

**Project Management Drivers of Failure in Mega Construction Projects in Pakistan: A  
Qualitative Synthesis for Governance Reform**

**Muhammad Adnan**

[adnanmalikas2@gmail.com](mailto:adnanmalikas2@gmail.com)

Msc Project Management University of Sunderland LONDON

**Tahira Noureen**

[tahiranoureen6@gmail.com](mailto:tahiranoureen6@gmail.com)

MS, Riphah International University, Islamabad, Pakistan

**Rashid Latif**

[hellorashid1982@gmail.com](mailto:hellorashid1982@gmail.com)

MS Project Management, Comsats University Islamabad, Pakistan

**Usama Javed**

[usamajavedchughtai@gmail.com](mailto:usamajavedchughtai@gmail.com)

Mphil Anthropology programme,  
Institute of Social & Cultural Studies Bahauddin Zakariya University (BZU) Multan

**Zahra Syed**

[syedasyed717@gmail.com](mailto:syedasyed717@gmail.com)

MPhil Education from University of Education

**Muhamamd Asif Iqbal**

[asif.cec.pk@gmail.com](mailto:asif.cec.pk@gmail.com)

Mphil Anthropology programme,  
Institute of Social & Cultural Studies Bahauddin Zakariya University (BZU) Multan

**Muhammad Irfan**

[malikirfankhoor0@gmail.com](mailto:malikirfankhoor0@gmail.com)

Mphil Anthropology programme,  
Institute of Social & Cultural Studies Bahauddin Zakariya University (BZU) Multan

**Corresponding Author: \* Muhammad Adnan** [adnanmalikas2@gmail.com](mailto:adnanmalikas2@gmail.com)

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**ABSTRACT**

*The mega construction projects are supposed to increase energy supply, transport connectivity, water security, and urban productivity in Pakistan, but most of them have been provided late, at high cost, or lower than planned capacity. The paper is a synthesis as a publication would be because this result is repeated on a larger thesis. The study is based on ten large Pakistani infrastructure projects (hydropower, transport, water and energy schemes) analyzed within the framework of qualitative and case-based study relying on a thematic analysis of secondary evidence. The analysis finds five common and mutually supporting causes of failure, including weak front-end planning, reactive risk management, financial mismanagement, coordination breakdowns as well as political interference. These factors do not act alone but rather have an interaction as a failure system. Unrealistic schedules and budgets are the results of poor feasibility work; exposure to geological, climatic, regulatory and social shocks is where poor risk governance has been made; poor financial controls are used to disrupt cash flows and procurement, poor stakeholder coordination causes the projects to slow down decisions and increase disagreements; and political intervention creates*

*instability in priorities, leadership and accountability. The article contends that in Pakistan, project failure can only be explained in an integrated governance perspective but not in the single-factor explanations. It draws on systems thinking, stakeholder theory, legitimacy theory, and technology adoption perspectives to demonstrate how a permanent change can be achieved based on institutional reforms to enhance front-end diligence, risk ownership, open financial controls, digital project controls, and safeguard against short-term political interference. The paper concludes by providing policy and managerial recommendations on how to enhance the reliability of delivery, regain public confidence, and enhance the value of the future mega projects in terms of development.*

**Keywords:** *mega construction projects; Pakistan; project failure; project governance; planning; risk management; financial control; stakeholder coordination; political interference*

## **INTRODUCTION**

Mega construction projects take strategic position in development of a country since they format the infrastructural structures on which the economy relies. Transport links, dams, power plants, water supply systems, urban transit systems are expected to enhance productivity, expansion of market access, decrease service shortages, and enhance competitiveness in the long-term (Khan et al, 2025). Such projects are also symbolic politically in Pakistan as they indicate capacity of the state and developmental aspiration. Regardless of this significance, numerous large-scale projects have been characterized by a long delay, redesign, cost increment, underperformance, or even abandonment (Nisar & Asif, 2023). This trend can be observed in high-profile projects like the Neelum-Jhelum Hydropower Project, Lyari Expressway, Karachi Circular Railway, Nandipur Power Project, K-IV Water Supply Project and Lowari tunnel. These results are direct costs of the economy, yet their implications are broader. Failure of big projects entrap government funds in ineffective assets, undermines investor trust, continues to provide insufficient services and discredits government institutions. These aftereffects are particularly harsh in the developing-country contexts since infrastructural disparities are already high and the fiscal space is constrained (Sabri et al, 2025). Pakistan is then a critical environment to study the reasons why mega construction projects have continued to be underperforming and the type of project governance reforms that are needed to enhance delivery.

