of enterprise	10	80	30.17	19.115
Type of enterprise business				
Variable	Categories	Frequ ency	Percent (%)	Cumulative Percent (%)
Type of enterprise business	Agriculture or primary industry (The first industry)	7	8.0	8.0
	Manufacturing, construction, mining, etc. (The second industry)	7	8.0	16.0
	Services (The third industry)	41	47.1	63.1
	Knowledge-based or information industries (The fourth industry)	32	36.9	100.0

Table 2 presents the respondent demographics, detailing enterprise age (ranging from 0.5 to 5 years, mean 1.88, SD 1.163) and size (ranging from 10 to 80 employees, mean 30.17, SD 19.115). The business types surveyed included 8% in the primary industry, 8% in the secondary industry, 47.1% in services (tertiary), and 36.9% in knowledge-based or information industries (quaternary).

### 2. Measurement Model Analysis

The measurement model evaluation, aiming to ensure scale data effectiveness and reliability (Chin, 1998; Hair et al., 2019), assesses reliability using Cronbach's  $\alpha$  (CA) and Composite Reliability (CR) for internal consistency, and indicator reliability for individual items. Multicollinearity is checked with the Variance Inflation Factor (VIF). Validity is comprehensively analyzed using Average Variance Extracted (AVE), the Fornell-Larcker criterion, and the Heterotrait-Monotrait Ratio (HTMT).

**Table 3** Construct Reliability, Validity and Factor Loadings

HOC	LOC	Items	Loadings	CA	CR	AVE
Team Learning	Thinking about work	C1	0.855	0.876	0.878	0.669
		C2	0.840			
		C3	0.818			
		C4	0.781			
		C5	0.793			
	Reflecting on work	C6	0.873	0.873	0.873	0.725
		C7	0.828			
		C8	0.846			
		C9	0.857			
Team Cohesion	Affective consistency	D1	0.855	0.852	0.853	0.693
		D2	0.830			
		D3	0.829			
		D4	0.816			



HOC	LOC	Items	Loadings	CA	CR	AVE
	Goal consistency	D5	0.802	0.826	0.826	0.658
		D6	0.805			
		D7	0.827			
		D8	0.810			
	Behavioral consistency	D9	0.899	0.902	0.902	0.773
		D10	0.894			
		D11	0.857			
		D12	0.866			
	Team Performance	E1	0.840	0.869	0.870	0.717
		E2	0.855			
		E3	0.848			
		E4	0.846			
	Enterprise Performance	F1	0.866	0.869	0.870	0.717
		F2	0.853			
		F3	0.825			
		F4	0.819			

According to the results in Table 3, all measurement items in this study exhibit standardized factor loadings exceeding 0.7, meeting the minimum threshold recommended by Vinzi et al. (2010). This indicates that each item effectively reflects its corresponding latent variable, and thus all items are retained. The Cronbach's  $\alpha$  coefficients and CR values for all variable dimensions exceed 0.7 (Chin, 1998; Cronbach, 1951), demonstrating strong internal consistency reliability of the scales. Furthermore, all AVE values surpass 0.5, aligning with the criteria proposed by Fornell and Larcker (1981), further confirming the model's robust convergent validity.

*Note:* AC=Affective consistency, BC=Behavioral consistency, EP=Enterprise Performance, GC=Goal consistency, RW=Reflecting on work, TP=Team Performance, TW=Thinking about work

**Table 4** Fornell-Larcker criterion

Variables	AC	BC	EP	GC	RW	TP	TW
AC	<b>0.832</b>						
BC	0.549	<b>0.879</b>					
EP	0.378	0.372	<b>0.841</b>				
GC	0.551	0.593	0.402	<b>0.811</b>			
RW	0.363	0.356	0.359	0.330	<b>0.851</b>		
TP	0.525	0.543	0.648	0.511	0.517	<b>0.847</b>	
TW	0.361	0.345	0.382	0.362	0.577	0.547	<b>0.818</b>

According to Table 4, the bolded diagonal values represent the square root of the Average Variance Extracted (AVE) for each latent variable, while the values at the intersections of two variables indicate the

correlation coefficients between them. The square root of the AVE for each latent variable exceeds its correlation coefficients with other latent variables, indicating that each latent variable effectively represents its unique construct without being confounded with others (Fornell & Larcker, 1981). This confirms the discriminant validity of the measurement model.

