Key Factors and Readiness Perception Indicators Appraisal: Public-Private Partnership in Infrastructure Development Project in Bangladesh

A Dissertation

By

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ABSTRACT

PPPs present a framework that –while engaging the private sector-acknowledge and structure the role for government in ensuring that social obligations are met and successful sector reforms and public investment achieved. PPPs present a number of recognized advantages for the public sector to exploit. These include the ability to raise additional finance in an environment of budgetary restrictions, make the best use of private sector operational efficiencies to reduce cost and increase quality to the public and the ability to speed up infrastructure development.

The objectives of this study are: To identify key factors for influencing successful Public-Private Partnerships in infrastructure projects and to assess the PPP-readiness perception for PPP project development and implementation in Bangladesh. The objectives of this study were achieved via a comprehensive literature review, in-depth case analyses, interview survey with experts and finally data collection was conducted via a questionnaire survey with respondents having PPP knowledge.

According to survey results, the most three attractive factors were: Solve the problem of public sector budget restraint, Transfer risk to the private partner and Facilitate creative and innovative approaches. In addition the most three negative factors were included: Lengthy delays because of political debate, a great deal of management time spent in contract transaction and Lack of experience and appropriate skills. From literature review and case studies, above mentioned attractive factors and negative factors were also reflected.

Results obtained which also reflected that the most important driving forces leading to the adoption of PPP included: Shortage of government funding, Economic development pressure of demanding more facilities and Social pressure of poor public facilities. PPPs should only be adopted as procurement and implementation option if they are reasonably expected to deliver enhanced value for money over traditional methods.

Seventeen VFM measures in PPP were rated by the respondents. According to analyze the relationship of top five VFM measures ranked .These VFM measures included: Output based specification, efficient risk allocation, competitive tender. It is also analyzed the perceptions of respondents on the importance of seventeen factors contributing to successful delivery of PPP projects. The ranking showed that the top five success factors included: Favorable legal framework, political support, appropriate risk allocation and risk sharing, strong and good private consortium, commitment and responsibility of public and private sectors and government involvement by providing guarantee.

The questionnaire was responded by the respondents from public and private sector that have the understanding the PPP environment in Bangladesh. By analyzing the perceptions of the PPP environment related to readiness it is possible to take action plan for mitigating the gap which is required for PPP projects development and implementation. Questions related to PPPs were qualitative in nature. The areas to which this question was focused include: Legal and regulatory provision, policy framework, capacity, project selection and contracting process, pose-selection and contracting process and social dimension.

List of Table

List of Figure

Acronyms and Abbreviations

ADP	Annual Development Programme
BOI	Board of Investment
BIFF	Bangladesh Infrastructure Finance Fund
BWDB	Bangladesh Water Development Board
BOOT	Build Own Operate Transfer
BOO	Build Own Operate
CCEA	Cabinet Committee on Economic Affairs
DBFO	Design Build Finance Operate
ESCAP	Economic and Social Commission for Asia and the Pacific
EBRD	The European Bank for Reconstruction and Development
IDCOL	Infrastructure Development Company Limited
IIFC	Infrastructure Investment Facilitation Center
IPFF	Investment Promotion and Financing Facility
KPI	Key Performance Indicator
LGED	Local Government Engineering Department
MEMR	Ministry of Energy and Mineral Resources
NRB	Non-resident Bangladeshis
PWD	Public Works Department
PAT	Principal Agent Theory
PFI	Private Finance Initiative
PICOM	Private Infrastructure Committee
PPA	Public Procurement Act
PPR	Public Procurement Regulations
PPP	Public Private Partnership
PPPAC	Public Private Partnership Advisory Council
PSIDF	Private Sector Infrastructure Development Fund
PSIDP	Private Sector Development Project
PSIG	Private Sector Infrastructure Guidelines
PSC	Public Sector Comparator
RHD	Roads and Highway Department
SPV	Special Purpose Vehicle
VFM	Value for Money
VGP	Viability Gap Financing

CANDIDATES DECLARATION

I hereby declared that this thesis or any part of it has not been submitted elsewhere for the award of any degree or diploma.

Signature:

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Date: 15/12/2012

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CHAPTER 1
Introduction and Rationale

1.1 Introduction

Infrastructure is vital to the development of an economy. The availability of essential infrastructure such as water, sanitation, transport, electricity, telecommunications and health services is not only important to the living conditions of the people in the economy, but they are also necessary conditions for investment and development of the economy. For this reason, the United Nations and other multilateral institutions have recognized that the development of infrastructure is the central issue in poverty alleviation if the Millennium Development Goals of having extreme poverty by the year 2015 is to be achieved (World Bank, 2008).

The chronic underdevelopment of key infrastructure in Bangladesh slows economic development and exacerbates unemployment, poverty, and health and public service issues. It negatively impacts economic growth, taxing the Bangladesh economy. For instance, power shortages account for an annual estimates loss of 2% of gross domestic product (ADB) and operating deficits within the utility sector account for another 1 % (World Bank, 2008).

The country has traditionally relied upon the public sector to develop, deliver, and maintain infrastructure. However, inconsistent project design, poor project implementation and management, and allegations of corruption, compounded by chronic shortage of funding, all result in poor services. Tariff rates, and tax and non-tax fee support are uniformly below the cost of service across all infrastructure sector. Whole the government has sought to increase the involvement and number of private sector participants in infrastructure, theses factors signal caution for such endeavors.

Investor's perception of Bangladesh is undermined by a general lack of transparency and accusations of corruption. The country ranked 134th on Transparency International's 2010 ranking for corruption an 107th on the World Bank's annual index for ease of doing business. Most notably, Bangladesh ranks 172th for ease of registering property and 179th out of 183 countries in ability to enforce contracts (ADB, 2011) These rankings, while they may not be directly applicable or relevant in the specific realm of PPP–related transaction, do not contribute to negative perceptions outside the country.

Bangladesh's PPP infrastructure development program has not delivered a significant volume of needed projects, and poor procurement performance has held back expanded used of this investment modality. Government entities have tended to take an ad hoc approach to PPP projects. As a result, bidding processes have suffered from lack of proper preparation by the public sector entities managing procurement, lack of ownership within implementing government bodies, frequent changes of project management, inconsistent bidding processes, skewed risk allocations in bid documents, and allegations that established procurement standards are not followed. Such empirical evidence serves to undermine confidence in government solicitation processes and results in driving value-added infrastructure participants away from the market. A revised approach to development, bidding, and management of PPP infrastructure is required to create a robust and dependable approach to privately invested infrastructure development and to regain stakeholder confidence.

There are many important key issues affecting the development of successful PPP schemes. The cardinal key issues are ensuring open market access and fair competition, protecting the public interest and maximizing value added to citizens, defining the optimal level of grant financing both to realize a viable and sustainable project but also to avoid any opportunity for windfall profits or losses from grant and lastly assessing the most effective type of PPP for a project with the appropriate parameters balanced distribution of risks, appropriate duration, clarity of responsibilities within the various regulatory environments.

PPP are an evolving tool and should be adapted to the individual nature of the project and the parties. As a result their successful implementation requires a very detailed understanding of a myriad of issues. Successes and failures will be depicted as valuable lessons can be learnt from both. It is important to highlight the need for rigorous preparation and planning to ensure that the PPP approach delivers value for money and is sustainable, sustained political and public sector support to the strategic decisions around the PPP, a conducive legal, regulatory and financial framework supporting the development and implementation of PPP and lastly a true understanding by the parties of the needs and objectives of each other.

1.2 Problem Statement

There is the need to identify key issues associated with PPP projects and PPP readiness. There are many national and international public-private partnerships past histories and project experiences to highlight factors critical to the success of future projects. However, no comprehensive study exists to contemplate and measure all of the various factors leading to an effective PPP project execution in Bangladesh. In the absence of such a study, it is extremely difficult for government agencies, industry personnel, and academics to accurately and effectively analyze PPP projects. Little research attempts have been done to the identification and development of key issues affecting the development of successful PPP schemes leaving the private and public sectors to risk on projects that are costly to both.

1.3 Objectives

The objectives of this study are:

- To identify key factors for influencing successful Public-Private Partnerships in infrastructure projects.
- To assess the PPP-readiness perception for PPP project development and implementation in Bangladesh.

1.4 Scope

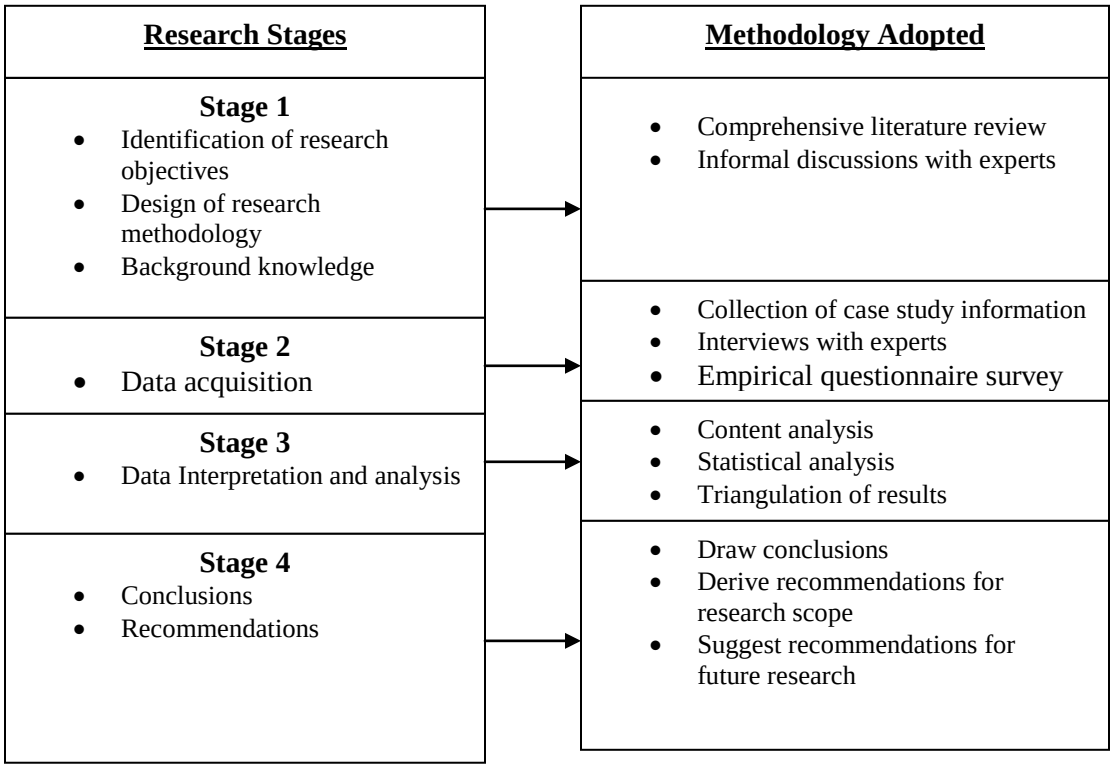
The scope of this study is limited to investigate number of key issues influencing successful Public-Private Partnership program and PPP readiness in Bangladesh. Due to time constraints, comprehensive study will not be conducted. Responses from consultation with different actors from the public and private sectors are limited to experts across Bangladesh. Review of secondary documents and exposure to other developed country experiences on PPP will be the prominent source for information for conducting this study. This study focuses on key issues necessary to ensure successful and effective projects and PPP readiness for project implementation.

1.5 Research Methodology

Figure: 1 shows a flow diagram of the research process that was formulated for this study. The research consisted of mainly four stages. The first stage focused on the identification of research objectives, design of research methodology and gaining background knowledge on the topic. These activities were achieved by conducting a comprehensive literature review, holding informal discussions with experts. The second stage focused on the data acquisition. This stage was conducted by the collection of case study information, interviews with experts and an empirical questionnaire survey. The third stage was the data interpretation and analysis phase. This was achieved by a selection of methods such as content analysis, statistical analysis and triangulation of the

results. The final stage presented the conclusions and recommendations .These were achieved by drawing conclusions from the analyzed data, deriving recommendations for the research scope and also suggesting recommendations for the future research.

Figure 1: Flow diagram of research process



1.6 Expected Outcome

This study is expected to provide adequate insight into the entire process of PPP as well as look into the benefits, risks, failures and conditions necessary for a successful PPP projects and PPP readiness for project implementation. The study will also provide responses and comments from experts and other stakeholders associated with PPP projects. This will include views from individuals in the public and private sectors. All responses will be analyzed for common parameters. This will provide solutions as to whether the PPP model is an effective method for infrastructure projects. From the responses suggestions will be made on how to improve the effectiveness of PPP and suggest further areas of research.

1.7 Outline of the Study

Chapter 1 gives the introduction of the research study. It covers the background research objectives, scope and significance of the research. The research approach and the structure of the research report are also outlined.

Chapter 2 provides an insight into the existing literature of the research topic. Specific features of PPP have also been covered including the attractive factors, the negative factors, the value for money measures and the factors leading to success for PPP project

Chapter 3 presents the methodology of this research study. The chapter explains the research design, process and data analysis techniques used for this study.

Chapter 4 studies the PPP experience in Bangladesh. Existing framework in Bangladesh PPP, Legal basis for the PPP under the Present framework, Present guidelines and dedicated office for PPP are discussed. This chapter also studies Romania, Hungry experience in conducting PPP projects by looking the key issues encountered in two cases. Lesson learnt from these cases were also derived.

Chapter 5 presents the findings from interviews conducted with PPP Experts. The attractive and negative factors for adopting PPP have been found from questionnaire survey. Findings from the same questionnaire survey are the factors contributing to successful PPP projects and ways to enhance value for money in PPP projects. Lastly, from the questionnaire survey the readiness for PPP environment was assessed.

Chapter 6 concludes this research study. A review of the research objectives, a presentation of the major findings, the limitations have been highlighted and finally potential future research areas have been suggested.

1.8 Research Significance and Value

Bangladesh government has realized the benefits of using PPP in Bangladesh as well as the success achieved overseas. But a more thorough research is needed to develop the most suitable practice of PPP under which PPP is most appropriate for Bangladesh. The lessons learnt from developed countries are also useful. Hence this study has opted to consider the experience of PPP in Romania & Hungry. The findings of this study are believed to be valuable to the government and construction industry at large. The opportunities for infrastructure development in Bangladesh will be broadened.

CHAPTER 2

Literature Review

2.1 Defining PPPs: Public Procurement, PPPs and Privatization

PPPs may be defined as "…institutional relationships between the state and the private for –profit and /or the private not for-profit sector, where the different public and private actors jointly participate in defining the objectives, the methods and the implementation of an agreement of cooperation". PPPs are a variation of Privatization in which elements of a service previously run solely by the public sector are provided through a partnership between the government and one or more private sector companies. Unlike a full Privatization scheme, in which the new venture is expected to function like any other private business, the government continues to participate in some way. These schemes are sometimes referred to for short as PPP.

Public procurement and full privatization lie at the opposite ends of a continuum defined by the extent of service obligations imposed and ultimate ownership of assets though closely related there are differences between public procurement, PPPs and full Privatization. Often the criteria used to choose the private partner for PPPs are more complex than just who offers the best price and who conforms to the technical specifications. PPPs emphasis the actual delivery phase of the project, while under a simple tender, government bears the responsibility for specifying exactly what it needs. When procuring large infrastructural projects e.g. highway projects, governments generally have two options for underwriting capital expenditures: tax revenues or user fees. The tax-based approach has traditionally been favored in the United States, Southern Europe and Japan, and involves using general tax revenues, earmarked fuel taxes or other dedicated taxes to pay for projects. Southern European nations such as France, Italy, Portugal and Spain-together with many developing nations-have favored the used of user fees collected in the form of tolls to finance their infrastructure needs.

PPPs presents as a middle case between public procurement and privatization. They involve a more open relationship in which business is encouraged to propose alternatives rather than mere provision of a service and the private sector operator will often need to design the best solution given the governments' specifications. Other things would include offering technical expertise and provision of viable financial arrangements for the projects, and most critically, the bearing of the associated operational risk's illustrated in **Table 2.1** below, the criteria used to choose the private partner in PPPs are often more complex than mere consideration of who offers the best price and who conforms to the technical specifications and required for the project.

Table 2.1: Public Procurement, PPP and Privatization Continuum

	Public Procurement	**PPP**	**Full Privatization**
Definition	Supply by the private sector of works, goods or service as defined by the public authority.	PPP introduce private sector efficiencies into public service by means of a long-term contractual arrangement. They secure all or part of the public service, call upon private funding and private sector know-how	Privatization means transferring a public service or facility to the private sector, usually with ownership, for it to be managed in accordance with market forces and within a defined framework.
Main Features	Contracting authority establishes clearly what is to be built, how and by what means. Invitations to tenders are accompanied by very detailed technical specifications regarding the type of work being procured. The procurement process is short-term in nature and does not involve long-term occupancy of infrastructure assets, and thus does not lay	Contracting authority establishes the specifications of a project and leaves to the private sector the responsibility of proposing the best solution, subject to certain requirements. Price is one of the many criteria in the evaluation of bids. A lot of emphasis is on the technical and financial capability of the bidder, financial arrangements proposed, and the reliability of technical solutions used.	Privatization authority prepares the divestment plan. Involves transfer of ownership to the private sector. Is generally a complex transaction with carefully designed contracts and a multi-stage competitive tender process. Generally, the public sector withdraws form management of the entity on privatization.

	emphasis on the operational phase of the project.	Given the long duration of the concession period, emphasis is on the arrangements proposed for the operational phase.	Almost all risk is bone by the private sector.
			SAIIA (2005)

2.2 Difference between Public Sector and Private Sector

In the context of developing countries, the recent proliferation of PPPs has been attributed to several explicitly stated reasons, including: the desire to improve the performance of the public sector by employing innovative operation and maintenance methods; reducing and stabilizing costs of providing services; improving environmental protection by ensuring compliance with environmental requirements; reinforcing competition; and reducing government budgetary constraints by accessing private capital for infrastructure investments (Miller, 2000; Savas, 2000).The latent reasons for contemplating a PPP lie in the inherent differences between the public and private sectors, which are outlined in **Table 2.2**. These differences imply that PPPs can under the right conditions; provide an effective mechanism for capitalizing on the peculiarities and strengths of each sector in the pursuit of common objectives.

Public agencies and private organizations can indeed seek mutual advantages in developing a PPP, particularly when the latter is characterized by trust, openness, fairness and mutual respect. For the public agency, the main rewards from partnering with private sector are improvement of program performance, cost-efficiencies, better service provisions and appropriate allocation of risks and responsibilities (Pongsire, 2002).The good faith approach indeed takes as proven that private participation results in a combination of lower cost and less risk for the public sector (Miller, 2000; Leitch and Motion,2003).The private sector on the other hand, expects to have a better investment potential , to make a reasonable profit, and to have more opportunities to expand its business interests. A good return on investment is definitely an essential consideration from the private partner perspective (Scharle, 2002)

The respective roles of the private and the public partner are therefore neither antagonistic nor identical, but complementary. The public sector controls several key legal and regulatory assets to implement a project with in the context of an overall development program. The private sector brings outside capital, technical expertise and an incentive structure. The essence is the cooperative and mutually supporting nature of the relationship. Actual partnering therefore involves collaboration and leveraging the strengths of both the private sector (more competitive and efficient in economic terms) and the public sector (more responsible and accountable to society).PPPs may therefore, under the right conditions, bring the discipline of the market into public administration and promote a synergistic combination of the strengths, resources and expertise of the different sectors. The question then arises as to under what conditions do PPPs create win-win situations as a result of mutual benefits or socio-economic symbiosis.

Table 2.2: Main Distinction between the Public and Private Sectors (Shafritz and Hyde, 1997)

	Public sector	**Private sector**
Management	• Blurred agent-principal relationship • Inward/professional interests orientation • Reactive style • Politically constrained	• Clear agent-principal relationship • Consumer /marketing focus orientation • Proactive style • Stakeholders interests but less constrained
Goals	• Multiple and sometimes vague and conflicting • Equity and probity • Closed system leading to continuity/consistency • Focus on inputs • Non-market prices/state subsidies	• One-dimensional (profit) • Entrepreneurial • Open/adaptable • Focus on outputs • Market prices/subsidy centers
Labor	• High unionization/centralized bargaining • Salary grading • High security of employment	• Lower unionization/decentralized bargaining • Employment based on performance • Less security of employment
Communication and reporting systems	• Bureaucratic and formal • Internal communication via written memoranda • Formal committee structure • Rule book procedure • Accounting and management information systems under developed	• Non-bureaucratic/informal • More direct communication (face to face) • Ad hoc team working • Financial targets; outcomes • Strong accounting and management information systems
Nature and location of business	• Politically and geographically constrained • Business development limited • Location: mainly national	• Commercially determined • Diversification, investment and divestment/mergers/overseas ventures • Location; international /global orientation

2.3 Historical Perspectives of PPP

Historically, the most common application of PPP in Europe was started in the transport and urban water supply sectors where users were easily identified and revenue streams at least partly supported the investments. The Irish Republic followed the European and British developments in supporting the concept of PPP as a matter of policy and focused on time to delivery savings and capacity constraints in the economy, including labor skills and infrastructural deficit. The Exchequer in Ireland has considerable scope to provide infrastructure from public funds, in contrast to the UK, so that the budget constraint imperatives for PPP adoption are not as strong. The utilization of PPP models in the USA is more limited in comparison with the European activity. The most common funding model used for infrastructure development in the USA is by way of bond issues from stakeholder partners. Experience in the USA shows up problems when Federal taxation law and State regulations are not favorable to aspects of PPP implementation, and one objective of the policy framework is to seek rationalization of the legislative and regulatory environment.

