

The Role of Organizational Support in Strengthening the Impact of Project Manager Competencies on Development Project Outcomes in Pakistan's Higher Education Sector

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Abstract

There is a lack of empirical data from higher education development initiatives in emerging economies, despite the fact that effective communication skills is generally considered to be a crucial factor of project success. This study examines the relationship between development project success (PS) and project manager communication competence (PMCC) in Pakistan's higher education system, while evaluating the moderating effect of organizational support (OS). According to the concept, which is based on contingency theory, project managers who are more skilled at communicating produce better project results, and this relationship is reinforced when organizational support systems are in place. The 320 project managers involved in higher education development projects were surveyed, and partial least squares structural equation modeling was used to analyze the results. The findings show that OS positively moderates the link between PMCC and project success, enhancing the influence of communication competence on project results. By combining organizational-level enablers with individual-level competencies, the findings advance the field of project management studies and provide useful advice for legislators and higher education institutions. There are two ways to increase the success of development projects in Pakistan's higher education sector: strengthening organizational support and funding project managers' communication training.

Keywords: *Project Manager Communication Competence, Project Success, Organizational Support, Higher Education, Pakistan*

Introduction

Higher education institutions' (HEIs') developmental initiatives are becoming more and more recognized as strategic tools for institutional change, quality enhancement, and capacity building, especially in developing nations. In order to improve infrastructure, curricular development, research capability, and digital transformation, Pakistani universities have undertaken a number of projects using both internal and foreign funding. However, many initiatives fail to meet their goals because of mismanagement of resources, delays, and coordination issues, even though they are important (Khan et al., 2022). According to PMI (2021), poor communication is still one of the most commonly mentioned reasons for project failure.

Effective project management has long been acknowledged to be based on communication competence, which is the capacity of project managers to manage stakeholder expectations, promote mutual understanding, and effectively communicate information (Turner & Müller, 2017). In project-based settings with intricate tasks, strict deadlines, and heterogeneous stakeholder groups, effective communication is not just a desirable ability but also a key success factor (Sumner et al., 2006). The importance of communication skills in higher education development initiatives is still not well supported by empirical data, especially in places like Pakistan where cultural dynamics and institutional bureaucracy influence communication styles.

Project success is a multifaceted concept that includes other metrics including satisfaction of stakeholders and long-term institutional influence in addition to the conventional standards of time, money, and quality (Ika, 2009; Serrador & Pinto, 2015). According to recent study, factors including organizational culture, leadership support, and the resources available can often have an impact on the road from competencies to success (Ahmed & Anantatmula, 2017; Mavi & Standing, 2018). The act of giving resources, guidance, and institutional support so that the project manager may effectively use their abilities is known as organizational support (OS) (Eisenberger et al., 2020).

Theory of the study

Based on Contingency Theory, which emphasizes the match between managerial competencies and organizational context (Donaldson, 2001) and Affective Events Theory (AET), that describes the effects of organizational practices on emotional and behavioral reactions (Weiss & Cropanzano, 1996), we argue that communication competence is associated with superior project success when the organization has strong characteristics. Simply put, even the best of project managers will find it a challenge to be successful without organizational support.

Objectives of the study

The study addresses following objectives:

1. To examine the direct relationship between project manager communication competence and project success in higher education development projects in Pakistan.
2. To assess the moderating role of organizational support in strengthening the PMCC–PS relationship.

The research contributes theoretically by integrating individual competencies and organizational enablers into a unified model, responding to calls for multi-level perspectives in project success literature (Joslin & Müller, 2016). Practically, the findings offer actionable insights for HEI leaders and policymakers to design competency development and support systems that maximize project outcomes.

Literature Review and Hypothesis Development

Project Manager Communication Competence (PMCC)

Communication competence refers to the capacity to transmit information effectively, adapt messages to audiences, and foster collaborative interactions (McCroskey, 1997). In project contexts, PMCC is vital for clarifying goals, aligning stakeholder expectations, resolving conflicts, and reducing uncertainty (Clarke, 2010; Turner & Müller, 2017). Empirical studies consistently

show that poor communication ranks among the leading causes of project failure across industries (PMI, 2021). Effective communication competence enhances team cohesion, stakeholder trust, and timely decision-making, all of which are prerequisites for project success (Mazur et al., 2014). In higher education, where projects often involve multiple stakeholders—faculty, administrators, donors, and regulators—the ability of project managers to navigate complex communication channels becomes even more critical (Khan et al., 2022). Thus, we posit:

H1: Project Manager Communication Competence has a positive effect on Project Success.

