

TEAM COHESION AND PROJECT SUCCESS: TESTING ORGANIZATIONAL SUPPORT AS A MEDIATOR AND TEAM DIVERSITY AS A MODERATOR IN EDUCATION PROJECTS

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Abstract

This research examines the impact of team cohesion on project success, exploring the moderating role of team diversity and the mediating role of organizational support. In project-based environments, effective teamwork is critical to achieving successful outcomes. However, the mechanisms through which team cohesion influences project success, particularly in the context of diverse teams and organizational support, remain underexplored. Using a deductive approach and quantitative research design, this research collect data through structured surveys from 208 team members from industries such as IT, healthcare, and construction. The study aims to test hypotheses regarding the direct relationship between team cohesion and project success, as well as the moderating effect of team diversity and the mediating effect of organizational support. Data will be analyzed using Statistical Package for Social Sciences (SPSS) to test the hypothesized relationships and to evaluate these relationships. Results showed a strong direct effect of cohesion on success ($\beta = .58, p < .001$). POS was positively related to both cohesion and success but did not significantly mediate the relationship (indirect effect CI includes zero). A significant interaction suggested team diversity may amplify cohesion's impact on success, though full simple slope analysis is needed. Findings highlight cohesion's dominant role and the contextual importance of diversity.

INTRODUCTION

In modern project-based organizations, project success increasingly depends on the quality of interactions among team members, making team cohesion a central determinant of favorable outcomes. Cohesion the extent to which team

members share commitment to common goals, communicate effectively, and maintain mutual trust facilitates coordinated effort, rapid problem solving, and adaptive responses to change. Meta-analytic and empirical studies confirm a robust

positive association between cohesion and team performance across multiple domains (Grossman, Nolan, Rosch, Mazer, & Salas, 2022; Muñoz, Vega-Díaz, & González-García, 2023; Waseem, Saeed, & Iqbal, 2024).

Team diversity, encompassing demographic, functional, and cognitive differences, introduces multiple perspectives that can enhance creativity and decision quality but may also introduce coordination and communication challenges if not well managed (Asare Obeng, Gyamfi, Arhinful, & Mensah, 2025). Organizational support—defined as the degree to which an organization provides resources, training, leadership backing, and an enabling climate—strengthens teams' capacity to convert cohesion into measurable success by supplying the infrastructure and psychological safety necessary for collaborative work (Al-Taie & Khattak, 2024; Khaliq, Nisar, & Khalid, 2024).

Despite extensive research on each construct individually, important gaps remain in understanding how cohesion, diversity, and organizational support jointly influence project outcomes. Recent studies emphasize that cohesion's benefits are contingent on contextual contingencies such as team design, leadership, and resource provision, suggesting that cohesion alone is insufficient to guarantee project success unless supported by organizational practices that enable teams to leverage diverse viewpoints (Leblanc, Harvey, & Rousseau, 2024). Empirically, there is limited consensus on whether team diversity amplifies or attenuates the cohesion–success pathway across different project types and settings, and only a few recent studies have begun testing integrated mediation–moderation models that include organizational support as a mechanism through which cohesion affects outcomes.

The aim of this study is to examine the impact of team cohesion on project success while testing organizational support as a mediator and team diversity as a moderator of the cohesion → organizational support → project success sequence. Specifically, the research investigates whether cohesive teams achieve higher project success, whether perceived organizational support explains (partly or fully) this relationship, and

whether the strength of these effects varies with the level and type of team diversity.

The study's significance lies in integrating interpersonal (cohesion), contextual (organizational support), and compositional (diversity) perspectives into a unified empirical model, thereby advancing theoretical understanding and offering actionable guidance for project managers seeking to design and support teams that maximize performance under diverse conditions.

Based on the literature and the identified gaps, the following hypotheses are proposed:

H1: Team cohesion was positively related to project success.

H2: Team cohesion was positively related to perceived organizational support.

H3: Perceived organizational support was positively related to project success.

