



Effectiveness of Public Private Partnership in Infrastructure Development in India: A Review

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Abstract: Indian economy is growing at a very fast pace and it has a dynamic and robust financial system. A stable policy environment is ensured by its democratic status and its independent institutions guarantee the rule of law. The most significant criteria for a continued growth rate of an economy are the provision of a quality infrastructure. According to the Planning Commission, an approximation of 8 percent of the Gross Domestic Product needs to be invested. Up gradation of transport (roads, railways, airports, and ports), power, and urban infrastructure is therefore seen as critical for sustaining India's economic growth, along with improved quality of life, increase in employment opportunities, and progress towards the elimination of poverty. PPPs aim to combine the skills, expertise, and experience of both the public and private sectors to deliver higher standard of services to customers or citizens. When infrastructure is developed as PPPs the process is often characterized by detailed risk and cost appraisal, complex and long bidding procedures, difficult stakeholder management, and long-drawn negotiations to financial closure. This means that PPPs are critically dependent on sustained and explicit support of the sponsoring government. Current status of PPP projects in financial years from 2005 to 2017 in India as well as in various sectors is discussed. Allowing for private sector participation can generate more efficiencies by creating more competition, realization of economies of scale and greater flexibility than is available to the public sector, The PPP route is also seen as an attractive alternative in developing countries where governments are faced with constraints on borrowing money for expensive projects and may not have the required expertise in planning or executing large projects.

I. Introduction

1.1 General

Indian economy has a dynamic and robust financial system. The concept of Public Private Partnerships (PPPs) has emerged as a viable option for infrastructure development especially in the context of developing countries. PPPs are emerging as an innovative policy tool for remedying the lack of enthusiasm in traditional public service delivery. They represent a claim on public resources that needs to be understood and assessed. They are often complex transactions, needing a clear specification of the services to be provided and an understanding of the way risks are allocated between the public and private sector. In the context of developing countries, the recent increase in PPPs has been attributed to several reasons such as the desire to improve the performance of the public sector by employing innovative operation and maintenance methods; reducing and stabilizing costs of providing services; reinforcing competition; and reducing government budgetary constraints by accessing private capital for infrastructure investments. Private sector involvement in the delivery of public services is not a new concept; PPPs have been used for over three decades, predating the contracting out initiatives of 1970s in the USA initially focusing on economic infrastructure. In Asia, countries like China, Malaysia and Thailand started some projects with private participation in mid 1980s in one sector or so, but later on in the 1990s most of the countries in the region involved private sector in the provision of one or more of the infrastructure facilities. The DND flyway—connecting New Delhi with Noida, one of the first large infrastructure projects taken up under the PPP route in India.

1.2 Importance of Infrastructure development

Rapidly growing economy, increased industrial activity, burgeoning population pressure, and all-round economic and social development have led to greater demand for better quality of roads, seaports, power supply, railways, and airport, water and sanitation services. This increase in demand has put the existing infrastructure under tremendous pressure and far outstripped its supply. India's global competitiveness remains constrained and is adversely affected by lack of infrastructure, which is critical for improved productivity across all sectors of the economy. Poor infrastructure is also a major barrier to foreign direct investment (FDI). Infrastructure is now seen as the necessary condition for growth and poverty alleviation. Studies by the Asian Development Bank and others have confirmed a strong linkage between infrastructure investments, economic growth, and reduction of poverty. Infrastructure development is the key to sustainable growth in India in the following ways:

- (i) It makes India globally competitive
- (ii) It raises standard of living
- (iii) It means enhanced profits for government
- (iv) It bridges rural-urban divide
- (v) Increases level of employment

India has been experiencing a phase of steady and robust economic growth over the past few years. The GDP growth rate of India puts it in the top bracket of the world league. Despite the recent slowdown in the global economy, India is widely considered as a country which can tide over the problems with minimum losses. The growth in the GDP necessitates an infrastructure that is at par with global standards. The estimates of infrastructure expenditure vary, though a massive investment in infrastructure is very much on the cards to fuel further growth.

If infrastructure does not grow adequately, it could severely impact the growth story in a negative manner. Creation of durable and high quality infrastructure is a prerequisite for rapid economic development and requires sustained investment supported well by technological innovation, skilled workforce and excellent project management. For governments alone to bring together all these elements is not always possible.