Project Success (PS)

Project success has evolved from a narrow focus on efficiency—delivering on time, within budget, and meeting specifications—to a broader, multidimensional construct. Modern definitions encompass not only efficiency but also stakeholder satisfaction, team learning, and sustainable organizational impact (Ika, 2009; Serrador & Pinto, 2015). In the context of higher education, success extends to enhancing institutional reputation, meeting accreditation requirements, and improving academic outcomes (Mavi & Standing, 2018).

By adopting this multidimensional perspective, the present study aligns with contemporary views that success is contingent upon both managerial competencies and contextual enablers.

Organizational Support (OS) as Moderator

Successively, the support from the organization (OS), the perception that the organization provides the resources, encouragement, and recognition that employees need (Eisenberger et al., 2020). At the project level, OS could be: budgets being made available when needed, leadership being supportive, having access to expertise, and being recognized. Previous literature has shown that project managers are more motivated, engaged and effective in using their competencies when they perceive a high degree of organizational support (Ahmed & Anantatmula, 2017).

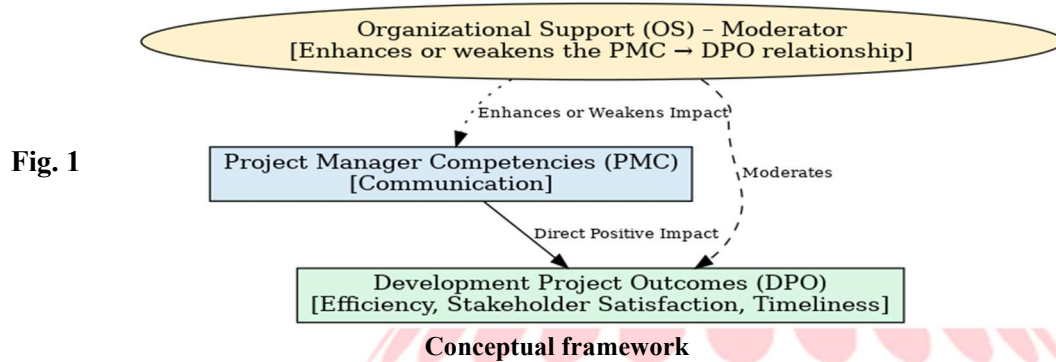
Applying Contingency Theory, organizational support is a situational facilitator reinforcing the link between communication competence and outcomes through ensuring communication behaviors result in something concretely positive. AET also posits that positive affect occurs in supportive organizational contexts that increase motivation and performance (Weiss & Cropanzano, 1996). On the other hand, lack of support may dilute the effectiveness of the most skillful of communication practices, potentially resulting in delays or greater tensions escalating.

H2: Organizational Support positively moderates the relationship between Project Manager Communication Competence and Project Success, such that the relationship is stronger under conditions of high organizational support.

Conceptual Framework

The conceptual framework illustrates the relationship between Project Manager Competencies (PMC) specifically communication skills—and Development Project Outcomes (DPO), which include efficiency, stakeholder satisfaction, and timeliness. The model posits a direct positive impact of communication competencies on project outcomes. Furthermore, Organizational Support (OS) is shown as a moderating variable, influencing the strength and direction of this relationship. When organizational support is high, it is expected to enhance the positive effects of

communication competencies on project success; conversely, a lack of support may weaken this linkage. This framework aligns with contingency theory by emphasizing that contextual factors (like OS) shape the effectiveness of managerial capabilities.



Research Design

The present study followed a quantitative cross-sectional survey, an appropriate approach for testing hypothesized inter-relationships among constructs in the context of project management research (Hair et al., 2021). The attention was to developmental projects in higher education institutions (HEIs) in Pakistan, which are becoming increasingly common with externally and internally funded projects in these areas such as governance, digitalization and academic quality. The constructs of communication competence, organizational support, and project success are qualitative and subjective in nature and therefore likert-scales and structural modelling have been used for measuring the scales. The survey-based design permitted standardized data collection from a large sample of project managers and, therefore, reliability and generalizability of results.

