



SHORTFALLS IN PUBLIC PRIVATE PARTNERSHIPS INFRASTRUCTURE PROJECTS IN INDIA: GOVERNANCE PRESPECTIVE

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ABSTRACT

Since the 1990s, when economic liberalization was first implemented, the Indian federal government has developed infrastructure projects through the use of public-private partnerships, or PPPs. Even though PPPs have been the go-to procurement method for developing infrastructure in India for the past four decades, there are still certain aspects of the PPP process that require improvement from the standpoint of governance concerns. Examining the PPP process for infrastructure projects from the standpoint of good governance principles is the primary goal of this paper. From a governance standpoint, the study assisted in identifying the areas in which the process is deficient. For this study, the qualitative content analysis through literature review has been employed as a research approach. The data from the literature review were analysed through the use of open and axial codes in the coding technique. The study comes to the conclusion that over the course of an infrastructure project, the flaws in the PPP process have not served to advance the ideals of good governance. The paper also offered a theoretical suggestion on how to address these drawbacks by including governance considerations into the PPP procedure. This paper's data was limited to the Indian setting and its research methodology a literature review was applied.

Keywords: Public-private partnerships; Infrastructure projects; Governance; Procurement process; India.

Introduction

The effective implementation of public-private partnership (PPP) projects in Western Europe, the US, and Australia has made PPPs an alluring substitute for the customary traditional ways when it comes to acquiring public works projects. PPPs are being used for infrastructure development because of their many advantages, which include balanced risk allocation and transfer, enhanced efficiency and innovation in project delivery, operation, and management, access to cutting-edge technology, and the availability of additional resources to meet the sector's expanding investment needs [1]. Nonetheless, selecting a PPP option for project implementation might not be primarily motivated by a lack of government funding. PPP initiatives come with extra expenses; typically, borrowing money for the private sector is more expensive than for the public sector, and managing PPP contractual frameworks comes with administrative expenditures [2]. Governments are finding PPPs to be an appealing off-budget mechanism for infrastructure development because they can improve the availability of desperately needed infrastructure services, relieve the burden of design and construction costs, transfer many project risks to the private sector, and guarantee improved project design, technology selection, construction, operation, and service delivery [3].

Public-private partnerships (PPPs) have been increasingly powerful over the past 30 years as a way to bring in capital and experience from the private sector for the provision of public works and services. These collaborations, which have developed over time, saw a boom in India in the 1990s, resulting in both profitable and unsuccessful initiatives that had positive social and environmental effects as well as positive economic outcomes [4]. Yet, PPPs can also lead to the building of overly complex and inefficient infrastructure, long-term municipal debt, unequal access to services due to higher user fees and subpar quality, delaying investments in less profitable project segments, contract renegotiation in favour of private providers, and other issues [5]. Prior to the government considering approving PPPs, a number of significant administrative, legal, social, political, and economic factors must be thoroughly evaluated [2]. The project governance concerns in Indian PPP practices were found to exist at two key



interfaces: the public-private sector interface and the project-societal stakeholder interface [6]. According to lessons learned from Indian PPP methods, strong governance and sustainable practices greatly depend on both the integration of long-term governance issues into the project design process and an appropriate institutional context [7].

The aforementioned limitations have shown that, despite the fact that the process of procuring infrastructure, particularly in India, has stabilized over time due to learned lessons, many aspects of good governance remain to be integrated and implemented in the PPP mode of procurement of infrastructure projects. This is despite the fact that the PPP mode of procurement ought to result in improved infrastructure, improved society, and improved environmental quality. Examining the PPP process for infrastructure development from the standpoint of good governance principles is the study's main goal. From a governance standpoint, the study assisted in identifying the areas in which the PPP process is deficient. For this study, the qualitative content analysis through literature review has been employed as a research approach. In order to examine the stages of the PPP process and the different governance principles utilized as the scale of analysis in this study, a literature review on the PPP process and good governance principles was first undertaken. The PPP process that is currently used in India has been examined using the concepts of good governance to determine the main areas where the private sector might be encouraged to embrace good governance practices. There are seven sections in the article's organization. The second section presents the scope of analysis, which includes the Indian PPP process and good governance principles. The research approach employed in this study is explained in the third section. The fourth portion provides an explanation of the data gathering and analysis process, and the fifth section is a discussion of the findings. The study's recommendations for improvement and findings are presented in the final two parts.

