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Bridging Governance and Success: The Mediating Role of Project Leadership in Construction Projects

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ABSTRACT

This paper explores how Project Governance, Project Leadership and Project Success interrelate in the construction industry. The theoretical foundations of the research are Agency Theory, Stewardship Theory and Transformational Leadership Theory combined with the study of the impact that governance mechanisms appear to have on the ultimate project outcomes in a direct way and by mediation of transformational leadership. The study covered 212 construction project work professionals who participated, and their data examined through Partial Least Squares Structural Equation Modeling (PLS-SEM). Findings indicate that Project Governance greatly increases Project Success and influences leadership behavior

positively. Moreover, Project Leadership does not only have an independent effect on Project Success, but it also mediates the relationship between governance and performance. These results indicate that governance mechanisms on their own are not enough because they need the behavioral drive facilitated by transformational leadership. This research adds value to project management literature in the sense that a structural-behavioral model of Project Success was empirically validated. With practical implications, there is a need to discuss the important aspect of organizations associating formal governance systems with leadership development programs to attain continuous project performance.

Keywords: Project Governance, Project Leadership, Project Success, Construction Industry, PLS-SEM.

INTRODUCTION

Project-based industries like construction are still struggling with the systematic problems of time delays, inefficiencies, and poor stakeholder satisfaction issues that are more pressing in an emerging economy (Afzal et al., 2022; Irfan & Hassan, 2019). These difficulties are even being seen as a failure not only in technicality but also in systems within an organization and leadership systems. The key to project performance is the interaction between Project Leadership (PL) and Project Governance (PG), two spheres that have been historically considered separately, yet are considered intertwined or one another. The definition of PG as the structure of decision rights and accountability in projects lies in the Agency Theory, which can be explained as limiting the occurrence of information asymmetries and conflicts of interest among the parties (Ali et al., 2023; Twaissi et al., 2025). Stewardship-based Theory, conversely, does alter the perspective to that of trust as opposed to control, focusing on the key role of intrinsic motivation and the attributes of collaboration much more in line with transformational leadership theories (Ofori & Toor, 2012).

In this governance-leadership nexus, the Transformational Leadership Theory has emerged as a central concept that is feasible in stimulating PS through eliciting group motivation, innovation, and ownership to deliver the project (Aga et al., 2016). Not only is this type of leadership positively correlated with performance but also serves as an efficient tool of good governance through creation of ethical climates and participate processes (Nauman et al., 2022; Zhao et al., 2021). It defines the whole character of governance set-up, and the way rules can be understood and delivered. Nevertheless, academic interest in understanding their inter-relationship effects is lagging especially in the construction industry, not only because it is high-stakes and structurally fragmented but also there is an under-utilization of research on the same. It has been proved that, in such settings, leadership gaps and unclear governance structures still hinder the process of project delivery (Aziz et al., 2022; Hao et al., 2020).

More so, the existing models are applied within the context of western project context, and little do they translate well to developing contexts where the

actions of governance and leadership are transformational due to institutional voids and power differences. A related case in point is the Pakistani construction industry: its history of failures, ineffective regulatory policies and political influences make it necessary to study the ways governance and leadership interplay the processes with a highly contextual focus (Aziz et al., 2022; Irfan & Hassan, 2019). To fill this research gap, the present paper relates the three theoretical perspectives, Agency Theory, Stewardship Theory, and Transformational Leadership Theory to investigate (1) the independent and conjoint effect of the PG and PL on the Project Success (PS) and (2) whether the governance acts as a mediating mechanism in this connection. In achieving this, this research effort attempts to provide a thick description of the theoretical framework of project management as well as provide practitioners in the management of complex and resource limited projects with practical guidance in this respect.