1.3 Introduction to Public Private Partnerships (PPP)

United Nations defines public private partnerships as “innovative methods used by the public sector to contract with the private sector who bring their capital and their ability to deliver projects on time and to budget, while the public sector retains the responsibility to provide these services to the public in a way that benefits the public and delivers economic development and improvement in the quality of life”

PPPs broadly refer to long term, contractual partnerships between the public and private sector agencies, specially targeted towards financing, designing, implementing, and operating infrastructure facilities and services that were traditionally provided by the Government and/or its agencies. These collaborative ventures are built around the expertise and capacity of the project partners and are based on a contractual agreement, which ensures appropriate and mutually agreed allocation of resources, risks, and returns. This approach of developing and operating public utilities and infrastructure by the private sector under terms and conditions agreeable to both the government and the private sector is called PPP. Public Private Partnership means an arrangement between a Government/statutory entity/government owned entity on one side and a private sector entity on the other. It is often done for the provision of public assets or public services, through investments being made and/or management being undertaken by the private sector entity, for a specified period of time. There is well defined allocation of risk between the private sector and the public entity. The private entity who is chosen on the basis of open competitive bidding, receives performance linked payments that conform (or are benchmarked) to specified and pre-determined performance standards, measurable by the public entity or its representative. The 12th five-year plan made by the erstwhile Planning Commission had targeted an investment of Rs55.75 trillion (at current prices) for the period 2012-17. The investment sectors under consideration are inclusive of telecommunications, electric power, transport, road, rail, air, water supply as well as irrigation. PPP is often described as a private business investment where two parties comprising government as well as a private sector undertaking form a partnership.

1.4 Types of PPP

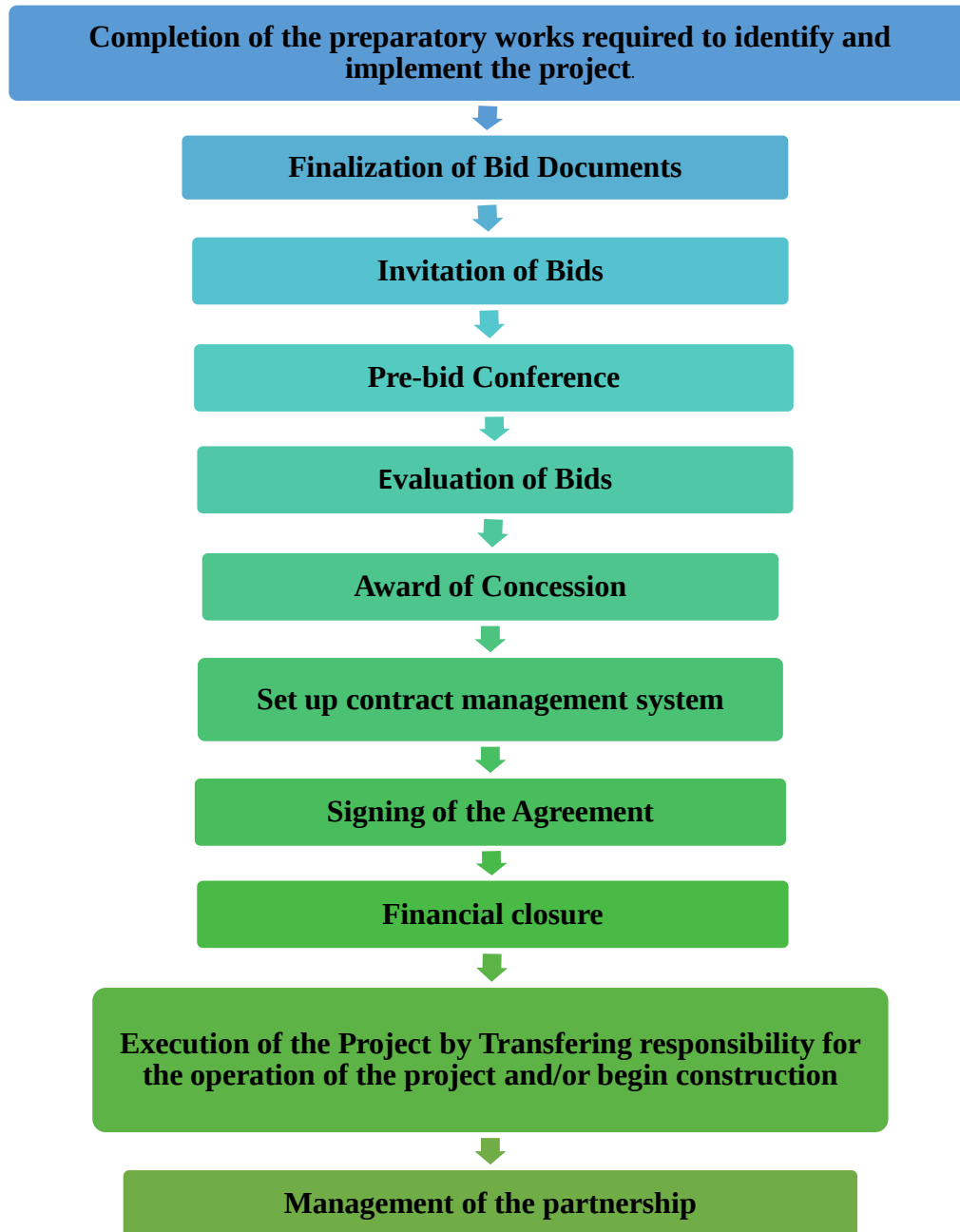
There are several types of PPP, each involving the provision of a public service facility under some combination of design, build, finance, operate, maintain, lease, own, and/or transfer. Each PPP involves private resources being used to provide a public service. Such a service can vary from operation and maintenance contracts where the facility is totally owned by the public sector but is being operated and maintained by a private organization, to a build, operate and own contract where the private sector organization builds a public facility, operates the facility on behalf of the public sector and continues to own the facility in perpetuity. The main ones are also described in the table below.