Analysis Parameters

The PPP process for infrastructure development in India and good governance principles and were employed by the study as an analysis parameters.

PPP Process in India

In both industrialized and developing nations, the PPP path to the development of infrastructure projects with private financing has become one of the most widely used procurement tactics. The manner in which PPP procurement is executed has grown in importance everywhere that it has been utilized, whether in a formal or informal capacity. PPP infrastructure projects underwent development from the project concept to the built facility, going through several stages. Varied authors and departments of state have given varied descriptions of the different stages of PPP procurement. The five phases of a PPP project's life cycle were outlined by the European Commission as follows: project identification, project appraisal, design and agreement, procurement, and implementation [8]. The identification of private sector/PPP projects; project development and due diligence; implementation arrangement and pre-procurement; procurement; contract awards and management; and dispute resolution are the six stages in PPP project development and implementation, as detailed by UNESCAP [9]. By examining case studies from Asia and Europe, Bauhaus-Universitat Weimar has succinctly demonstrated the five phases of a PPP project [10]. The needs assessment, option appraisal, preparation and conceptualization, contract award and tendering procedure, implementation and contract management, and contract termination are the five stages. The phases of a PPP project cycle are project identification, detail preparation, procurement, and project implementation, according to the European PPP Expertise Centre [11]. PPP normally develops via a series of the following phases within the framework of the Indian PPP cell and are illustrated in Table 1 with the activities covered in each step [12]. The phases of PPP projects may differ depending on the various categories of PPP outlined thus far.

Table 1: Phases of PPP process (Source: PPP Cell, 2010)



Phases of PPP Process	Identification Phase	Development Phase	Procurement Phase	Implementation Phase
Major Activities	Strategic planning Demand forecasting & assessment, Project pre-feasibility PPP suitable testing	Full feasibility & PPP due diligence study PPP preparation Internal clearance	Preparation of procurement team Prequalification proceedings Bid invitation and evaluation Contract finalization & award	Construction / Operation, Contract management Contract monitoring

- Identification phase: The government, or more frequently the project executing agency, determines the necessity for a certain infrastructure facility at this early stage of project formation through strategic planning. Typically, a cost-benefit analysis is used to determine needs. It will then take into account its available funding options and the facility's affordability. Following a prefeasibility study and major activity environment impact assessment (EIA) for clearance regarding the environmental aspects and impacts of/form the project, potential PPPs are assessed for their suitability for development as PPPs. A qualitative value for money (VfM) analysis will be conducted to determine whether to develop a project as a PPP project.
- Development phase: The preparation work continues with a thorough development of the PPP alternative to permit a comparison with the traditional one, after the project demonstrates the primary feasibility to a PPP solution. The feasibility study and PPP due diligence have thoroughly examined a proposed PPP that was deemed appropriate in the preceding phase. These studies look at whether the project is a desirable, feasible, and achievable investment. Financial viability, risk analysis and allocation, and quantitative value for money (VfM) analysis the best possible balance between whole life cycle (WLC) costs, risks, completion time, and quality are all included in PPP due diligence. Prior to submitting an application for in-principle clearance, the sponsor ought to determine the most appropriate procurement strategy.
- Procurement phase: This phase's objective is to choose the PPP's ideal private sector partner and finalize the contract with them. The first steps in the procurement process involve assembling a team to oversee evaluation and procurement, updating project data as needed, and appointing a monitor to guarantee process and quality control. The next stage is to use the expression of interest (EOI) and request for qualification (RFQ) processes to find possible bidders and shortlist qualified bidders, respectively. Next, draft the final versions of the important documents, such as the concession agreement (CA) that will control the PPP and the request for proposals (RFP) for the bidding. The final stage is bidding, which entails sending the request for proposals to the selected qualified bidder, inviting bidders to submit their offers, evaluating their offers, and getting in touch with them.
- Implementation phase: Building project facilities is the first step in implementation. The government will approve the facilities and allow them to start up if they pass prearranged completion tests. Starting at the pre-operative stage, this phase includes contract close and asset transfer, as well as the building stage (if applicable) and operations stage. Additionally, other issues including dispute settlement, contract amendment, accounting and auditing PPPs and scope changes are managed concurrently in this stage.