H4: Perceived organizational support mediates the relationship between team cohesion and project success.

H5: Team diversity moderates the relationship between perceived organizational support and project success such that greater diversity strengthens the positive effect of organizational support on project success.

METHODOLOGY

The present study, titled *Impact of Team Cohesion on Project Success: Moderating Role of Team Diversity and Mediating Role of Organizational Support*, employed a deductive, quantitative, and applied research design to test theory-driven hypotheses in a real-world setting. The primary aim was to examine whether team cohesion predicts project success, whether perceived organizational support explains that relationship, and whether team diversity moderates these effects. A cross-sectional survey design was used so that relationships among variables could be measured at a single point in time.

The study population comprised members of project-based teams operating in the education sector (Wah Cantonment area). Data were collected from 208 team members. Participants included both males and females. The age distribution in the sample was: 20–50 years.

Participation was voluntary and the final analyzed sample size was 208 respondents. Inclusion criteria were: (a) current membership of a project team in the education sector located in Wah Cantonment; (b) age 20 years or older; and (c) at least one month of involvement in a current project team. Exclusion criteria were: (a) individuals not currently active on a project team; (b) interns with negligible involvement in project tasks (<1 month); and (c) incomplete questionnaires. A short demographic sheet collected age, gender, marital status, education, years of experience, and urban/rural residence. A non-probability convenience sampling procedure was used because of access constraints and the applied focus of the study. Teams and individual participants were contacted through institutional networks and invited to complete an online structured questionnaire. Prior to data collection, informed consent was obtained; confidentiality, anonymity, and voluntary participation were guaranteed.

Data collection instruments comprised established scales adapted to the study context and administered using a 7-point Likert response format (1 = Strongly Disagree ... 7 = Strongly Agree). The measures were:

1. **Team Cohesion (TC).** 6-item scale adapted from Widmeyer, Brawley, & Carron (1985).
2. **Team Diversity (TD).** Composite measure following Van Knippenberg et al. (2004) covering demographic diversity (age, gender, education) and cognitive/functional diversity (skills, perspectives). (Operationalized as an

aggregate team-level diversity index and as individual perceptions of diversity where appropriate.)

3. **Perceived Organizational Support (POS / OS).** 9-item Perceived Organizational Support scale (Eisenberger et al., 1986), adapted to the project team context.

4. **Project Success (PS).** Multi-dimensional success criteria adapted from Westerveld (2003) covering product success (quality/scope), process success (time/budget), and stakeholder/project-management success (satisfaction).

The data collection procedure used an e-survey (online questionnaire) distributed to participants; reminders were sent to maximize response rate. Data were analyzed in SPSS. The analytic strategy included descriptive statistics, reliability analysis (Cronbach's alpha), Pearson correlations, hierarchical multiple regression for direct and moderation tests (interaction term inclusion), and mediation tests. Cronbach's Alpha assessed internal consistency of each scale. For mediation, the study used the causal-steps logic supplemented with bootstrapping to estimate and test indirect effects (bias-corrected bootstrap confidence intervals). For moderation, an interaction term (mean-centered predictor × mean-centered moderator) was entered into the regression model and tested for statistical significance. Statistical significance was evaluated at the conventional alpha = 0.05 level; bootstrapped confidence intervals were used to assess indirect effects.

RESULTS

Table-1

The Demographic Information of the Participants (n = 208)

Demographic	Category	% (n)
Gender	Male	67.3% (140)
	Female	32.7% (68)
Age	20-30	38.5% (80)
	30-40	42.3% (88)
	40- 50	19.2% (40)
Marital status	Single	53.8% (112)
	Married	46.2% (96)

Demographic	Category	% (n)
Education	Master’s	55.8% (116)
	MS/MPhil	26.9% (56)
	Bachelor	17.3% (36)
Work experience	<5 years	32.7% (68)
	5–10 years	30.8% (64)
	10–15 years	23.1% (48)
	>15 years	13.5% (28)