In Australia, the birthplace of PPPs was in Victoria, which followed closely both variants of the UK model for PPP. In the developing countries, Malaysia can be mentioned .From what is known, the main applications with PPPs are in transport and water and wastewater sectors, in common with other international experience. In order to reduce the burden on government funds, most of the PPPs follow the Build Own Operate Transfer (BOOT) models. The Government process for PPP schemes normally involves selection of at least two potential consortia from the private sector-Government selects the consultants, contractors and financiers to be involved. The Government provides a specification of its service needs, and allows the consortia to develop proposals to meet these needs. The Malaysian Government experience with their version of PPPs is mixed. Toll roads have been developed under the model, apparently successfully. Water schemes that were privatized have met with community rejection when the private sector dealt directly with the customers.

Transportation PPPs were pioneered in Europe and by the 1990; two types of partnership approaches had evolved. Under the more common "real toll" scenario, private concessionaires arrange financing, construct roadways, maintain them, service their debt, and derive revenue from tolls collected directly form motorists. One of the main benefits of thee "real toll" concession approach is that it enables governments to tap into sources private capital and avoid using public monies to build highways. Real toll PPP precedents established in France and Spain have been replicated is such diverse locations as Iceland, Malaysia, Republic of South Africa, Croatia, Australia, China and Brazil. An equally wide range of countries is now poised to launch ambitious surface transport partnership projects, including Poland, Romania, Libanon, Egypt, and Austria.

As PPPs have become more common, many governments have become eager to capitalize on the increased efficiencies of the private sector and have found that private developers deliver greater value for money. This has precipitated the "shadow toll" approach initially adopted in the United Kingdom, where governments award concessions to build-operate-maintain toll-free highways and then compensate the investors based on roadway usage and /or availability of those facilities. Privately financed shadow toll highways are currently operational in the United Kingdom, Finland, Spain and Portugal. In the United States, the private sector historically had an important role in highway construction operation and financing. Although the role of the private sector in highway financing and operation declined mid-part of the 19th century, in the late 1980 private-sector involvement in these cases remerged.

2.4 Theoretical Framework for PPP

There is no unified theoretical basis for PPP s .However, among the various theories one may point out the Principal-Agent framework given the specific nature of risks existing in most PPP projects. Most of these risks are uninsurable. Indeed, the probability or risk materialization directly on the PPP partner's behavior. Consequently, the risk allocation should be treated within the transaction. The Principal-Agent Theory (PAT) deals the most with the risk allocation type. By modeling the relation between an informed party (the agent) and an uninformed one (the principal), the PAT highlights two problems rising from the information's asymmetry: adverse selection and moral hazards. Both of them lead to higher risk in the realization of the project outcome. The question is how to allocate efficiently these risks between partners in the reference (complete) contract .The target followed in the determination of risk allocation criteria is the total cost minimization. This must maximize the Principal's utility subject to the Agent's participation incentive constraints. The respect of these two constraints must permit both partners to improve their situation, compared to a situation in which only one constraint would have been taken into account. As Lattont &Martimort (2002) point out "incentive and participation constraints define the set of incentive feasible allocations". Both risk allocation criteria pronounced by the PAT come from these two constraints.

In the PAT framework, the Agent's effort is not observable. At the same time, the Agent's behavior is at the root of the performance. In order to assure a certain level of performance, the Principal; should give the Agent incentives to perform. The incentive constraint should be tackled. The authors belonging to the PAT concentrate on the imposing of potential cost overruns on partners as an incentive device. The payment the Agent receives from the Principal depends on his performance. There are several general conclusions on PAT: Firstly, the risk should be allocated to the Agent to the extent he does manage the risk. Secondly, risk should be allocated to the least risk adverse partner in order to minimize the overall risk-bearing cost. In the Principal is supposed to be risk neutral. Thirdly, the Principal should support risk in order to minimize the overall risk-bearing cost.

For assets where the government currently levies a tariff for usage (e.g. road tolls, electricity ,water, gas and other public utility bills),the private sector will continue to generate their revenues in this way.

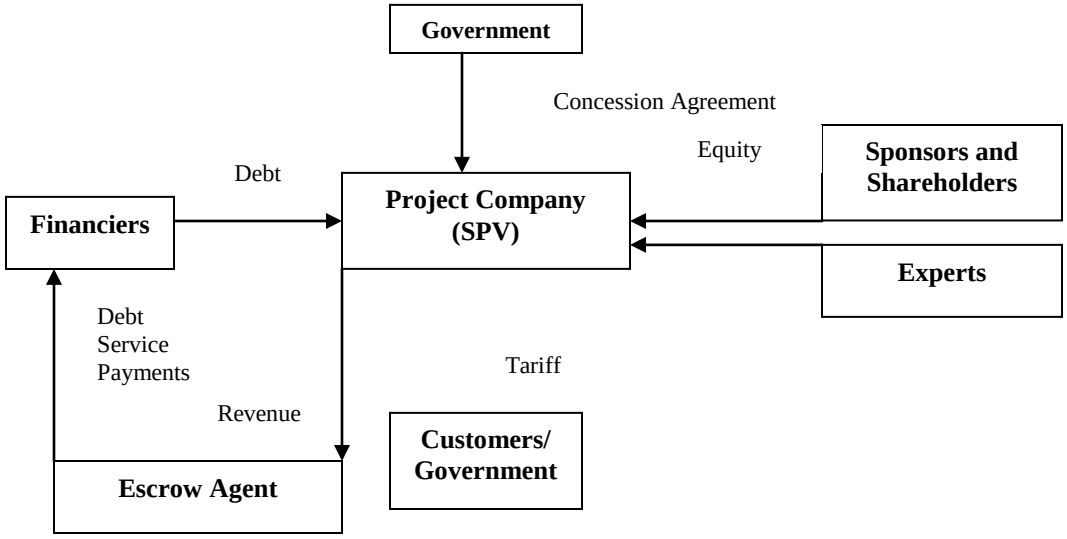
In some instances, the private sector may collect tariff revenue from users and receive government service payments. In other arrangements, the private sector may be required to share tariff revenue with the government and receive no periodic service payments.

2.5 Parties Involved In PPP Projects

According to **Figure 2.1**, Parties typically involved in PPP include:

- Government appointed authorities with PPP contract responsibility
- Special Purpose Vehicles (SPV) formed by private sector participants exclusively for the delivery of the PPP project
- Design, engineering and construction contractors
- Operators and managers
- Project managers
- Lenders
- Equity investors
- Insurers
- Legal advisers
- Financial advisers

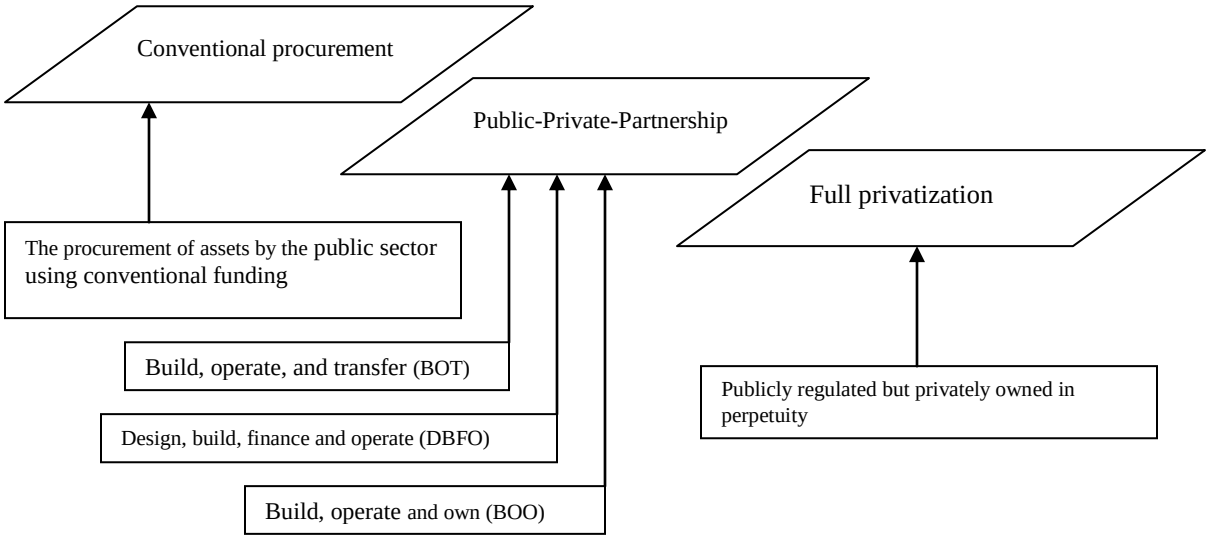
Figure 2.1: Typical Structure of PPP Contract



2.6 Procurement Systems and PPP Extensions

Public-private partnerships can be classified using a scale from full public responsibility to full private responsibility. Typical PPP Extensions is shown in **Figure 2.2**.

Figure 2.2: PPP Represents Balanced Between State Ownership And Privatization. (Guidelines for Successful Public Private Partnership, European Commission)



Each PPP option implies varying levels of responsibility and risk to be assumed by the private operator, together with differences in structures and contract forms which is summarized in **Table 2.3** .Increasingly, contracts are becoming hybrids, adopting features of several contracts to reflect the best local requirements.

Table 2.4 identifies the different players that may be involved in partnership projects and arrays their likely requirements when operating under the partnership structures. Predictably, as the level of private sector participation increases do the number of participants and the requirements of all partners, public and private alike.

Table 2.3: Summary of Key Features of the Basic Forms of Public-Private Partnership

	Service contracts	**Management contracts**	**Lease contracts**	**Concessions**	**BOT**
Scope	Multiple contracts for a variety of support services such as meter reading, billing	Management of entire operation or a major component	Responsibility for management, operation and specific renewals	Responsibility for all operations and for financing and execution of specific investments	Investment in and operation of a specific major component, such as a treatment plant
Asset Ownership	Public	Public	Public	Public/Private	Public/Private
Duration	1-3 years	2-5 years	10-15 years	25-30 years	Varies
O&M Responsibility	Public	Private	Private	Private	Private
Capital Investment	Public	Public	Public	Private	Private
Commercial Risk	Public	Public	Shared	Private	Private
Over all level of risk assumed by private sector	Minimal	Minimal/Moderate	Moderate	High	High
Compensation Terms	Units prices	Fixed fee, preferably with performance incentives	Portion of tariff revenues	All or par of tariff revenues	Mostly fixed, part variable relate to production parameters
Competition	Intense and ongoing	On time only; contracts not usually renewed	Initial contract only; sub-sequent contracts usually negotiated	Initial contract only; subsequent contracts usually negotiated	One time only; often negotiated without direct competition
Special Features	Useful as part of strategy for improving deficiency of public company; Promotes local private sector development.	Interim solution during preparation for more intense private participation	Improves operational and commercial efficiency; Develops local staff	Improves operation and commercial efficiency; Mobilizes investment finance; Develops local staff.	Mobilizes investment finance; Develop local staff.
Problems and challenges	Requires ability to administer multiple contracts and strong enforcement of contract laws	Management may not have adequate control over key elements such as budgetary resources, staff policy etc.	Potential conflicts between public bodies are responsible for investment and the private operator.	How to compensate investment and ensure good maintenance during last 5-10 years of contract	Does not necessarily improve efficiency of ongoing operations May require guarantees

(Heather Skilled and Kathleen Booth.2007)

Table 2.4: Requirements of PPP Partners under Different PPP Arrangements. (Guidelines for Successful PPP, 2003)

Private Sector Requirement	**Service Contracts**	**Management Contracts**	**Lease**	**BOT Agreement**	**DBFO Agreement**	**Partial Divestiture**
Fair profit	Required	Required	Required	Required	Required	Required
Reward for Risk Mitigation	-	-	Desirable	Desirable	Required	Required
Clear Legal/Regulatory Structure	-	-	Required	Required	Required	Required
Growth Potential	-	-	Desirable	-	Desirable	Desirable
Political Support	-	-	Desirable	Desirable	Required	Required
Political Stability	-	-	-	Desirable	Desirable	Desirable
Government Requirements						
Leveraging Funding	-	-	-	Yes	Important	Important
Accelerating Project Implementation					Important	Important
Improving Service Levels	Yes	Yes	Yes	Yes	Yes	Yes
Improving Service Coverage	-	-	-	Yes	Important	Important
Efficiency Gains	Important	Important	Important	Important	Important	Important
Ease of implementation	-	-	Desirable	Desirable	Desirable	Desirable
Lender Requirements						
Rigorous Financial Analysis	-	-	-	Required	Required	Required
Conservative Cost/Revenue assumptions	-	-	-	Required	Required	Required
Certainty of Grant and State funding	-	-	-	Required	Required	Required
Clear Legal regulator structure	-	-	-	Required	Required	Required
Technical Ability of Owner /Operator	-	-	-	Required	Required	Required
Political Stability	-	-	-	Desirable	Desirable	Desirable

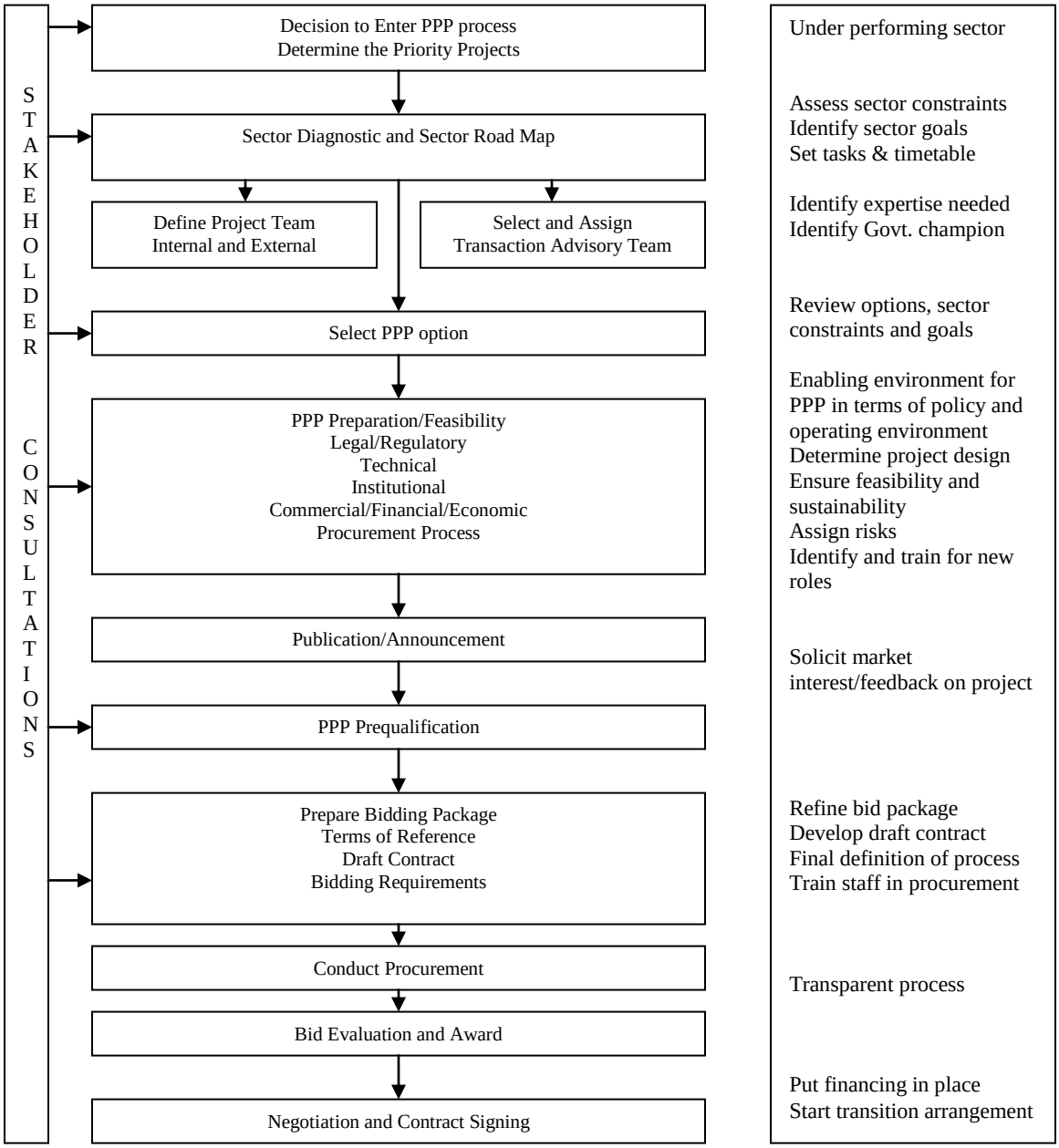
2.7 Sector Diagnostic for PPP readiness

In designing a PPP process and selecting a form of PPP, it is important to consider the reform objectives; policy environment, legal, regulatory, and institutional frameworks; financing requirements and resources of the sector; and the political constraints and stakeholder concerns. To be successful, PPP must be built upon a sector diagnostic that provides a realistic assessment of the current sector constraints. Specifically, the sector diagnostic should cover:

- Technical issues;
- Legal, regulator, and policy framework;
- Institutional and capacity status; and
- Commercial, financial, and economic issues

As a result of sector diagnostic, the government is able to determine to what degree an enabling environment exists for PPP and what activities are required in advance of PPP to create such an environment. The diagnostic is important to: (i) identify the strengths and weaknesses of the sector and the most promising areas for efficiency increases, (ii) regularly gauge and report on the progress of reform, and (iii) tweak the reform program as needed. The sector diagnostic leads to development of a road map and a sequence of PPP activities as can be seen in **Figure 2.3**, which describes the components of the sector diagnostic.

Figure 2.3: Generic PPP Projects Sequence Which Describes the Components of the Sector Diagnostic (Heather Skilling, 2007)



2.8 Attractive Factors of Adopting PPP

The attractive factors of PPP have been discussed by many previous researchers. This section looks briefly at some of these. So why are governments across the world favoring the approach of PPP to provide for their public services and facilities? The very first PPP projects that opted for this approach were simply to bring in private investment for public services and facilities. These services and facilities were often essential for the public but to provide for them using the government's capital would put pressure on the government's financial status. Therefore, it was an ideal situation that the public had what they want provided for without the government having to pay, and also business opportunities were widened for the private sector.

As PPP has developed over the years, the advantages associated have become more obvious. Walker and Smith (1995) suggested three main reasons for using the PPP approach:

- In general, the private sector possesses better mobility than the public sector. For example, the privates sector is not only able to save the costs of project in planning, design, construction and operation, but also avoid the bureaucracy and to relieve the administrative burden.
- The private sector can provide better service to the public sector and establish a good partnership so that a balanced risk-return structure can be maintained
- The government lacks the ability of raising massive funds for the large-scale infrastructure projects, but private participation can mitigate the government's financial burden.

In addition, Walker et al. (1995) sported that PPP is a win-win solution and a number of benefits to the general public and government are recognized:

- Relief of financial burden;
- Relief of administrative burden;
- Reduction in size of inefficient bureaucracy;
- Better services to the public;
- Encouragement of growth; and
- Government can better focus and fund social issues such as health, education pensions and arts.

It is anticipated that there will be more PPP projects due to two main reasons according to Ghobadian et al (2004).Firstly; the private sector will get to know the needs of the public sector client over time. Secondly, the private sector has more to give than the public sector in terms of skills, technology and knowledge therefore providing better quality facilitates.

Askar and Gab-Allah (2002) summarized eight advantages of PPP in their paper:

- The use of private sector financing to provide new sources of capital, thus reducing public borrowing and improving the host government's credit rating;
- The ability to accelerate the development of projects that would otherwise have to wait for scarce sovereign resources;
- The use of private-sector capital, initiative, and know-how to reduce project construction costs and schedules and to improve operating efficiency;
- The allocation of project risk and burden to the private sector that would otherwise have to be undertaken by the public sector;
- The involvement of private sponsors and experienced commercial lenders, providing an in-depth review and additional assurance of project feasibility;
- Technology transfer, training of local personal, and development of national capital markets

- In contrast to full privatization, the government's retention of strategic control over the project, which is transferred back at the end of the contractual period; and the opportunity to establish a private benchmark to measure the efficiency of similar public sector projects and thereby offer opportunities for the enhancement of public management of infrastructure facilities.

Risk transfer is one of the main reasons for adopting the PPP approach. The private sector is in general more efficient in asset procurement and service delivery and as a result it is to the government's advantage to share the associated risk with the private sector. In line with widely accepted principles, Hong Kong government's Efficiency Unit (2003a) advocated that the most ideal situation is to allocate the risk to the party most able to manage/control that risk. For example, the contractor would take up the construction risk, the designer would take up the design risk, the government would take up environmental approval risks, land acquisition risks etc. (Corbett and Smith, 2006)

Cost certainty is more easily achieved in PPP projects as financial terms are identified and included with in the contract. Since the private consortium will normally be responsible for financing, designing, constructing and operating the facility over an extended period, any cost saving can naturally result in a better chance of securing profit. Hence, they are keen to control their spending tightly (Corbett and Smith, 2006)

Innovation is another important advantage that the private sector can bring to public services. Generally speaking, the public sector may not be as innovative as the private sector. The private sector on the other hand is continuously searching for new product and services to increase their competitive edge and to save costs (Chan et al., 2006).

The private sector is made responsible for ensuring that the asset and service delivered meet pre-agreed quality benchmarks/standards throughout the life of the contract. Sometimes, the private consortium would only receive payment upon meeting certain requirements of the project; or it is motivated by the incentive payments to reward the high quality of service to be provided.

In a PPP project the consortium is also responsible for the long-term maintenance of the facility/service. The concession period may range from a few years to decades. Therefore the consortium is keen to design and construct the service/ facility to ensure better maintainability (Chan et al., 2006), at least within the concession period if not beyond.