Good Governance Principles

Effective governance is essential for managing the PPP process at every stage. A brief explanation of the governance concepts that may be useful in creating effective governance mechanisms is provided



in this subsection. The goals of good governance are met by an efficient and well-organized governing framework. The following provides a quick explanation of the good governance principles [13, 14].

- **Participation:** This refers to each stakeholder's level of involvement. Effective governance is based in large part on the participation of all stakeholders. One may participate directly or through authorized intermediary organizations or agents. Participation must be planned and educated. This entails having both an organized civil society and the freedom of association and expression.
- **Decency:** It is the extent to which the creation and administration of laws are carried out without inflicting injury or resentment to individuals. Equitable legal frameworks that are impartially applied are necessary for good governance.
- **Transparency:** This refers to how openly and clearly decisions are made. Transparency refers to the following of laws and regulations in the making of decisions and their implementation. It also implies that everyone who stands to gain from such decisions and their implementation can obtain information readily and immediately. It also indicates that sufficient information is offered in formats and mediums that are simple to comprehend.
- **Accountability:** This refers to the degree to which social actors hold political actors accountable for their actions and words. Accountability to the public and institutional stakeholders is required not only of governmental institutions but also of the commercial sector and civil society organizations. An institution or organization is generally answerable to the people who will be impacted by its choices or actions.
- **Fairness:** This refers to how equally social norms apply to all members of the community. Ensuring that every member of a society feels invested in it and does not experience exclusion from the mainstream is essential to its overall well-being. All groups, but especially the most vulnerable ones, must be given the chance to preserve or enhance their well-being in order to achieve this.
- **Efficiency:** This refers to how well scarce financial and human resources are used, without causing harm to present or future generations or wasting, delaying, or corrupting them. Processes and organizations that address societal demands while optimizing available resources are considered to exhibit good governance. In the framework of good governance, environmental preservation and the sustainable use of natural resources are also included in the concept of efficiency.

Research Approach

This study's primary goal is to examine the PPP process for infrastructure projects from the standpoint of good governance guidelines. From a governance standpoint, the study assisted in identifying the areas in which the PPP process is deficient. Thus, the primary goal of this study is to answer the following research question: "What are the PPP process shortcomings that fail to accomplish the goal of good governance?" The qualitative research strategy is the recommended research method when the study question and purpose are of a descriptive type [15]. Because of this, the current study opted to use a qualitative research methodology. For this study, the qualitative content analysis through literature review has been employed as a research approach. Two phases were involved in the study's execution. To find the weaknesses in the PPP procurement process, the investigator first reviewed the literature on PPP methods for infrastructure development in India. The failed governance principles have then been identified by analysing these shortcomings from the standpoint of good governance features.

Data Collection and Analysis

In order to pinpoint the primary weaknesses in the PPP procurement procedure for infrastructure development, a thorough literature analysis was carried out. A review of the available literature, research studies, and case studies on PPP practices in India and throughout the world has been done.



Using the Google Scholar search engine and a keyword search, the different articles were located. The phrase "shortfalls in PPP practices for infrastructure projects" is used to find reputable articles for the process of review. Two selection criteria were used to choose the final, trustworthy articles: (i) publications containing global summaries of PPP practices; and (ii) articles that could be easily accessed by a large, global readership. Out of the secondary data sources, a total of 48 key articles, which includes 22 research papers, 16 research reports, and 10 internet sources were reviewed. The next step is to read each article and perform a qualitative content analysis to find the weaknesses in the PPP procurement process. The data was coded using open and axial coding in an MS Word document in tabular form using the coding process created by Strauss and Corbin [16]. The shortcomings in the MS Word document are coded as open code. In order to determine which principles failed, each shortcoming was also examined from the standpoint of good governance principles. In the same paper, these rejected beliefs are coded as axial code. Glaser and Strauss [17] originally established the constant comparison analysis technique, which is utilized to categorize the shortcomings in each of the four PPP phases in relation to the failing principles of governance. The results of this study are shown tabular in Table 2, where the open and axial codes correspond to shortcomings in PPP and fail governance principles, respectively. The next section provides an explanation of the findings discussion.