*Note:* AC=Affective consistency, BC=Behavioral consistency, EP=Enterprise Performance, GC=Goal consistency, RW=Reflecting on work, TP=Team Performance, TW=Thinking about work

**Table 5** HTMT Ratio of the Latent Variables

Variables	AC	BC	EP	GC	RW	TP	TW
AC							
BC	0.626						
EP	0.442	0.423					
GC	0.656	0.687	0.477				
RW	0.421	0.401	0.414	0.389			
TP	0.610	0.613	0.746	0.602	0.593		
TW	0.419	0.389	0.439	0.425	0.658	0.626	

According to Table 5, all Heterotrait-Monotrait Ratio (HTMT) values between latent variables are below 0.85, meeting the discriminant validity criterion proposed by Henseler et al. (2015). This indicates that the research model exhibits strong discriminant validity.

### 3. Structural Model Analysis

Bootstrapping with 5,000 iterations and a two-tailed t-test in SmartPLS 4.0 revealed significant positive effects of team learning ( $\beta = 0.39$ ,  $p < 0.001$ ) and team cohesion ( $\beta = 0.442$ ,  $p < 0.001$ ) on team performance (Table 6). Conversely, neither team learning ( $\beta = 0.032$ ,  $p = 0.467$ ) nor team cohesion ( $\beta = 0.079$ ,  $p = 0.083$ ) directly impacted enterprise performance significantly. However, team performance significantly and positively influenced enterprise performance ( $\beta = 0.579$ ,  $p < 0.001$ ). Mediation analysis (Table 5) showed that team performance fully mediated the relationships between both team learning ( $\beta = 0.226$ ,  $p < 0.001$ ) and team cohesion ( $\beta = 0.256$ ,  $p < 0.001$ ) with enterprise performance (Hair et al., 2021). Furthermore, Variance Inflation Factor (VIF) values (1.29-2.043) were within acceptable limits (Hair et al., 2011), and the highest VIF (2.043) was below the CMB threshold of 3.3 (Kock & Lynn, 2012), indicating no significant multicollinearity or common method bias.

*Note:* TL= Team Learning, TC= Team Cohesion, TP= Team Performance, EP=Enterprise Performance



**Table 6** The Estimation Results of the Structural Model

Hypothesis	Path	Estimate	Standard deviation	T-values	P-values	VIF	Result
H1	TL→ TP	0.39	0.042	9.366	0	1.29	Support
H2	TC→ TP	0.442	0.05	8.908	0	1.29	Support
H3	TL→ EP	0.032	0.044	0.727	0.467	1.601	Reject
H4	TC→ EP	0.079	0.046	1.735	0.083	1.689	Reject
H5	TP → EP	0.579	0.057	10.205	0	2.043	Support
H6	TL→TP→EP	0.226	0.035	6.496	0	\	Full
H7	TC→TP → EP	0.256	0.04	6.324	0	\	Full

In PLS-SEM, the coefficient of determination ( $R^2$ ) is used to evaluate the model's explanatory power for endogenous latent variables (Ringle, 2005). In this study, the  $R^2$  for team performance is 0.511, and for enterprise performance, it is 0.425. According to Hair et al. (2019), these values indicate moderate explanatory power, suggesting that the model effectively explains these two endogenous variables. However, some variance remains unexplained, possibly due to other unconsidered influencing factors.

The effect size ( $f^2$ ) is used to further assess the strength of exogenous variables' impact on endogenous variables. The results show that team learning has a notable effect on team performance ( $f^2 = 0.241$ ), while team cohesion has an even stronger effect ( $f^2 = 0.309$ ). Team performance also exhibits a moderate effect on enterprise performance ( $f^2 = 0.285$ ). These findings support the critical mediating role of team performance in the model.