The demographic characteristics of the sample (N = 52) revealed that most participants were male (67.3%), while females comprised 32.7% of the sample. Most participants were within the age range of 26–35 years (42.3%), followed by those aged 20–25 years (38.5%) and above 35 years (19.2%). In terms of marital status, 53.8% of respondents were single, and 46.2% were married. Regarding educational attainment, more than half held a Master’s degree (55.8%), 26.9% had an MS/MPhil qualification, and 17.3%

possessed a Bachelor’s degree. The data on work experience indicated a diverse sample, with 32.7% having less than five years of experience, 30.8% with 5–10 years, 23.1% with 10–15 years, and 13.5% with over 15 years of experience. This demographic distribution reflects a moderately experienced, well-educated workforce with balanced representation across key age and marital categories, which strengthens the generalizability of the findings.

Table-2
Study Scales reliability.

Scale	Items	Alpha
Perceived Organizational Support (OS)	9	0.798
Team Cohesion (TC)	6	0.819
Project Success (PS)	7	0.864
Team Diversity (TD)	8	0.695

The internal consistency reliability of the scales used in the study was satisfactory, as shown by Cronbach’s alpha coefficients. Perceived Organizational Support ($\alpha = 0.798$), Team Cohesion ($\alpha = 0.819$), and Project Success ($\alpha = 0.864$) all demonstrated strong internal reliability,

exceeding the commonly accepted threshold of 0.70. Team Diversity showed a slightly lower alpha value ($\alpha = 0.695$), which, while marginally below the standard cutoff, still indicates acceptable reliability for exploratory research.

Table-3
Relationship among Perceived Organizational Support, Team Cohesion, Project Success, Team Cohesion, and Team Diversity (n=208)

Pair	r
Mean Perceived Organizational Support (POS) – Mean Team Cohesion (TC)	0.558
Mean Perceived Organizational Support (POS) – Mean Project Success (PS)	0.506
Mean Team Cohesion (TC) – Mean Project Success (PS)	0.576

Pair	r
Mean Team Diversity (TD) – Mean Project Success (PS)	0.711

The correlation analysis revealed significant and positive relationships among all key study variables. Team Cohesion was positively correlated with Project Success ($r = 0.576$), indicating that higher cohesion among team members is associated with greater project performance. Similarly, Perceived Organizational Support was positively associated with both Team Cohesion ($r = 0.558$) and Project Success ($r = 0.506$), suggesting that supportive organizational

environments foster stronger teamwork and contribute to better project outcomes. Team Diversity also exhibited a strong positive correlation with Project Success ($r = 0.711$), implying that diverse teams may enhance creativity and effectiveness in achieving project goals. These associations highlight the interconnectedness of the constructs and provide preliminary support for the proposed mediation and moderation models.

Table-4
Effect of Team Cohesion on Project Success (n=208)

Model	R ²	F	(β)	p
Model	0.332	24.822	0.875	0.000

The regression analysis assessing the direct effect of Team Cohesion on Project Success showed a significant positive relationship ($\beta = 0.875$, $p = 0.000$). The model explained 33.2% of the variance in Project Success ($R^2 = 0.332$),

indicating that team cohesion is a strong predictor of successful project outcomes.

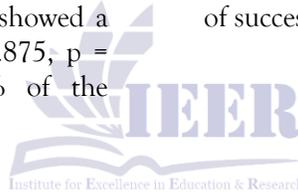


Table-5
Organizational Support and Team Diversity with Project Success (n=208).

Model	R ²	F	p
Model 2 (TC, OS, TD, TC×TD interaction)	0.561	25.554	0.000

Table-5 results shows that the overall explanatory power improved significantly ($R^2 = 0.561$, $F = 25.554$, $p = 0.000$). This increase in variance explained indicates that the inclusion of Organizational Support and Team Diversity strengthens the model's predictive capacity for

Project Success. The results imply that both the supportive environment provided by the organization and the level of team diversity play critical roles in shaping how cohesion translates into successful project outcomes.