Table 1. Summarizes the main types of PPP.

PPP Model Type	Ownership	Role of private partnership	Description
Service Contract	Public	perform the service at the agreed cost	Government (public authority) hires a private company or entity to carry out one or more specified tasks or Services for a period. The public authority remains the primary provider of the infrastructure service and contracts out only portions of its operation to the private Partner. Government pays the private partner a predetermined fee for the service.
Management Contract	Public	Management of all aspects of operation and Maintenance.	This involves contracting to the private sector most or all of the operations and maintenance of a public facility or service. Usually the private sector is not required to make capital investments. Management contract variants include supply and service contract, maintenance management and operational management. e.g., Karnataka Urban Water Supply and Improvement Project.
Build-Operate-Transfer Contracts: Responsibility for construction (typically greenfield) and operations with the private partner while ownership is retained by the public sector.			
Design-build-operate (DBO)	Public	Design, construct, manage, maintain	Not very common in India. Typically financing obligation is not retained by the public sector
Build Operate and Transfer (BOT)/ Design, Build, Finance and Operate (DBFO)	Public	Design, finance, construct, manage, maintain	Role of the private sector partner is to bring the finance for the project and take the responsibility to construct and maintain it. In return, the public sector will allow it to collect revenue from the users. e.g. The national highway projects by NHAI.
Build-own-operate Transfer (BOOT) Contracts - Private partner has the responsibility for construction and operations. Ownership is with the private partner for the duration of the concession			
Build-Own-Operate (BOO)	Private	Design, finance, construct, own, manage, maintain	Ownership of the newly built facility will rest with the private party and private company gets the benefits of any residual value of the project. It's only different from BOT. e.g. Kutch and Pipavav Railways in India
Build-Own-Operate-Transfer (BOOT)	Private	Design, construct, own, manage, maintain, transfer	After the negotiated period of time, the infrastructure asset is transferred to the government or to the private operator. used for the development of highways and ports.
Lease contract: Asset is leased, either by the public entity to the private partner or vice-versa.			
Build-Operate-Lease-Transfer (BOLT)	Private (Leased to the	Capital expenditures	The government gives a concession to a private entity to build a facility,