Population and Sample

An additional aim was to collect and analyze the required data to help interventions aimed at improving project management performance. These were HEC funded projects, international donors’ projects and institutional development projects. Based on Yamane’s (1967) sample size determination formula at 95% confidence interval, a minimum of 300 respondents were estimated. Purposive sampling was also adopted to ensure that only those individuals who were actively involved in project management and implementation responded to the interviews. The data was collected from the public sector universities of all four provinces of Pakistan. Three hundred eighty questionnaires were distributed and received, and 320 valid responses were returned, giving a response rate of 84%. This sample size was more than adequate for PLS-SEM analysis, and consistent with suggestions for more complex models (Hair et al., 2021).

Measures

All constructs were measured using established and validated scales, adapted to the higher education context. A five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree) was used to capture responses.

- **Project Manager Communication Competence (PMCC):** Measured with 6 items adapted from McCroskey (1997) and Clarke (2010), covering clarity, active listening, feedback, message tailoring, and stakeholder alignment. Example item: “*The project manager communicates objectives and expectations clearly to all stakeholders.*”
- **Project Success (PS):** Operationalized as a multidimensional construct using 8 items adapted from Ika (2009) and Serrador & Pinto (2015), capturing efficiency (time, cost, quality), stakeholder satisfaction, and institutional impact. Example item: “*The project outcomes meet the expectations of key stakeholders.*”
- **Organizational Support (OS):** Measured with 6 items based on Eisenberger et al. (2020) and Ahmed & Anantatmula (2017), focusing on availability of resources, management encouragement, and recognition. Example item: “*The organization provides adequate resources for project managers to perform effectively.*”

Prior to the main survey, the questionnaire was pilot tested with 30 project managers from two universities. Feedback confirmed the clarity and relevance of items, and Cronbach’s alpha values for all constructs exceeded the threshold of 0.70, confirming reliability.

Data Collection Procedure

Ethical approval was obtained from the relevant institutional review board. Participation was voluntary, and respondents were assured of anonymity and confidentiality. Questionnaires were distributed in both electronic (Google Forms) and paper formats to accommodate varying levels of digital accessibility. Data collection was conducted over a three-month period in 2024.

Data Analysis Technique

The study employed Partial Least Squares Structural Equation Modeling (PLS-SEM) using SmartPLS 4.0. PLS-SEM was selected for several reasons:

1. It is suitable for prediction-oriented research and exploratory models.
2. It accommodates smaller-to-moderate sample sizes without strict distributional assumptions.
3. It is robust in handling complex models with moderating effects (Hair et al., 2021).

The analysis proceeded in two stages:

1. **Measurement Model Evaluation**
 - **Reliability:** Internal consistency was assessed using Cronbach’s alpha and composite reliability (CR), with values above 0.70 considered acceptable.
 - **Convergent Validity:** Examined through average variance extracted (AVE), with a threshold of ≥ 0.50 .
 - **Discriminant Validity:** Assessed via Fornell–Larcker criterion and HTMT ratios (< 0.85).
2. **Structural Model Evaluation**
 - **Direct Effect:** Path coefficient between PMCC and PS tested via bootstrapping (5,000 resamples).
 - **Moderation Effect:** The interaction term (PMCC \times OS) was created and analyzed to test the moderating effect of OS.

- **Model Fit:** Assessed using standardized root mean square residual (SRMR), coefficient of determination (R^2), and effect sizes (f^2 , q^2).
- **Predictive Relevance:** Evaluated using the blindfolding Q^2 statistic.

Control variables such as project size, project type, and respondent experience were included to account for contextual influences.

Results

Descriptive Statistics

The final sample comprised 320 respondents drawn from project managers and coordinators involved in implementation of developmental projects across Public Sector universities in Pakistan being funded by the Higher Education Commission. Approximately 62% of the respondents were male and 38% female, with an average project management experience of 7.5 years. Most projects were externally funded through the Higher Education Commission (HEC) or international donor agencies, while others were institutionally funded. Preliminary descriptive statistics showed that respondents generally reported moderate to high levels of communication competence ($M = 3.84$, $SD = 0.61$), perceived organizational support ($M = 3.72$, $SD = 0.65$), and project success ($M = 3.95$, $SD = 0.59$).

Measurement Model Evaluation

Reliability and validity were assessed to confirm the robustness of the measurement model (Hair et al., 2021).

