

The Relationship Between Servant leadership and Teamwork Competence Among Student Clubs at Hunan University of Foreign Trade and Economics

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Abstract: This study aims to investigate the current levels of servant leadership and teamwork competence among student clubs at Hunan University of Foreign Trade and Economics, analyzing differences and correlations between these two dimensions across various demographic background variables. Using a questionnaire survey as the primary method, the study administered the Student Club Servant leadership and Teamwork competence Scale to 350 students. Quantitative methods including descriptive statistics, independent samples t-tests, one-way ANOVA, and Pearson correlation analysis were employed to systematically examine the current status, differences, and correlations between these abilities. Results indicate that servant leadership and teamwork competence among Hunan University of Foreign Trade and Economics students are generally at a high level. Significant differences exist across genders, grade levels, disciplines, and club types in certain dimensions. Discipline and club type exert a more pronounced influence on variations in servant leadership, while differences in teamwork competence primarily manifest in discipline and club type. A significant positive correlation exists between servant leadership and teamwork competence. Based on these findings, the following recommendations are proposed: Develop tiered and categorized servant leadership cultivation programs tailored to students from different disciplines and club types; enhance incentive and practical mechanisms for teamwork competence; and promote the synergistic development of servant leadership and teamwork competence.

Keywords: Hunan University of Foreign Trade and Economics, Servant Leadership, Teamwork competence

1. Introduction

International research suggests that servant leadership is increasingly important in promoting effective team collaboration within university student organizations. This leadership approach emphasizes serving others, fostering mutual growth, and prioritizing members' development, which helps build trust, enhance psychological safety, and create a supportive team climate. Within student organizations, these qualities are particularly important for encouraging active participation, open communication, and shared responsibility. Empirical evidence further shows that servant leadership can significantly improve team performance, strengthen cooperative awareness, and stimulate innovation among university students, making it a valuable framework for

leadership development in higher education contexts (Eva et al., 2019).

In recent years, with the advancement of China's "Three-Dimensional Education" and "Second Classroom" systems, servant leadership has gained growing attention in university student club research. Centered on serving members and promoting shared development, this leadership approach aligns with the goal of fostering well-rounded talent. Studies show that servant leadership enhances team cohesion, communication, and trust, thereby improving collaboration within student organizations (Zhou, 2021). As student clubs expand in scale, leadership becomes increasingly critical, and adopting service-oriented leadership helps strengthen cooperation and organizational identification (Liu,

grades.

H2-3: There is a significant difference in teamwork competence of student clubs across subjects.

H2-4: There is a significant difference in teamwork competence of student clubs across club types.

H3: There is a significant positive correlation between servant leadership and teamwork competence of student clubs at Hunan University of Foreign Trade and Economics.

Literature Review

Leadership Theory

Contemporary leadership theory has shifted from traditional trait- and behavior-based models toward more dynamic, complex, and ethically grounded perspectives. Scholars emphasize that leadership is not only an individual attribute but also a product of interactions within organizational and social contexts (Dinh et al., 2020). Emerging frameworks such as distributed leadership, complexity leadership, and inclusive leadership highlight the importance of relationships, adaptability, and shared influence. Recent studies further show that leadership plays a key role in fostering innovation, trust, and organizational commitment by creating environments that support collaboration and learning (Uhl-Bien & Arena, 2021; Brown & Treviño, 2020). At the same time, digitalization has introduced new forms of leadership, requiring leaders to build trust and engagement in virtual settings. Leadership research increasingly integrates multi-level and cross-disciplinary perspectives, with servant leadership, inclusivity, and digital leadership becoming central themes in understanding leadership effectiveness in complex environments.