Theoretical Basis and Research Hypotheses

Project Governance and Project Success

Project governance is the authority framework accountability, processes that direct project decision-making. It bears profoundly on the Agency Theory (Jensen & Meckling, 2019), according to which governance mechanisms are designed as the tools to control principal-agent conflicts and provide organizational control. When a project is complex in the construction industry, it has many stakeholders, and is susceptible to environmental uncertainties, then PG presents consistency, risk administration, and performance monitoring (Twaissi et al., 2025; Van Assche et al., 2022). Good governance implies the correlation of the project goals with the strategic ones, as well as the clear definition of risk, resources, and stakeholders' management (Afzal et al., 2022; Irfan & Hassan, 2019). There is literature supporting claims regarding instrumental value of governance in enhancing project outcomes. In the case of BIM-based construction projects, governance systems, including transparent decision-making policies and alignment of project stakeholders, are significant in terms of project effectiveness and quality (Kalajian et al., 2023). Adaptive governance can increase innovation and end the uncertainty in the setting of agile construction (Van Assche et al., 2022). A formalized governing structure is directly linked to timely delivery, the control of pricing, and stakeholder satisfaction, mainly in a country like Pakistan that is still developing (Afzal et al., 2022; Irfan & Hassan, 2019). These findings confirm the belief that structure of governance is not just a bureaucratic show but a strategic key to success.

H1: PG is positively influencing PS.

Project Leadership and Project Success

Leadership is an adaptive ability that complements governance by mobilizing human resources into the awareness of project objectives. According to the Transformational Leadership Theory on PL (Bass & Avolio, 1994), effective project leaders are passionate, intellectually dynamic and motivating their team therefore resulting in a highly functioning project environment. The use of leadership becomes pivotal in construction projects where the projects may include

interdisciplinary teams working together, shifting deadlines, and conflicts. Leaders have the chance to control and manage the matters of interpersonal relationships, formation of trust and resolution of ambiguity which has a direct impact on project outcomes (Aga et al., 2016; Ali et al., 2023). The relationship is verified by the facts of recent studies. Transformational leadership has a potential to enhance coherence and clarity of goals in complex projects drastically (Aga et al., 2016). Sarwar et al., (2017) in their study within the construction industry in Pakistan, also revealed that transformational leaders could help improve quality of decisions made and improve employee morale that ultimately led to performance of a project. In the construction industry of Ireland, Sexton et al., (2025) also mentioned that the leadership style may be one of the decisive factors to the results of project delivery. All this above evidence brings the point that leadership is not only a behavioral resource alone but rather a variable in the determination of success.

H2: PL is positively influencing PS.

The Mediating Role of Project Leadership

Although governance is the structural and procedural outline to project delivery, leadership has a strong role in becoming a blueprint. Leaders act as negotiators who translate corporate principles and relate them to team dynamics and make them adhere to it through inspiration, not through intimidation. This mediating role has a basis on Stewardship Theory (Davis et al., 1997) which is that trusted-empowered leaders will work towards the best interest of the organization by balancing governance and human behavior. This mediating effect is supported by empirical study. Leadership plays a significant role in augmenting governance influence on trust, job-related satisfaction, and performance within a project setting (Endzinaitė, 2024; Smith, 2020). According to Htet et al., (2025), leadership is a moderator attributed to transforming governance mechanisms to stakeholder satisfaction and on-time delivery. Such implications indicate that leadership is not simply a predictor of success but a channel through which mechanisms of governance acquire its intended destination.

H3: PL positively mediate the relationship between PG and PS.