Findings: Governance Problems in PPP Process

Table 2 provides a summary of the various shortcomings that were found during the qualitative content analysis of research papers on PPP practices for infrastructure development. The shortcomings are broken down into three stages of the Indian PPP procurement process, each of which is addressed in depth below. This is done from the standpoint of failing governance principles.

Table 2: Shortfalls in PPP process failed to achieve governance principles

Phase of PPP Process	Shortfalls in PPP Process	Failed Governance Principles
Project Identification	Incongruous demand assessment	Efficiency
	Insufficient feasibility study	Efficiency
Project Development	Inadequate legal framework	Decency
	Insecure political & social environment	Accountability
	Imbalanced risk allocation	Fairness
Project Procurement	High transaction & bidding cost	Fairness
	Dealing with speculative bids	Accountability

Incongruous demand assessment

Demand analysis is a crucial step in the discovery of PPP projects. This evaluation will confirm the project's viability and encourage the private sector to submit a bid. However, it has been noted that the NHAI used an antiquated traffic study to estimate demand for the "Delhi-Gurgaon Expressway" project. The unexpectedly large number of cars thus caused long lines at the toll booths and delays in moving through the area [18]. Three Public-Private Partnership (PPP) projects in India, namely Tirupur WS, Coimbatore Bypass Road, and Karur Bridge, had delays as a result of inadequate traffic demand assessment and inaccurate precipitation forecasting [19]. Therefore, the "efficiency" principle of good governance was not fulfilled by the improper future demand estimation in many PPP infrastructure projects in India. This public sector approach during the PPP identification stage demonstrates the ineffectiveness of their performance in the demand assessment process.

Insufficient feasibility study

PPP infrastructure projects' feasibility studies examine a range of project implications, including social, financial, environmental, and economic ones. The two most important components of the project's feasibility study are the environmental impact assessment (EIA) and the social impact



assessment (SIA). The approval of the EIA for environmental issues and the SIA for social aspects is necessary for the current procurement process. However, it has been noted that EIA and SIA by themselves do not appear to produce sustainable results because, among other things, they neglect to use mitigation techniques and pay scant attention to the standard set of environmental requirements in contracting. They also prioritize acceptable impacts over optimizing the benefits to society and the environment. [20, 21]. The public sector's approach to taking into account projects' acceptable social and environmental effects may fall short of achieving the governance ideal of "efficiency." Consequently, the feasibility study would result in a subpar assessment of the projects' effects on the environment and society.

Inadequate legal framework

However, several nations lack a well-established legislative structure specifically designed for PPPs, and those that do exist are primarily intended to address the conventional command and control paradigm. Even though PPP entails a lot of legal documentation and architecture to handle possible disputes between PPP participants, there is still a lack of a strict legal framework (e.g., protection of private sector rights versus public interests) [1]. This public sector method may not adhere to the "decency" criterion of governance and falls short of achieving good governance objectives.

Insecure political & social environment

Political and social problems like land resumption, town planning, employment, heritage preservation, and environmental protection are frequently encountered in PPP projects. These might lead to backlash from the general population, exorbitant expenses, and project delays [22]. A key factor in the success of PPP infrastructure projects is the active involvement of all stakeholders during the all stages of PPP process. However, it has been noted that the involvement of stakeholders by themselves does not appear to support an effective governance strategy. Due to local public opposition on environmental and asset transfer grounds, the PPP water delivery projects in Latur and Delhi were delayed by about a year. The local public's objection to a number of issues prevents the "accountability" principle of governance from being applied to the good governance features.

Imbalanced risk allocation

Risk management is carried out throughout the development stage of the PPP procurement process as part of the feasibility study. In PPPs, it is typically controlled by better dividing the risk between the public and private sectors. It is preferable to divide the risk between the two parties according to whose capacity to withstand each danger the most. For the project to produce sustainable results and to ensure fair risk allocation there is a need for improved knowledge of these risks by both the public and private sectors. Transferring demand risk to the private sector when the private contractor has no influence over demand determinants is a typical error made when allocating risk in PPP projects [23]. This approach of public sector to transferring the demand risk to private sector may affect the 'fairness' principle of governance.