Social Exchange Theory

Since its introduction by Blau (1964), Social Exchange Theory (SET) has become a key framework for explaining interpersonal and organizational relationships. It posits that social interactions are based on reciprocity and cost-benefit evaluations, shaping trust, commitment, and cooperation (Khalid et al., 2025). In university student clubs, SET helps explain how servant

leadership influences teamwork: when leaders demonstrate care, fairness, and support, members are more likely to respond with trust, engagement, and collaborative behaviors. This reciprocal process strengthens psychological safety, value alignment, and sustained cooperation within teams. Recent studies further show that social exchange mechanisms enhance knowledge sharing, participation, and innovation in team settings (Ghavipankeh & Roomiany, 2025). Servant leadership, through its focus on empowering and supporting others, builds strong relational trust, which in turn promotes mutual support and shared responsibility among members (Kipara, 2025; Lankanath, 2025). Additionally, in digital and hybrid environments, evolving forms of interaction introduce new dynamics of trust and feedback, influencing team cohesion and collaboration (Hussain et al., 2025).

Servant Leadership

Servant leadership, first proposed by Greenleaf (1977), emphasizes serving others, promoting member growth, and fostering shared success. In recent years, the theory has evolved into a multidimensional framework encompassing traits such as humility, empowerment, care, and ethical responsibility, and has been widely applied in organizational, educational, and youth development contexts. Research shows that servant leadership enhances trust, psychological safety, and collaboration, thereby improving team performance, innovation, and member well-being (Qiu et al., 2023). In university settings, particularly within student organizations, servant leadership strengthens cohesion, participation, and collective responsibility by encouraging support, communication, and shared goals. Measurement studies have developed various scales, such as those by Sendjaya et al. (2008) and Liden et al. (2008), to assess dimensions like service, listening, and empowerment among students, though challenges remain in adapting these tools to informal student contexts. In China, servant leadership research has expanded rapidly, with scholars emphasizing its alignment with collectivist culture and its positive effects on teamwork, psychological capital, and leadership development among college students (Zhou et al.,

consent reminders, and system settings were applied to prevent duplicate responses and missing data. During the data collection period, reminder messages were sent to improve the response rate, and the completion progress was monitored in real time through the platform. After collection, invalid questionnaires were excluded based on response time and answer consistency, while valid data were coded and imported into statistical software for analysis. All responses were collected anonymously and used solely for academic research, with access restricted to the research team. The survey aimed to examine students' perceptions of servant leadership and teamwork competence in student societies and to provide reliable data for subsequent empirical analysis. Data were collected through an anonymous online questionnaire to enhance authenticity and reduce bias. The instrument consists of two main parts: basic demographic information and standardized scales measuring servant leadership and teamwork competence. Servant leadership is assessed across seven dimensions, including emotional healing, creating value, conceptual skills, empowerment, helping subordinates, valuing subordinates, and ethical behavior, while teamwork competence covers nine dimensions such as collective efficacy, communication, coordination, problem-solving, conflict management, and support, all measured using a five-point Likert scale.

Reliability analysis shows strong internal consistency for both scales. The servant leadership scale reports Cronbach's alpha coefficients ranging from 0.86 to 0.91 across dimensions (e.g., emotional healing $\alpha = 0.89$, empowering $\alpha = 0.90$, valuing subordinates $\alpha = 0.91$). The teamwork competence scale demonstrates an overall reliability of $\alpha = 0.93$, with sub-dimension coefficients ranging from 0.68 to 0.81. Validity testing through confirmatory factor analysis (CFA) indicates good model fit for the servant leadership scale (CFI = 0.98, RMSEA = 0.06, SRMR = 0.05). For the teamwork competence scale, composite reliability (CR) values range from 0.82 to 0.89 and average variance extracted (AVE) values range from 0.54 to 0.72 across dimensions, confirming satisfactory convergent validity.

3. Results

This study obtained 350 valid samples with a balanced distribution across gender, grade level, academic discipline, and club type. The sample included 170 male students (48.57%) and 180 female students (51.43%). In terms of grade distribution, freshmen accounted for 24.57% (86 students), second-year students 26.00% (91 students), third-year students 20.86% (73 students), and fourth-year students 28.57% (100 students). The academic background was diverse, with the largest proportion from engineering and applied technology (20.29%), followed by economics and management (18.57%), information technology (16.57%), humanities and education (16.29%), arts and media (15.14%), and other disciplines (13.14%). Regarding club types, academic clubs accounted for 21.70%, volunteer service clubs 21.40%, interest development clubs 20.60%, innovation and entrepreneurship clubs 18.30%, and cultural and sports clubs 18.00%. The relatively even distribution across categories indicates good sample representativeness, enabling a comprehensive reflection of servant leadership and teamwork competence across different student club contexts.