Conceptual Framework

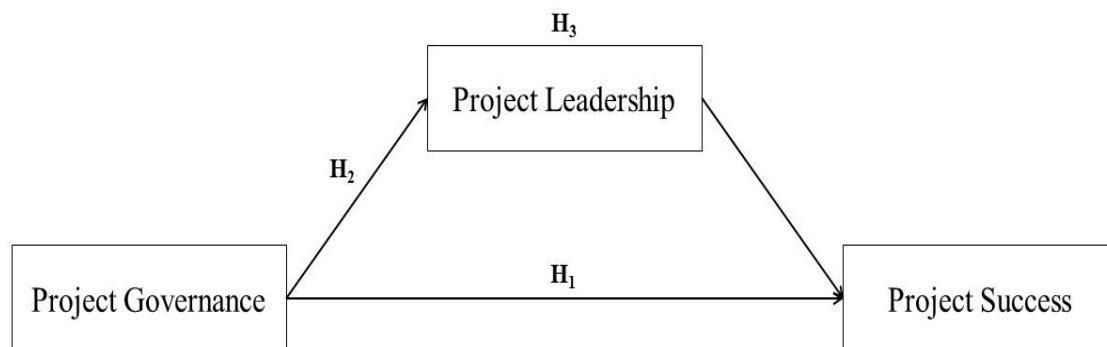


Figure-1 Conceptual Framework

Research Methods

The present study has used a quantitative and cross-sectional research design to examine how PG and PL influence PS in the construction industry in Pakistan. The study, relying on the Agency Theory, Stewardship Theory, and Transformational Leadership Theory, was deductive in nature and aimed to examine the connections between the variables. The construction industry was chosen as it is characterized by the highly sophisticated environment of stakeholders, there are often issues in delivering the project and, thus, involvement and governance become especially essential. Data was collected through the purposive sampling method of asking individuals in managerial positions with a minimum of one year experience in directing or supervising constructions project, including but not limited to project managers, engineers and site supervisors. The respondents received 250 questionnaires delivered both online and physically, of which 212 were responded to correctly and analyzed. The sample size was sufficient as per Partial Least Squares Structural Equation Modeling (PLS-SEM) recommendations.

The survey instrument was a structured questionnaire, which was divided into four sections, namely demographic information, PG, PL, and PS. Each variable was translated on a 5-point Likert scale (ranging between 1-strongly disagree; 5-strongly agree) on scales that had previously been validated. The Scale for PG and PS is adapted from (Joslin & Müller, 2016), while PL from (Aga et al., 2016). A two-step approach was followed to perform data analysis with SmartPLS 4.0.

RESULTS AND DISCUSSION

The study results were produced using Partial Least Squares Structural Equation Modeling (PLS-SEM) with SmartPLS 4.0. The steps of analysis were the testing of the measure model and the structural model. This two-step process enabled the validity of reliability and validity of measurement to be validated and then employed the direct and mediating path analysis to test the hypothesis.

Measurement Model Assessment

To test the reliability and validity of constructs, there are several critical indicators that have been used, which include Cronbach Alpha, Composite Reliability (CR) and Average Variance Extracted (AVE). All the constructs showed a reasonable internal consistency (Table 1), and the Cronbach Alpha was over 0.70 as well as the CR past 0.88 to 0.91. Better than that, AVE values were conditionally high (all > 0.50), and that also states that there is sufficient convergent validity (Hair et al., 2019; Hair Jr et al., 2010).

Table-1. Reliability analysis of constructs with convergent validity

Latent Variable (LV)	Items	Outer Loadings	CR	Cronbach's Alpha	AVE
Project Governance (PG)	PG1	0.712	0.890	0.842	0.620
	PG2	0.684			
	PG3	0.781			
	PG4	0.790			
	PG5	0.802			

Latent Variable (LV)	Items	Outer Loadings	CR	Cronbach's Alpha	AVE
	PG6	0.767			
Project Leadership (PL)	PL1	0.761	0.910	0.873	0.660
	PL2	0.778			
	PL3	0.742			
	PL4	0.804			
	PL5	0.768			
	PL6	0.727			
	PL7	0.844			
	PL8	0.821			
Project Success (PS)	PS1	0.730	0.884	0.854	0.640
	PS2	0.794			
	PS3	0.765			
	PS4	0.781			
	PS5	0.804			
	PS6	0.745			

Discriminant Validity

The Heterotrait-Monotrait Ratio (HTMT) criterion was used as an indicator of discriminant validity. Each of the HTMT values were substantially lower than 0.85, which is indicative of the uniqueness of the constructs as depicted in Table 2.

Table- 2. Discriminant validity using HTMT ratio

	PG	PL	PS
PG			
PL	0.594		
PS	0.532	0.612	

Structural Model Assessment

The structural model was used to evaluate direct and indirect associations among the research constructs. Table 3 presents the path coefficients, standard deviation, t-value, and p-value. All possible direct paths were significant ($p < 0.001$). PG was a strong predictor of PS (beta = 0.35) whereas PL had also a significant positive relationship on PS (beta = 0.42). The influence of the PG on PL was also found to be significant ($\beta = 0.50$), which may have a mediating effect.