Additionally, the predictive relevance indicator ( $Q^2$ ) is used to measure the model's predictive capability, with  $Q^2 > 0$  indicating predictive power (Chin, 2010). In this study, the  $Q^2$  for team performance is 0.505, indicating strong predictive capability, while the  $Q^2$  for enterprise performance is 0.252, demonstrating above-moderate predictive ability. These results further validate the robustness and practical value of the model.

## Discussion

The findings of this study indicate that both team learning and team cohesion have significant positive effects on team performance, confirming that these two factors are also critical for enhancing team performance in the context of SMEs. Previous studies stated that in an increasingly dynamic market environment, team members improve performance by actively reflecting on their work, exploring new methods and technologies, and effectively responding to everyday challenges (Pinar et al., 2014). Thus, this continuous process of optimizing workflows and improving the quality of products and services enhances team innovativeness, thereby significantly boosting team performance. The ongoing drive for innovation and mechanisms for continuous improvement also provide SMEs with greater flexibility and overall operational efficiency, enabling them to better respond to external changes. Nevertheless, although team learning is crucial for skill development and knowledge acquisition, its effect on performance can be constrained by the team's capacity to convert this learning into operational strategies.

Meanwhile, team cohesion contributes to achieving team goals by strengthening trust, communication, and collaboration among team members. In highly cohesive teams, mutual trust among

members reduces internal friction and conflict, resulting in smoother collaboration (Shang & Ku, 2018). Such a positive atmosphere of trust not only increases members' willingness to support one another but also improves their responsiveness and mutual support when facing challenges, thus effectively enhancing task performance. In this regard, team cohesion can be seen as a fundamental driver of team performance, ensuring alignment and commitment among team members towards shared goals, which is particularly important in smaller organizations.

The results further demonstrate that team performance has a significant positive impact on enterprise performance, confirming that high-performing teams within SMEs can effectively drive overall organizational success. Since enterprise performance is composed of the performance of individual teams, high-performing teams contribute to the achievement of corporate goals, enhance market competitiveness, and comprehensively improve both financial and non-financial outcomes (Pak & Kim, 2018). In addition, this result aligns with previous research, highlighting the importance of team performance in driving broader organizational success, particularly in micro and small enterprises where team output is often directly linked to the company's overall performance.

However, this study also finds that team learning and team cohesion do not have significant direct effects on enterprise performance, which contrasts with findings from previous research focused on large organizations (Argote & Argote, 2013; Grossman & Feitosa, 2021). This suggests that, in the SME context, team learning and cohesion may be less likely to directly improve enterprise performance, potentially due to the influence of other factors not included in the current model. For instance, the unique challenges of SMEs environments, such as resource constraints and the need for rapid decision-making, may require a stronger focus on operational efficiency and external market factors. Instead, team performance serves as a key mediating variable in this relationship, underscoring its bridging role between team-level factors and organizational outcomes. In other words, although team learning and cohesion do not directly enhance enterprise performance, they can indirectly contribute to it by improving team performance. This suggests that while fostering a collaborative, learning-oriented team culture is vital, the application of these qualities toward tangible team output is the primary route through which they impact enterprise-level success.

## Conclusion

This study focuses on SMEs and investigates the relationships among team learning, team cohesion, and organizational performance, with team performance serving as a mediating variable. By addressing a gap in the existing literature, the study clarifies the complex interconnections among team learning, team cohesion, team performance, and organizational performance, providing theoretical support for enhancing team learning and cohesion as a means to improve overall performance in SMEs. By introducing team performance as a mediating variable, this research reveals how team learning and team cohesion indirectly influence organizational performance by improving team collaboration and effectiveness. Team learning enhances adaptability and problem-solving capabilities by promoting knowledge sharing and innovative behaviors, thereby improving team performance (Cherkos et al., 2018). Similarly, team cohesion significantly improves team performance by fostering a sense of belonging and a willingness to cooperate among team members.