Table 1 Demographic Information of the Participants

Variable	Item	N	%
Gender	Male	170	48.57
	Female	180	51.43
Grade	Freshman	86	24.57
	Sophomore	91	26.00
	Junior	73	20.86
	Senior	100	28.57
Discipline	Economics and Management	65	18.57
	Information Technology	58	16.57
	Arts and Media	53	15.14
	Humanities and Education	57	16.29
	Engineering and Applied Technology	71	20.29
	Other	46	13.14
Club Type	Academic	76	21.70
	Sports and Recreation	63	18.00
	Volunteer Services	75	21.40
	Innovation and Entrepreneurship Category	64	18.30
	Interest Development Category	72	20.60
	Total	350	100.00

Table 2 Status of Servant Leadership in Student Clubs at Hunan University of Foreign Trade and Economics

Variable	N	M	SD	Interpretation
Emotional Healing	350	4.15	0.515	High
Creating Value	350	3.48	0.529	General
Conceptual Skills	350	3.42	0.522	General
Empowering	350	4.13	0.535	High
Helping Subordinates	350	3.45	0.535	General
Value Subordinates	350	4.14	0.528	High
Behaving Ethically	350	3.47	0.529	General
Servant Leadership	350	4.14	0.491	High

Table 1 Status of Teamwork Competence in Student Clubs at Hunan University of Foreign Trade and Economics

Variable	N	M	SD	Interpretation
Collective Efficacy	350	3.48	0.790	Moderate
Learning Orientation	350	3.40	0.787	Moderate
Planning and Coordination	350	3.47	0.701	Moderate
Performance Monitoring	350	3.67	0.691	High
Supportive Behavior	350	3.80	0.445	High
Establishing Group Goals	350	3.87	0.464	High
Problem Solving	350	3.85	0.316	High
Conflict Management	350	3.43	0.619	Moderate
Communication	350	3.44	0.585	Moderate
Teamwork Competence	350	3.77	0.266	High

1) This study selected 350 student club members from Hunan University of Foreign Trade and Economics as research samples. Descriptive statistics showed that the overall mean score of servant leadership was 4.14 (SD = 0.491), indicating a high level. The dimensions of Emotional Healing (M = 4.15), Member Focus (M = 4.14), and Empowerment (M = 4.13) also reached a high level, while Value Creation, Member Support, Ethical Behavior and Conceptual Skills ranged from 3.42 to 3.48 at a moderate level. Small standard deviations across dimensions reflected consistent student evaluations. The overall mean of teamwork competence was 3.77 (SD = 0.266), belonging to a high level. Dimensions including Establishing Group Goals, Problem Solving, Supportive Behavior and Performance Monitoring scored relatively high, whereas Collective Efficacy,

Learning Orientation, Communication and Conflict Management were at the moderate level with stable score distribution.

2) Independent-samples t-test and one-way ANOVA revealed significant demographic differences in servant leadership. In terms of gender, the overall and dimensional t-values ranged from -5.430 to -4.157 ($p < 0.001$), with female students scoring significantly higher than males. For grade level, the overall F-value was 18.504 ($p < 0.001$), and all dimensions showed significant differences; servant leadership increased steadily from freshmen to seniors. Disciplinary background also yielded significant overall differences ($F = 3.426$, $p < 0.01$). Across club types, the overall F-value was 10.142 ($p < 0.001$), with interest development clubs ranking the highest and academic clubs the lowest. Research Hypothesis H1 was fully supported.

3) Demographic differences in teamwork competence differed greatly from servant leadership. Gender and grade level showed no significant differences in overall teamwork competence and each dimension ($p > 0.05$). For academic disciplines, the overall F-value of teamwork competence was 1.411 ($p = 0.220 > 0.05$), indicating no significant overall discrepancy. Only Planning and Coordination ($F = 2.587$, $p < 0.05$) and Problem Solving ($F = 3.339$, $p < 0.01$) presented disciplinary differences, while other dimensions were insignificant.