It aims at establishing the primary factors in project management that relate to project failure in Pakistani mega construction projects and how the factors interact to contribute to failure. The value of the contribution of the paper is two-fold. It is a synthesis of various project experience in Pakistan that can describe failure in a manner that is understandable to scholars, policymakers, and practitioners. It brings on board an integrated theoretical approach to demonstrate the inadequacy of technical solutions. The issues of planning, finance, risk, and implementation are integrated into the stakeholder relations, institutional legitimacy, and the bigger picture of governance. The paper thus proceeds with the point that integrated systems, transparent and politically insulated project management are better placed to achieve better projects in Pakistan, than disintegrated systems of project management that are reactive.

## **LITERATURE BACKGROUND AND ANALYTICAL LENS**

Planning and risk management have been long recognized as core determinants of the delivery performance in research regarding project failure. Scholarship on project management in the early days highlighted the point that ambiguous scope, ineffective scheduling, poor resource prediction, and poor risk detection is likely to result to delays and cost overruns of any major infrastructure project (Saif et al, 2025). Later studies have also broadened this perspective to demonstrate that stakeholder conflict, institutional fragmentation, legitimacy pressure and unequal use of digital management tools are also causes of project outcomes. There are four analytical perspectives that could be particularly helpful in explaining mega project failure in Pakistan. The first one is systems thinking. Mega projects do not involve a straightforward sequence of

activities, they are complicated systems with interdependent technical, financial, regulatory and social subsystems. Failure of one of the areas, e.g. procurement, land acquisition, or design approval, can spread over to the larger failure via budget slippage, contractor claims, idle equipment, and schedule breakdown (Ali et al, 2025). The usefulness of systems thinking is therefore that it does not encourage the limited explanations but instead, interdependence is emphasized.

The second one is the stakeholder theory where the focus has been made on the actors whose interests influence the performance of projects. Ministries, executing agencies, financiers, consultants, contractors, regulators, local communities, courts and political leaders are some of these actors in mega construction. They have seldom the same priorities. Governments can desire noticeable progress, contractors can want protection of claims, communities can focus on compensation and environmental protection, and regulators can demand adherence to procedures. In cases where the expectations of stakeholders are not well aligned, there is resistance, delay and dispute in the projects. Early stakeholder mapping and continued engagement is therefore not a luxury, but part and parcel of project control (Iqbal et al, 2024).

The third one is legitimacy theory. Other than the formal approvals, infrastructure projects need acceptance of the people and institutions. Perceived as politically imposed, harmful to society, careless to the environment, or financially opaque projects may lose legitimacy and become protested, sued, resisted by the regulatory system or have political support withdrawn. In Pakistan, where mega projects are a very visible phenomenon, which is politically controversial, legitimacy is directly related to continuity of implementation (Khan et al, 2025). The fourth viewpoint deals with the use of technology in the project management. The modern construction governance is more and more relying on the use of Building Information Modeling, computer-based scheduling, real-time reporting dashboard, and the combined use of cost-control software. In the cases where these tools are not available, the project teams use disjointed communication, slow reporting, and poor monitoring. In Pakistan, the adoption of such technologies has been slow thus affecting many projects to coordinate interfaces, tracking the progress of the project and identifying emerging risks (Ali et al, 2025).