	government)		own the facility, lease the facility to the public sector and then after recovery of investment transfer the ownership of the facility to the government. Primarily taken up for railway projects such as gauge conversion in India in the past.
Lease-Develop-Operate (LDO)	Public	Management and maintenance	The private party leases or buys an existing facility from a public agency; maintain and operate it under a lease agreement with public agency including additions or are modeling process. Used for development of airport facilities.
Concessions - Responsibility for construction (typically brownfield / expansions) and operations with the private partner while ownership is retained by the public sector.			
Concession contract	Public	Design, finance, construct, manage, maintain	Private sector is responsible for the full delivery of services in a specified area, including operation, maintenance, collection, management, and construction and rehabilitation of the system. Operator is now responsible for all capital investment while the assets are publicly owned even during the concession period. The public sector's role shifts from being the service provider to regulating the price and quality of service. e.g. water distribution concession for a city or area within the city.
Joint Venture: Joint ventures are alternatives to full privatization in which the infrastructure is co-owned and operated by the public sector and private operators.			
Joint Venture	Public and private	design, construction and management of the operations and bring in most of the investment requirements.	Under a joint venture, the public and private sector partners can either form a new company (SPV) or assume joint ownership of an existing company through a sale of shares to one or several private investors. A key requirement of this structure is good corporate governance, in particular the ability of the company to maintain independence from the government, because the government is both part owner and regulator. From its position as shareholder, however, the government has an interest in the profitability and sustainability of the company and can work to smoothen political hurdles. e.g. airports (Hyderabad and Bangalore), ports etc.

1.5 Process of PPP:



1.6 Essential Elements of a PPP:

PPP Project is a project based on a contract or Concession Agreement between a Government or statutory entity and a private sector company, with the following essential elements:

- Fixed Concession period
- Pre-determined user charges/tariff
- Pre-determined scope of work for the Concessionaire
- Pre-determined bidding parameters, i.e., VGF/Premium/Revenue Sharing/Lease Rent
- All conditions, specifications, and project agreements frozen prior to inviting final bids
- Land required for the project available with the Implementing Agency

1.7 Challenges facing through PPP:

The changes resulting from the introduction of PPP were Outlined under the headings of:

- Transfer of Risk;
- Value for Money; The thumb rule for awarding PPPs has to be value for money from the government's perspective,
- Management;
- Innovation.

PPP projects have been mired in issues such as disputes in existing contracts, non-availability of capital and regulatory hurdles related to the acquisition of land. To be fair, PPPs are not facing problems in India alone. Across the world, the record of PPPs has been very mixed, according to a wide body of research. Over reliance on debt and lack of substantial equity stakes for the private firms create a situation where the promoter has little "skin in the game" and limited motivation to work towards the success of the venture. In many sectors, PPP projects have turned into conduits of crony capitalism. It is worth noting that a large chunk of "politically connected firms" in India are in the infrastructure sector, which has used political connections to win contracts in the past. One of the issues that continued to arise was that of the difference in attitudes between the two sectors and the potential influence that this had on the level of success in meeting each of the challenges identified.

1.8 Overcome challenges:

Challenges summarized as follows:

- an environment of true partnership must be developed with each partner being committed to the overall goals of the partnership rather than the specific goals of their own organizations;
- all of the partners in the PPP must work together to reduce and manage risk;
- value issues for all partners must be identified and addressed;
- the potential for innovation in maximizing benefits to all partners must be harnessed.

As all of these challenges involve closer co-operation between the project partners, it is worth investigating the issues that arise when the public and private sectors must work together. In such an investigation, a key issue to be explored is the difference between the public sector and the private sector. The key to the success of PPP projects is a balanced and fair sharing of risks and benefits between the partners, and transparency and accountability in all transactions relating to the award and management of the contract.

➤ Developing A True Partnership Environment:

The terms 'Partnership' and 'Partnering' are often used to describe working closely together. It is important at this stage to clarify the similarities and differences between these terms as they are used extensively together from this point on. In its narrowest sense, a partnership can be defined as a contract between persons engaged in a business (Davidson et al., 1988). However, in recent years, it has become viewed as more than that. The Social Partnership – partly responsible for the increase in Ireland's economic prosperity over the last decade – is not a contract but involves agreement between government, business, unions and community groups as to how ongoing change is to occur in Irish society at a national level. In this case, diverse groups must take into account the issues that are important to others and must together work towards resolving the issues that the partnership as a whole agrees to address. Development of the true partnership environment is concentrated more on this wider view of partnership. A true partnership consists of three levels as:

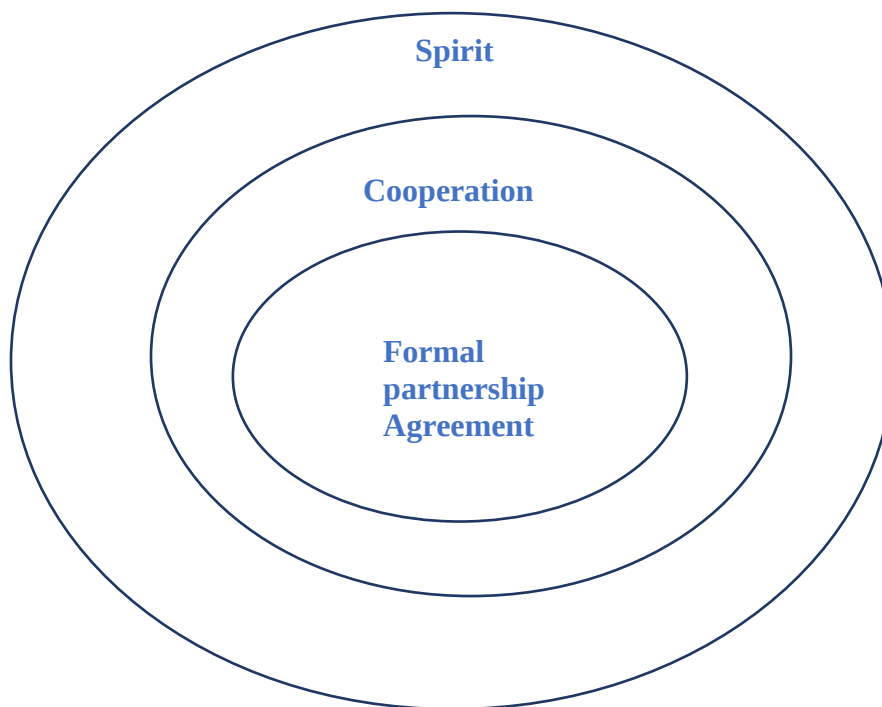


Figure 5.1: The Levels of Partnership(adapted from Minister of Economic Affairs, 2001)

The “Spirit” level represents the willingness of each partner to examine means by which a common approach can be found to resolving an issue. At this level, there must be a common understanding of the issue to be resolved and a willingness to work together to solve the issue. Once the Spirit level has been achieved, the partners can enter the “Cooperation” level and set about cooperating to resolve the issue. This would involve the setting of joint goals and deciding on the means by which the resolution of the issue would be approached. The “Formal Partnership Agreement” level is the point whereby a legally binding agreement is drawn up and entered into by the partners.

1.9 Advantages of PPP:

A key advantage of having the private sector provide public services is that it allows public administrators to concentrate on planning, policy and regulation. The private sector, in turn, is empowered to do what it does best, and in particular improve the efficiency and quality of service. PPP is to encourage the private sector to dedicate its capacity to raise capital and the ability to complete projects on time and to budget for the welfare of the community, without having to compromise the profit motive. At the same time, the public sector would retain its responsibility to provide goods and services to the public at large at affordable rates.

- Introduce private sector efficiencies:

The efficient practices of the private sector are already recognized by conventional procurement practices which outsource construction, maintenance and design activities to the private sector. PPP allows to significantly increasing private sector efficiency due to the whole lifecycle approach of the PPP contract.

- Transparency and accountability:

A PPP makes the real cost of the facility clear. In particular, it shows the whole-life cost of the facility, including operation and maintenance, in a transparent way, and forces the public sector to make choices about how services are to be delivered and paid for. The result of transparency is accountability: as public-sector officials cannot hide the cost of choices they must justify them, however uncomfortable this is.

- Procurement skills:

The PPP process develops procurement skills in the public sector since public-sector requirements have to be analyzed and clearly set out in advance and once decided cannot be easily changed. A major factor in the public-sector construction cost overruns is that the public authority does not specify what it wants in sufficient detail, or keeps changing its mind about what it wants during the construction phase of the project.

- Management:

A PPP allows the public authority to act as a regulator and thus concentrate on service planning and performance monitoring instead of being involved in the day-to-day delivery of the services.

- **Contestability:**

If a small number of projects are undertaken, these can serve as a benchmark against which cost and service delivery in respect of the large majority of facilities still under public sector control can be compared, leading to improvements in public-sector procurement and service delivery as well.