Public sector projects delivered by the PPP model can often be completed on time and even with time savings because the consortium would start receiving revenue once the facilities/services are up and running. Therefore, the project team is keen to complete design and construct as quickly as possible .Once it starts to accrue revenue it can begin to pay off the initial costs and build up profits, whereas in a traditionally procured project there are no extra financial incentives for public servants to deliver projects faster. As a result, projects can best be proceeded along as scheduled. (Li, 2003).

Time certainty is found to be more easily achieved in PPP projects. The consortium is often paid according to milestones of the project schedule and any delay might be subject to liquidated damages. Therefore the consortium is often motivated to reach these milestones on time. This is a common behavior observed in the private sector but it may not be the case in the public sector (Chan et al., 2006)

To the government, PPP frees up fiscal funds for other areas of public service, and improves cash flow management as high upfront capital expenditure is replaced by periodic service payments and provides cost certainty in place of uncertain calls for asset maintenance and replacement. Public sector projects delivered via the private sector normally involve private sector funding. Consequently, the public funding required for public services can be reduced and redirected to support sectors of higher priority ,e.g. education, healthcare , community service, etc (Li et al.,2005b)

To the private sector participants, PPP provides access to public sector markets. If priced accurately and costs managed effectively, the projects can provide reasonable profits and investment returns on a long-term basis. Also, these projects tend to be large and therefore expertise form many areas are required. Hence co-operation among different collaborating parties is encouraged (European Commission Directorate, 2003)

2.9 Negative Factors of Adopting PPP

Similarly the negative factors for PPP were also reviewed and a summary has been given in this section. Berg et al. (2002) also summarized some disadvantages of PPP project.

- Lengthy bidding process-from initial phase of public sector assessment to signing of contract takes up to two years. The process of inviting, preparing, assessing and refining bids and negotiating contracts is complex and procedural.
- High bidding costs-the detailed and lengthy nature of the bidding process implies increased transaction costs.
- Small number of bidders
- Cost overruns-considerable scope for cost inflation through the bidding process.
- Excessive risks –not clear to what extent the government can shift risk.

The impact of risks to project objectives in completing a PPP project is usually significant, and these risks arise from multiple sources including the political, social, technical, economic and environmental factors, due mainly to the complexity and nature of the disciplines, public agencies and stakeholders involved. Both the private and public sectors need to have a better understanding of these risks in order to achieve and equitable risk allocation and enable the propjet to generate better outcomes(Chan et al.,2006)

PPP projects may fall apart due to failure on the part of the private sector participants. In contracting out the PPP projects, the government should ensure that the parties in the private sector consortium are sufficiently competent and financially capable of taking up the projects. Due to a lack of relevant skills and experience of project partners, PPP project are more complex to procure and implement (e.g. London underground)

One common problem encountered in PPP projects is the high bidding costs, which is owing to increasing project complexity and protracted procurement process. The private sector incurs high bidding costs partly due to the consideration of the clients and their financier's objectives. Lengthy negotiations and especially the cost of professional services may increase the bidding costs further (Corbett and Smith, 2006).

The bidding process is also regarded as lengthy and complicated. For example, bidders are required to prepare tender proposals attached with a bundle of additional materials. Such a process may take three to four months. Besides, another several lengthy negotiation will be required for the formation of the contract. Clearly, setting up a complicated agreement framework for successful PPP implementation can slow down the bidding process (Chan et al., 2006).

One other reason for failure is the stakeholder's opposition and general public opposition. Heather the proposed project is consonant with the interest of the public is important as public opposition can adversely affect the funding for the project from the public sector (Grimsey and Lewis, 2004). PPP in public projects typically incur political and social issues like land resumption, town planning, employment, heritage and environmental protection. These could result in public opposition, over-blown costs and delays to the projects.

Another common complaint by the public is the high tariff charged for the service provided. More often, the private sector would face political uphill in raising tariff to a level sufficient to cover its costs and earn reasonable profits and returns on investment. The participation of the private sector to provide public service will undoubtedly bring innovations and efficiencies in the operation, but may produce an ear of downsizing in the public sector. To a certain extent, there would be fewer employment opportunities if no regulatory measures were implemented (Le, 2003: Le et al., 2005b)

The introduction of PPP expert's unprecedented pressure on the legal framework as it plays an important role in economic development, regeneration and mechanism for developing infrastructure. Still, some countries do not have a well established legal framework for PPP projects and the current legal framework is only supposed to deal with the traditional command and control model. Although PPP involves a great deal of legal structuring and documentation to deal with potential disputes amongst PPP parties, a "water-tight" legal framework is still lacking (e.g. protection of public interests versus legitimate rights of private sector).Without a well-established legal framework, disputes are inevitable (Grimsey and Lewis, 2004).

Private sector investors bear financial risks in funding of the investment. Seeking financially strong partners in a PPP project is regarded as difficult. In most PPP arrangements, the debt is limited-recourse or non-recourse, where financiers need to bear risks. In fact, most stakeholders are not willing to accept excessive risks. The lack of mature financial engineering techniques on the part of the host countries can also be another problem (Grimsey and Lewis, 2004).Unattractive financial market (e.g. politically unstable or high interest rate) is often a negative factor to PPP success. Therefore, financial market is important for the private parties to drive PPP projects.

2.10 Type and Allocation of Risks

The most important factor for VFM measures is identified by the respondents was "Efficient risk allocation". It is essential for the public client and the private bidders to evaluate all of the potential risks throughout the whole project life. Public and private sector bodies must place particular attention on the procurement process while negotiating contracts for PPP to ensure a fair risk allocation between them. Systematic risk management allows early detection of risks and encourages the PPP stakeholders to identify, analyze, quantify, and respond to the risks, as well as take measures to introduce risks mitigation policies. A fundamental principal is the risks associated with the implementation and delivery of services should be to the party best able to manage the risk in a cost effective way. Typical allocation of risk is shown in **Table 2.5.**

Construction risks for large infrastructure are important. Cost overruns and delays have been common in public sector procurement. In PPPs, however, these have been considerably reduced when the private sector has borne the costs of such risks. The tender will include a risk premium, but the overall costs of the project are often lower as the private sector tends to avoid overruns more efficiently.

For international operations foreign exchange risk is a considerable problem. Project viability can be affected if lenders are foreign. For developing countries this risk is not negligible.

Regulatory/contractual risk is a problem for the private sector. Governments may change their contractual term. This is a risk especially for sensitive issues such as user fees. In some cases, public opinion on the infrastructure and the service charges may prompt the government to renege on its agreement. Such situations may cause strains also with financial lenders.

In some countries, political risks are considerable. These are not only to be found in countries with unstable political systems, but also in stable democracies. Infrastructure assets that have the potential to attract popular opposition, such as waste incinerators or roads and motorways, may create enough pressure for politicians to renege on their position; this is a public acceptance risk. When such risks exist, private contractors will require compensatory guarantees or risk insurance which adds to the cost of the project.

Unforeseen environmental concerns during project development or archaeological findings may also create calls to take mitigating actions which should be taken into account in the provisions of the PPP agreements.

Table 2.5: Typical Allocation of Risk (European Commission, 2003)

Risk Category	**Allocation**	**Comment**
Planning Risk	May be retained by contracting authority for pilot projects. However, there may be occasions when transfer in whole or part is appropriate or unavoidable	
Design and Construction Risk	Transferred to contractor through payment mechanism	Contractor bears risk of cost and time overruns. Contracting authority retains risk of changes to output specification
Operating Risk	Transferred to contractor under DBO, DBFO and concession contracts through payment mechanism.	Deductions are made form payments for failure to meet service requirements
Demand Risk	Retained under DB and DBO contracts may be transferred under DBFO and concession contracts to ensure fitness for purpose throughout the duration of the contract.	An example of demand risk transfer is when the contractor recovers its costs through user charges.

Residual Value risk	Retained under DB and DBO contracts May be transferred under DBFO and concession contracts to ensure fitness for purpose throughout the duration of the contract.	Contractor carries residual value risk if asset not automatically transferred to contracting authority at end of contract.
Financial Risk	Financial risk often transferred or shared under DBFO and concession contracts	An indexation mechanism may be used
Legislative Risk	Legislative risk often retained or shared. Government is often best placed to control regulatory and legislative risks	Key issue is whether the regulatory or legislative change is discriminatory in respect of the specific project or sector.

2.11 Value for Money in PPP Projects

One of the main reasons that projects are procured by PPP is to enhance Value for Money (VFM) by inviting the private sector to handle public works projects. As a result, there has been much literature on how VFM in PPP projects can be achieved. This section reports only a few examples of how VFM can be achieved in PPP projects.

VFM, defined by Grimsey and Lewis (2004) as the optimum combination of whole life cycle costs, risks, completion time and quality in order to meet public requirement, is another important consideration when deciding whether to proceed with the PPP option especially for the public sector (Chan et al. 2006). "Public Sector Comparator" is the most common tool used by the public sector to show how much it would cost the Government to build the asset through public funding, which is then used to compare with how much it would cost to build it as a PPP (Farrah 2007). In the case of University College London Hospital Redevelopment in the United Kingdom, the PPP option cost 6.7% less than the Public Sector Comparator, while maintain the same output and user requirements as demanded (Efficiency Unit 2003b).

Cost savings refer to the reduction in price as a result of delivering a project by PPP instead of traditional methods. The saving could be a result of the private sector's innovation and efficiency which the public sector may not be able to achieve (Corbett and Smith 2006).Private sector generally achieves higher operational efficiency in asset procurement and service delivery by applying their expertise, experience, innovative ideas/technology (e.g. using durable materials to reduce future maintenance cost) and continuous improvements. Overall cost savings to the project can be achieved by striving for the lowest possible total life cycle costs while maximizing profits.

PPP project arrangements are complex and involve many parties with conflicting objectives and interests. Hence, PPP projects often require extensive expertise input and high costs and take lengthy time in deal negotiation. The high transaction costs and lengthy time may not represent good value to all parties and as a result the deal may not materialize in the beginning or may falter in the end. PPP projects may incur higher transaction costs than those under the conventional public sector procurement. The legal and other advisory fees would be included as lawyers are involved in all stages of a PPP project, as well as the cost of private sector finance, and price premium for single point responsibility arrangement. The potential high transaction costs may have a negative impact on the objective of securing the best value (Corbett and Smith 2006).Complex PPP projects require inputs from many parties of different expertise. Therefore, the project should be economically viable to cover such costs.

2.12 Critical Success Factor

While PPPs can provide a mechanism for exploiting the comparative advantages of public and private sectors in mutually supportive ways, several issues are salient and deserve careful consideration when contemplating a PPP. To start with, the government needs to maintain its involvement, whether in its capacity as partner or regulator. This is especially true where accountability is critical, cost-shifting presents problems, the timeframe is long, or societal normative choices are more important than costs(Spackman,2002).PPPs should not be expected to substitute for action nor

responsibilities that properly rest elsewhere. In particular, the public sector should continue to set standards and monitor product safety, efficacy and quality and establish systems whereby citizens have adequate access to the products and services they need. In other words, PPPs do not imply "less government" but a different governmental role. Because of the stronger position of the private partner, more skilled government participation is often needed (Scharle, 2002).

Pongsirie (2002) emphasizes the establishment of a transparent and sound regulatory framework as a necessary precursor to private sector participation in a PPP. Regulation provides assurance to the private partner that the regulatory systems includes protection from expropriation, arbitration of commercial disputes, respect for contract agreements, and legitimate recovery of costs and profit proportional to the risks undertaken. A sound regulatory framework can also increase benefits to the government by ensuring that essential partnerships operate efficiently and optimizing the resources available to them in line with broader policy objectives (Di Lodovico, 1998, Zouggari, 2003).Baker (2003) similarly demonstrates that the nature of regulation and control are crucial in decisions about PPPs outlining that PPPs generally necessitate a more direct control relationship between the public and private sector than would be achieved by a simple (legally-protected) market-based and arms-length purchase.

Samii et al.(2002) highlight the key formation requirements of effective PPPs, including resource dependency, commitment symmetry, common goal symmetry, intensive communication, alignment of cooperation, learning capability, and converging working cultures while Kanter (1994) emphasizes individual excellence, importance, interdependence, investment, information, integration, institutionalization and integrity as the key ingredients of effective collaboration. Both the appeal and challenge inherent in PPP arrangements arise form the notion of building new relationships between actors that have drastically different constituencies/interests along with divergent strategic and operation realities.

Alliance research similarly suggests that the failure of many alliances can be traced to the partner selection and planning stages and identifies the four Cs of compatibility, capability, commitment and control as critical for successful pre-selection of alliance partners (Hagen, 2002).Particularly important are the notions of compatibility, which entails identifying complementary strengths and weaknesses and commitment as reflected in the formalized commitment of necessary time energy and resources. This stream of literature generally points out that partnerships are high-risk strategies, particularly at the level of implementation, but the advantages/mutual benefits in case of success by far outweigh the risks involved.

Some traditional constraints in the way of a successful realization of a PPP configure include: the long-term planning horizon; the complexity of various projects; the institutionalized competition rules for public projects; the hold-up problem caused by a change in the position of partners; a technocratic implementation; reductionism measures instilling competitive norms instead of cooperative ones; and cultural differences between private and public partners(Nijkamp et al., 2002; Scharle, 2002).For Spackman (2002), a key characteristic of a successful PPP project is a trusting relationship between the parties based on a shared vision.

Partnerships appear to be most justified where: traditional ways of working independently have a limited impact on a problems; the specific desired goals can be greed on by potential collaborators; there is relevant complementary expertise in both sectors; the long-term interests of each sector are fulfilled; and the contributions of expertise of the different sectors are reasonably balanced (Linder, 1999).Generally, the public sector's concerns for transparency and accountability need to be accommodated, and the private sector needs reassurance about safety and return on investment. The challenge therefore is to ensure that the multiple interests of key participants are skilled fully negotiated and package.

In addition, experience with PPP suggests that there are several principles and guidelines worth applying during project preparation. Some have to do with the quality of the participants and the relationships among them. Others are more important during the phase when the financing and implementation are negotiated. Such considerations are (Spacekman, 2002; Scharle, 2002; Sussex, 2003; Zouggari, 2003):

- A careful consideration and precise articulation of the purposes of the partnership;
- A clear delineation of targets and goals;
- A timely and transparent mapping of all costs, revenues and profitability aspects of a PPP;
- A clear insight in to the planning of projects parts, the risk profile involved and the ways in which various partners are involved;
- Clear boundaries, measurable output performance and transparency;
- Specific reporting and record keeping requirements
- A strong central structure at the level of central administration, using private sector expertise to promote and guide policy implementation;
- Provisions for contract re-negotiation and for adjusting contractual terms particularly in countries where administrative capacity is weak;
- An appropriately designed legal framework
- A consideration of environmental, safety, and health responsibility and control over and close monitoring of monopolistic situations

2.13 Constrains Implementing PPP

Based on a study by Sader (2000) and Camdessus report, which focused on the experience with partnerships in the water sector the main obstacles within developing countries would seem to include:

- **Political Commitment:** In countries where the rule of law is not firmly entrenched governments have reneged on contracts signed by previous administration. There also have been several cases of governments reneging on contractually agreed terms (e.g. the right of levy cost recovering tariffs) in the fact of public dissatisfaction.

- **Existing service providers:** Where incumbent service providers, often state owned, remain in the market they are often the subject of preferential treatment. This goes hand in hand with a tendency, in many countries, to invite private participation in the absence of a commitment to overall sectoral liberalization.

- **Public governance:** Many private investors have had to contend with conflicting public authorities, for instance central versus sub-national governments, or regulatory bodies versus ministries. In addition, non-existent or inexperienced regulators created avoidable uncertainty about price and tariff setting.

- **Regulatory framework:** A weak legal environment necessarily leads to concerns for non-state underwriters of long-term contracts. Existing legislation in many countries was designed to define public sector responsibility in infrastructure and is inadequate in a situation of private participation. In addition, human capital such as relevant regulatory expertise is in short supply in many countries without much experience in privately operated utilities.

- **Award procedures:** The award procedures often lack of transparency and are not based on objective evaluation criteria. Corruption has been a problem- in general, and in the specific context of awards. Also, some projects have been compromised by official preference for local participation, preferred sub-contractors or suppliers and the employment of weakly qualified local staff.

- **Conflicting aims:** Often one objective (that is, one PPP project) has been expected to serve several policy objectives, from financial, to macroeconomic, to social, to environmental. Protests by local communities and non-governmental organizations against individual projects have rebounded on investors rather than the initiating authorities.

2.14 Good Governance in Public-Private Partnerships

There are seven main arenas where good governance in PPPs in PPPs must be observe (UN, 2008)

Governmental level: executive stewardship of the system as a whole;
Principle 1-The PPP process requires coherent policies that lay down clear objectives and principles, identifies projects, and sets realistic target and the means of achieving them, with the overall aim of fining the support of the population for the PPP approach.

Public administration: where policies are implemented;
Principle 2-Governments can build their capacities in a combined approach that includes building skills, establishing new institutions and training public officials and using external expertise.

Judiciary: where disputes are settled;
Principal 3-Legal processes in many jurisdictions are either insufficient or too complex and therefore fail to provide sufficient security and incentives to investors in PPP

arrangements. As a result, lawmakers should aim to create PPP rules that are ‘fewer, better, and simpler’.

Economic society: refers to state-market, public and private sectors;
Principle 4-PPPs allow risk to be transferred to the private sector, which are most able to manage them. However Governments also need to accept their share and help to mitigate those risks allocated to the private sector.

Political society: Where societal interests are aggregated;
Principle 5-The selection of the bidder should be undertaken following a transparent, neutral, and non-discriminatory selection process that promotes competition and strikes a balance between the need to reduce the length of time and cost of the bid process while selecting the best proposal. There should also be zero tolerance of corruption.

Civil society: where citizens become aware of and address political issues; and
Principle 6-The PPP process should put people first by increasing accountability and transparency in projects and improving the quality of life, especially of the socially and economically disadvantaged.

Sustainable development: where environmental concerns are included.
Principle 7-The PPP process should integrate the principles of sustainable development into PPP projects by reflecting environmental considerations in the objectives of the project, setting specifications and awarding projects to those bidders who fully match the green criteria.

CHAPTER 3
Research Methodology

3.1 Introduction

A survey is a sampling or collection of facts, figures, or opinions taken and used to approximate or indicate what a complete collection and analysis might reveal. The survey asks professionals to respond based on their experience with PPP projects. It was ensured that the survey asks professionals to respond based on their experience with PPP projects. It was ensured that the survey participants were from both public and private sector. The various respondents included officials, engineers, contractors, suppliers and designers.

The survey was conducted by sending out a questionnaire of selected professionals with experience in infrastructure projects. The survey helped in gathering information on the factors that affect the effectiveness of PPP. Respondents were also to tell of the benefits and risks associated with PPP projects and qualitative responses of PPP readiness for project implementation.

3.2 Research Design

Construction Management research is commonly carried out using four standard methods, these include : (a) Literature review; (b) Case study; (c) Interview; and (4) Questionnaire survey(Chow,2005).Therefore, this research study combines these methods to collect information and data on Public Private Partnership (PPP) .The techniques and design of the data collection process were arranged so that the research objectives would be achieved .The research data and analyses were triangulated from other sources to help improved the credibility of the findings.

3.3 Research Process

3.3.1 Back Ground Study

Literature on the current practice of PPP both locally and internationally were reviewed via books, journals, magazines, newsletter, conference proceedings, workshops, seminars and other sources. Past and current practices of PPP were documented. The review exercise also included the development of an instrument to conduct the interviews and questionnaires. The information collected form these interviews and questionnaires were analyzed collectively to firstly verify the literature study conducted and secondly achieve the proposed research objectives. In addition as a result of the literature review appropriate case studies were identified for analyses.

3.3.2 Project Experience

From the literature review representative case studies were selected from European communities. The selected two cases included unique features such as having particular success or failure. These cases consist of international experiences. The findings from the case studies enable us to verify and triangulate the findings from the other sources of data collection used in this study.

3.3.3 Interviews with Public and Private Sector Expert

Interviews were conducted with experts from the public sector and private sector .The experts were selected based on two main criteria, these included:

- The experts possess adequate knowledge in the area of PPP; and
- Experts have hands-on experience with PPP projects

Six interview questions linking up to the project objectives were derived for the interviews with the public sector and public sector interviewees:

a) How have you compare PPP with traditional procurement method?
b) Which type of project do you feel is best suited to use PPP?
c) What do you feel are the key performance indicators in a PPP projects?
d) In general, what do you think are the critical success factors leasing to successful PPP projects?
e) What is your perception about PPP –readiness for Project implementation?

3.3.4 Data Collection

Questionnaire survey is an effective method to seek a large sample size for quantitative data analysis. Representative practitioners with experience in PPP were targeted. The questionnaire aimed to achieve several key features of PPP projects including: the attractive and negative factors, reasons for implementation, value for money measures and also factors contribution to success and perception about PPP readiness about Project implementation.

The questionnaire template (**Appendix: A**) designed by Li (2003) was adopted for covering first objectives of this study. Although a new research questionnaire could be developed based on the literature and interview findings, there were several advantages foreseeable to adopt Li's (2003) survey questionnaire rather than designing a new template. There would be no added advantage to reinvent the work that has previously been done by other researchers.

For the second objective, PPP-readiness Self-Assessment (UNESCAP, 2005) is used as a diagnostic tool (**Appendix: A**)for identifying the key areas that governments need to address in order to involve the private sector more actively in the infrastructure development process. This assessment framework was developed based on outcomes of a number of Expert Group meetings organized by the UNESCAP secretariat and was also piloted in a country for its refinement. Some of the elements of general environment and PPP issues included in the framework are country specific. As a result, this framework is customized including changes of indicators for application to assess the PPP-readiness environment of Bangladesh.