The literature on the infrastructure development in the developing countries also indicates that these dimensions are particularly hard to handle in the context where the bureaucratic capacity is disproportionate, the procurement systems are slow and weak policy continuity. Under these conditions, the project management cannot be made simple by applying simple tools that have been imported in mature institutional environment. Formal methods might be on paper, but still useless in practice when the institutions have no power, data, incentives, or cross-agency coordination to deploy the methods effectively. It is especially applicable to Pakistan, where complicated infrastructure is frequently presented in overlapping jurisdictions and where such execution requires a long-standing collaboration, on federal, provincial, and local tiers (Akram et al, 2023). Another literature gap is related to the disposition to examine planning, finance, risk, and stakeholder engagement individually. Although such separation proves to be analytically convenient, it may blur how accumulation of problems within real projects takes place. A project that was initiated on poor feasibility is more likely to require revision of budget; budget stress complicates coordination; coordination failure increases the conflict amongst the stakeholders; stakeholder conflict encourages political intervention; political intervention tends to further destabilize the scope and funding. The current paper addresses this gap by consciously addressing these domains as interrelated components of a single governance system in lieu of independent causes.

## **METHODOLOGY**

The paper is based on the qualitative design elaborated in the initial thesis and reduces it to a publication-oriented. The study is an interpretivist approach since it attempts to know how managerial and institutional processes interact to produce project failures not by one measurable variable. Inductive approach was

employed to enable patterns to emerge out of the evidence instead of imposing a strict causal model on the data. The empirical data of the research is composed of secondary sources that cover ten Pakistani megaprojects in infrastructure: Neelum-Jhelum Hydropower Plant, Nandipur Power Project, Gadani Power Project, K-IV Water Supply Project, Indus Refinery Project, Lyari Expressway, Chand Tara Island, Karachi Circular Railway, Gomal Zam Dam and Lowari Tunnel. Such sources are project reports, government documents, audit documents, public evaluation, and other related scholarly literature. The secondary evidence is correct in this case as much of the failures under consideration are already written in official and quasi-official sources and the objective is to find out repeated managerial trends across the cases and not recreate one project in ethnographic detail.

The thematic analysis was used to analyse the data. Thematic analysis was also specially appropriate as it enabled the study to draw a comparison between unlike projects without obliterating their differences. The technical profiles of hydropower, transport, energy, and water schemes have their own peculiarities, and thanks to the approach, it became possible to pinpoint common managerial pathologies among them. This was not to be statistical generalization. Instead, it was analytic generalization: to establish repetitive patterns of governance failure which are manifested in diverse types of projects, thus having explanatory value.

Themes were developed through refinement in order to enhance interpretive consistency. Initial codes were merging where they represented the same underlying process and broader themes were only used where they were present in more than one project and had definite connections to cost, time or operational outcomes. This was crucial since mega projects usually harbor dozens of easy to observe symptoms but most of the symptoms are the result of fewer structural defects. The last thematic framework hence favors the explanatory detail to the descriptive enumeration.

## **FINDINGS AND DISCUSSION**

Through the analysis, it is revealed that the cause of failure in the project of the Pakistani country is most accurately referred to as the compound effect of interlocking management flaws and not isolated failure points. The cases were always consistent with five themes.

### ***Weak front-end planning***

The initial and the most essential cause of failure was inadequate front-end planning. Feasibility studies were far too general or too optimistic, or out of touch with the realities of implementation in most instances. Difficulties in technical complexity, geological uncertainty, utility interfaces, environmental constraints and issues of right-of-way were often underestimated. This led to projects being taken into execution with weak scope definitions, unrealistic schedules and half-baked design assumptions (Ullah et al, 2026). There were a number of impacts of this weakness. It was nearly inevitable that rework would occur. In case of concealed geological conditions, social rejections or integration issues, the projects had to be redesigned, resequenced, and the base revisited. It distorted costing. The actual cost of access works, mitigation measures, design adjustments and delay claims could not be incurred on the optimistic assumptions on which their budgets had been prepared (Mehmood et al, 2026). Poor planning usually led to functional mismatch. Core assets in a few situations were developed in advance of the supporting systems, e.g. generation capacity before transmission was available or water supply commitments before distribution upgrades. This implied that in areas where construction was observable, service delivery was slow or assets were not fully used.