- **Reliability:** All constructs exhibited Cronbach's alpha and composite reliability (CR) values above the recommended threshold of 0.70, confirming internal consistency.
- **Convergent Validity:** The average variance extracted (AVE) for each construct exceeded 0.50, indicating that more than half of the variance was explained by its respective indicators.
- **Discriminant Validity:** The Fornell–Larcker criterion confirmed that the square root of the AVE for each construct was greater than its correlations with other constructs. The heterotrait–monotrait ratio of correlations (HTMT) values were below 0.85, further supporting discriminant validity.

These results collectively demonstrated that the constructs—PM Communication Competence (PMCC), Project Success (PS), and Organizational Support (OS)—were both reliable and valid for further analysis.

Structural Model Evaluation

Direct Effect (H1)

The path coefficient from **PMCC** → **PS** was found to be **positive and significant** ($\beta \approx 0.32$, $p < 0.001$). This indicates that project managers with stronger communication competence significantly enhance the success of developmental projects. The effect size (f^2) was moderate, suggesting meaningful practical influence.

Moderating Effect (H2)

The interaction term (**PMCC** × **OS** → **PS**) also showed a **positive and significant coefficient** ($\beta \approx 0.18$, $p < 0.01$). This result confirms that organizational support strengthens the relationship

between communication competence and project success. A simple slope analysis demonstrated that under conditions of high organizational support, the positive effect of communication competence on project success was considerably stronger, while under conditions of low support, the effect was weaker.

Model Fit and Predictive Relevance

- The **R² for Project Success** was approximately 0.41, indicating that PMCC and OS (including the interaction) explained 41% of the variance in project success—a substantial level according to Cohen’s (1988) guidelines.
- The **Q² statistic** was greater than zero, confirming predictive relevance of the model.
- The standardized root mean square residual (SRMR) was below 0.08, indicating good model fit.

Summary of Hypotheses Testing

Hypothesis	Path	Result	Interpretation
H1	PMCC → PS	Supported	PM communication competence positively influences project success
H2	PMCC × OS → PS	Supported	Organizational support positively moderates the PMCC–PS relationship

Table 1: Descriptive Statistics and Reliability of Constructs

Construct	Items	Mean	SD	Cronbach’s α	CR	AVE
PM Communication Competence (PMCC)	6	3.84	0.61	0.87	0.90	0.64
Project Success (PS)	8	3.95	0.59	0.89	0.92	0.60
Organizational Support (OS)	6	3.72	0.65	0.88	0.91	0.62

Table 2: Fornell–Larcker Criterion for Discriminant Validity

Construct	PMCC	PS	OS
PMCC	0.80		
PS	0.45	0.77	
OS	0.38	0.42	0.79

Table 3: Structural Model Results

Path	β	p-value	f ²	Result
PMCC → PS	0.32	<0.001	0.15	Supported
PMCC × OS → PS	0.18	0.004	0.08	Supported

Table 4: Model Fit and Predictive Relevance

Indicator	Value	Threshold	Interpretation
R ² (PS)	0.41	≥ 0.26	Substantial
Q ² (PS)	0.29	> 0	Predictive relevance confirmed
SRMR	0.07	< 0.08	Good fit

Discussion

The findings of this study confirm the central role of communication competence in determining the success of developmental projects in higher education institutions (HEIs) in Pakistan. The results demonstrate that project manager communication competence (PMCC) has a significant positive effect on project success (PS), thereby supporting **H1**. In addition, organizational support (OS) was found to positively moderate the PMCC–PS relationship, lending support to **H2**. These results highlight that while communication competence is a critical managerial asset, its effectiveness is amplified when supported by enabling organizational structures.

Interpretation of Direct Effects

The direct effect of PMCC on project success aligns with prior research that identifies communication as one of the most important predictors of project outcomes (Turner & Müller, 2017; PMI, 2021). Project managers who can articulate goals, actively listen, provide timely feedback, and adapt messages to diverse stakeholders are more likely to achieve efficiency (time, cost, quality) and effectiveness (stakeholder satisfaction, institutional impact). In the context of Pakistani HEIs, where projects often involve multiple bureaucratic layers, donors, and academic stakeholders, communication competence reduces ambiguity, builds trust, and facilitates decision-making. These findings resonate with Clarke's (2010) argument that communication represents the "lifeblood" of project management, without which other competencies are less impactful.