## Recommendation

1. Recommendation for promoting team learning include: setting challenging goals to stimulate members' motivation to learn; Create a supportive learning atmosphere and encourage experience sharing and collective reflection; Pay attention to the emotional connection among members and build mutual trust; Encourage trial and error and innovation, and embrace a culture of failure; Provide timely feedback and guidance to optimize the learning direction (Shin et al., 2017).

2. Recommendation for enhancing team cohesion include: clarifying the common vision of the team, enhancing goal consistency and emotional identification; Establish a smooth communication mechanism to enhance trust and a sense of belonging; Respond to the individual needs of employees and convey



organizational care; Advocate a collaborative culture and organize team-building and exchange activities; Give timely praise and encouragement to enhance team morale; Provide growth and promotion channels to enhance organizational loyalty (Urme, 2023).

If SMEs can effectively implement the above strategies, it will help stimulate the learning potential of the team, enhance team cohesion, thereby significantly improving team performance. And through the mediating role of team performance, it will ultimately promote the overall leap of enterprise performance, making positive contributions to organizational development and social and economic progress.

### Limitations and Future Research

The study's sample is primarily drawn from SMEs in Guangdong Province, China. While this region has a large number of SMEs, it may not fully capture the diversity of enterprises in other regions or countries. Future research could address these limitations by broadening the sample to include diverse industries, regions, and countries, thereby enhancing the generalizability and external validity of the findings.

### References

- Argote, L., & Argote, L. (2013). *Organizational learning: Creating, retaining and transferring knowledge*. Springer.
- Argote, L., Gruenfeld, D. H., & Naquin, C. (1995). Group learning in organizations. *Organizational Behavior and Human Decision Processes*, 69(3), 366–382.
- Bass, B. M. (1985). *Leadership and performance beyond expectations*. Free Press.
- Bi, J. (2013). *Team cohesion and effectiveness: Insights from Chinese manufacturing*. Journal of Organizational Psychology.
- Carron, A. V. (1982). *Cohesiveness in sport groups: Interpretations and considerations*. Journal of Sport Psychology, 4(2), 123–138.
- Carron, A. V., Widmeyer, W. N., & Brawley, L. R. (1985). The development of an instrument to assess cohesion in sport teams: The Group Environment Questionnaire. *Journal of Sport Psychology*, 7(3), 244–266.
- Chang, A., & Bordia, P. (2001). A multidimensional approach to the group cohesion–group performance relationship. *Small Group Research*, 32(4), 379–405.
- Cherkos, W., Zegeye, B., & Tilahun, S. (2018). The effect of teamwork on employee performance in some selected private banks in Ethiopia. *International Journal of Business and Management Invention*, 7(5), 17–26.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling. In G. A. Marcoulides (Ed.), *Modern methods for business research* (pp. 295–336). Lawrence Erlbaum Associates.
- Chin, W. W. (2010). How to write up and report PLS analyses. In V. Esposito Vinzi et al. (Eds.), *Handbook of partial least squares* (pp. 655–690). Springer.
- Cortina, J. M. (1993). What is coefficient alpha? An examination of theory and applications. *Journal of Applied Psychology*, 78(1), 98–104.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297–334.
- Decuyper, S., Dochy, F., & Van den Bossche, P. (2010). Grasping the dynamic complexity of team learning: An integrative model for effective team learning in organisations. *Educational Research Review*, 5(2), 111–133.
- Delarue, A., Van Hootegeem, G., Procter, S., & Burrridge, M. (2008). Teamworking and organizational performance: A review of survey-based research. *International Journal of Management Reviews*, 10(2), 127–148.