The key function of the Assessment is that it is to be used to diagnose problems in attracting private investment for infrastructure development as distinct from using it to develop benchmarks against which different sectors or countries could be compared.

Questionnaire in which all the questions are answered by public sector and private sector respondents for understanding of the investment environment in a country. Most of the question are qualitative in nature and will require respondent's value judgment on the performance level of the concerned indicator in the question. The areas to which these question focus include:

- Legal and regulatory provision
- Policy framework
- Capacity
- Project selection and contracting process
- Post-selection process
- Social dimension

In filling out the questionnaires, respondents are required to rate the country's performance against questions on a scale.

3.4 Survey Respondents

Promoting PPP in the country needs multiple institutions to work together in a harmonized way to achieve the desired objectives. As per the Private Sector Infrastructure Guidelines (PSIG) different institutions are envisaged to play key roles in implementing PPP projects, with their respective mandates. Most of the key roles playing institutions are considered for selecting respondents.

- Board of Investment
- Finance Division
- Planning Commission
- LGED, RHD, PWD, City Corporation, Rajuk
- Infrastructure Investment Facilitation Center
- Private sector organization

3.5 Data Analysis Techniques

3.5.1 Qualitative Data Analysis

The literature review and case studies were analyzed by content analysis. Literature from different sources were summarized .Content analysis is often used to determine the main facets of a set of data, by simply counting the number of times an activity occurs (Fellows and Liu,1997).The initial step in content analysis is for the researcher to identify the material to be analyzed. The next step is to determine the form of content analysis to be employed: Qualitative, quantitative or structural. The choice is dependent on, if not determined by, the nature of the research project. The choice of categories will also depend upon the issues to be addressed in the research. Using this approach the case studies were analyzed both individually. The process of each case was mapped out, and each stage was analyzed. The analysis of the case studies drew answers behind successful implementation of PPP projects and also highlighted the common obstacle and problems which could be encounters.

3.5.2 Quantitative Data Analysis

The quantitative data collected was analyzed using the Excel' 07. The techniques that were used in this research study, in respect of quantitative analysis include the mean score ranking technique.

3.5.2.1 Mean Score Ranking Technique

The responses were analyzed collectively. Some data collected from responses were analyzed using the means score technique. Point scales were used to calculate the mean score for each response factor or option. The mean scores were then used to rank options in descending order or importance. The mean score for each factor or option was calculated by using the following formula (Siegel and Casteellan, 2008):

$MS= \sum (f \times s) / N, (1 \leq MS \leq 5)$
Where s = score given to each factor by respondents
f= frequency of each rating for each factor or option
N=Total number of responses for that factor or option

The mean score is a weighted average for the responses received for each question. For all questions that the mean score technique was applied, there was a rating scale represented by values. The mean scores were calculated by first multiplying the number of respondents by the weight of the response option to determine the weighted value. The total numbers of respondents were then calculated for all rating options. The calculated weighted value is then divided by the sum of all respondents.

CHAPTER 04

Government Initiative for Implementing PPP Projects and International Experience (Case Studies)

4.1 Background of PPP Initiative and Support in Bangladesh

During the 1990, like many other countries in Asia, Bangladesh recognized the need to encourage private participation in infrastructure services in order to improve efficiency and reduce demand for scarce public resources. In this backdrop, particularly focusing the power sector, a project finance workshop was held in September 1996 at Rajendrapur Dhaka. Through this workshop, the Public Private Partnership (PPP) program was started in Bangladesh.

In the context of facilitating the private sector investment in power sector, Private Sector Power Generation Policy of Bangladesh was adopted in October 1996. The policy illustrates the modality for project implementation, financing arrangements, security packages needed, provision of fuel, tariff setting criteria along with fiscal and other incentives in private participation in power projects.

With the aim of translating the explicit policy commitment into actual investment projects, and to carry forward the power sector reform activities in government of Bangladesh created and set up power cell under the Ministry of Energy &Mineral Resources (MEMR) in 1995 under the World Bank financed "TA for Implementation of Bangladesh Power Sector Reform" project. The power cell has the mandate to facilitate all stages of promotion, development, implementation, commissioning and operations of private power generation projects and suitably address the concerns of project sponsors. It has the mandate to assist project sponsors to secure necessary consents and permits from government where such consents and permits would be needed.

In 1997 the World Bank initiated a Technical Assistance Project "Private Sector Infrastructure Development project (PSIDP)" as a vehicle for delivering assistance to Gob for

- Proactively developing and marketing sound sub-projects for private investment
- Establishing speedy, competitive and transparent procurement processes for realizing private sector participation in such sub-projects
- Providing appropriate mechanism for reasonable risk sharing and mobilizing commercial investment in the form of equity and debt financing for infrastructure sub-projects and
- Creating suitable legal and regulatory structure in various infrastructure sub-sectors for sustained and efficient operation of private infrastructure facilities.

The key constraint to sub-projects being implemented is the lack of long term debt financing, which is necessary to ensure financial viability. The PSIDP, therefore, had the provision to provide long term debt financing from IDA resources by establishing a long-term fund.

The implementation period of PSID project was designed for five years from November, 1997 to December, 2002. Later on, it was extended up to 30 June, and 2004. The PSIDP had two components: project financing and sub-project transaction development. Infrastructure Investment Facilitation Center (IIFC) was mandated to coordinate sub-project transaction development. The Infrastructure Development Company Limited (IDCOL) with other institutional and commercial partners had the provision of mobilizing funds for private infrastructure projects.

In an attempt to enhance private infrastructure development, the government issued the Private Sector Infrastructure Guidelines (PSIG) in October 2004. Following the model of the Philippine inter-ministerial council, the Guidelines created a national Private Infrastructure Committee (PICOM) under the Prime Minister's Office for the facilitation and promotion of private infrastructure projects. Projects initiated by private sponsors or line ministries require government approval to be listed as a private Infrastructure

Project. Based on PICOM's analysis and recommendation, the Cabined Committee on Economic Affairs (CCEA) approves the project, following which PICOM oversees its implementation by the executing agency. In the project development process PICOM is assisted by the Major Terms and Conditions Committee in preparing the Request for Proposals and by the Pre-qualification and Tender Evaluation Committee in evaluating project proposals that have been received .In the implementation of the Guidelines, the Board of Investment (BOI) acts as the PICOM secretariat. IIFC, which has draft the Guidelines, has been appointed by PICOM as its technical advisor on a limited scope basis.

Later on in the year 2006 Investment Promotion and Financing Facility (IPFF), a World Bank financed project under Bangladesh Bank (BB), was created, mainly for lending to infrastructure projects in the private sector.

4.2 Legal Basis for the PPP under the Present Framework

Whether the present regulatory framework is sufficient to make the PPP initiative effective in terms of project processing and financing aspects requires to be revisited.

The Bangladesh Private Sector Infrastructure Guideline (PSIG) issued by the cabinet Division in 2004 is currently the guideline for implementation of projects under the PPP. This has not been issued under any law passed by the national parliament. As a result, there were doubts and lack of clarity regarding the consistency between Public procurement Regulations PPR'2003 and the private sector project development; approval and financing that are to be implemented under the jurisdiction of PSIG 2004. Later the Public Procurement Act (PPA) 2006 was enacted by the national parliament. Procurement Act 2006 through section 66, which incorporated concessions agreement related provision, extended the government's legal jurisdiction to formulate independent PPP guidelines.

In the Public Procurement Rules (PPR) promulgated by the government in 2008, rule 129 incorporates various PPP related models. In this regard as of now: PPA'2006 section 66 and PPR'2008 rule 129 may form the legal basis for project implementation and contract execution under the PPP initiative. Therefore under the present framework infrastructure development activities by the private sector under PPP initiatives can be continued. However, the entire procedure should be brought under the purview of a comprehensive framework in order to ensure competent administration, regular monitoring, sound accountability and professionalism, for which independent act and required legal framework must be developed.

At present, project under the PPP initiative are being financed through IDCOL and IPFF by the government. IDCOL is a company established under the Companies Act. On the other hand IPFF is a 5 year term project. Since IDCOL was established under the Companies Act, through it necessary resources can be arranged for financing large scale projects. However, due to failure to formulate appropriate project proposals by ministries, divisions or agencies no initiatives were undertaken to arrange large funs through IDCOL. In addition, there is lack of clarity and hesitation regarding how the government will finance infrastructure development through the PPP initiative. There is a need for a legal framework for pooling of finances from various sectors' (banks, insurance, pension funds).But, at present, government through IDCOL can provide money (equity or loans) to any infrastructure investment related funds.

Guidelines for Formulation, Appraisal and Approval of Large Projects, 2010; Guidelines for Formulation, Appraisal and Approval of Medium Projects, 2010; Guidelines for Formulation, Appraisal and Approval of Small Projects, 2010; is promulgated under Policy and Strategy for Public-Private Partnership (PPP), 2010 for developing enable environment for PPP project implementation. After adoption of this new Policy and Strategy for Public-Private Partnership (PPP) in Bangladesh, the Bangladesh Private Sector Infrastructure Guideline (BPSIG), 2004 is rescinded.

4.3 Policy and Strategy for Public-Private Partnership (PPP), 2010

4.3.1 Office for Public-Private Partnership

For the promotion and efficient handling of PPP projects and Office for PPP shall be established, through resolution or by legal instrument, as a separate office under the Prime Minister's Office. The Office for PPP will be formed as an autonomous unit having significant autonomy on administrative and financial matters in discharging its mandated functions.

The Office for PPP is the central point of promoting the PPP concept. It supports line Ministries in identifying, formulating, selecting, contracting and monitoring implementation of PPP projects. The Office for PPP will also coordinate among various government and private agencies for fast tracking PPP projects.

The Office for PPP will consist of officials recruited from public sector and private sector, selected on a competitive basis, having knowledge and expertise infrastructure/PPP projects. The office for PPP shall be headed by a Chief Executive Officer (CEO).The CEO of the Office for PPP shall report directly to the Hon'ble Prime Minister.

The Role of the Office for PPP:

- To initiate, develop, formulate PPP projects
- To actively promote PPP to various potential investors
- To maintain a panel of experts for PPP projects
- To conduct pre-feasibility, feasibility studies and prepares relevant bidding documents, when necessary
- To secure annual technical assistance financing for conduction pre-feasibility, feasibility studies and preparation of relevant biddings documents
- To seek appraisal for VGF for PPP projects

- To propose for approval of various laws, rules, regulations, model documents, guidelines, procedures for general use and use for specific types of PPP projects
- To support line Ministries/implementing agencies in tendering and selection of investors.
- To undertake awareness creation activities and build capacity in line ministries and implementing agencies on PPP affairs
- To monitor PPP projects including the linked components
- To facilitate risk mitigation measures for private investment
- To maintain an up-to-date internet portal with public access to laws, rules, regulations, model documents, and short description and scope of negotiated PPP projects, and secure access to private participants for tracking progress of processing of specific PPP projects

4.3.2 Types of Financial Participation of the Government in PPP Projects

The financial participation of the government in the PPP projects may be in at least 3 forms, depending on the nature of the projects and models of PPP adopted for a particular type of project. The detailed procedure and guidelines for all forms of financial participation by the government will be issued and specified by Finance Division with the approval of the CCEA.

4.3.2.1 Technical Assistance Financing

The technical Assistance Financing is designed for the following purposes:

- Pre-feasibility and Feasibility study for projects;
- Preparation of RFQ and RFP documents for projects;
- Preparation of concession contracts for projects;
- PPP related capacity building in the line ministries/implementing agencies and other relevant agencies;
- PPP related awareness building

4.3.2.2 Viability Gap Financing

Viability Gap Financing (VGP) is meant for projects where financial viability is not ensured but their economic and social viability is high. VGF could be in the form of capital grants or annuity payment or in both forms. VGF in the form of capital grant shall be disbursed only after the private sector company has subscribed and expended the equity contribution required for the project. The VGF is to be managed by the Finance Division and is for disbursement to the PPP Project Company, upon request by the line Ministry/implementing agency, as per the terms of the concession contract.

4.3.2.3 Infrastructure Financing

The infrastructure financing is an arrangement for extending financing facilities for the PPP projects in the form of debt or equity through specialized financial institutions such as Bangladesh Infrastructure Finance Fund (BIFF) and Infrastructure Development Company Limited (IDCOL).The government may participate in such financing arrangements through necessary budget provision.

4.3.3 Incentives to Private Investor

The government is keen to provide various fiscal and non-fiscal incentives to the private investors for launching PPP projects in priority sectors. All incentives in PPP, including fiscal and monetary incentives are to be considered and granted by the government, though the appropriate agencies of the government. The incentives may be in the areas of reduction of cost and protection of return to the private sector.

(i) Fiscal Incentives

All PPP projects will receive the applicable incentives, provided by the government form time to time which may, inter alia, include:

- Reduced import tax on capital items under PPP projects; and
- Tax exemption or reduced tax on profit from operating/managing for a specific time period.

(ii) Special Incentives

Any specific project may get special unique incentives with the approval of the CCEA which shall be declared in the RFP documents. Special incentives may be extended to PPP projects targeted for rural or/ and underprivileged population. Special incentives may be given to non-resident Bangladeshis (NRBs) to invest in PPP projects.

4.3.4 Institutional Framework for PPP

The institutional framework for developing strategy, identification, formulation, appraisal, approval, monitoring and evaluation of PPP projects is presented below:

- Public-Private Partnership Advisory Council (PPPAC)
- Cabinet Committee on Economic Affairs (CCEA)
- Line Ministry/Implementing agency
- Finance Division
- Planning Commission

4.3.5 Unsolicited Proposals

For appraisal and approval of unsolicited proposals, competitive bidding such as 'Bonus System', Swiss Challenge System' or other appropriate methods shall be followed where the options and competitiveness of the unsolicited proposals could be put to open test by inviting competitive proposals.

In the Bonus System, the proponent of the unsolicited proposal is given bonus points in relation to the evaluation. Swiss Challenge System enables the government to attract counter proposal on and unsolicited proposal during a designated period. The original proponent then has the right to counter-match the most attractive counter proposal.

4.4 International PPP experience

The examination of case studies enables the confirmation of a number of key principles governing PPP development and application. Foremost it is important to stress that PPP structures come in many forms and are still an evolving concept which must be adapted to the individual needs and characteristics of each sector, project and project partner. According to **Table 4.1** Two unique cases are selected through comprehensive case studies from different European countries which demonstrate success and problems. Lesson learned from these case studies about the key factor for enabling good environment for PPP development and implementation. The out come of this case studies will be triangulated with result is found from other sources data collection.

Table 4.1: List of selective case studies from different countries of European community

Case No	Name of case	Sector	Comments
1	Apa Nova in Romania	Water and Waste Water Treatment Sector	Demonstrates success
2	M1-M2 Motorway, Hungary	Transport Infrastructure Sector	Demonstrates problems
(European Commission, 2004)			

4.4.1 Case Study 1: APA Nova in Romania

Table 4.2: Key features of PPP project of APA Nova in Romania

Case Study	APA NOVA-Romania
Objectives of the PPP	Attract financial resources to upgrade the water system. Introduce international management practices and expertise
PPP Actors	City of Bucharest; Apa Nova; Vivendi
Financial Structure	EBRD loan, tariff financing
E.U. Support	No
Contract Agreement between Parties	Concession
Risk Allocation	Private operator is bearing most of the risk
Institutional/Managerial Structure	Board between the public and private counterparts
Tariff Setting	Price cap tariff set on PPP contract signature
Strong Point	Improved water system
Weak Point	The private operator is bearing most of the risk

4.4.1.1 Background

The privatization process for the Bucharest water system took place in 1996, following World Bank recommendations, and resulted in a concession agreement between Vedia and Bucharest Municipality for the management of the water system. In 2000, Apa Nova, then controlled by the French utility company Vivendi, now restructured under Veolia Environment, won a tender for the management of Bucharest water concession including the development of the Crivina Plant. Apa Nova is an enterprise created on an already existing link between Vedia and Bucharest Municipality. The general conditions of the PPP arrangement between APA Nova and Bucharest for the Crivina Plant are the same as for the 1996 water system PPP agreement with Vedia. In practice, Vedia has been incorporated into APA Nova

4.4.1.2 Transfer of relevant skills

Through the introduction of international management practices and operational expertise important skills well are transferred to APA Nova's staff. The lack of adequate skills in Romania is one of the main rationales for inviting a foreign operator .The Sponsors will develop local skills in areas such as operations management, energy efficiency, capital budgeting and financial management.

The management tender was launched by the Municipality to attract financial resources and know how to improve the water and water treatment system for the city. The project consisted to two main items: (i) the improvement of the water distribution network in Bucharest, and (ii) the completion of the Crivina potable water treatment plant located in the outskirts of Bucharest. The completion of Crivina would increase the capacity for potable water treatment to 259,000m^3/day.

4.4.1.3 PPP features

As one of the first PPPs in the local water sector, the private contractor was selected through international competitive tendering. The terms and conditions of the agreement are considered consistent with international best practice. In particular, the concessionaire is paid under a price cap type tariff mechanism. This provides incentives for cost reductions, which are shared with consumers in the form of lower prices and /or higher levels of service quality.

Following an international competitive tender process organized by the Municipality of Bucharest, with the support from the International Fiancé Corporation, Videndi Universal was selected as the preferred bidder. The agreement foresees that Apa Nova Bucuresti, owned 85% by Vivendi Universal, operates the Municipality's water and sewerage assets for a period of 25 years. The Concession Contract with the Municipality was signed on 29 March 2000, and became effective on 17 November 2000. Subsequent to the agreement execution, Videndi Universal transferred its shares in APA Nova to Compagnie Generale des Eaux S.C.A following the signing of the Loan Agreement.

The agreement helped create a source of capital to support an upgrade and extension of the Bucharest water system. The partnership agreement required the private partner to provide financial resources to upgrade the system. Bucharest will contribute the exiting infrastructure and own new infrastructure while the private operator obtains the right to manage and maintain the water system.

The water tariff was fixed at the moment of contract signature, with the agreement that it would be regularly adjusted .The decision to change the tariff will be made by the City Council on the basis of an application presented by the private operator. Apa Nova is, according to the agreement, responsible for the collection of tariffs and, when appropriate, pays dividends to all shareholders, including Bucharest.

The co-ordination between the two parties-Apa Nova and Bucharest, and the decision – making powers, are regulated by a board, on which the City of Bucharest and Videndi are represented. In addition a Director General is responsible for the day-by-day management of the operations

Part of the project included the upgrading of the Crivina plant. The project had already started 10 years earlier but the municipality lacked the financial resources and expertise to complete it. To finance the project Vivendi and the City of Bucharest applied for an EBRD loan which offered better terms than other commercial sources of capital. The loan terms required Vivendi to intervene if necessary and to assume the responsibility for monitoring and reporting on APA Nova's performance to the EBRD. Bucharest has the right, as shareholder, to also monitor APA Nova's operations. Bucharest looked for a private sector participation in the operation of its water and waste water system for two main reasons: to enable the necessary investment in upgrading the infrastructure and to bring in the needed new technology, know-how, and management methods. **Figure 4.1** describes the Structure of APA Nova.

PPP Structure of Apa Nova

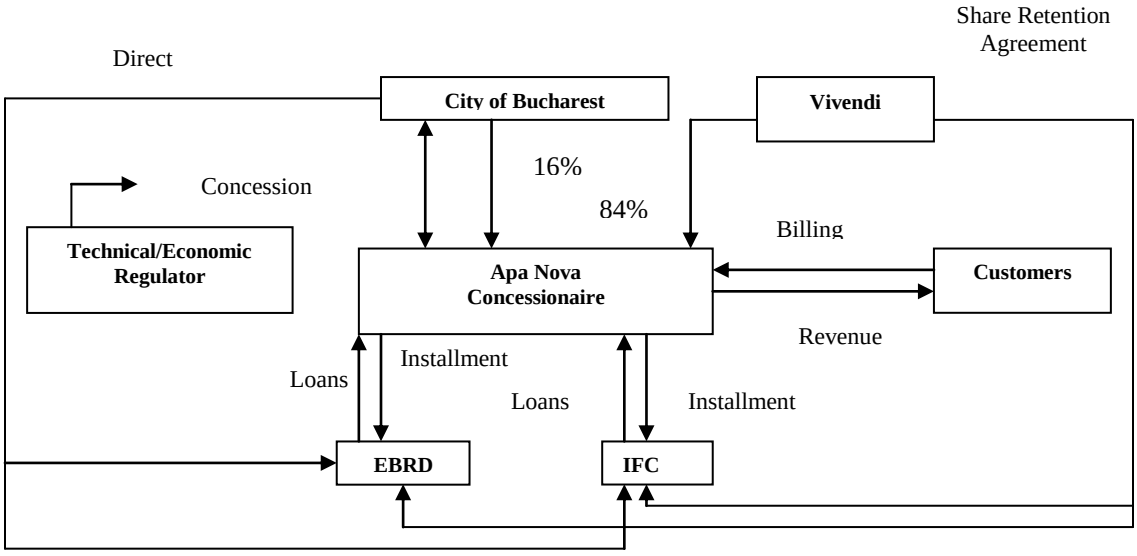


Figure 4.1: PPP structure of Apa Nova

4.4.1.4 Lessons Learned from Apa Nova

- The project represents a classic PPP model employed in the European water sector. It foresees a degree of stability and risk/profit sharing .The "tried and tested" nature of the model may have been beneficial of Bucharest given the uncertain PPP environment still reigning in Romania at the time.