- **Reduce risk for the public sector:**

The transfer of part of the project risks to private partners is one of the key incentives generated by public private partnerships and directly results in a better control by the public sector of the overall project cost, delivery time frame and quality of outputs. By allocating risks to the party best able to manage and mitigate them, the public sector is reducing the likelihood of the risk occurring and the impact in the event that it does occur and is thus obtaining overall efficiencies for the project, translated by a lower overall cost over the lifetime of the project.

- **Increase in Efficiency:**

Involvement of Private Sector will bring efficiency in implementation of projects and cut down time and cost.

- **Use of Innovative Design & Construction Practices:**

The objective of cutting down cost and time will bring in innovative design and construction practices from the Concessionaire.

- **Assured Maintenance:**

During the Concession Period, the PPP Concessionaire will be required to maintain the Projects in a proper predetermined manner.

- **Freeing up Government Resources:**

Private investment provides new sources of capital and reduces direct public money spending. These State resources could be used in other priority areas and projects.

- **Better Viability:**

Involvement of experienced and creditworthy sponsors and commercial lenders could enhance viability of the project.

➤ **Other possible advantages**

- Several other possible advantages of PPP are cited below, their actual occurrence and magnitude depending on the characteristics of the particular PPP project.
- Improve level of service, especially for projects requiring road user charges (tolls or other).
- Promotion of economic and social growth by private direct investment.
- Transfer of modern technology to domestic public and private sectors.
- Promotion of environmental and social sustainability: the private sector focuses on efficient use of resources and materials over the project lifecycle.
- Extending private ownership and adopting a market-economy approach.

1.10 Various Government incentives for PPPs:

The Government has facilitated the PPP sector by offering: Viability Gap Funding (VGF) subsidy - Viability Gap Funding of upto 40% of the cost of the project can be accessed in the form of a capital grant. India Infrastructure Project Development Fund (IIPDF) – Scheme supports the Central and the State Governments and local bodies through financial support for project development activities (, feasibility reports, project structuring etc) for PPP projects.

IFCL - long-term debt for financing infrastructure projects that typically involve long gestation periods since debt finance for such projects should be of a sufficient. Foreign Direct Investment (FDI) – upto 100% FDI in equity of SPVs in the PPP sector is allowed on the automatic route for most sectors.

II. Literature Review:

Despite Several Studies on Performance of PPP Projects **Soumitra Sharma (2007)** highlighted the necessary steps to be taken, especially in an Asia, to implement a successful PPP in e-Government. every PPP needs to be customized to the particular requirements in each country. Therefore, it's recommended that any PPP in e-Government should be first tried at a pilot scale, and the learning obtained from this experience should be applied to scale-up. In the end, irrespective of the geography, the adoption of PPP in e-Government will only increase with time.

S. Thomas Ng et al.(2012) indicated that the most critical factor for evaluating the feasibility of PPP projects, especially to the general community, is an acceptable level of tariff. Cost effectiveness and financial attractiveness are the most important evaluation factors. PPP is a tripartite partnership which involves three parties of stakeholders including the public sector, private consortium as well as the general community (end-users).

Richard Burke and Istemi Demirag (2013) examined changing stakeholders' perceptions on the transfer and pricing of demand risk in Irish PPP roads. Within this context we examined perceptions on how demand risk is transferred from the public to the private sector.

Tingting Liu and Suzanne Wilkinson (2013) evaluated the application of PPPs in large-scale venue development. Governments' financial investment is therefore essential to make the project viable. Due to the capped public financial support, the additional costs were only born by the private sector partner, leading to a considerable loss for the contractor. Despite the uncertainties in construction performance, the private sector's expertise and skills have been largely captured and utilized in the venue operation. By transferring the demand risk to the private sector, they are better incentivized to exploit the commercial creativity in bringing in business.

Sha Zheng et al. (2013) presented a detailed study of its tender process, concession agreement, financial structure, payment mechanism, and risk management. Facilitated the tender process, it is important for the government to define clearly the full documents required including the land utilization plan, the construction plan, the operation plan, the financial plan, and the letter of intent for financing issued by the financial institution. At the same time, it is important for the private sector to understand Taiwan's relevant PPP laws and requirements so that the tender can be prepared accordingly without missing out important information. Viable project economy, reasonable tender procedure, transparent and fair tender evaluation, and strong government support could be factors to attract bidders and improve tender competition.