Table- 3. Direct relationships results

Path	Path coefficient	Standard deviation	T-statistics	P-values
PG → PS	0.35	0.082	4.250	0.000
PL → PS	0.42	0.082	5.120	0.000

Path	Path coefficient	Standard deviation	T-statistics	P-values
PG → PL	0.50	0.079	6.329	0.000

Indirect effects were also determined to test the mediation hypothesis. The indirect effects of PG and leadership on PS were significant, as presented in Table 4 ($\beta = 0.21$, $p < 0.001$), which shows mediation.

Table- 4. Total Indirect Effect

Path	Path coefficient	Standard deviation	T-statistics	P-values
PG → PS	0.21	0.056	3.780	0.000

Following this, the given form of indirect effects (PG to PL to PS) in Table 5 also indicated strong mediation, proving the hypothesis that the relation of PG and success is mediated by PL.

Table- 5. Specific Indirect Effects

Path	Path coefficient	Standard deviation	T-statistics	P-values
PG → PL → PS	0.21	0.056	3.780	0.000

Structural Model Visualization

The final structural model was validated and graphically presented in Figure 2. The diagram shows the direction and strength of path coefficients confirming all the hypothesized ones. The value of R^2 , denoting the fit between PS and PG and PL, was 0.56, which implies that 56% of the variance in PS is impacted by PG and PL.

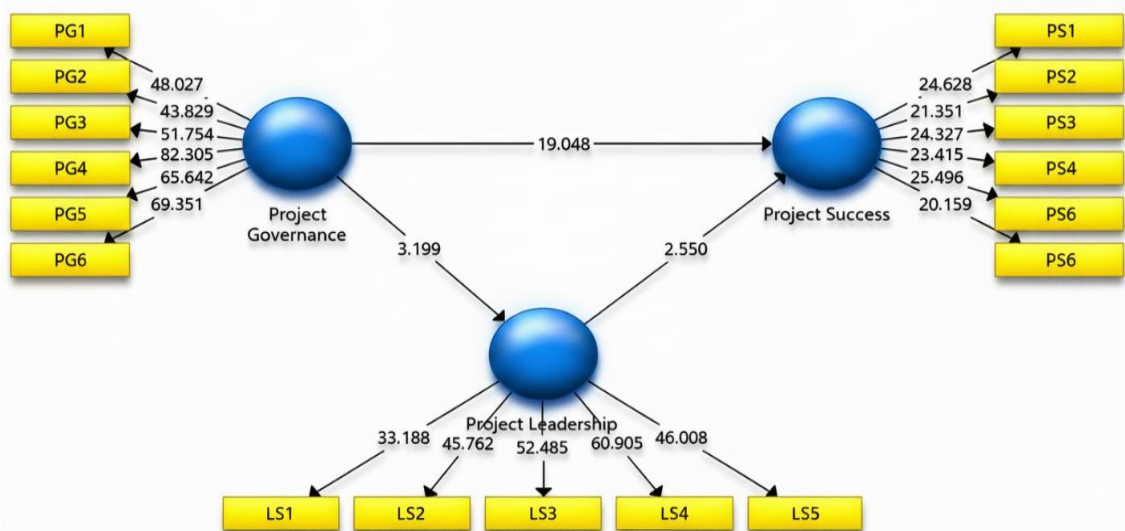


Figure-2 Structural Model

The paper explored the impact of PG and PL on PS in the construction industry and discovered that all hypotheses hold elements of empirical support. The findings confirmed the existence of a strong direct impact of PG on PS. This is consistent with the findings by Kalajian et al., (2023), who underscores that well-

established structures of governance such as clarity in roles, actions to make decisions, and holding various stakeholders to account, are critical issues in the success of project delivery in construction management. Since there is usually significant uncertainty and institutional fragmentation in the construction sector, particularly in creating contexts, the existence of strong governance cultures lowers project risk, improves resource alignment, and facilitates transparency (Afzal et al., 2022; Irfan & Hassan, 2019). Besides, the PG also indicated a clear and remarkably positive impact on PL, meaning that a good environment can improve the capability of the leader to fulfill transformational roles. This correlates with the framework proposed by Coulombe, (2015) who discovered how adaptive and strategic governance enshrines effective leadership innovation and responsiveness in dynamic projects environments.