- The PPP contract is bringing advantage to both parties. Bucharest is receiving reliable financing for upgrading and improving the quality of its water system. Additionally it is able to access the required expertise and technology and may also look forward to sharing a profitable dividend. The size of the dividend or the ability of the operator to generate profits is directly related to performance and increasing efficiencies due to the price cap mechanism. This provided a degree of consumer protection. The private operator is expecting economic profits, which they are trying to obtain by improving operation efficiency and by ensuring that revenues from the water tariff are effectively collected.

- There is some risk concerning revenue flows as tariff collection is the responsibility of the operator and the contract foresees no tariff changes in the short to medium term. This implies a degree of risk for the operator as operational efficiencies will not have an impact in the short term.

4.4.2 Case Study 2: M1-M15 Motorway, Hungary

Table 4.3: Key features of PPP project of M1-M15 Motorway, Hungry

Case study	M1-M15 Motorway-Hungry
Rationale/Objectives of the PPP	Realization of two high priority sections of motorway forming part of the Trans-European motorway network.
PPP actors	ELMKA Rt.,Ministry of Transport, EBRD and other lenders
Financial Structure	Loans by private and domestic banks; lenders ensuring a 14 year loan maturity
E.U support	EBRD support
Contract Agreement between Parties	Concession (DBFO)
Risk Allocation	Risks mainly allocated to the private partner
Managerial Structure	Government support
Tariff Setting	Concessionaire free to set initial tariffs
Strong Points	Attempts to achieve private sector efficiencies and incentives for the design, construction and operation of the motorway
Weak points	Overestimated traffic forecasts and inadequate tender criteria

4.4.2.1 Background

As the level of state debt did not permit public financing, a PPP approach was considered necessary for the realization of non-recourse financing of 57 km of mew motorway. Additionally it was judged that a PPP allowed more rapid implementation, including earlier financial close, of the Project than would have been permitted in conventional public sector procurement and financing. The debt would also have a longer maturity than would have been possible at the time by the Government of Hungry acting on its own as a sovereign borrower, or as a guarantor of a Special Purpose Company.

The project consisted of the design, financing, building, operation and transfer (35 years after effectiveness of the Concession Agreement) of 43 km of motorway from Gyor to the

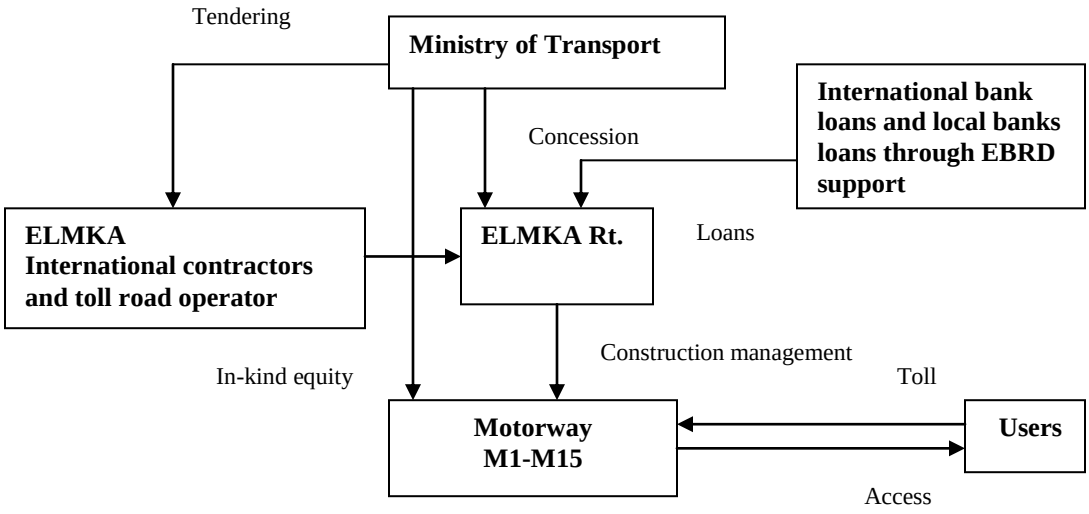
Austrian border (M1) and 14 km of motorway linking the M1 to Bratislava (M15).This would have a semi-open toll collecting system with one main toll plaza and five tolling stations on three interchanges. The parallel, un-tolled country road was to remain unimproved. The traffic volume un-tolled was forecasted to amount to 25,000 AADT, comprising 70% international traffic and 60% commercial traffic. The full traffic risk (volume and revenue) was transferred, without mitigation, to the private sector.

In contrast to other motorway schemes in Hungary, there was no support from the State other than in initial planning and site acquisition, whose costs were to be reimbursed in the form of profit sharing. The Concessionaire was free to set initial tariffs at their revenue maximizing level and thereafter to adjust them in accordance with agreed indexation provisions (HUF CPI inflation and adjustments for HUF/foreign currency exchange rate variations).The economic rationale for the Project was largely based on time savings to be realized by users (estimated at 20 minutes per full journey).There were no significant construction (ground or geological) risks as the terrain is flat without the requirement for significant structures to be constructed.

4.4.2.2 PPP Features

The principal parties involved were the Bureau for Concession Motorways, established by the Ministry of Transport in the Motorway Directorate in 1991, and ELMKA, Rt., a private sector company, comprising the international contractors and toll-road operator. The private party provided 19% of total financing required in the form of equity and shareholder funds. In addition, the Lenders were involved for Euro 329 million arranged by Banquet Nationale de Paris (BNP), co-arranged with the European Bank for Reconstruction and Development (EBRD), and syndicated to 11 commercial banks. The Loan maturity was 14 years. At the time this was the longest maturity secured by a Hungarian public or private borrower. Hungarian financing amounted to HUF 12,000 million arranged and provided by the EBRD and Hungarian commercial banks and insurance companies together providing 81% of total financing. **Figure 4.2** describes Structure of M1-M15 Tolled Motorway.

Figure 4.2: PPP Structure of M1-M15 Tolled Motorway



4.4.2.3 Actual Experience

Traffic volumes in the first full year of commercial operation amounted to 6350 AADT, 46% of original estimates and ELMKA's total revenues were some 50% below forecasted levels. This reflected a significant diversion by many commercial vehicles to the un-tolled alternative route. Additionally, the overall passenger car volumes were much reduced in part due to the development of large shopping centers within Hungary, removing the need for cross-border travel. Furthermore, delays in border crossing formalities form some users of 8 to 10 hours or longer, reduced the apparent value of the time savings potentially generated by the Project.

In 1996 litigation proceedings were launched against ELMKA, amongst others by the Automobile Club of Hungary, contesting the fairness of the toll levels. The court ruled that toll rates were not consistent with the level of service provided. In consequence senior lenders suspended loan disbursements for the M15 Project and construction was suspended. ELMKA experienced serious cash-flow shortfalls and defaulted on its loans in 1998.

Following the election of a new Government, the Concession was taken over by a special purpose public sector company in 1999 and the Republic of Hungary assumed debt service obligations, from January 2003.Th loans were restructured to give an overall maturity of 20 years, reduced rate of interest and a reduction in the amount outstanding, (debt write-down) secured by a sovereign guarantee.

4.4.2.4 Other Hungarian Motorway Projects

The Bureau for Concession Motorways subsequently initiated tenders for other motorway schemes in Hungary including the M5, M3 and M7. Feasibility studies showed, in contrast to the situation for the M1-M15 that a stand-alone private sector financing solution was not possible and would require traffic volume or revenue short fall support mechanisms. A tender procedure for the award of a private sector concession or the M3 Motorway was cancelled in 1995 and the Project was implemented by a state-owned public sector special purpose company. This was financed by means of direct Government contributions and Government guarantees. EIB loans initially made up 50% of project costs but this loan has subsequently been cancelled.

4.4.2.5 Lessons Learned

- Notwithstanding the high economic and political priority of the Project at the time, the viability of the PPP was undermined by underlying economics, which in practice did not bear out the optimistic traffic forecasts at the time the Concession was first negotiated and financed.

- Traffic forecasts are widely recognized as difficult to get right (compare forecasts for passenger forecasts for Euro star passenger train services London to Paris and Euro tunnel revenues with the actual return) especially so when alternatives modes of transport or corridors are available to users.

- Optimism in the traffic forecasts was exacerbated by the adoption of tender criteria which emphasized the lowest possible tariff, and the insistence on a stand-alone private sector investor.

- The M1-M15 Project has established itself as a benchmark of the dangers to which project participants are exposed when traffic risk on a Greenfield project is transferred to private sector participants without mitigation or contingent support.

- There is a wide variety of different commercial structures (availability charges, shadow tolls etc.) for attracting PPP involvement in motorway and highway investments.

- A defaulting private sector concession can lead to a re-nationalization.

4.5 Conclusions

A number of important lessons can be drawn from the two cases. This re presented in the context of considering options and possible solutions to individual situation, they are not meant to provide a model approach. Common lessons include:

Risk transfer lies at the heart of effective PPP design. If a good balance is not achieved it will result in increased costs and the inability of one or both parties to fully realize their potential.

The cases bear out the general principle that risk should be borne by the party best able to manage it most cost effectively. Cases demonstrate the additional cost incurred when too much risk is transferred. They also demonstrate that each project is unique and therefore that each project's risk profile must be assessed separately. While there is no standard approach a number of generalities can be identified such as:

- The greater the financial size of the project the greater the temptation for risk transfer to the private sector. However this must be supported by sound revenue earning potential allowing the private sector to adopt a higher risk profile.

- Certain risks are better borne by certain parties. For example regulatory risk is more appropriate to the public sector while construction risk and quality standard risks are more suited to the private sector.

The need for sustained political support and commitment is clearly demonstrated particularly for large projects and ones representing a first attempt at developing and implementing a PPP project. The potential disruptive effects of public outcry should also no be underestimated. This is particularly important where PPPs rely on user charges and promises of increased service provision or quality standards as justifications for their use.

Equally important is the need for an enabling and well defined legislative and regulatory environment. This allows contracts to be determined with certainty and allows the parties to understand the boundaries of interactions .The consequences of not having this certainty are clearly demonstrated in some of the early cases generally result in greater risk and cost and the inability to harness the true potential of project.

Given the complex interactions between service provision and financial viability, it is crucial for all sides to correctly estimate project parameters. Especially on transport projects, there are a multitude of examples of unsuccessful projects which failed due to poor demand or cost forecasting. Rigorous project analysis, undertaken by both parties is therefore essential.

Chapter 5
Data Analysis & Findings

5.1 Findings: Key Factors of Public-Private Partnership

5.1.1 Introduction

Survey questionnaire were sent to 50 respondents. Total 31 completed questionnaires were returned and which representing response rates of 62%. The response is considered high because most of the respondents were mid-level busy officials and questionnaires were little cumbersome. Because of personal persuasion, response rate is significantly high.

Respondents were asked to rate the factors according to a scale from 1 to 5 (1=Least Important and 5=Most Important), a value above "3" would represent that factor is of importance. Top of those factors the respondents were asked to rate, they were also given the opportunity to add others which would be of importance, but they did not do so. In this section, only the top most factors will be discussed for emphasizing the importance.

5.1.2 Ranking of attractive Factors for Adopting PPP

Fourteen attractive factors for adopting PPP were rated by the respondents (**Figure 5.1)**.The findings showed that the most important four attractive factors ranked were

- Solve the problem of public sector budget restraint
- Transfer Risk to the Private Partner
- Facilitate creative and innovative approaches
- Provide integrated solution

The first attractive factor rated by respondents "Solve the problem of Public sector budget restraint. The financing of public sector projects has been recognized as one of the key initial driving forces for implementing PPP schemes internationally. Many experienced practitioners in PPP believe that PPP brings about many other attractions

besides financing, and that financial motivation should not be taken sole reason for adopting PPP. This financial attractive factor is undoubtedly very appealing for governments across the world especially when public money is to be spent amongst competing needs.

Second attractive factor ranked by the respondents was Transfer risk to the private partner. It is important that risk transfer is a key element in effective PPP design. If a good balance in sharing risk in not achieved it will result in increased costs and both parties to fully realize their potential. There is some debate as to how much risk should be transferred from public to the private sector. Generally, the more risk transferred to the private sector partner, the more financial reward the private partner will demand. Risk should be allocated to the party who can best assume it in the most cost effective manner. Initial PPP projects in UK and Australia, governments attempt to transfer an excessive proportion of risk to the private sector, which unreasonably threatened the financial viability of the projects. More recent deals seek an optimum, rather than excessive risk transfer arrangement.

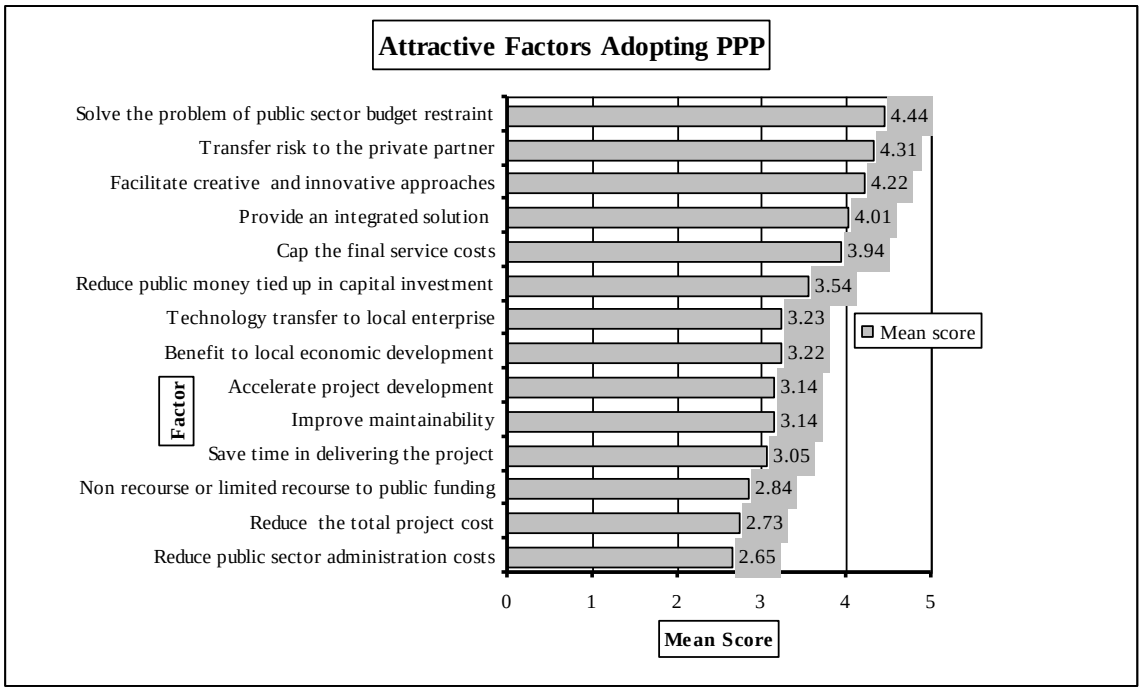


Figure 5.1 Ranking attractive factors for adopting PPP instead of traditional procurement

The third attractive factor rated by respondents is “Facilitate creative and innovative approaches”. The private sector remains responsible for ensuring that the public asset and services delivered meet certain quality benchmarks throughout the life of the PPP agreement. Therefore, it is in their interest to ensure that the assets are constructed to a high quality standard, utilizing the best technology so as to minimize the future maintenance costs. PPP contracts also include conditions requiring the private operator to upgrade the facilities.

The fourth attractive factor rated by respondents is “provide integrated solution". PPP is an integrated solution in that a private consortium is responsible for all the functions of design, building, financing, operation and maintenance .This bundling can allow the partners to take advantage of a number of efficiencies and increase economies of scale and scope. For instance, the contractor’s detailed knowledge of the project design and the materials utilized allows it to develop a tailored maintenance plan over the project life that anticipates and addresses needs as they occur, thereby reducing the risk that issues will go unnoticed or unattended and then deteriorate into much more costly problems.

The mean value for the attractive factors as rated by respondents ranged from 2.65 to 4.44. This observation has reflected that variation in their responses is relatively high which represents that responses are not consistent because of different understanding about attractive factor regarding PPP project in Bangladesh.

5.1.3 Ranking of negative factors for adopting PPP

Twelve negative factors for adopting PPP were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.2.**According to depiction, the most important four factors ranked by the respondents included:

- Lengthy delays because of political debate
- A great deal of management time spent in contract transaction
- Lack of experience and appropriate skill
- Lengthy delays in negotiation

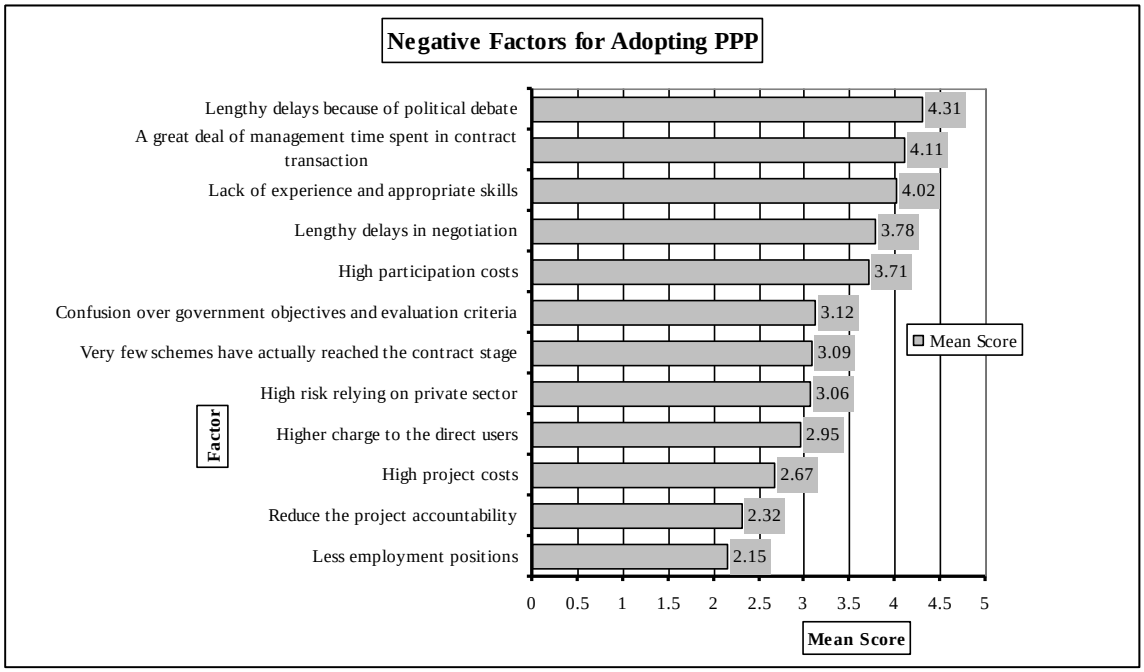


Figure 5.2 Ranking of negative factors for adopting PPP arrangements

Public works project are often delays and complicated by the need for stakeholder consultation as a result it is not surprising that "Lengthy delays because of political debate" is the highest negative factor ranked by the respondents. This problem is well known for causing projects to be held back.

The development of a PPP project requires firms and governments to prepare and evaluate proposals, develop contract and bidding documents, conduct bidding and negotiate deals and arrange funding. A great deal of management time is to be spent in contract transaction. The costs incurred in these processes are called transaction costs which include staff costs, placement fees and other financing costs and advisory fees for investment bankers, lawyers an consultant. Transaction costs may range from 1 to 2 percent to well over 10 percent of the project cost. According to survey out put "A great deal of management time spent" factor is rated second position.

The concept of partnership is not always well understood by the bureaucracy, often because of the lack of capacity and absence of clearly defined rules and regulations. The lack of capacity in the public sector can be a major obstacle in PPP development in many countries. Skills of a diverse nature, from project identification and economic evaluation to financial and risk analysis to contract document preparation, procurement; contract negotiation and management are required in administering a PPP programme. "Lack of experience and appropriate skills" factor is ranked third position as negative perception.

The fourth negative factor as ranked by respondents was "lengthy delays in negotiation". From the international experience, this is a typical factor for PPP projects irrespective of geographical locations. Due to the size and complexity of PPP projects the procurement process has been know to be lengthy.

For the negative factors rated by respondents the mean values ranged from 2.15 to 4.31. The variation in responses was 2.16. In general the negative factors are rated higher by the respondents because consideration of country context factors is deemed to be more challenging. It also implies that respondents are not very much confident about conducting PPP projects.