4) Differences in teamwork competence across club types only existed at the overall level. One-way ANOVA showed the overall F-value was 2.439 ($p = 0.047 < 0.05$). Volunteer service and innovation and entrepreneurship clubs had the highest mean score at 3.81, followed by interest development clubs (3.78) and sports and cultural clubs (3.75), while academic clubs scored the lowest at 3.69. By contrast, all sub-dimensions of teamwork competence showed no significant differences across club types (all $p > 0.05$).

Table 4 Correlation Analysis of Servant leadership and Teamwork competence in Student Clubs

	Servant Leadership	Teamwork Competence
Servant Leadership	1	.657**
Teamwork Competence	.657**	1

* $p < 0.05$ ** $p < 0.01$ *** $p < 0.001$

5) Pearson correlation analysis was adopted to examine the relationship between the two variables. The correlation coefficient between servant leadership and teamwork competence was $r = 0.657$ ($p < 0.01$), demonstrating a significant positive correlation. Higher servant leadership in student clubs corresponded to stronger student teamwork competence.

4. Discussion

The results show that servant leadership and teamwork competence in student clubs at Hunan University of Foreign Trade and Economics are generally at a high level, though with some variation across dimensions. Students perform strongly in emotional support, member care, empowerment, goal setting, and problem solving, while value creation and conceptual skills remain at a moderate level, indicating room for improvement. Student clubs serve as effective platforms for cultivating leadership and collaboration, consistent with findings that university students demonstrate strong developmental outcomes in these areas. Similar conclusions have been drawn regarding the widespread presence of servant leadership in higher education contexts (Vanhove, 2025), as well as the overall high levels of student leadership and teamwork competence (Wang et al., 2024).

The findings indicate that demographic variables significantly affect servant leadership but have limited influence on teamwork competence. Female students score higher than male students across all servant leadership dimensions, supporting prior research highlighting women's advantages in emotional care and leadership behaviors. This is further supported by evidence that women tend to demonstrate stronger cooperation and interpersonal sensitivity in organizational contexts. Servant leadership also increases with grade level, reflecting the accumulation of experience, while teamwork competence remains relatively stable, consistent with findings that leadership develops over time whereas collaboration is more influenced by environment and culture. Differences across disciplines and club types further confirm that leadership varies by context, while teamwork

competence remains consistently high (Song, 2025).

The study reveals a significant positive correlation between servant leadership and teamwork competence ($r = 0.657$, $p < 0.01$), indicating that higher levels of servant leadership are associated with stronger collaborative performance. This supports findings that servant leadership enhances team performance and collaboration among students. By fostering trust and mutual support, servant leadership improves team interaction quality and effectiveness (Hebles et al., 2022). The results confirm that strengthening servant leadership is an important pathway for improving teamwork competence and optimizing team outcomes in university student clubs.

5. Recommendation

(1) Establish a Tiered and Categorized Service Leadership Development System

The university should develop a tiered service leadership training system based on students' grade levels, disciplines, and club types. For lower-grade students, training should focus on basic leadership skills such as communication, member support, and emotional care. For senior students, advanced activities such as project management and collaborative decision-making can be introduced to strengthen leadership practice. Tailored training programs should also be designed according to different club characteristics to meet students' diverse development needs.

(2) Refine Incentive Mechanisms for Team Collaboration

The university should improve institutional incentives to strengthen students' teamwork competence. Teamwork performance can be included in club assessments and reward systems, while cross-club collaborative activities and competitions can provide practical opportunities for cooperation. Regular feedback from counselors and advisors can further help students identify weaknesses and continuously improve their collaboration skills.

(3) Promote the Coordinated Development of Service Leadership and

Teamwork Competence

Since service leadership and teamwork competence are closely related, universities should adopt integrated development strategies. By combining leadership training with collaborative projects, students can enhance both leadership and teamwork abilities through practical experiences. Regular assessment and targeted support should be provided to help students strengthen weaker areas, promoting balanced personal growth and improving overall club effectiveness.

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