- Edmondson, A. C. (1999). Psychological safety and learning behavior in work teams. *Administrative Science Quarterly*, 44(2), 350–383.
- Evans, C. R., & Dion, K. L. (1991). Group cohesion and performance: A meta-analysis. *Small Group Research*, 22(2), 175–186.
- Festinger, L. (1950). Informal social communication. *Psychological Review*, 57(5), 271–282.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39–50.
- Gamage, S., Lock, K. L., & Fernando, A. A. J. (2020). Teamwork in healthcare: Key discoveries enabling safer, high-quality care. *BMC Health Services Research*, 20, 158.
- Gong, Y., Cheung, S. Y., Wang, M., & Huang, J. C. (2022). Unfolding team temporal leadership and team learning. *Academy of Management Journal*, 65(2), 547–574.
- Grossman, R., & Feitosa, J. (2021). Team trust over time: Modeling the change trajectory of trust. *Journal of Applied Psychology*, 106(1), 82–94.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2019). *A primer on partial least squares structural equation modeling (PLS-SEM)* (2nd ed.). Sage.
- Hair, J. F., Hult, G. T. M., Ringle, C. M., & Sarstedt, M. (2021). *A primer on partial least squares structural equation modeling (PLS-SEM)* (3rd ed.). Sage.
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2011). PLS-SEM: Indeed a silver bullet. *Journal of Marketing Theory and Practice*, 19(2), 139–152.
- Hedlund, J. (2010). Knowledge management and organizational learning: An international development perspective. In B. B. Frey & D. L. Huffman (Eds.), *Understanding and facilitating adult learning* (pp. 219–233). Springer.
- Henry, K. L., Lovegrove, P. J., Steger, M. F., Chen, W., & Lac, A. (1999). Peer group structure and adolescent behavior: A social network analysis. *Developmental Psychology*, 45(6), 1701–1712.
- 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, 115–135.
- Hoek, R. van den, Groeneveld, S., & Kuipers, B. S. (2016). Goal setting in teams: Goal clarity and team performance in the public sector. *Review of Public Personnel Administration*, 38(4), 472–493.
- Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology*, 63(6), 597–606.
- Ingram, P. (1996). Organizational form as a solution to the problem of credible commitment: The evolution of naming strategies among US hotel chains, 1896–1980. *Strategic Management Journal*, 17(Special Issue), 85–98.
- Jian-Peng, D., et al. (2019). Research progress of quantum memory. *Acta Physica Sinica*.
- Kaiser, H. F. (1974). An index of factorial simplicity. *Psychometrika*, 39(1), 31–36.
- Kock, N., & Lynn, G. S. (2012). Lateral collinearity and misleading results in variance-based SEM: An illustration and recommendations. *Journal of the Association for Information Systems*, 13(7), 546–580.
- Liu, W., Wang, Z., & Zhan, X. (2010). Coping with leadership transition stress: The role of the follower's psychological capital and proactive behavior. *Journal of Applied Psychology*, 95(3), 582–591.
- Lord, R. G., & Brown, D. J. (2001). Leadership, values, and subordinate self-concepts. *The Leadership Quarterly*, 12(2), 133–152.
- Madzimure, J., & Tau, O. (2021). The effect of virtual teamwork on employee performance. *African Journal of Business Management*, 15(4), 93–102.
- Mardikaningsih, E. W., Wibowo, S. A., & Lestari, A. W. (2022). The influence of organizational culture and job satisfaction on employee performance. *International Journal of Multicultural and Multireligious Understanding*, 9(2), 115–125.



