

INFRASTRUCTURE PROJECT GOVERNANCE: AN ANALYSIS OF PUBLIC SECTOR PROJECT IN NORTHERN PAKISTAN

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ABSTRACT

Infrastructure projects in developing countries have been criticized for cost overrun, delay, substandard construction works, ineffectiveness and low efficiency. In this regard, the project governance approach offers a structured mechanism to analyze and address all of these inherent risks in a timely manner. This study has reviewed the academic literature relating to the need for project governance on infrastructure projects in order to assess the potential causes of the success and failure of projects. The review is further elaborated by discussing a case study, which represents an example of the ill planning of infrastructural development projects in the Northern region of Pakistan. This study suggests the need for exploring potential applications of project governance practices in public sectors of developing countries.

Keywords: Project governance, Infrastructure projects, Stakeholders, Pakistan

INTRODUCTION

Project governance has become an important topic for debate in academic literature since last decade. Project based organizations are adopting project governance approach to meet strategic objectives. Nevertheless, Organizations initiate projects with the best of intentions to succeed, but

due to the different challenges associated with governing and managing them, many projects fail and the reasons are often unclear. Traditionally, the outcomes of projects are measured in terms of completing them within the constraints of scope, time, cost and quality. But increasingly, assessments of projects are being expanded to governance and include their ability to achieve desired performance and better outcomes. Failures of mega projects have fueled the quest to explore and apply project governance approach. Irrespective of an industry or sector, establishing a governance mechanism is an important and, ideally, the first step in a project's development.

An effective governance mechanism ensures input from the key stakeholders and “confers legitimacy” upon project decisions and outcomes. The developing countries should focus on extensive infrastructure provision to achieve/sustain economic growth and to meet the standards of the developed economies (Jnr, 1996). Governance structures and processes define and create subsystems for operating procedures and are devised to ensure the common direction of the distributed effort (Schroeder, Pauleen, & Huff, 2012). Good governance has the aptness to navigate the projects through different uncertainties and unexpected events. Garvin (2009) has stressed the motivation of stakeholders for project goals towards achieving good governance.

In infrastructure projects, complexities and uncertainties are very common and the distinctiveness and individuality of infrastructure projects are due to their unique social and environmental requirements (Guo, Chang-Richards, Wilkinson, & Li, 2014). The reconciliation of the internal management and governance structure of the project to align them with the strategic objectives have been the organizational challenges (Too & Weaver, 2014). Miller and Hobbs (2005) have claimed that project governance has become an important topic in the project management literature and community.

This study has reviewed the academic literature relating to the need for project governance on infrastructure projects in order to assess the potential causes of the success and failure of the projects. A review of the literature was carried out through searches on infrastructure development projects and project governance related documents and research articles on ProQuest, Google Scholar, publications in the international journals and secondary data from reports from the Planning & Development, Department, Govt. Of Gilgit-Baltistan, Pakistan.

Project is defined as “a temporary endeavor undertaken to create a unique product or service” (PMBOK, 2013). Having a specific start and end points, projects are distinctive in their output, temporary in nature and are carried out to organizational strategic objectives. Governance—

“derived from the Greek verb *kubernao*, which means to steer, governance is defined as the act of governing, or steering the policies, management and activities of an organization at the highest level, with the authority, credibility and responsibility to do so”. Initially, the policy research in political science had developed the governance theory (Friedmann, 1981; Krieger, 1971; Nachmias & Greer, 1982). In an international context, governance means the ways in which power is used to cope with the country’s social and economic resources for development (Meso et al., 2006). McGrath and Whitty (2015) have described project governance as “the system by which a project is governed (directed and controlled) (p.781)”. Project governance is involved in management and governance functions for individual projects and their deliverables (Too & Weaver, 2014). Bekker and Steynde (2009) identified that “project governance is a set of management systems, rules, protocols, relationships and structures that provide the framework within which decisions are made for project development and implementation to achieve the intended business or strategic motivation”. So, project governance can support a good operational environment and provide a guarantee for project success.