5.1.4 Reasons for Implementing PPP projects

The survey respondents were asked to rate the importance of nine identified reasons for implementing PPP projects. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.3.** According to presentation, Top three reasons ranked included:

- Shortage of Government funding
- Economic development pressure of demanding more facilities
- Social Pressure of Poor Public facilities
- Private Incentive

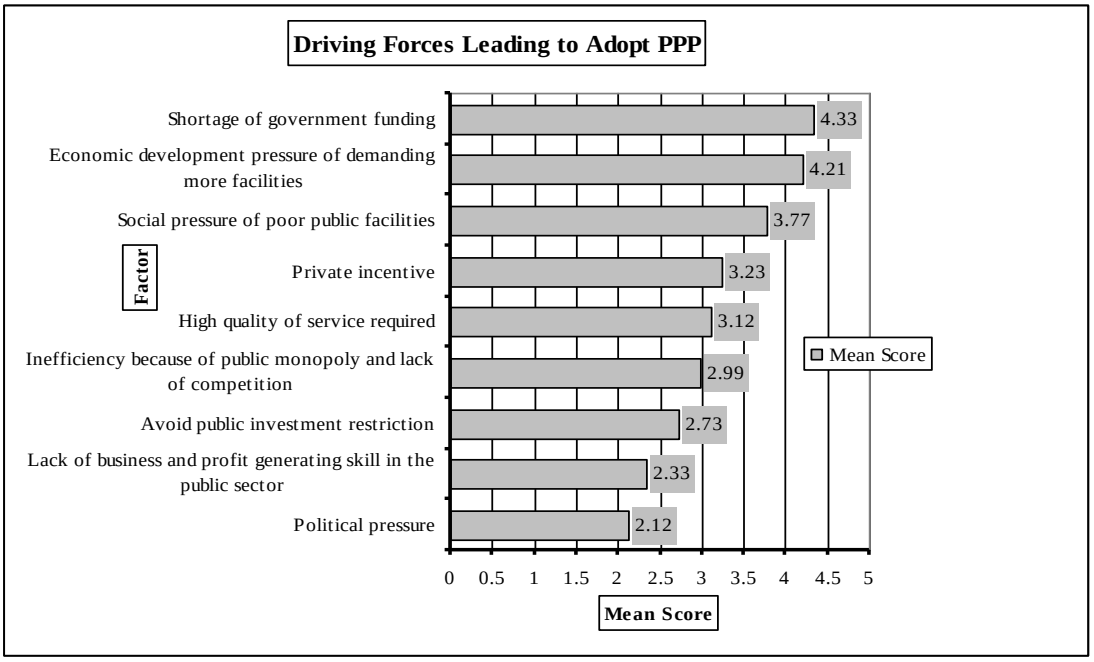


Figure 5.3 Driving forces leading to the adoption of PPP

"Shortage of Government funding" is ranked in the first position by the respondents. One of the main reasons for the rise of Private Finance Initiative Projects in the United Kingdom was due to financial resources from the private sector. The PPP/PFI method was first adopted at a time when the British Government was struggling to provide for public facilities and services (Zhang, 2001). By involving the private sector the government was able to continue delivering public infrastructural a result a heavy

emphasis on finance has always been associated to PPP/PFI projects especially in the early days of implementation.

Since the private sector invests in the infrastructure development, there is no need for the government to take loans and pay interests. This does not exert excess pressure on money market, thereby diminishing upward pressure on interest rate and inflation. Desired growth rate cannot be achieved if the government is unable to invest in infrastructure development at the appropriate time. Participation of private sector allows additional and increased production capacity that feeds into higher growth rate. "Economic development pressure of demanding more facilities" factor is also considered important considering representative case studies and which is also ranked by respondents in the second position.

Third most important reason for PPP project is considered by respondents is "Social pressure of poor public facilities". This is also observed from case studies. Many citizens around the world and especially in transition economies face an 'infrastructure deficit', as evidenced by congested roads, poorly-maintained transit systems and recreational facilities, deteriorated schools, hospitals, and water and water treatment systems which are either non existent or in urgent need of repair. Many governments have come to realize that the tax base alone cannot fund the huge needs for infrastructure. PPPs are one option to meet this challenge.

The top fourth reason was distinguished as "Private Incentive". Practitioners round the world can foresee the advantages of involving the private sector into conducting public works projects. The private sector can add value to these projects in many ways such as financially, via experts, innovation, risk sharing and above all motivation

The mean values of the reasons for implementing PPP projects as rated by respondents ranged from 2.12 to 4.33. This observation has reflected that the variation in their responses is relatively small (1.21). A value above "3" would represent that the reason for implementing PPP projects is of importance. Amongst the reasons for implementing PPP projects four were ranked below 3. These reasons for implementing PPP projects were Political pressure, Lack of business and profit generating skill in public sector, and Avoid Public investment restriction.

5.1.5 Ranking of Value for Money measures in PPP

Seventeen VFM measures in PPP were rated by the respondents. **Figure 5.4** Illustrates the relationship of the top three VFM measures ranked .These VFM measures included:

- Output based specification
- Efficient risk allocation
- Competitive tender

According to the figure, Top most important factor for VFM measure is "Output based specification". Clear specifications can be used to quantify the resources required for a project. When project specifications are more difficult to define the costs that it may incur are also hard to quantify and control. Therefore clearly defined output based specifications can help the government of monitor the private sector's performance. The private party can also feel more confident to achieve targets and keep control of the project flow in order to enhance their profit margins. Output based specifications can also help the government to use the public sector comparator more effectively in quantifying whether VFM is reached by procuring projects via PPP.

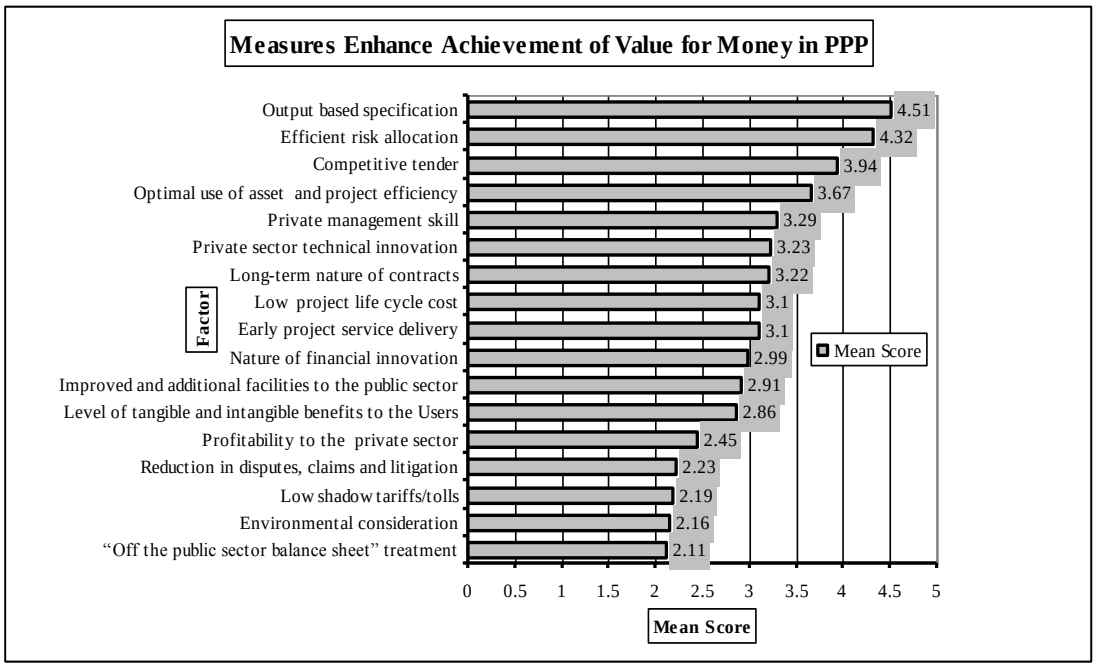


Figure 5.4 Ranking of the measures that enhance achievement of Value for Money in PPP projects

The second most important factor for VFM measures is identified by the respondents was "Efficient risk allocation". It is essential for the public client and the private bidders to evaluate all of the potential risks throughout the whole project life. Public and private sector bodies must place particular attention on the procurement process while negotiating contracts for PPP to ensure a fair risk allocation between them. Systematic risk management allows early detection of risks and encourages the PPP stakeholders to identify, analyze, quantify, and respond to the risks, as well as take measures to introduce risks mitigation policies. A fundamental principal is the risks associated with the implementation and delivery of services should be to the party best able to manage the risk in a cost effective way.

Respondents ranked “Competitive tender” as third important factor. Bangladesh has only a limited number of contractors who are able to handle large public works projects. As a result, projects tend to be awarded to the same groups of people. Therefore an evolving situation is that the fewer competitors in the tendering process the more difficult it is to achieve VFM in PPP projects. In a more competitive bidding environment the private sectors will try all measures to improve their designs in every aspect. In particular in terms of VFM as one of the main reasons that the public sector opt for PPP is to achieve VFM in public works projects. In a bidding environment that has few competitors the private sector does not need to try so hard to win the contracts, hence VFM may not always be achieved.

The mean values for the VFM measures as rated by respondents ranged from 2.11 to 4.51. Observation has reflected that the variation in their responses is relatively high (2.40).This findings shows that the respondents rated the seventeen VFM measures much more inconsistently with larger variation. The reason might be the different understanding of the respondents about VFM measure related to PPP projects.

5.1.6 Ranking Most Common Risks Associated with PPP

Most common risks associated with PPP were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.5.** According to the **Figure 5.5**, the most important three types of risks ranked by the respondents included:

- Political risk
- Public acceptance risk
- Environmental risk

Political risk is distinguished as top most position by the respondents. Political risk is a significant factor which is also demonstrated in the case studies. Assessment of the inherent strength and stability of local political institutions are required. As political risk increases, so does the cost of obtaining financing. The long duration of most concession agreements and the common aversion to user fee increases, make PPP projects especially susceptible to political risk.

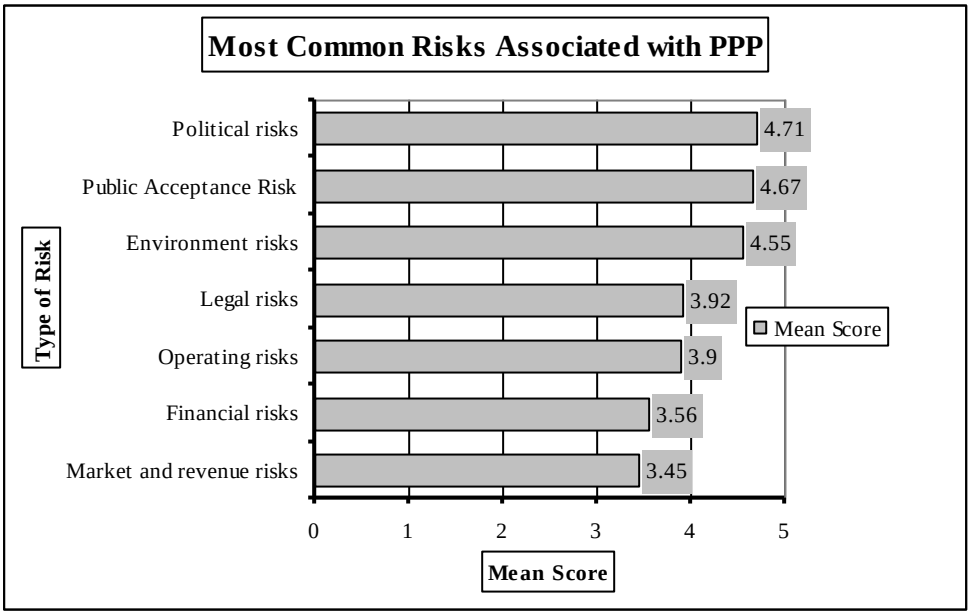


Figure 5.5 Ranking most common risks associated with PPP projects

The second most important risk associated with PPP as ranked by respondents was "Public acceptance risk". From international PPP experience it is also evident that because of not accepted by the common people many project has not been successful .Infrastructure projects have the potential to provoke protests among local communities as a result which can prove fatal to private concession. There are several notable examples of public acceptance risk in Europe. Experiences demonstrate the real threat that public acceptance risk can pose. It is important to make careful assessments of the approvals required for projects as well as public sentiment towards the projects before deciding to invest.

From the international experience, Environmental risk also considered significant in PPP project. According to the response of the respondent it is also manifested that environment risk is ranked as third position. PPP projects have the potential to provoke environmental concern. Unforeseen environmental issues can increase capital costs and result in serious delays. Environmental risk is usually assumed by the private party. It is important to undertake comprehensive environmental assessments and mitigation programs before initiating PPP program.

5.1.7 Ranking Key Performance Indicators in PPP

The survey respondents were asked to rate the importance of nine identified key performance indicators for implementing PPP projects. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.6.** According to the **Figure 5.6**, Top three KPI ranked included:

- Contractor's performance
- Economic performance
- Value for money achieved

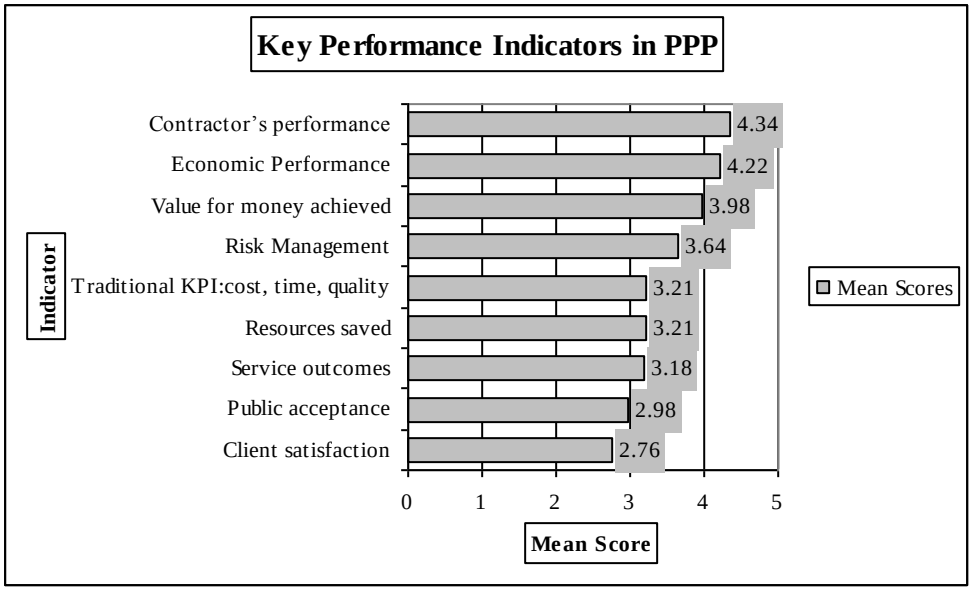


Figure 5.6 Ranking key performance indicators in PPP project

Most preferred key performance indicator is identified by respondents was contractor's performance. In Australia high priority is given to the contract component of projects procured by PPP. Contractor's performance according contract terms is important KPI for PPP project. Contracts can be used to measure the outputs of a project (Entwistle and Martin, 2005).

Second most preferred key performance indicator identified by respondents is "Economics". Money has often been used as a measure to quantify performance. Especially for the private sector their motives for participating in PPP projects are related often to commercial aspects (Sharma, 2007). Private sector is very much careful about "Economics" as key performance indicator. It is also demonstrated from case studies that if project is not economically viable and profitable which is also considered as most prominent negative factor for involving in PPP project. Public sector supports efficiency improvements; the private sector's motivation for profit introduces conflicts of interest with government, which are committed to promoting equity and maximizing the well being of their citizens. It is better to allow their private partners to make a reasonable profit in exchange for improving service and efficiency, leveraging its own financial resources expediting project implementation.

Ranked third by respondents is "Value for money achieved". PPPs should only be adopted as procurement and implementation option if they are reasonably expected to deliver enhanced value for money over traditional methods. Value for money assessment is therefore crucial to deciding the suitability of a PPP and suitability of a particular project design. A recent survey commissioned by the UK Treasury Taskforce on PPP identified that from a public sector perspective, there are 6 key drivers of value for money in PPP projects including: risk transfer, long term nature of contracts, the use of output based specification, completion, performance measurement and incentive and private sector management.

5.1.8 Factors Contribute Success of PPP

Seventeenth success factors for adopting PPP were rated by the respondents. **Figure 5.7** illustrates the relationship of the top five success factors ranked with their ranking positions .These success factors included:

- Favorable legal framework.
- Political support.
- Appropriate risk allocation and risk sharing.
- Strong and good private consortium.
- Commitment and responsibility of public and private sectors.
- Government involvement by providing guarantee.

According to the responses of respondents, the first most important factor is marked as "Favorable legal framework". According to the experienced of the pioneer country regarding PPP such as Australia and UK, an independent, fair and efficient legal framework is a key factor for successful PPP project implementation. A transparent and stable legal framework would help to make the contracts and agreements bankable. An adequate dispute resolution system would help to ensure stability in the PPP arrangement. Appropriate governing rules, regulations and reference manuals related to PPP have been well established in some developed countries to facilitate the effective application of PPP procurement approach. From case studies it is also evident that for not having favorable legal framework many PPP project was not successful.

Achieving partnership requires strong political support. Traditionally when there has consensus that an infrastructure project should be built, governments have allocated the necessary resources to procure it themselves. When governments look to the private sector for funding this may be a signal of lackluster support. However, because of the risks involved, the un-conventionality of the approach and the need to maintain legitimacy, partnership projects are likely to require stronger political and government support. "Political support" is ranked second by the respondents.

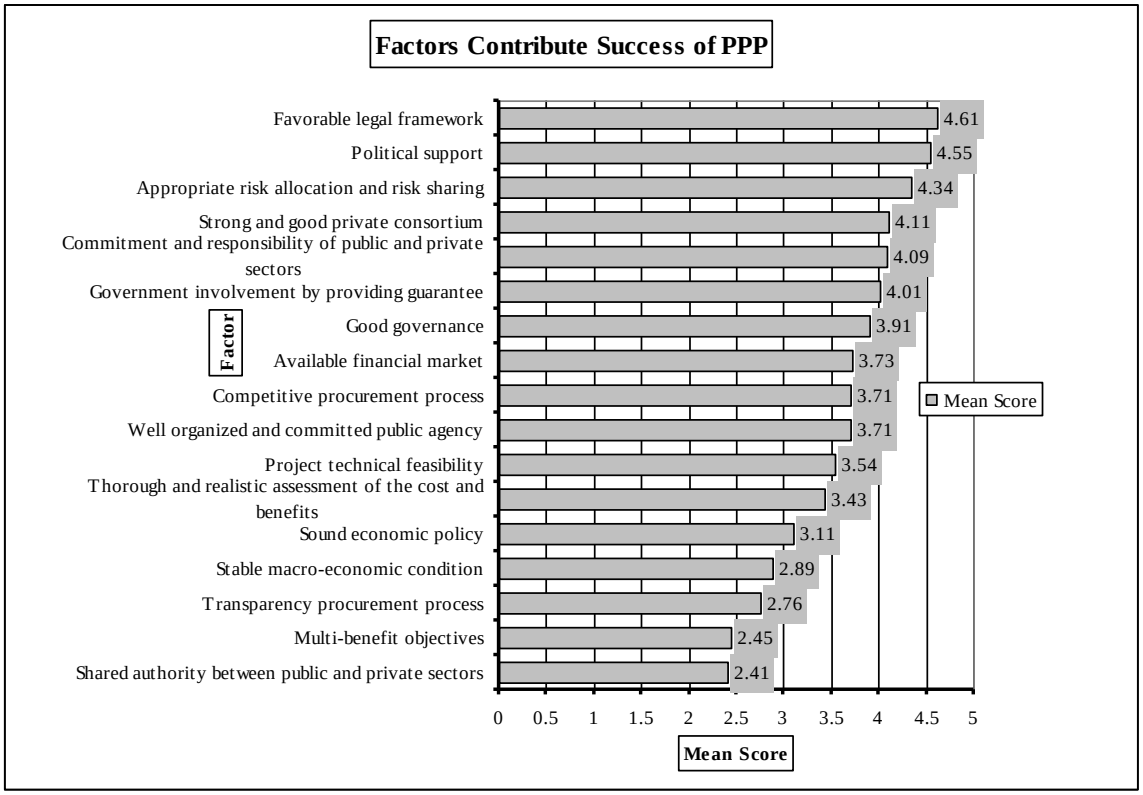


Figure 5.7 Ranking of the factors contribute to the success of PPP projects

The third success factor ranked by the respondents was "Appropriate risk allocation and risk sharing". Government would prefer to transfer risks associated with asset procurement and service delivery to the private sector participants, who are generally more efficient and experienced in managing them. But the government should be reasonable to take up risks that are beyond the control of private sector participants. In all cases, the government should ensure there are measures in place to manage the risk exposure rather than leaving it open to the private sector. Likewise before committing to the projects, the private sector participants should fully understand their risks involved and should be prudent in pricing and managing the risks appropriately (Zhang, 2005a).

Ranked forth by respondents was “Strong and good private consortium”. The government in contracting out the PPP project should ensure that the parties in the private sector consortium are sufficiently competent and financially capable of taking up the projects. This suggests that private companies should explore other participant’s strength and weaknesses and, were appropriate, join together to form consortia capable of synergizing and exploiting their individual strengths. Good relationship among partners is also critical because they all bear relevant risks and benefits from the co-operation (Abdul-Rashid et al., 2006; Corbett and Smith, 2006).

The fifth success factor ranked by the respondents was “Commitment and responsibility of public and private sector”. To secure the success of PPP projects, both the public and private sectors should bring their complementary skills and commit their best resources to achieve a good relationship.

The attractive factor for successful Public-private partnership rated by respondents as sixth was “Government involvement with providing guarantee”. Many projects, especially in transport, require massive private sector investment and here the private sector may not accept one of the various commercial risks for these projects. The public sector must provide support to a project and lower the risks sufficiently to stimulate the desired levels of private sector investment. There are various forms of support which the government can give to a project in order to mitigate the risk to the private sector. For example, guarantees may be an appropriate form of government intervention to shield the private sector risks that it cannot anticipate or control. Indeed, many PPP contracts provide for minimum revenue guarantees that limit the private sector’s exposure to demand risks.

The mean values for the success factors as rated by respondents ranged from 2.41 to 4.61. This observation has reflected that the variation in their responses is relatively high (2.20). The finding shows that the respondents rated the success factors much more inconsistently with larger variation. The results also found that the success factors with

mean values less than “3” are four factors in the bottom .These success factors were therefore seen to be least important compared to the others.

5.1.9 Conclusions

This chapter presents the findings of an empirical questionnaire survey undertaken to study key factors for influencing successful Public-Private Partnership in Bangladesh. The survey respondents were asked to rate different factor and results achieved from these were analyzed.

According to survey results, the most three attractive factors were: Solve the problem of public sector budget restraint, Transfer risk to the private partner and Facilitate creative and innovative approaches. In addition the most three negative factor were included: Lengthy delays because of political debate, a great deal of management time spent in contract transaction and Lack of experience and appropriate skills. From literature review and case studies, above mentioned attractive factor and negative factor were also manifested.