- Matear, S., Gray, B. J., & Garrett, T. C. (1998). Market orientation, brand investment, new service development, market position and performance for service organizations. *International Journal of Service Industry Management*, 9(4), 468–487.
- Ministry of Industry and Information Technology of the People's Republic of China. (2012). *Information on innovation and industrial strategies*. Beijing, China.
- Mukhoryanova, L., Kunitsin, V., & Tolkachev, A. (2021). A study on technology transfer efficiency and innovation processes in business. *Journal of Open Innovation: Technology, Market, and Complexity*, 7(2), 1–19.
- O'Neill, T. A., & Salas, E. (2017). Creating high-performance teamwork in organizations. *Human Resource Management Review*, 27(4), 557–570.
- Pak, J., & Kim, S. (2018). Team learning climate and performance: A multilevel mediation model. *Journal of Leadership & Organizational Studies*, 25(1), 55–71.
- Pardo Martínez, C. I., & Cotte Poveda, A. (2022). Innovation and sustainable development in SMEs: A multidimensional approach. *Sustainability*, 14(4), 2332.
- People's Daily Overseas Edition. (2023, January 8). China's industrial resilience in the new era. *People.cn*. <https://www.people.cn>
- Peterson, C., Park, N., & Sweeney, P. J. (2020). Group-level strengths-based leadership and performance in high-stakes teams. *Journal of Positive Psychology*, 15(3), 1–14.
- Pinar, M., Trapp, P., Girard, T., & Boyt, T. (2014). University brand equity: An empirical investigation of its dimensions and outcomes. *Journal of Marketing for Higher Education*, 24(1), 1–22.
- Ringle, C. M. (2005). *SmartPLS 2.0 (M3) Beta*. Hamburg: University of Hamburg.
- Salas, E., Reyes, D. L., & Woods, A. L. (2017). The science of teamwork: Progress, reflections, and the road ahead. *American Psychologist*, 73(4), 593–600.
- Sarangi, S. (2023). Measuring teamwork effectiveness: Contemporary practices and outcomes. *Journal of Organizational Behavior Research*, 8(1), 59–71.
- Schippers, M. C., Den Hartog, D. N., & Koopman, P. L. (2007). Reflexivity in teams: A measure and correlates. *Applied Psychology*, 56(2), 189–211.
- Sessa, V. I., & London, M. (2008). *Work group learning: Understanding, improving and assessing how groups learn in organizations*. Psychology Press.
- Shang, S., & Ku, C. (2018). Team diversity, cognitive conflict and performance. *Asia Pacific Journal of Management*, 35(3), 757–781.
- Shin, S. J., Kim, T. Y., Lee, J. Y., & Bian, L. (2017). Cognitive team diversity and individual creativity. *Academy of Management Journal*, 60(3), 857–879.
- Southern Metropolis Daily. (2023, March 15). Innovation-led growth in Guangdong Province. *Southcn.com*.
- Tajfel, H., & Turner, J. C. (1979). An integrative theory of intergroup conflict. In W. G. Austin & S. Worchel (Eds.), *The social psychology of intergroup relations* (pp. 33–47). Brooks/Cole.
- Urme, S. M. (2023). Organizational learning and adaptive capability in teams. *Journal of Innovation and Knowledge*, 8(1), 18–29.
- Van den Bossche, P., Gijselaers, W. H., Segers, M., & Kirschner, P. A. (2006). Social and cognitive factors driving teamwork in collaborative learning environments. *Small Group Research*, 37(5), 490–521.
- Vinzi, V. E., Chin, W. W., Henseler, J., & Wang, H. (Eds.). (2010). *Handbook of partial least squares: Concepts, methods and applications*. Springer.
- Walton, R. E. (1985). From control to commitment in the workplace. *Harvard Business Review*, 63(2), 76–84.
- Xi, Y., & Liu, S. (2023). Psychological safety and innovation in virtual teams. *International Journal of Organizational Analysis*, 31(2), 420–437.
- Xu, X. (2023). Digital leadership and team creativity. *Frontiers in Psychology*, 14, Article 1022441.



- Yamane, T. (1967). *Statistics: An introductory analysis* (2nd ed.). Harper and Row.
- Yoo, Y., & Jung, H. (2024). Exploring team adaptability in high-tech projects. *Journal of Project Management*, 42(1), 77–93.
- Zaccaro, S. J., Rittman, A. L., & Marks, M. A. (2001). Team leadership. *The Leadership Quarterly*, 12(4), 451–483.
- Zellmer-Bruhn, M. E., & Gibson, C. B. (2006). Multinational organization context. *Journal of International Business Studies*, 37(4), 557–571.