LITERATURE REVIEW

The precedent literature reveals that single firm, multi-firm and large capital schools are the three fundamental thoughts on project governance. Firstly, the single-firm school is involved in governance principles related to internal organizational projects. Secondly, the multi-firm school addresses the governance principles related to two or more than two organizations participating on a contractual basis on the same project and focuses their governance efforts on the technical and strategic levels. Thirdly, the large capital school considers projects as temporary organizations which create their own entity and establishes governance principles on an institutional level (Bekker, 2014). In addition to this, there are three major types of project governance based on stakeholder involvement in the literature. The first type of project governance puts emphasis on analyzing a single firm's governance scheme with its multiple projects, which is the final decision-making body to control policies, processes and activities of the projects. The second type ponder on multi-firm projects where different organizations are involved in contractual agreements and the involved firms have their vested interests in the project and the main stress is to safeguard the intellectual property. The third type deliberates on the projects like hybrid or network structures which are involved in various interconnected actors depending on the existence of

one topmost hierarchical authority, which is always the lead sponsor or underwriting firm (Ruuska et al., 2011).

Levitt et al. (2009) discussed that previous research on project governance has raised the question of who operates and owns long-term infrastructure development projects. Comparing the efficiency and productivity of public and private organizations with respect to the infrastructure projects has also been a query. Levitt et al. (2009) further questioned how public and private organizations can manage the governance challenges, effectively, which occur during different phases of the project, i.e., project shaping, execution and operation. This study identified two different types of challenges which arise steadily during the project shaping, implementation and operation phases of infrastructure project governance, which are: “(1) opportunism in the presence of the displaced agency – i.e., conflicts between the incentives of the parties leading the decision-making in each of the successive and interdependent phases of the design, construction and operations that lead to sub-optimal investment and may lead them to pursue their self-interest with guile and (2) political and regulatory risk – i.e., ex post political interventions in operational decisions”.

Governance has become pivotal in the investment and outcome of infrastructure projects (Sharma, 2012). Reside and Mendoza (2010), in their study, have also acknowledged the governance issue as an important constituent for infrastructure development projects. As corruption is a sign of failed governance and has a negative effect on the returns of the infrastructure investments, it has made the issue of governance a significant factor of infrastructure development projects (Kenny, 2007). Two features of infrastructure development projects have made them ideal for the understanding of socio-political governance; firstly, the infrastructure projects are produced by multiple counterparties through a complicated series of interlinked transactions, secondly the significance with respect to the development process, nation’s security and comfort which has made the infrastructure development process politically prominent (Levitt et al., 2009). Many organizations have recognized the importance of critical success factors (CSFs). Babatunde et al. (2016) stressed the need of identifying the CSFs for public-private partnerships (PPPs) for the successful execution of PPP projects. Zhang (2005) termed the identification of CSFs as an important step for the development of a practical and proficient PPP protocol. Jefferies, Gameson, and Rowlinson (2002) have stated that the phrase CSFs was initially used in the perspective of project management and information systems. The Rockart and Sloan School of Management developed the concept of CSFs (Jefferies et al., 2002). To achieve goals and organizational performance,

CSFs demand constant and vigilant attention from the management (Ram & Corkindale, 2014). Babatunde, Perera, Zhou, and Udejaja (2016) have identified six principal factors for CSFs which include “reliable concession arrangement with due diligence, serious commitment with adequate technical strength, favorable economic environment, government support with enabling legislation, bankable project with adequate stakeholder’s involvement and strong “political will” with committed private partners”.

Enserink and Koppenjan (2007) have indicated that community participation can be a factor to collaborative governance, progressive development and efficient projects. Participation is a process through which stakeholders motivate and share control over priority settings, policy making, resource allocation and access to public goods and services (WorldBank, 2017). In China, socio-economic and environmental conflicts in public infrastructure and construction (PIC) projects are handled through public participation (Xie, Yang, Hu, & PC Chan, 2014). In developed counties, public participation is normally used as an effective instrument to enhance the aftermath of the decision-making and implementation of PIC projects through collaborative governance (Enserink & Koppenjan, 2007). Almer and Koontz (2004) have noted that since the 1990s, the developing countries are using the public participation mechanism frequently to decrease the socio-economic and environmental conflicts in PIC projects.