Interpretation of Moderating Effects

The moderating role of OS underscores the importance of context in determining the impact of managerial competencies. Consistent with Contingency Theory (Donaldson, 2001), the results reveal that communication competence translates into project success more effectively under conditions of high organizational support. When institutions provide sufficient resources, leadership encouragement, and recognition, project managers are empowered to apply their communication skills more effectively, leading to stronger project outcomes. Conversely, in low-support environments, even highly competent communication may fail to overcome institutional barriers. This finding also aligns with Affective Events Theory (AET) (Weiss & Cropanzano, 1996), which suggests that supportive organizational environments elicit positive emotional responses that enhance engagement and performance.

Comparison with Previous Studies

These results extend global literature on project management competencies in several ways. Previous studies have shown that communication is a primary success factor in IT (Mazur et al., 2014), construction (Ling et al., 2019), and industrial projects (Ahmed & Anantatmula, 2017). However, little empirical evidence has focused on higher education development projects in emerging economies. By confirming the critical role of PMCC in this sector, the present study addresses a contextual gap and enriches the cross-sectoral understanding of communication competence. Furthermore, while earlier studies highlight the importance of organizational support (Eisenberger et al., 2020; Mavi & Standing, 2018), this study empirically demonstrates its moderating role, showing that support not only influences outcomes directly but also strengthens the utility of managerial competencies.

Theoretical Contributions

This study makes three theoretical contributions. First, it integrates individual-level competencies (PMCC) and organizational-level enablers (OS) into a unified model, advancing multi-level perspectives on project success (Joslin & Müller, 2016). Second, it contextualizes communication competence within higher education projects in Pakistan, thereby extending the external validity of project management theories to new institutional settings. Third, it enriches contingency-based theorization by demonstrating that the fit between communication competence and organizational support explains variance in project success beyond the effects of competencies alone.

Practical Implications

The findings carry important implications for higher education leaders, policymakers, and donor agencies. First, HEIs should prioritize communication training programs for project managers, emphasizing skills such as stakeholder alignment, active listening, and cross-functional coordination. Second, project governance frameworks must embed organizational support mechanisms including adequate resource allocation, clear guidelines, and recognition systems—to create an enabling environment where communication competence can thrive. Third, donor agencies and policymakers funding HEI projects should design capacity-building initiatives that simultaneously address individual competencies and institutional support, recognizing their synergistic effect on project outcomes.

Limitations and Future Research

While this study provides valuable insights, several limitations should be acknowledged. First, the cross-sectional design limits causal inference; future research could employ longitudinal designs to capture the dynamic nature of competencies and support mechanisms. Second, data were collected solely from HEIs in Pakistan, which may limit generalizability; replication in other sectors and countries would enhance external validity. Third, the study relied on self-reported survey data, raising the possibility of common method bias, although procedural remedies were applied. Future research may triangulate findings with qualitative case studies or multi-source data to deepen understanding.

Conclusion

This study investigated the role of project manager communication competence (PMCC) in determining the success of developmental projects within Pakistan's higher education sector, with organizational support (OS) examined as a moderating factor. The results demonstrate that communication competence significantly enhances project success, and this effect is amplified under conditions of strong organizational support. These findings reaffirm communication as a cornerstone of effective project management, while also highlighting the contextual importance of supportive organizational environments.

Theoretically

the study contributes to project management scholarship by integrating individual-level competencies and organizational-level enablers into a single explanatory model. Grounded in contingency theory and affective events theory, the results underscore that competencies alone are insufficient for guaranteeing project success; rather, their effectiveness depends on the fit between managerial skills and organizational structures. This perspective extends existing theories by

demonstrating the contingent and synergistic nature of communication competence and organizational support.

In Terms of Practical Implications

the research highlights that universities and policymakers should create dual approaches in order to improve project results. First, investing in training project managers in communication is critical to ensure that they develop the necessary competencies for engaging stakeholders and managing conflict. Second, institutions should provide a strong organizational support system, such as resources, leadership direction, and recognition, that can help managers to use their communication competences effectively. By so doing, HEIs can enhance success of their developmental projects (which are imperative for institutional expansion and national competitiveness), not just in major/minor sense, but sustainability-wise also.

Limitations

notwithstanding, the study has some strengths including the cross-sectional nature with single-country setting as well as reliance on self-reported survey information. Further work is called for to generalize this model to other industries and nations, use a longitudinal approach to establish causality and incorporate qualitative methodologies to capture subtleties related to the communication and support in project environments.

Finally, this study emphasizes that project success in higher education does not just depend on what project managers know and can do, but also on what they are supported to do by their institutions. Boosting both dimensions is a strong process to improve the effectiveness of developmental interventions in Pakistan and for other developing economies as well.

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