### ***Reactive and incomplete risk management***

The second significant theme was risk management that was not done properly. A lot of projects were having nominal risk registers but risk governance was procedural instead of operational. Risks were noted to go in

line with the reporting requirements, but they were seldom converted to quantified contingencies, scenario planning, or nimble delivery plans. The recognized risks included geological risk, climatic risk, political risk, regulatory risk, inflation risk, land risk, and supply-chain risk, which had not been properly priced, buffered or assigned to clear owners (Suffian, 2026). This reactionary pose produced what could be referred to as surprise premium. Projects lacked the flexibility and the contingencies that were approved prior to arrival of expected shocks, thus when these occurred, they were not able to act with efficiency. Work was halted, redesign was started on the spur of the moment, claims were on the increase, and fiscal demands were increased. The hydropower, tunnel and the dam cases were particularly susceptible as geological and weather factors were heavily risky, but the project systems tended to refer to this factor as noise background, and not as a core schedule and cost factor (Saad et al, 2026).

Another governance issue also surfaced: risk ownership was divided. Technical, construction, funding and social risks are with consultants, contractors, ministries, and local authorities respectively. Since each actor did not have a built-in responsibility in regards to escalation and mitigation, multidimensional risks were inter-institutional. This disintegration transformed uncertainty into delay and delay into system failure (Ibrahim et al, 2025). Probabilistic forecasting, contingency structures that are pre-funded, adaptive contracting, and definitive escalation thresholds would be needed in such environments in order to manage risks.

#### ***Financial mismanagement and fragile budget control***

The third theme was the problem of financial mismanagement. Cost baselines were frequently politically comfortable as opposed to analytically sound and financial planning was not well related to project stages and risk exposure. Other predictable drivers on budgets that were underestimated in various project include inflation, exchange-rate movement, land acquisition, environmental mitigation, and technical complexity. When construction hit its snag, the disbursement systems were so slow and inflexible that they could not stabilize implementation (Sultan, 2025). Operation had dire effects due to cash-flow problems. Unpaid money resulted in a slowing of the work by the contractors, the teams were demobilized, future claims were overstated, and the uncertainty was hedged by risk premiums. Timing of procurement was often bad as well. In others, imported machinery was purchased prior to site preparation, clearance of land or environmental clearances, becoming costly stocks. This indicates a structural disconnect between decision-making implemented logic and financial decision-making (Ali, 2024). There was also a poor transparency and diagnostic control. Most of the projects did not have effective real-time financial tracking tools, and a well-developed variance analysis or built-in dashboards that would be able to connect cost, schedule, and progress. The audits were more of a routine and post hoc than of anticipatory and remedial nature (Akoh et al, 2025). This level of transparency not only permitted inefficiency to exist; but also provided more room to argue, distrust, and corrupt. In that regard, financial mismanagement was not an accounting problem. It disrupted the whole delivery chain.

#### ***Coordination-related weaknesses***

The fourth theme was lack of coordination. The mega projects involve co-ordination among the ministries, regulating bodies, provincial agencies, contractors, consultants, utilities, and communities. This alignment was quite common in the reviewed Pakistani cases. The stakeholders had different mandates, time scales and reporting systems and had little control to address issues of interface promptly (Ghafoor & Rehman, 2025). A large number of projects were undertaken in the fragmented bureaucratic channels instead of having a single programme structure. This disintegration resulted in significant inefficiencies. The permits were behind the mobilization, land acquisition was behind procurement, grid interfaces were behind generation works, and community grievances were solved when the conflict has grown. Technical issues often ended up as administrative stalemates in the absence of a strong coordinating mechanism. Uncertainty gave way to

contractors to insure claims, ministries passed the buck and project departments lost momentum (Rehman et al, 2025).

The very system of communication was not so strong. The issues at the site level were not passed through formal escalation channels and decision turnaround was low. Alterations and modifications of the design might take months before they are resolved. The absence of common digital platforms or combined reporting meant that various actors operated using the inconsistent information, which enhanced the chances of duplication of efforts, wastages, and mistrust. Weakness of coordination thus served as multiplier of all the risks: bad planning was exacerbated by agencies being unable to coordinate; financial stocks were exacerbated by approvals not being made; tensions among stakeholders were increased by no one able to make timely decisions.