High transaction & bidding cost

It may take up to four months for bidders to compile their tender bids, which must be attached with a slew of supplementary documentation and extensive negotiations. As a result, the cost of placing a bid can grow to six times more than it would under conventional procurement procedures [22, 24]. The "fairness" principle of good governance may have been hindered by the public sector's drawn-out and expensive procurement process. Moreover, it might lessen the rivalry between large and small contractors. Small contractors are therefore less likely to engage in the bidding process, which could potentially have an impact on the good governance criterion of "fairness."



Dealing with speculative bids

The government opted not to accept the speculative offers because there was not a detailed feasibility study with realistic traffic estimates. Alternatively, the public sector may have invited a limited number of private sector bidders. As a result, for the Dabhol power project, only one group has been given consideration for bedding. Sometimes the chosen consortium withdraws after failing to achieve a consortium agreement, and the winning bidder withdraws because they were unable to provide a meaningful response to the bidding documents. This strategy for handling speculative bids may fall short of implementing the good governance principle of "accountability."

Recommendations for Improvement

The aforementioned data indicate that the PPP procurement process includes three phases with shortcomings that prevent it from achieving the objective of good governance. Regarding the many components outlined in the good governance principles, there is room for improvement in the PPP process. One way to try and achieve this improvement would be to incorporate governance principles into the PPP procedure. Adopting the following procedures and systems, which are intended to improve the governance features of PPP projects and alleviate the shortcomings of the PPP process, can facilitate this integration:

- Before the PPP development phase, a realistic demand assessment conducted by a third-party expert or consultant is required in order for the public sector to effectively and responsibly achieve the goal of good governance.
- Use the SEA (strategic environmental assessment) technique for impact assessment in place of the traditional EIA and SIA to improve the adequacy of feasibility studies. This method considers future risk and the long-term ecological impact of infrastructure through long-term strategic planning. This strategy may enhance PPP practices' governance in accordance with the effective good governance principles.
- Put in place a strict legal and technological framework that will safeguard the public interest from the private sector's justifiable rights. This approach might help achieve the noble objective of good governance while also strengthening the PPP's current legal structure.
- In order to encourage stakeholder and user engagement in the final feasibility study, a comprehensive communication program (CCP) and willingness survey are now required. This strategy might reduce local stakeholders' and users' resistance to PPP project development. And in the end, achieving the governance goal of accountability and participation may enhance good governance practices.
- In order for PPPs to effectively function as vehicles for promoting the fairness goal of good governance, it is also necessary to improve the rules of risk transfer and remuneration.
- Lastly, it is necessary to provide the private sector some leeway in master plan drafting throughout the PPP development and procurement phase. This will enable them to present creative and aggressive bids. This public sector strategy has the potential to reduce PPP development transaction costs while also improving governance in terms of accountability and fairness principles.

Conclusions

During the past four decades, PPPs have been embraced as one of the cutting edge models of procurement for the construction of infrastructure projects in India and around the world. The choice to expand infrastructure is driven by the desire to increase efficiency and obtain more funding from the commercial sector. PPP projects' inadequate performance from a governance standpoint has drawn criticism, despite the procurement process's tools to assess if the PPP approach is delivering value for money. There are shortcomings in three stages of the PPP process, according to the current study's qualitative content analysis utilizing a survey of the literature on the subject of good governance and



PPP process. Inadequate demand assessment, a weak legal and feasibility research framework, an unpredictable political and social climate, unequal risk distribution, expensive transaction and bidding expenses, and handling speculative bids are some of these shortcomings. Furthermore, it is determined that these deficiencies have not succeeded in achieving the objective of good governance concerning the public sector's accountability, efficiency, justice, and decency. It is necessary to integrate governance practices and principles into the PPP process in order to address these shortcomings and guarantee that the route of PPP for infrastructure development also fosters good governance. The PPP process should integrate the following essential practices: SEA, realistic demand assessment, tight legal and technical framework, CCP for users' and stakeholders' participation, new framework for risk allocation, and flexibility to the private sector for master plan design. Therefore, a framework that makes it easier to integrate governance concepts into the PPP process needs to be developed. The current study, which examines the Indian PPP process from a governance viewpoint, takes a fresh approach and will be useful to a global audience, especially emerging nations that use PPP to achieve infrastructure development.

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