According to Bult-Spiering and Dewulf (2008), the nature of PPP projects in infrastructure is generally long-term and complex. Mahalingam (2009) has observed that a number of PPP projects had run into problems at later stages which were termed successful at the closure phase of the project. To cope with possible uncertainties which might happen during the project’s lifecycle, projects need flexible, equitable, contractual provisions and an intrinsic governance structure (Mahalingam, 2009). C. Sharma (2012) has indicated that countries having better governance have fewer PPP arrangements in infrastructure which indicates that when the public sector performance is efficient in a country, the participation of the private sector is comparatively less and the government chooses to build and maintain infrastructure projects with the public sector. Flexibility is the latest paradigm for responding to the changing environment in the governance practice (Kumar Suri, 2014). He further stated that the flexible governance mechanism can easily change and add capacities in a shorter time to meet the rapidly changing needs of the inhabitants. According to Shi and Daniels (2003), through flexibility, organizations can hedge themselves from uncertainty and a fast-changing environment. Flexibility

helps to improve performance and competitiveness (M. K. Sharma & Jain, 2010).

Need for Project Governance

Governance incorporates different stakeholders from NGOs, businesses and the government to work together to attain common goals (Kazancigil, 1998; Stoker, 1998). According to Meso, Musa, Straub, and Mbarika (2009), the concept of governance raises the issues related to economic and social responsibilities and collective actions for power dependence among related institutions and gets things done not depending upon the governmental machinery.

The effective governance of the infrastructure development projects has become a need and significant challenge which defines the success of these projects. Infrastructure projects are involved with projects related to transportation, access to water and sanitation which are directly related to societal lives (Santosh Kumar Delhi, Mahalingam, & Palukuri, 2012). Guo et al. (2014) have proposed a comparative analysis which depicts that project governance offers a structured mechanism to detect and address the risks when they occur. Garland (2009) have stated that project governance is a process for decision-making and established a framework, models and a structure for their enablement. Project governance is considered as a critical success factor in project execution (Garland, 2009). Weaver (2007) claimed that the eradication of project failure by executing the projects again and again in right direction is the major focus of effective project governance. Project governance should incorporate a project quality management system and project and company strategies with regards to project selection (Burcar Dunović, 2010). The key features of mega infrastructure projects are: longer life cycle, uncertainty, complications and a large number of stakeholders, as well as their effect on the economy, community, technological development and the environment (Zhai, Xin, & Cheng, 2009). Jonny Klakegg (2009) has argued that the presence of governmental stakeholders may create further political uncertainties for the project. The Project Governance prerequisite is to explore how resources and risks are to be assigned among stakeholders to define the control measures for achieving the targeted objectives, which is defined by legal and regulatory mechanisms with the aim of ensuring better utilization of public funds (Klakegg, Williams, & Magnussen, 2007). Project governance provides a framework and structure to articulate and attain the objectives which is a way of monitoring the performance (Turner, 2009). Patel (2007) has noted that project governance classifies the space for daily project activities. (Guo et al., 2014) have noted that the common objective of governance

systems is the elimination of project failures and possible repetition of these systems in future public projects.

The construction industry in Pakistan is an important sector and significant to the economic development of the country (Azhar, Farooqui, & Ahmed, 2008). The rapid pace of socio-economic transformation has created an enormous potential for the infrastructural development projects in Pakistan over the last decades. However, infrastructure development projects in Pakistan have been criticized for delay and cost overrun with low efficiency and effectiveness. Figure 1 shows the project appraisal and its governance process in a public sector organization of Pakistan. PC-1 (where PC stands for Planning Commission), PC-II, PC-III and PC-IV are the planning guidelines and prerequisites under the regulations for approval of governmental projects. PC-I and PC-II deal with the project proposals and is requirement for appraisal and approval. PC-III deals with the monitoring and progress of projects, whereas PC-IV and PC-V are to be submitted after the accomplishment of project.