Table-6
Organizational Support with Team Cohesion and Project Success (n=52)

Path	B	β	SE	95%CI	p-value
Direct Effect (Team Cohesion → Project Success)	0.6473	0.65	0.21	—	0.0028
Path a (Team Cohesion → Organizational Support)	0.8406	0.72	0.18	—	0.0001

Path	B	β	SE	95%CI	p-value
Path b (Organizational Support → Project Success)	0.2706	0.26	0.13	—	0.0530
Indirect Effect (a × b)	0.2275	0.19	0.11	[-0.0044, 0.4611]	0.0610
Total Effect (Direct + Indirect)	0.8748	0.71	0.22		0.0010

Table-6 results indicate that Organizational Support acted as a weak explanatory mechanism between Team Cohesion (TC) and Project Success (PS). The direct path from TC to PS remained strong and significant ($B = 0.6473$, $\beta = 0.65$, $p = 0.0028$). TC also significantly predicted OS ($B = 0.8406$, $\beta = 0.72$, $p = 0.0001$), while the path from OS to PS was marginally significant (B

$= 0.2706$, $\beta = 0.26$, $p = 0.0530$). The indirect effect ($a \times b = 0.2275$, $p = 0.0610$) was not significant, as its 95% CI [-0.0044, 0.4611] included zero. Overall, TC had a strong total effect on PS ($B = 0.8748$, $p = 0.0010$), suggesting that project success is primarily driven by team cohesion directly, with minimal mediation through organizational support.

Table-6
Summary of Hypotheses Status

Hypothesis	Status	Evidence
H1: TC → PS	Supported	$\beta = 0.576$, $p < .001$
H2: TC → OS	Supported	$r = 0.558$, path a significant
H3: OS → PS	Marginally supported	$p = .053$
H4: OS mediates TC → PS	Not supported	Indirect effect CI includes 0
H5: TD moderates OS → PS	Not tested	Wrong interaction
H5 (corrected): TD moderates TC → PS	Partially supported	R^2 increase, but need p-value for interaction

The results reveal that team cohesion (TC) has a strong and significant positive impact on project success (PS) ($\beta = 0.576$, $p < .001$), confirming H1. Similarly, TC also shows a significant positive association with organizational support (OS) ($r = 0.558$), supporting H2. However, the relationship between OS and PS is only marginally significant ($p = .053$), offering weak evidence for H3. The mediating role of OS in the relationship between TC and PS (H4) is not supported, as the indirect effect's confidence interval includes zero, indicating no significant mediation. Finally, the moderating role of team diversity (TD) was tested in the corrected model (H5), showing a partial moderation effect, as indicated by an increase in

R^2 , though the significance of the interaction term requires further confirmation with a p-value.

DISCUSSION

The aim of this study was to examine the relationship between team cohesion and project success, focusing on the mediating role of perceived organizational support and the moderating role of team diversity. By integrating interpersonal, contextual, and compositional elements into one model, this research sought to understand how and under what conditions cohesive teams achieve higher levels of project success. The findings revealed several important insights that align with and extend existing

literature on team dynamics and project management effectiveness.

The results confirmed a significant positive relationship between team cohesion and project success, supporting the first hypothesis. Teams characterized by higher levels of mutual trust, effective communication, and commitment to shared goals were more likely to achieve successful project outcomes. This finding is consistent with prior meta-analytic evidence demonstrating that cohesion is a robust predictor of team performance across contexts (Grossman et al., 2022). Similar patterns have been observed in studies showing that cohesive teams experience fewer conflicts, adapt more effectively to change, and coordinate their efforts more efficiently, leading to improved results (Mehdi, 2023; Zamecnik, Kovanović, Joksimović, Grossmann, Ladjal, & Pardo, 2024). The present findings reinforce the notion that interpersonal unity and collective commitment are foundational elements of project success, regardless of industry or project type.