In addition, the results give a good empirical add to end that PL can be a key factor influencing the success of the project in the most positive way and mediates the correlation between governance and performance. This is the behavioral path that the principles of governance pass into project results. These findings are aligned with those of (Farea, 2021; Iqbal et al., 2019), who revealed that transformational leadership that incorporates inspired motivation, intellectual stimulation and individualized consideration is a significant mediating factor in increasing mega construction projects success. In the same way, Htet et al., (2025) found that transformational leaders do not only lead to a direct performance benefit but also make governance systems possible, thanks to trust, cohesion, and engagement. The above paragraph becomes a kind of confirmation that is lent to the Stewardship Theory, which contends that leaders can bring structure and implementation into harmony when they perform the role of stewardship over the vision of an organization and the interest of stakeholders. This behavioral mediated coupling between governance and leadership is a comprehensive model of PS within construction projects where both structural and human dynamics are a focus. It also adds to theory by providing a multi-tiered model in which transformational behavior increases structural influence, which better empirically supports previous conceptual standings by Curran et al. and broadens theory in the South Asian construction setting.

CONCLUSION

The study evaluated and analyzed the roles that PG and PL play to project achievement in the construction industry and further leadership serves as a mediator. The results agree that governance structures directly better projects and, indirectly, contribute to transformational leadership which, in its turn, has a massive positive impact on the success of a project. The combination of theories of Agency, Stewardship, and Transformational Leadership served as a solid reference point in terms of structural and behavioral inputs concerning project performance.

Research Implications

The findings provide valuable practical information. To bridge the gap between structure and implementation, construction companies do not simply need to install formal systems of governance but also to offer transformational leadership. The performance of the governance in this area can be enhanced by leadership development based on vision, inspiration and self-empowering of the staff. The research also goes further to provide theoretical frameworks by showing how leadership behavior mediates the effects of structural systems on outcomes.

Limitations and Future Recommendations

This research has several valuable contributions; however, certain limitations should be discussed. The study was based on self-reported survey results among the people occupying project positions and this can lead to the possibility of introducing common method bias despite the adoption of other procedural methods like gathering validated instruments and survey anonymity. The lack of context on the project variables like project size, type of contract or the company structure which can possibly explain the influence of governance and leadership over the success of the project can also be seen as another weakness. Also, objective performance indicators, such as project schedule variance or cost performance index, were not utilized in an examination, which could have served as a complement to a perceptual assessment of PS. Lastly, other constructs like organizational culture, digital adoption, or dynamics of external stakeholders were not studied, but are known to affect both the effectiveness of governance and behavior of the leadership in complex project situations.

Future studies ought to apply multi-source and objective data to corroborate perceptual evaluation of project performance and minimize monotonous method variance. However, the projects audits, insights into the clients, and quantitative KPI data (e.g., cost, quality performance indicators) would add to the credibility of results. Investigators will also be invited to study the moderator effects of project complexity, stakeholder diversity, and contract governance mechanisms on how governance and leadership yield results. Also, it might be worth exploring how technological variables, i.e., the use of Building Information Modeling (BIM), AI-based monitoring systems, or agile project platforms could determine the relationship between digital maturity and governance frameworks. The generalization of the theoretical model to consider effects of organizational and inter-organizational dynamics like supply chain coordination and trust networks may provide more insight into project management in a high-risk environment, or with multi-parties.

REFERENCES

- Afzal, N., Hanif, A., & Rafique, M. (2022). Exploring the impact of total quality management initiatives on construction industry projects in Pakistan. *PLoS One*, *17*(9), e0274827.
- Aga, D. A., Noorderhaven, N., & Vallejo, B. (2016). Transformational leadership and project success: The mediating role of team-building. *International Journal of*