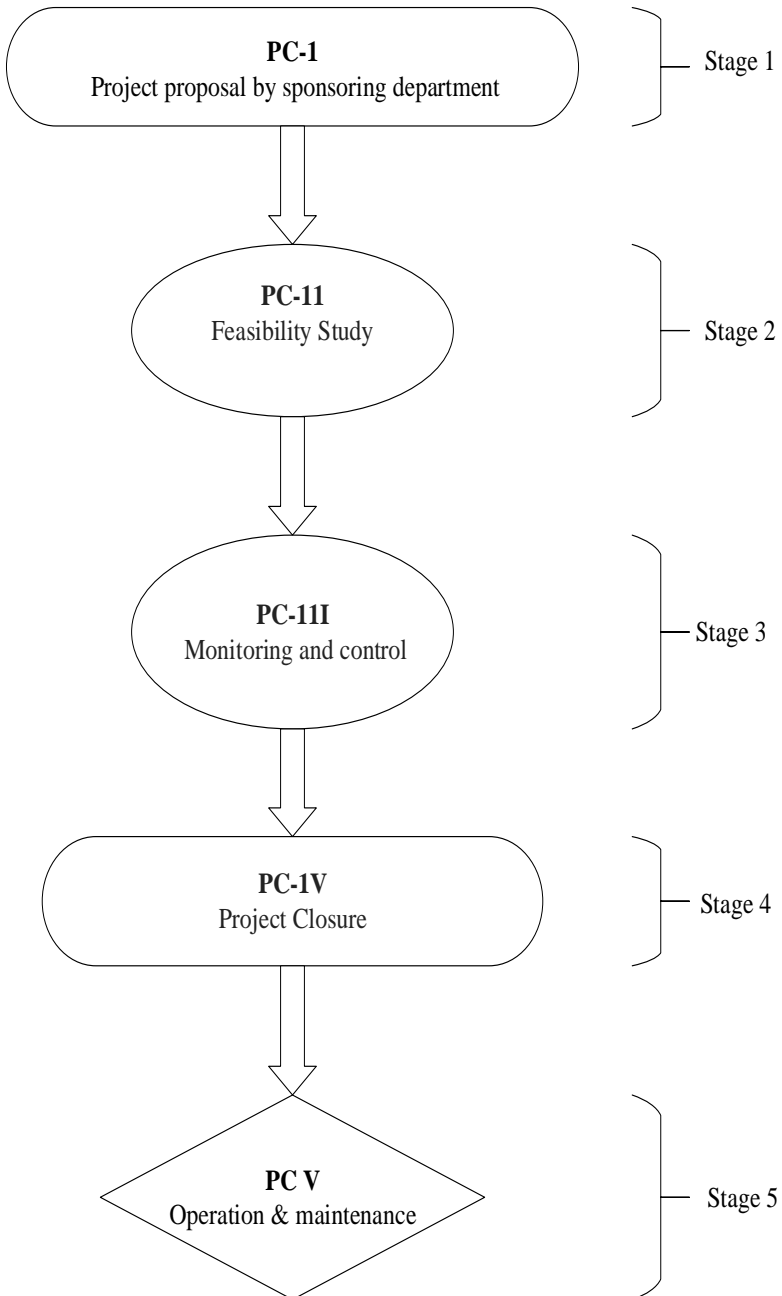


Figure 1 Project selection and governance flowchart

Case Study of Infrastructure Projects in Northern Pakistan (Gilgit-Baltistan)

The researcher gained access to the project archive of ‘Planning & Development Department, Gilgit-Baltistan’ which is the apex project approving authority of the province and reviewed a monitoring report of 43 infrastructure projects which were undertaken in the past ten years. Theoretically, the monitoring process is to check and assess the implementation status and helps in the identification, analysis and removal of bottlenecks and suggest corrective actions where projects are fallen behind the expected outcomes.

This review indicates that the quality of these development projects carried out in the district of Diamer has not been as satisfactory as in other districts of Northern Pakistan (Gilgit-Baltistan). The Diamer district is a typical example of misdirected public investments in infrastructure development projects. Haider et al. (2014) stated in their report that the projects in the district of Diamer were hit by complications and huge cost overruns because of a host of tribal/political, financial, managerial and governance shortcomings. Out of 43 projects, more than 30 projects were problematic, slow-moving/sick, and the project costs in some cases had increased by more than 200 per cent. Those projects had missed their implementation schedules and completion deadlines because of design problems, wrong site selection, land acquisition issues and abandoning of work for unknown reasons by contractors. To sum it up, the sluggish developmental activity was due to the cost overruns, project delays, waste of public money and missed benefits. It was also observed that these infrastructural development projects were not properly supervised by the executing departments which badly affected the quality and pace of the work. Due to a lack of proper supervision, the contractors did not bother to maintain the engineering specifications. These problems could be addressed through an appropriate mechanism of project governance. There were several cases where big infrastructure projects provided common examples of cost overruns due to unique site conditions, delays and hidden costs and conflicts among the groups (Ogunlana, 2010; Sha, 2011). The projects can be delayed or disrupted if there is an inability to cope with the uncertainties (Pitsis, Clegg, Marosszeky, & Rura-Polley, 2003).