Results obtained which also reflected that the most important driving forces leading to the adoption of PPP included: Shortage of government funding, Economic development pressure of demanding more facilities and Social pressure of poor public facilities. PPPs should only be adopted as procurement and implementation option if they are reasonably expected to deliver enhanced value for money over traditional methods.

Eighteen VFM measures in PPP were rated by the respondents. According to analyze the relationship of top five VFM measures ranked .These VFM measures included: Output based specification, efficient risk allocation, Competitive tender

It is also analyzed the perceptions of respondents on the importance of eighteen factor contributing to successful delivery of PPP projects. The ranking showed that the top five success factors included: Favorable legal framework, Political support, appropriate risk allocation and risk sharing, Strong and good private consortium, Commitment and responsibility of public and private sectors & Government involvement by providing guarantee.

5.2 Findings: Readiness Perception Indicator of Public-Private Partnership

5.2.1 Introduction

The objectives of readiness perception indicators appraisal is to identify the key areas that government need to address in order to involve the private sector more actively in infrastructure development projects. The questionnaire was responded by the respondents from public and private sector that have the understanding the PPP environment in Bangladesh. By analyzing the perceptions, it is possible to take action plan for mitigating the gap which is required for PPP projects development and implementation. Questions related to PPPs were qualitative in nature. The areas to which these questions were focused include: Legal and regulatory provision, Policy framework, Capacity, Project selection and contracting process, Pose-selection and contracting process and Social dimension. During analyzing perceptions, qualitative rating is quantifying assuming zero for poor, one for fair, two for moderate good, three for good and four for very good. Mean score obtained below "3" is deemed to be weakness of the existing scenario for improvement and score rated "3" or above is considered PPP-readiness is good. In this section only areas of weakness will be observed for further improvement.

5.2.2 Legal and Regulatory Provision

It is necessary to reduce the level of uncertainty surrounding PPP project deals to increase the confidence of investors. In many countries the existing legal and regulatory environment is conservative and too restrictive for undertaking PPPs. Governments should consider enacting new legislations for suitably amend their existing infrastructure laws to address this issue. The legal instruments may specify, among other things, the general conditions for PPP models, provision of financial and other incentives, and details of project development and implementation arrangements.

Readiness indicators for legal and regulatory provision were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.8.** According to the **Figure 5.8**, indicator representing weak areas for project selection and contracting are ranked by the respondents included:

- Regulatory authority is clear for all PPP types expected
- Regulators demonstrate competence independence and efficiency
- Authority and procedures are clear for acquiring rights of way

By observing the rating by respondents, it is depicted that regulatory authority is clear in principle but may face significant challenges in practice and ranked as moderate good status considering PPP- readiness. Whether economic regulation is done by line agencies authority needs to be clearly specified and understood by all parties. If regulatory authority is not clearly specified for all PPP types, successful PPP implementation is not possible.

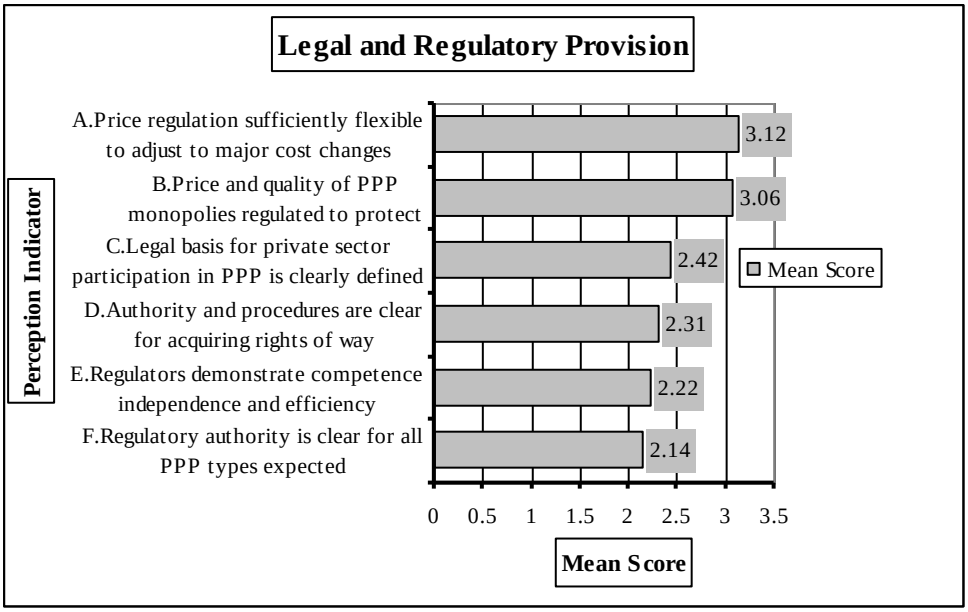


Figure 5.8 Ranking of readiness perception indicators focusing on legal and regulatory provision of PPP project

The degree of professionalism and expertise by regulators will influence the predictability of the PPP investment as well as enable effective quality for consumers without unnecessary cost. According to the response it is evident that regulators are not fully competent, independent and efficient. By analyzing the perceptions of respondent readiness status is ranked as moderate good.

Rights of way are critical for infrastructure. Acquisition can be excessively costly and complex if government does not have clear authority and procedures for commanding the acquisition. According to survey, it is manifested that the readiness perceptions considering "regulatory authority is clear for all PPP types expected" is ranked as moderate good which means rights of way have little advantage over other property acquisition. However it is imperative that clearly defined authority and widely accepted practice for eminent domain allows predictable process of acquiring rights of way must exists.

5.2.3 PPP Policy Framework

Clear definitions, responsibilities and timeframe for various tasks and a transparent rule-based administrative process by which PPP projects are developed, approved and procured by governments are necessary in running successful PPP programme. Streamlined administrative procedures reduce uncertainties in project development and approval, and also reduce the transaction costs in project development.

Six readiness indicators for PPP policy framework were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.9.** According to the **Figure 5.9**, indicator representing weak areas for project selection and contracting are ranked by the respondents included:

- Projects are integrated with the national and local planning process
- Effective process defined for proposing identifying and structuring projects
- Policy framework generates commercially viable project proposals

According to the responses it is manifested that Integration with planning process is seriously incomplete. From figure, it is depicted that mean score is assigned below "3" for indicator "Project support requirements are integrated with government budget process" which represents below good readiness. Planning in the sector must be sufficient to ensure that the role of the project will still be appropriate for many years to come, avoiding costly duplication. Proper planning will support infrastructure will continue to be adequate.

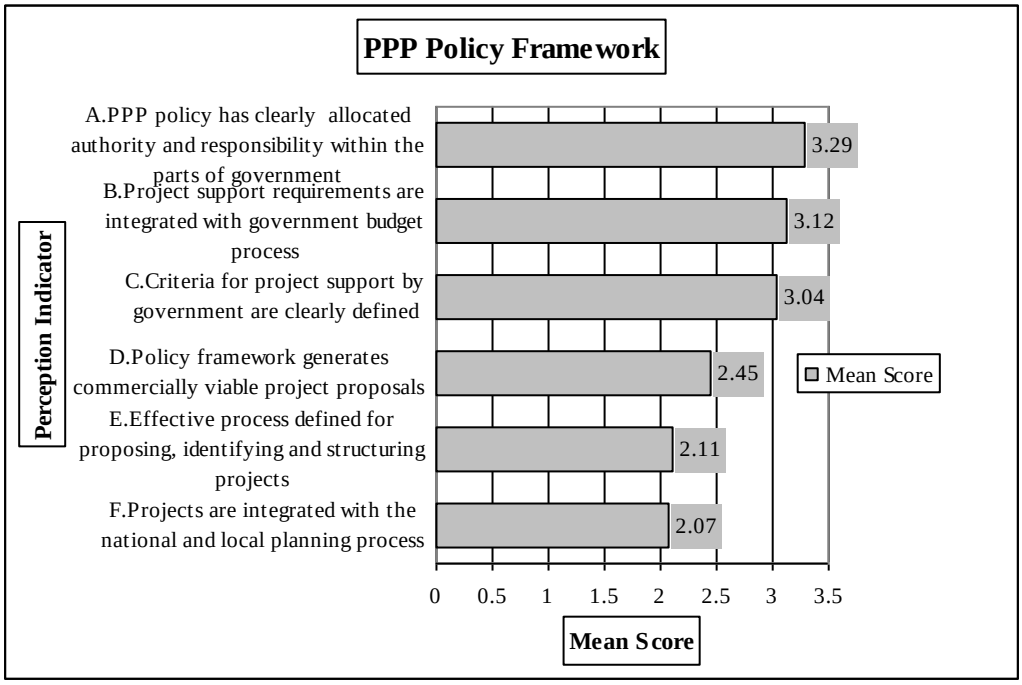


Figure 5.9 Ranking of readiness perception indicators focusing on PPP policy framework

From the figure, it is evident that project selection process seriously limited in transparency or effectiveness with significant weaknesses. From the judgment of the respondents it is identified that country readiness considering this indicator is moderate good. The process must be defined in advance with requirement for transparency .The relevant agencies should develop formats and guidelines for proposal generation. In

general the projects will need to fit into overall policy frameworks for the sector involved. Responsibilities for project proposal should be clearly defined.

According to the perceptions of the respondents it is also manifested that there is a serious limitations that is regularly require modification of proposals after initial tendering, in order to permit commercial viability. Mean score is assigned by the respondents is below "3" that represents the readiness is moderate good with lot of scope for improvements. So the perspective of the private sector needs to be fully recognized and risks effectively managed so that the PPP framework consistently generates proposals that pay for themselves with governmental support if justified by social priorities.

5.2.4 PPP Capacity

The concept of partnership is not always well understood by the bureaucracy, because lack of capacity and absence of clearly defined rules and regulations. The lack of capacity in the public sector can be a major obstacle in PPP development in Bangladesh. Developing a PPP project is a complex task. It is required skills of a diverse nature many of which are not normally required for traditional public sector projects. The success of PPP projects depends on a strong public sector which has the ability to identify, develop, negotiate, procure and manage projects through transparent process.

Readiness perception indicator of PPP capacity was rated by the respondents. **Figure 5.10.** Illustrates the relationship of the important three PPP capacity indicators require to improvement are included:

- PPP documentation/best practices available in the public domain
- Staff can assess outside work, including feasibility studies and risk mitigation strategies
- Staff aware of legal, financial and basic technical issues in PPP project

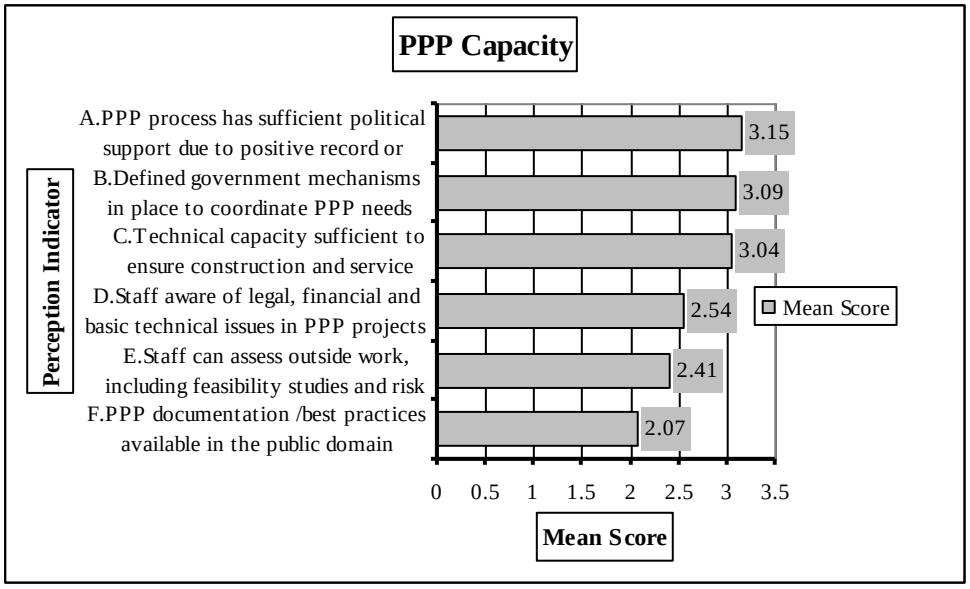


Figure 5.10 Ranking of readiness perception indicators focusing on PPP capacity

Firstly, It can be concluded from the figure that documentation of best practices is seriously limited, resulting in costs or limits on program. Documentation of best practices is not open and through, including foreign experience. A quality documentation base can save enormous amounts of time and effort .Knowledge sharing and formal training will also benefit from documentation.

Secondly, it is also manifested that staff cannot adequately assess outside work in particular types of projects. Staff has a lot of trouble evaluating outside work at all levels of complexity. Staff should have a high level of expertise in technical and financial matters so that risk/reward tradeoffs can be structured in the contract.

Thirdly, Personnel are aware of legal, financial and basic technical issues, and have some awareness of strategies for dealing with them. However they should have a thorough understanding of the above mentioned issues. Well trained and experienced staff will have a good idea where the difficult issues arise in the process of PPP.

In Netherlands, within the Ministry of Transport a number of large PPP projects have been brought under the supervision of a single management entity and a PPP knowledge pool was established. The knowledge pool is dedicated internally to facilitate the key positions in the different PPP projects. Partnerships UK runs one or two times a year a PPP foundation Course specifically for public sector PPP task force officials involved with the development and management of PPP programmes.

5.2.5 PPP process: Project selection and Contracting

Six readiness indicators for project selection and contracting were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.11.** According to the **Figure 5.11**, indicator representing weak areas for project selection and contracting are ranked by the respondents included:

- Competitive tendering process is transparent in practice
- Objective criteria for projects sponsor selection are known and applied
- Transparent procedures specified for all stages of the PPP process

The first rock bottom Mean scored is marked to the issue of competitive tendering process is transparent in practice by the respondents. According to mean score, it is understood that there is a lack of effective implementation creates significant limitations to transparency. Lack of transparency in tendering is one of the greatest possible challenges to the PPP process. It is important to monitor the transparency of the selection process; government needs to vigilantly enforce rules for bidder behavior to exclude any manipulation of the bidding process.

The second rock bottom issues are distinguished by respondents that are Objective criteria for project sponsor selection are known and applied. A key element of transparency in sponsor selection is the careful definition of criteria for sponsor selection. These must be defined with reference to project requirements and must be applied

consistently. Opportunity to challenge selection criteria should be offered prior to bidding.

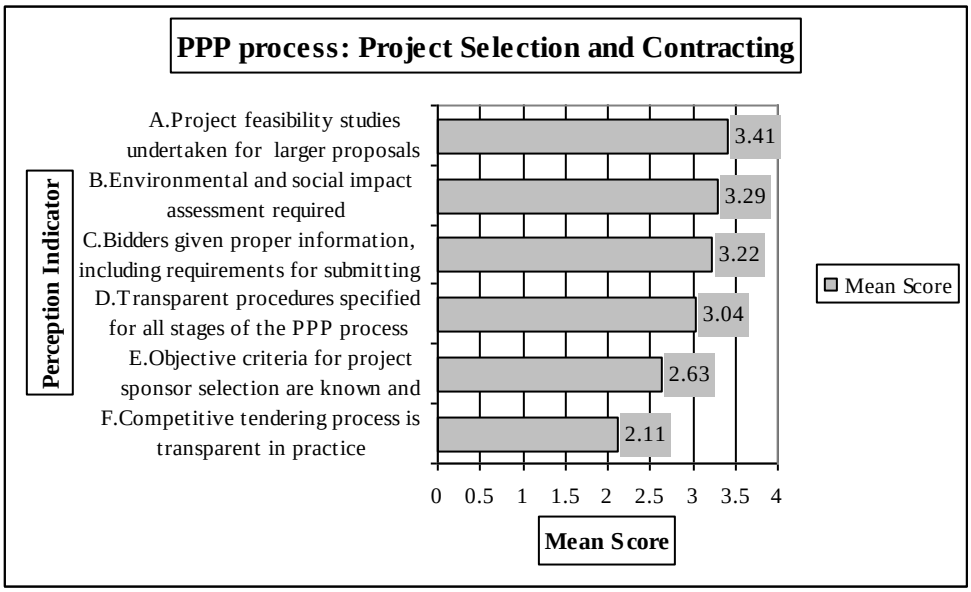


Figure 5.11 Ranking of readiness perception indicators focusing on PPP project selection and contracting

The third rock bottom indicator is transparent procedures specified for all stages of the PPP process which defines that there is clear procedures exist with some limitations on transparency. Good governance in PPP requires clear and transparent procedures for each step of the PPP process to be defined.

5.2.6 PPP Process: Post Selection

Six readiness indicators for post selection were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.12.** According to the **Figure 5.12**, indicator representing weak areas for project selection and contracting are ranked by the respondents included:

- Contract for PPP are irrevocable except through due process
- Performance monitoring effective and transparent
- Penalties enforced for failure to meet contractual obligations

Respondents rated the indicator “Contracts for PPP are irrevocable except through due process” as moderate good and contract revocation is subject to an accountable process but not properly limited. Experience shows that PPP contracts may not be fully protected by the legal system in cases of controversy or political change. Private partners will participate more readily if contracts are protected. So it is important that potential reasons for contract revocation are enumerated and must be demonstrated through due process.

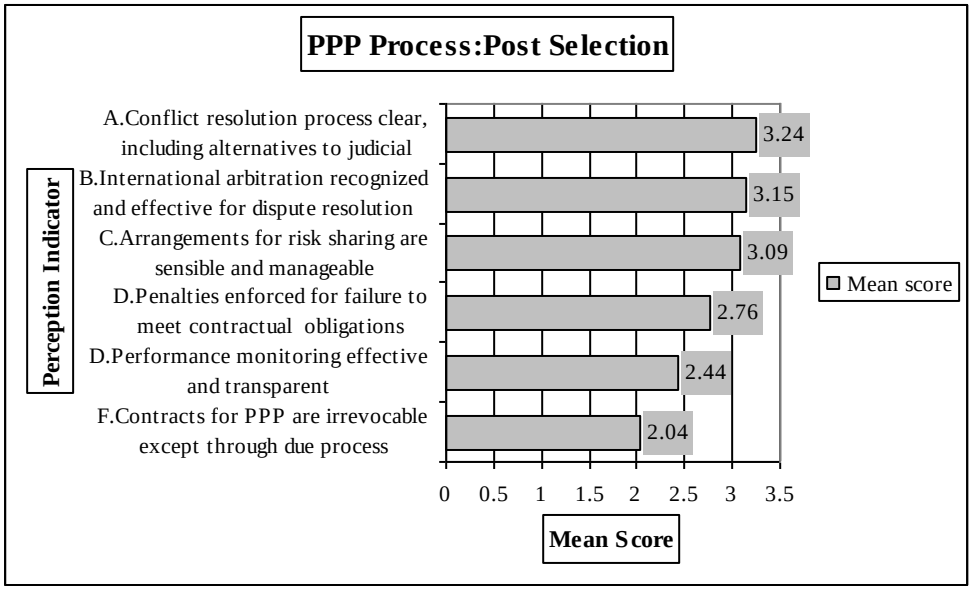


Figure 5.12 Ranking of readiness perception indicators focusing on PPP project post selection

Readiness status is moderate good considering the indicator of Performance monitoring effective transparent. According to the mean score, it is shown that project evaluation is usually carried out. Performance monitoring must be conducted by trained personnel and follow criteria to the project requirements. Transparent evaluation should include public availability of evaluation results. Project evaluations should always occur after project completed, including regular data collection on performance.

Figure 5.12 describes that Non-performance penalties are incomplete or inconsistently enforced. PPP contract should specify penalties for either partners or government failing to meet obligation. It is important to consider penalties for non-performance should be detailed and are enforced unless a finding by due process determines that they do not apply.

5.2.7 Social Dimension of PPP Policy

There is concern if all sections of society can benefit from PPP projects. To address these concerns, policies and regulations guaranteeing equitable distribution of benefits may be considered by the government. Providing support to pro-poor PPP projects can be also considered by the government. Promotion of pro-poor PPP projects through incentives and technical assistance can be a part of the government's policy framework to address some of the social and political concerns.

Six readiness indicators considering social dimension of PPP policy were rated by the survey respondents. The mean score were calculated and ranked in descending order of importance as shown in **Figure 5.13.** According to the **Figure 5.13**, indicator representing weak areas for project selection and contracting are ranked by the respondents included:

- Program to educate the public concerning the need for user-pays principle
- Planning system assesses the needs to the poor and marginalized
- Resettlement and rehabilitation provided for communities disrupted by PPP projects.