- Project Management*, 34(5), 806–818.
- Ali, S. M., Waseem, F., Anjum, H. Z., & Hafeez, R. M. Z. (2023). Impact of Project Leadership on Project Success: Mediated by Project Governance and Moderated by Goal Clarity. *Journal of Financial Technologies (Fintech), Inclusion and Sustainability (JFTIS)*, 2(1), 1–18.
- Aziz, R. A., Jaapar, M. H., Yusop, W. S., Singh, B., Murukaya, G., Benedict, J. S., Haque, R., & Senathirajah, A. (2022). Leadership in project management: A study of the relationship between leadership styles and project success. *Res Militaris*, 12(4), 1900–1907.
- Bass, B. M., & Avolio, B. J. (1994). *Improving organizational effectiveness through transformational leadership*. sage.
- Coulombe, C. (2015). Innovation, adaptive leadership and project management. *Review of Integrative Business and Economics Research*, 4(4), 225.
- Davis, J. H., Schoorman, F. D., & Donaldson, L. (1997). Toward a stewardship theory of management. *Academy of Management Review*, 22(1), 20–47.
- Endzinaite, A. (2024). *Adaptive leadership in project management. expansion into foreign countries*. Vilniaus universitetas.
- Farea, M. M. (2021). The Impact of Transformational Leadership Factors on Project Progress and which Factor has Significant Influence and Great Contribution towards Project Success. *Management*, 1389–1412.
- Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report the results of PLS-SEM. *European Business Review*, 31(1), 2–24.
- Hair Jr, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2010). Multivariate data analysis. In *Multivariate data analysis* (p. 785).
- Hao, W., Mehmood, S., Shah, A., Nawaz, A., Atif, M., & Noman, S. M. (2020). The impact of CPEC on infrastructure development, a-double mediating role of project success factors & project management. *Revista Argentina de Clínica Psicológica*, 29(4), 737–750.
- Htet, A., Liana, S. R., Aung, T., Bhaumik, A., & Giri, O. P. (2025). Impact of Risk, Quality, and Stakeholder Management on Project Success: The Mediating Role of Leadership Styles in Myanmar's Construction Industry. *Journal of Multidisciplinary Research for SMET (JMR-SMET)*, 1(1), 1–25.
- Iqbal, S. M. J., Zaman, U., Siddiqui, S. H., & Imran, M. K. (2019). Influence of transformational leadership factors on project success. *Pakistan Journal of Commerce and Social Sciences (PJCSS)*, 13(1), 231–256.
- Irfan, M., & Hassan, M. (2019). The effect of project governance and sustainability on project success of the public sector organizations in Pakistan. *Journal of Social Science and Humanities*, 27, 177–198.
- Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. In *Corporate governance* (pp. 77–132). Gower.
- Joslin, R., & Müller, R. (2016). The relationship between project governance and project success. *International Journal of Project Management*, 34(4), 613–626.

- Kalajian, K., Ahmed, S., & Youssef, W. (2023). BIM in infrastructure projects. *International Journal of BIM and Engineering Science*, 6(2), 74–87.
- Nauman, S., Musawir, A. U., Munir, H., & Rasheed, I. (2022). Enhancing the impact of transformational leadership and team-building on project success: The moderating role of empowerment climate. *International Journal of Managing Projects in Business*, 15(2), 423–447.
- Ofori, G., & Toor, S.-R. (2012). Leadership and Construction Industry Development in Developing Countries. *Journal of Construction in Developing Countries*, 17.
- Sarwar, H., Nadeem, K., & Aftab, J. (2017). The impact of psychological capital on project success mediating role of emotional intelligence in construction organizations of Pakistan. *Journal of Global Entrepreneurship Research*, 7, 1–13.
- Sexton, K., Curran, M., Spillane, J., & Bradley, J. (2025). *Know the Way, Go the Way, and Show the Way: Leadership Styles for Project Success in the Irish Construction Industry*.
- Smith, D. R. (2020). *Adaptive leadership strategies and project success of construction project managers in Jamaica*. Walden University.
- Twaissi, N. M., Almomany, G. A., Masa'dehs, R., & Ashal, N. M. (2025). The Impact of Effective Project Governance on Project Success: The Mediation Role of Relational Norms. *Calitatea*, 26(204), 57–65.
- Van Assche, K., Valentinov, V., & Verschraegen, G. (2022). Adaptive governance: learning from what organizations do and managing the role they play. *Kybernetes*, 51(5), 1738–1758.
- Zhao, N., Fan, D., & Chen, Y. (2021). Understanding the Impact of Transformational Leadership on Project Success: A Meta-Analysis Perspective. *Computational Intelligence and Neuroscience*, 2021(1), 7517791.