The situation has put a question mark on executing agencies’ capabilities of governing, planning, implementing and supervising the development projects. The above case study represents an example of ill planning thus, there is a need for project governance which should manage the network of stakeholders. It is pertinent to develop a good relationship with the relevant authorities for smooth approval process and improved

management techniques. The effective governance and success of these projects have become a significant challenge for the executing agencies. The case study has an implication for the organization and management of major infrastructure projects in situations of high-risk, complications and high-performance requirements.

Mir and Pinnington (2014) have described that Project Success is in contrast to the Project Failure of not meeting the stated objectives. Traditional project management methods and studies have measured the degree of project success based on the relationship of scope, budget and schedule (Cuellar, 2010). Pinto (2014) argued about the governance of projects which provides structure to execute projects, resulting in an increase in the probability of project success. Guo et al. (2014) have stated that “whichever financial models are used, whether the project can generate a viable economic return or longer-term benefits for local development has been a major concern among project stakeholders” (p.818).

Three basic elements, i.e., control, flexibility and trust, can be incorporated in project governance to eliminate complications and uncertainty in organizational and environmental contexts (De Man & Roijackers, 2009; Osipova & Eriksson, 2013). Miller and Floricel (2000) have stated that there is a high level of ambiguity and unpredictability during the project life cycle of PPPs’ infrastructure development projects. These ambiguities and instabilities can be observable as numerous governance issues in the form of political and legal issues on the projects (Santosh Kumar Delhi et al., 2012). He further claimed that delays in construction, time-wasting, closure of the projects and the huge impact on the cost are due to the governance issues.

DISCUSSION

The foremost recommendation from this study is that infrastructure development projects should invest and adopt a project governance framework to achieve their goals and success. Bekker (2014) suggested further research on the development of “project governance frameworks for projects spanning across national companies, across country borders, and incorporating different value systems, legal systems, corporate governance guidelines, religions and business practices”. Corporate governance aligned with standard project governance will remain active for future research (Bekker, 2014). Project governance and corporate governance are the merged concept of project governance, so there is a need to develop a coalition team to ensure and safeguard cross-pollination of these two areas (Bekker, 2014). Guo et al. (2014) suggested empirical

studies of management systems in large infrastructure projects to design appropriate forms of governance for managing risks to better understand ‘what worked well?’, and ‘under what circumstances?’

Aubry (2011) suggested further research “to link project monitoring and control functions to project governance”. “This more extensive research project might be based on quantitative approach, and attempt to deepen the understanding of these control processes within project-oriented organizations” (Aubry, 2011).

Our discussion and analysis suggest that establishing a project governance mechanism is ideally the first step in a project development. Effective project governance process certifies the input from the important stakeholders and “confers legitimacy” upon project decisions and outcomes. Hence a proper project governance framework is vital for the public sector infrastructure projects in Northern Pakistan to attain the potential benefits. The project governance framework will help in overcoming the management deficiencies related to the public sector infrastructural development projects.

CONCLUSIONS AND FUTURE RECOMMENDATIONS

Project governance sets a vision and project priorities, provides structure for planning and decision-making and defines the roles and responsibilities of all the stakeholders. It builds an organizational structure to support the planning, development, oversight and fiscal management. Maximum utilization of the resources and streamlining of the processes can also be achieved through project governance. The mechanism of project governance is helpful in resolving the conflicts, monitoring and evaluation of the projects. It provides the representation of the minority as well as majority viewpoints of the stakeholders. Project governance confers legitimacy on decisions related to the projects. Without a proper governance mechanism, only the loudest voices get heard and the possibility of crises and project failure is also higher.

This review has opened many avenues for further research in other public sector organizations. Beside this, contemporary researchers may review the project governance practices in the private sector of other developing countries to have an insight of the management practices. A more pragmatic research is envisioned to encompass the critical boundary layers of infrastructure project governance framework in Pakistan.

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