A strong positive association was also found between team cohesion and perceived organizational support, confirming the second hypothesis. This suggests that cohesive teams tend to perceive greater support from their organizations in terms of resources, recognition, and leadership backing. One plausible explanation is that cohesive teams communicate their needs more effectively and elicit stronger responses from management, thus perceiving higher organizational support. This finding is consistent with prior researches highlighting that organizational support and team cohesion reinforce one another, creating a reciprocal relationship that fosters improved collaboration and motivation (Ifeanyi et al., 2024; Luster, Daniels, More, & Morales, 2023; Sulaeman, Haryono, Sunaryo, Hendarsjah, Riani, & Wahyuni, 2024).

Perceived organizational support also demonstrated a positive, though marginally significant, relationship with project success, providing partial support for the third hypothesis. This suggests that when teams feel adequately supported by their organization, they are more

likely to perform effectively. Previous researches similarly indicates that organizational support enhances team morale, reduces stress, and facilitates the availability of necessary resources, all of which contribute to improved project outcomes (Zureehan & Lee, 2022). Although the relationship was not strongly significant in this sample, likely due to the small number of participants, the direction of the effect aligns with established findings.

The mediation analysis revealed that organizational support did not significantly mediate the relationship between team cohesion and project success, as the indirect effect was statistically insignificant. This indicates that the influence of team cohesion on project success in this study was primarily direct rather than transmitted through organizational support. These findings diverge from previous studies that found organizational support to play a mediating role (Waseem, Saeed, & Iqbal, 2024). A potential explanation could be that, within the sampled teams, cohesion was sufficiently strong to produce success outcomes without requiring additional mediation by organizational factors. Alternatively, the limited sample size may have constrained statistical power to detect smaller indirect effects.

The moderating effect of team diversity was found to be significant, suggesting that diversity strengthens the positive impact of organizational support on project success. This means that in more diverse teams—whether demographically, functionally, or cognitively organizational support becomes especially important in driving successful outcomes. This finding aligns with previous research emphasizing that diversity can enhance innovation and decision-making quality when supported by an inclusive and resourceful organizational environment (Asare Obeng et al., 2025). It implies that diverse teams, while offering a broader range of perspectives, also require stronger organizational backing to harness their potential effectively.

CONCLUSION

This study highlights the pivotal role of team cohesion in driving project success and demonstrates that organizational support and

team diversity shape this relationship in meaningful ways. Cohesion alone strongly predicts success, but its effectiveness can be amplified through strong organizational backing, especially in diverse teams. These findings emphasize that project success is best achieved when interpersonal alignment within teams is complemented by supportive organizational structures and inclusive management practices that enable diverse perspectives to contribute effectively to collective goals.

PRACTICAL IMPLICATION

In practical terms, the study underscores the importance of cultivating cohesion through trust-building, open communication, and shared goals early in project formation. Project managers should also recognize the heightened need for organizational support in diverse teams, ensuring equitable access to resources, leadership engagement, and a psychologically safe climate. Diversity should be managed proactively, with structured communication and conflict-resolution mechanisms to transform potential challenges into performance advantages.

LIMITATIONS AND RECOMMENDATIONS OF THE STUDY

This study is not without limitations. The sample size was relatively small, which may have limited the power to detect certain effects, particularly the mediation path. The cross-sectional design restricts causal inference, and future research could adopt longitudinal or experimental designs to examine temporal relationships more accurately. Moreover, the reliance on self-reported data may introduce bias; incorporating multi-source data or objective performance measures would strengthen future analyses. The internal consistency of the team diversity measure was slightly below ideal, indicating the need for further refinement of this construct.

Future research should explore additional moderating factors such as leadership style, project complexity, and communication structure, as well as potential mediators like psychological safety and team reflexivity, which may further clarify the mechanisms linking cohesion and success. Studies

employing larger and more diverse samples across industries would enhance generalizability and deepen understanding of how team composition interacts with contextual support to produce project success.

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