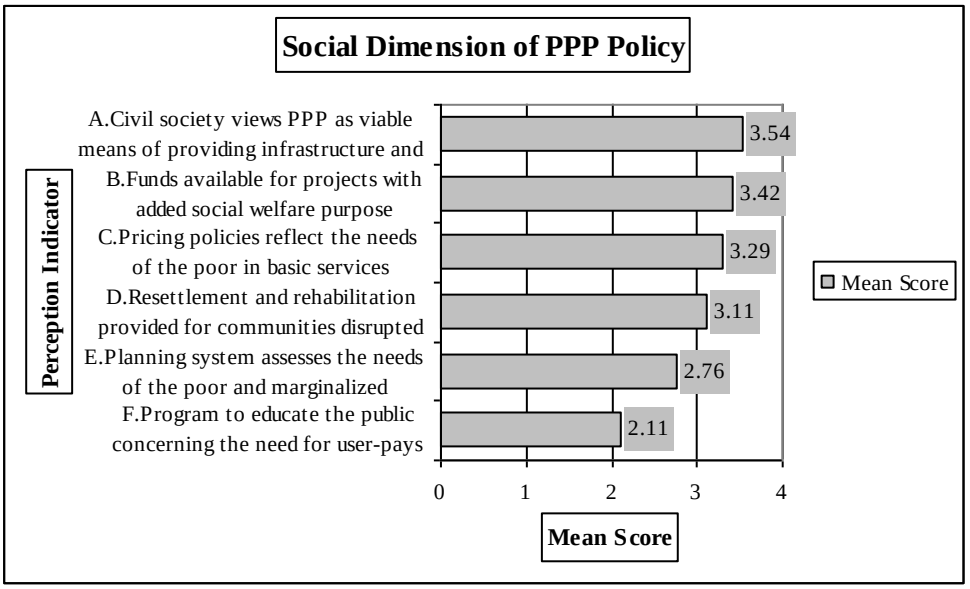


Figure 5.13 Ranking of readiness perception indicators focusing on social dimension of PPP policy

Many PPP projects rely on the user-pay principle. Stakeholders are used to the government providing services without direct charges and may be resistant to user pay programs. Education is required to explain to them that the services could not be provided unless a fee is charged. According the perception of the respondents it is clear that considering the indicator of Program to educate the public concerning the need for user-pays principle country is rated as moderate good status such as some government training in user-pays principles. However, widespread acceptance of the user-pays principle for infrastructure and government services is needed for successful PPP project implementation.

Basic services to the marginalized/poor should be one of the central aims of the government. It is important that government should have active role in project design and choice of projects considering above mentioned issues. By analyzing the perceptions of the respondents it is observed that obtained mean score is below 3 which indicate that Government needs consciously plans to address needs of the poor and marginalized.

Infrastructure projects may disrupt regions and communities seriously. Failure to provide for resettlement or environmental and other rehabilitation will create popular resentment. According to the assessment of respondent's perception it is evident that rehabilitation compensates for most money losses and is conducted helpfully. So readiness perception respect to this indicator is good.

5.2.8 Conclusions

Indicators related to PPPs and are qualitative in nature. The area to which focus include: legal and regulatory provision, policy framework, capacity, project selection and contracting process, post-selection process and social dimension. According to scale, readiness is considered good if the mean score is 3 or above. Considering all indicators (36), only 19 indicators is scored equal or above 3. Rest of indicators is scored below 3 which mean that PPP-readiness is moderate good.

Indicators under legal and regulatory provision are rated by respondents and less readiness area are identified which are included: Regulatory authority is clear for all PPP types expected, Regulators demonstrate competence independence and efficiency, Authority and procedures are clear for acquiring rights of way.

Readiness perception indicator under PPP policy framework are rated and weak issues are reflected through responses by the respondents and included: Projects are integrated with the national and local planning process, Effective process defined for proposing identifying and structuring projects and Policy framework generates commercially viable project proposals.

For successful PPP project development and implementation it is requisite to have the capacity of the public and private sector .For assessing the capacity, indicator focusing the readiness of PPP capacity are demonstrated improvement are needed areas are: PPP documentation/best practices available in the public domain, Staff can assess outside work, including feasibility studies and risk mitigation strategies, Staff aware of legal, financial and basic technical issues in PPP project

Competitive tendering process is transparent in practice, Objective criteria for projects sponsor selection are known and applied, transparent procedures specified for all stages of the PPP process are rated by the respondents which area are significantly require urgent modification for promoting enable environment for PPP project. Indicators under "project selection and contracting" reflect more detailed aspects of the management of a PPP project.

Perception indicator regarding "Post selection" is covered performance monitoring of on-going projects and management of contingencies which arise during the project implementation. According to the perception of the respondents it is distinguished that areas required being proactive: Contract for PPP is irrevocable except through due process, Performance monitoring effective and transparent and Penalties enforced for failure to meet contractual obligations.

It is imperative to administer PPP projects in a fair and sustainable way that supports all stakeholders of the society. Indicators covering "Social dimension of PPP policy" are analyzed based on the observation rating of the respondents and identifying most important issues needs promoted for successful PPP project are included: Program to educate the public concerning the need for user-pays principle, planning system assesses the needs to the poor and marginalized, Resettlement and rehabilitation provided for communities disrupted by PPP projects.

CHAPTER 6

Conclusions & Recommendations

6.1 Introduction

This chapter concludes the research study. The major findings from this study are analyzed and triangulated according to the data collection methods adopted. Limitations of this study are also highlighted and finally recommendations are made for future research.

6.2 Major Findings: Key Factors

6.2.1 Attractive factor of PPP

The attractive factors of PPP have been discussed by many researchers and which is summarized in **Chapter 2**. From literature it is found that PPP is a win-win solution and a number of benefits to the general public and government are recognized: Relief of financial burden; better services to the public; encouragement of growth; better focus on social issues; better allocation of risk; technology transfer.

Chapter 5 presented the results found from empirical questionnaire survey. Most attractive factor was ranked by the respondents included: Solve the problem of public sector budget restraint; Transfer risk to the private sector; Facilitate creative and innovative approaches.

From case studies in **Chapter 4** conducted, it was found that PPP was no longer solely about drawing finance from the private sector. Advantages such as the private sector's added efficiency, skills, innovation, expertise, and risk sharing can also be achieved.

6.2.2 Negative factors of PPP

From literature review, a summary of negative factors of PPP is presented. Findings are presented in **Chapter 2**. Negative factors are identified are: lengthy bidding process; high bidding cost; cost overrun; small number of bidder; excessive risks.

Top three negative factors identified from the same empirical questionnaire survey presented in **Chapter 5**. Top negative factors are distinguished from the analysis of the perceptions of the respondent are included: length delays because of political debate; great deal of management time spent in contract transaction; lack of experience and appropriate skills.

Chapter 4 presented the analysis of case studies. From case studies, it is concluded that most negative factor were focused : In appropriate risk allocation; lack of capability in public and private sector; long process; length delay because of political debate; high bidding cost; small number of bidder.

6.2.3 Value for Money Measures in PPP projects

One of the main reasons that projects are procured by PPP is to enhance Value for money by inviting the private sector to handle public works projects. As a result there was much literature on how VFM in PPP projects can be achieved. In **Chapter 2**, a summary of Value for money measure is presented and most common value for money measures included: optimal use of asset and project efficiency; private management skill: output based specification; efficient risk allocation; long term nature of contracts and low project life cycle cost.

In **Chapter 5** VFM measures in PPP were rated by the respondents. The top three VFM measures are identified. These VFM measures included: output based specification; efficient risk allocation; Competitive tender.

According to Case studies presented in **Chapter 4**, country specific audit department conduct performance audit for assessing the value for money measure of PPP project and usually measures included: public comparator; competitive tender; output based specification; environmental consideration; efficient risk allocation; Improved and additional facilities to the public sector.

6.2.4 Critical Success Factors of PPP

From in-depth international literature review, a list of critical success factors was represented in **Chapter 2**. Most of the researcher identified as most common critical success factor is included: an appropriately designed legal framework; a strong central structure to promote and guide PPP project implementation; measurable output performance and transparency; allocation of risk appropriately; strong and good private consortium.

Out put of survey conducted based on empirical questionnaire survey is presented in **Chapter 5**. Seventeenth success factors for adopting PPP were rated by the respondents and the top five success factors are identified .These success factors included: Favorable legal framework; Political support; Appropriate risk allocation and risk sharing; Strong and good private consortium; Commitment and responsibility of public and private sectors and Government involvement by providing guarantee.

In **Chapter 4,** Case studies are conducted and lesson learned on critical success factor are listed. Well defined legislative and regulatory environment, Political support and commitment, appropriate risk allocation, Clear value for money, Financial viability, Good governance are identified as prominent success factor for PPP project.

6.3 Major Findings: Ready-ness Perception Indicators of PPP.

6.3.1 Legal and Regulatory Provision

Considering indicator such as: Price regulation sufficiently flexible to adjust to major cost changes; Price and quality of PPP monopolies regulated to protect consumers and others; Legal basis for private sector participation in PPP is clearly defined country readiness is reflected as good. On the other hand country readiness is reflected as moderated good considering indicator: Regulatory authority is clear for all PPP types expected; Regulators demonstrate competence independence and efficiency and Authority and procedures are clear for acquiring rights of way. So necessary steps are to be taken urgently considering indicator ranked as moderate good for promoting enabling environment for PPP project in Bangladesh.

6.3.2 PPP Policy Framework

Projects are integrated with the national and local planning process; Effective process defined for proposing, identifying and structuring projects; Policy framework generates commercially viable project proposals are the perception indicators which are assessed by respondents as moderate good which reflected that these are the weal area urgently needed careful considerations. However, PPP policy has clearly allocated authority and responsibility within the parts of government; Project support requirements are integrated with government budget process; Criteria for project support by government are clearly defined indicators assessed as good readiness.

6.3.3 PPP capacity

Country readiness reflected moderate good by analyzing the perceptions of the respondents in terms of PPP documentation /best practices available in the public domain; Staff can assess outside work, including feasibility studies and risk mitigation strategies; Staff aware of legal, financial and basic technical issues in PPP projects. The

concept of partnership is not always well understood by the bureaucracy, because lack of capacity and absence of clearly defined rules and regulations. The lack of capacity in the public sector can be a major obstacle in PPP development in Bangladesh. However, considering the indicators: PPP process has sufficient political support due to positive record or political champion; Defined government mechanisms in place to coordinate PPP needs; Technical capacity sufficient to ensure construction and service standards country readiness is depicted as good. The success of PPP projects depends on a strong public sector which has the ability to identify, develop, negotiate, procure and manage projects through transparent process.

6.3.4 PPP Process: Project Selection and Contracting

In terms of project feasibility studies undertaken for larger proposals; Environmental and social impact assessment required country represented as good status which is reflected by the response of the respondents where as readiness is reflected as moderated good considering the indicators: Competitive tendering process is transparent in practice; Objective criteria for project sponsor selection are known and applied; Bidders given proper information, including requirements for submitting proposals; transparent procedures specified for all stages of the PPP process. It is imperative to take necessary relevant activities regarding indicators presented moderate good readiness.

6.3.5 PPP Process: Post Selection

International arbitration recognized and effective for dispute resolution; Arrangements for risk sharing are sensible and manageable; Conflict resolution process clear, including alternatives to judicial resolution are the readiness indicators which is reflected as good on the other hand country readiness is assessed as moderate good in terms of : Contracts for PPP are irrevocable except through due process; Performance monitoring effective and transparent; Penalties enforced for failure to meet contractual obligations. Hence necessary steps are to be taken for promoting enable environment for PPP project development and implementation.

6.3.6 Social Dimension of PPP policy

Readiness indicators considering social dimension of PPP policy were rated by the survey respondents. Indicator representing weak areas for project selection and contracting are ranked by the respondents included: Program to educate the public concerning the need for user-pays principle; planning system assesses the needs of the poor and marginalized. Civil society views PPP as viable means of providing infrastructure and basic services; Funds available for projects with added social welfare purpose; Pricing policies reflect the needs of the poor in basic services; Resettlement and rehabilitation provided for communities disrupted by PPP projects are indicators representing readiness as good.

6.4 Limitations of this study

Several limitations were noticed whilst conducting this study, these included:

- Larger number of questionnaire responses would have increased the credibility of the results from the survey analysis. More respondents should be selected with diversity since diverse professional are needed for successful PPP development and implementation.

- Questionnaire template used which is developed by Dr Li (2003).It could be better to customized and improvement with better refinement considering developing country's specific scenario.

- The interview findings were more difficult to represent the general trend because of different understanding in the topic of PPP and relative perception.

- Results would have been more representative if more case studies, specially own country specific, could have been conducted but due to time limitation and lack of availability of data this was not possible.

- Resources in terms of time, money, facilities, and country specific PPP materials were scarce; hence comprehensive study could not be carried out for representing perfect general PPP scenario of Bangladesh.

6.5 Recommendation for Future Research

- A comprehensive study should be conducted for identifying key issues for successful PPP development and implementation of PPP projects considering limitation above mentioned with allocation of sufficient resources.

- A system should be identified for the positive and negative factors that affect PPP projects. This system could be used to identify the best infrastructure projects that can be best procure through PPP.

- A research study can be conducted on two similar projects that are procured by traditional methods and by PPP. The difference in successes and outcome could be recorded and compared to determine which method will have the best outcomes.

- A comprehensive study is to be performed by conducting case studies based on country specific PPP project and compare with international experience for lesson learned.

- A study could be conducted for analyzing the perception by categorizing the respondents such as public sector, private sector and consultant/research group for understanding gap of needs. Then action plan could be developed for mitigating the difference of needs.

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Appendix: A

Dear Sir,

This voluntary questionnaire is part of a study being conducted on key factors and readiness indicator appraisals of Successful Public-Private Partnerships (PPP). The purpose of this study is to find the best practices and readiness perceptions about the use of PPP as a procurement method and implementation. The questionnaire is designed and adapted from other researcher's out put to help us understand the acceptance of PPP as a procurement alternative and country readiness.

Your input is very valuable to help us become better users of PPP because only you can supply the required information. We trust that the information gathered from this survey will help bring the idea of PPP to a much popular level. This study is being conducted by Md.Rezaul Islam, Senior Assistant Engineer, LGED under the direction from Dr Zohurul Islam , IGS, BRAC University, Dhaka. A copy of survey result can be sent to you by e-mail at your request.

The questionnaire asks about the general questions and issues on projects procured through PPP and perception about PPP readiness. Please answer the questions from your experience.

Thank you in advance for your help, we do appreciate your time.
Sincerely yours

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Questionnaire Survey for Research Study

Part A: About the Respondent		
1	Your Position in the organization	
2	Name of your organization	
3	Which sector do you have experience with?	
	• Public sector • Private sector • Both	
4	How many years of experience do you have in construction projects?	
5	Which of the following projects do you have experience?	
	• Transportation • Water and Sanitary • Power and Energy • Housing • School & Education • Others (please specify):	

B. Features of PPP projects *(For assessment of Effectiveness of PPP)*						
Pleas rate the following statements based on a Scale from 1-5, where 1 represents the "Least Important"; 5 represents the "Most Important"; and select "N/A" if you are uncertain in rating a particular statement.						
1.Please rate the attractive factors for adopting PPP instead of traditional procurement	**1**	**2**	**3**	**4**	**5**	**N/A**
a) Solve the problem of public sector budget restraint						
b) Provide an integrated solution						
c) Reduce public money tied up in capital investment						
d) Cap the final service costs						
e) Facilitate creative and innovative approaches						
f) Reduce the total project cost						
g) Save time in delivering the project						
h) Transfer risk to the private partner						
i) Reduce public sector administration costs						
j) Benefit to local economic development						
k) Improve maintainability						
l) Technology transfer to local enterprise						
m) Non recourse or limited recourse to public funding						
n) Accelerate project development						
o) Others (please specify):						

2.Please rate the negative factors for adopting PPP arrangement	*1*	*2*	*3*	*4*	*5*	*N/A*
a) Reduce the project accountability						
b) High risk relying on private sector						
c) Very few schemes have actually reached the contract stage						
d) Lengthy delays because of political debate						
e) Higher charge to the direct users						
f) Less employment positions						
g) High participation costs						
h) High project costs						
i) A great deal of management time spent in contract transaction						
j) Lack of experience and appropriate skills						
k) Confusion over government objectives and evaluation criteria						
l) Lengthy delays in negotiation						
m) Others (please specify):						

3.Please rate the attractions for private sector involvement in PPP Projects	*1*	*2*	*3*	*4*	*5*	*N/A*
a) Government sponsorship						
b) Government assistance in financing						
c) Government guarantee						
d) Tax exemption or reduction						
e) Incentive of new market penetration						
f) Others (please specify):						

4.Please rate the driving forces leading to the adoption of PPP	**1**	**2**	**3**	**4**	**5**	**N/A**
a) Economic development pressure of demanding more facilities						
b) Political pressure						
c) Social pressure of poor public facilities						
d) Private incentive						
e) Shortage of government funding						
f) Inefficiency because of public monopoly and lack of competition						
g) High quality of service required						
h) Avoid public investment restriction						
i) Lack of business and profit generating skill in the public sector						
j) Others (please specify):						

5.Please rate the measures that enhance the achievement of value for money in PPP projects	***1***	***2***	***3***	***4***	***5***	***N/A***
a) Competitive tender						
b) Efficient risk allocation						
c) Output based specification						
d) Long-term nature of contracts						
e) Improved and additional facilities to the public sector						
f) Private management skill						
g) Private sector technical innovation						
h) Optimal use of asset and project efficiency						
i) Early project service delivery						
j) Low project life cycle cost						
k) Low shadow tariffs/tolls						
l) Level of tangible and intangible benefits to the Users						
m) Environmental consideration						
n) Profitability to the private sector						
o) "Off the public sector balance sheet" treatment						
p) Reduction in disputes, claims and litigation						
q) Nature of financial innovation						
r) Others (please specify)						

6.Please rate the factors that contribute to the success of PPP projects	***1***	***2***	***3***	***4***	***5***	***N/A***
a) Stable macro-economic condition						
b) Favorable legal framework						
c) Sound economic policy						
d) Available financial market						
e) Multi-benefit objectives						
f) Appropriate risk allocation and risk sharing						
g) Commitment and responsibility of public and private sectors						
h) Strong and good private consortium						
i) Good governance						
j) Project technical feasibility						
k) Shared authority between public and private sectors						
l) Political support						
m) Well organized and committed public agency						
n) Competitive procurement process						
o) Transparency procurement process						
p) Government involvement by providing guarantee						
q) Thorough and realistic assessment of the cost and benefits						
r) Others (please specify)						

7. What are the most common risks associated with PPP?	*1*	*2*	*3*	*4*	*5*	*N/A*
a) Market and revenue risks						
b) Operating risks						
c) Financial risks						
d) Political risks						
e) Legal risks						
f) Environment risks						
g) Public Acceptance risks						

8. What do you feel are the key performance indicators in a PPP project?						**N/A**
a) Resources saved						
b) Service outcomes						
c) Traditional KPI: cost, time, quality						
d) Economic Performance						
e) Client satisfaction						
f) Public acceptance						
g) Risk Management						
h) Contractor's performance						
i) Value for money achieved						

8. What do you feel are the key performance indicators in a PPP project?	*1*	*2*	*3*	*4*	*5*	*N/A*
a) Project performance						
b) Resources saved						
c) Traditional KPI:cost, time, quality						
d) Risk Management						
e) Public acceptance						
f) Value for money achieved						
g) Service outcomes						
h) Client satisfaction						
i) Payment mechanism performed						
j) Contract terms						
k) Public sector comparator						

9. Which type of project do you feel is best suited to use PPP?	*1*	*2*	*3*	*4*	*5*	*N/A*
a) Link between performance and payment						
b) Economically viable						
c) Value for money						
d) Mutual benefits for all parties						
e) Economic infrastructure						
f) High project cost						
g) Appropriate risk transfer						
h) Scope for innovation						
i) Large operating element/cost						
j) Each project unique						

Part C: ***(For assessment of PPP readiness)***					
Table 1: Legal and Regulatory Provision	**Very Good**	**Good**	**Moderate**	**Fair**	**Poor**
1. Legal basis for private sector participation in PPP is clearly defined					
2. Authority and procedures are clear for acquiring rights of way					
3. Regulatory authority is clear for all PPP types expected					
4. Price and quality of PPP monopolies regulated to protect consumers and others					
5. Price regulation sufficiently flexible to adjust to major cost changes					
6. Regulators demonstrate competence independence and efficiency					

Table 2: PPP Policy framework	***Very Good***	***Good***	***Moderate***	***Fair***	***Poor***
1. PPP policy has clearly allocated authority and responsibility within the parts of government					
2. Effective process defined for proposing, identifying and structuring projects					
3. Policy framework generates commercially viable project proposals					
4. Projects are integrated with the national and local planning process					
5. Criteria for project support by government are clearly defined					
6. Project support requirements are integrated with government budget process					

Table 3: PPP capacity	***Very Good***	***Good***	***Moderate***	***Fair***	***Poor***
1. PPP process has sufficient political support due to positive record or political champion					
2. Defined government mechanisms in place to coordinate PPP needs					
3. Staff aware of legal, financial and basic technical issues in PPP projects					
4. Technical capacity sufficient to ensure construction and service standards					
5. Staff can assess outside work, including feasibility studies and risk mitigation strategies					
6. PPP documentation /best practices available in the public domain					

Table 4 : PPP process :Project selection and contracting	*Very Good*	*Good*	*Moderate*	*Fair*	*Poor*
1. Transparent procedures specified for all stages of the PPP process					
2. Project feasibility studies undertaken for larger proposals					
3. Environmental and social impact assessment required					
4. Bidders given proper information, including requirements for submitting proposals					
5. Competitive tendering process is transparent in practice					
6. Objective criteria for project sponsor selection are known and applied					

Table 5 : PPP process-Post selection	*Very Good*	*Good*	*Moderate*	*Fair*	*Poor*
1. Performance monitoring effective and transparent					
2. Arrangements for risk sharing are sensible and manageable					
3. Contracts for PPP are irrevocable except through due process					
4. Penalties enforced for failure to meet contractual obligations					
5. Conflict resolution process clear, including alternatives to judicial resolution					
6. International arbitration recognized and effective for dispute resolution					

Table 6 : Social dimension of PPP policy	*Very Good*	*Good*	*Moderate*	*Fair*	*Poor*
1. Civil society views PPP as viable means of providing infrastructure and basic services					
2. Program to educate the public concerning the need for user-pays principle					
3. Planning system assesses the needs of the poor and marginalized					
4. Pricing policies reflect the needs of the poor in basic services					
5. Funds available for projects with added social welfare purpose					
6. Resettlement and rehabilitation provided for communities disrupted by PPP projects					

End of questionnaire. Thank you for your valuable contribution.