### ***Political interference and instability***

The last and context-dependent theme was political interference. Political influence was also witnessed in the change of priorities, leadership, favoritism on contracts, and discontinuity across governments and pressures to declare progress before projects were institutionally prepared. This intervention adversely affected continuity and managerial discipline (Arif & Mahsud, 2024). The behavior in the projects was influenced by politics in at least three ways. First, it stimulated early project start on shaky basis and optimistic budgets since publicity was important than completion preparedness. Second, it undermined the governance in the implementation. Alterations in political leadership can have had a tendency to change funding priorities, decision options, or project funding, creating administrative discontinuity. Third, accountability was skewed by politics. In cases where a project was associated with a prestige or patronage, poor performance was not always handled in the professional manner; rather, tasks were redistributed, concealed or reread. Legitimacy was also strongly interacting with political interference (Ahmad, 2025). The projects that had lost social credibility or got linked to waste and favors could be more easily challenged in courts, opposed by the population and discarded. In this regard, political instability was not merely sitting on the sidelines of project management its intrusion into project management manifested through the influence of incentives, sequences and institutions credibility.

### ***Interdependence of failure drivers***

One of the most important conclusions of the analysis is that these five themes cannot be rated as independent causes. They work as a dependant structure of failure. Unrealistic budgets and schedules are the byproducts of poor planning; poor risk management exposes the plans to the elements; financial instability compromises the implementation; coordination failure delays the ability to correct; and political interference is a barrier to consistent learning and accountability. That is why most of the projects in Pakistan do not just face a single issue but go into a series of redesign, conflict, time loss and cost escalation. This evidence thus proves a systems based explanation of project failure (Nazar & Abbas, 2025). The results also assist in understanding the need to ensure that pure technical reform is not enough. Educating engineers will not address issues based on the divided governance, politicized budgetary processes, bad stakeholder management, and low legitimacy. The managerial systems needed in mega projects are those which combine technical planning with financial realism, social consent, risk ownership and institutional coordination. This implies that in the Pakistani context, project success cannot be achieved without governance reform.

One more item is worth highlighting: technology weakness cannot be considered as the sixth theme but as a cross-cutting condition enhancing the leading five. In the absence of digital controls, shared data environments, real-time dashboards, planning assumptions were more difficult to test, financial variance more difficult to discern, coordination mistakes more difficult to endure, and risk was poorly visible until converting into crises. On the other hand, increased adoption of technology may help in all five areas of

reforms as it will enhance traceability, interface control, and decision-making in a timely manner. In this regard, managerial modernization is a facilitating reform that makes governance capacity stronger but not as an addition of technicalities (Suffian, 2026). The results also have theoretical values. System thinking would say that repeated efforts to make a correction isolated only fail to work. The stakeholder theory explains why technically rational plans continue to be disrupted when interests are not taken into account or even when the balance of interests is violated. The legitimacy theory demonstrates the importance of public support, legal acceptance and political continuity in implementation, and not in public relations only. Technology adoption views reflect the reasons why organizations that have poor digital practices find it tough to transform plans into credible control.

## CONCLUSION

Pakistan Mega construction projects do not fail due to the failure of a single variable, but as a result of a combination of multiple weaknesses throughout the project life cycle. This paper has demonstrated that ineffective planning, inappropriate risk management, abuse of finances, failure of coordination and political interference is a common trend in mega infrastructure projects. All this adds up to the reasons behind chronic delay, cost increase, poor operational performance, and loss of community trust in projects. The article believes that the key issue to improving in the future is to abandon fragmented and reactive project administration to integrated governance. There is a need to have stronger front-end diligence, disciplined risk ownership, transparent financial control, effective stakeholder engagement, digital monitoring and isolation of destabilizing political pressure. The general idea is that the delivery of infrastructure is not purely an engineering problem. It is a governance issue where the three, technical competence, institutional coordination, and legitimacy have to pull together. In the case of Pakistan, there is much at stake. Not only would dependable project delivery prove to be a waste-way of saving it; it would enhance energy security, mobility, provision of water and economic confidence. The failures that we are going to look at here hence present more than just cautionary examples. They offer a foundation on which the state can reform its approach to planning, governing and provision of the infrastructure that is the basis on which long-term development relies.

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