Thillai A. Rajan et al. (2013) examined whether the use of PPP had any impact on these project overruns. It was found that use of PPP led to higher cost overruns, while it did not have significant impact on time overrun. indicated that, cost overruns increased in recent years, though the effect was not significant. PPP projects did not have a significant impact on time overrun. indicated that PPP projects were worse off than non-PPP projects in managing project overruns.

Stefan Verweij (2014) investigated how managers in public-private partnership (PPP) projects respond to social or physical events during the implementation of their projects, and which of their responses produce satisfactory outcomes. Concluded that both public and private managers need to invest sufficiently in stakeholder management resources and capabilities when implementing projects. Important aspects such as the decision processes involved in the management responses could provide more insights into the thinking behind the choice to respond to events in an internally-oriented fashion.

Ashwin Mahalingam (2015) highlighted five key barriers that PPP projects face in the urban Indian context. These barriers are distrust between the public and private sector, a lack of political willingness to develop PPPs, the absence of an enabling institutional environment for PPPs, a lack of project preparation capacity on the part of the public sector, and poorly designed and structured PPP projects. Barriers are a distrust between the public and private sector, a lack of political willingness to develop PPPs, the absence of an enabling institutional environment for PPPs, a lack of project preparation capacity on the part of the public sector, and poorly designed and structured PPP projects.

Villalba-Romero et al. (2015) assessed sustainability performance using a combination of quantitative and qualitative content analysis three pillars, i.e. economic, social and environmental, are used to measure sustainability; whilst the "iron triangle", i.e. quality, cost and time, are considered to assess the project performance. Concluded that determining success or failure of a project is not a clear cut approach; it needs an in-depth analysis of strengths and weaknesses either enable/hinder a progress of a project and the analysis of their level of impact on the project overall.

Mario Arata et al. (2016) analyzed the economic viability of the project. However, it is advisable not to oversize the infrastructure at the beginning, but to foresee, both in the design and contract, an optional second phase of works. Another aspect that is worth considering when structuring a PPP initiative are the "secondary incomes" that might result even in being self-sustaining of the project feasibility without the need for tolling. Cost optimization concern mainly the engineering of the construction. Main innovations concerned slope stabilization and asphalt mixtures in road projects. it is important, for the success of a PPP tendering procedure, to foresee a prequalification phase and an adequate promotional plan to attract investors.

Felix Villalba-Romero and Champika Liyanage (2016) presented different performance measurement approaches to evaluate the success of selected projects and comparing its results, validate the approaches. The basis of the methodology can be presented as a performance measurement system (PMS) that has been tested on the 13 road projects in the EU. first approach used has evaluated the number of successful and failure performance measures in order to show different level of

success in projects. In this approach, the weighting used for the performance measures are considered equal. The second approach has been then used to weight the PMs using a Delphi analysis first, and then to evaluate overall performance. Furthermore, the assessment can present results in terms of performance of dominant KPIs and PM, which could be useful when prioritizing project tasks.

Junxiao Liu et al.(2016) tested the feasibility of implementing a lifecycle PMF for PPPs by soliciting the opinions of experienced practitioners. a number of implications have been derived from the empirical evidence, for example, a need for performance measurement mechanisms during the inception phase of a PPP and a focus on evaluating not only key stakeholders' satisfaction level, but also measuring how they have contributed to the projects.

Jin Wu et al.(2016) identified is an ambiguous accountability of the public sector. Government, as a representative of the public in PPPs, is accountable for the initiation and governing, and private entity is responsible for the project's delivery. conceptual framework of the accountability of the government of PPPs is developed. indicated that the government's accountability in PPPs should shift to enhance the effectiveness of quality services and the efficiency of use of public resources for asset end-users and general population. Provided the governments embarking on PPPs with an insight into their accountability, ensuring Value for Money is delivered.

Albert P. C. Chan et al. (2017) showed that the 18 CSFs could be grouped into five underlying factors including: Factor 1—stable macroeconomic environment; Factor 2—shared responsibility between public and private sectors; Factor 3—transparent and efficient procurement process; Factor 4—stable political and social environment; and Factor 5—judicious government Control and Taking Beijing as an example. It is anticipated that the CSFs within the underlying group stable macroeconomic environment in china and effective procurement in UK will be affected most due to the prevailing rapid changes to the global financial climate.

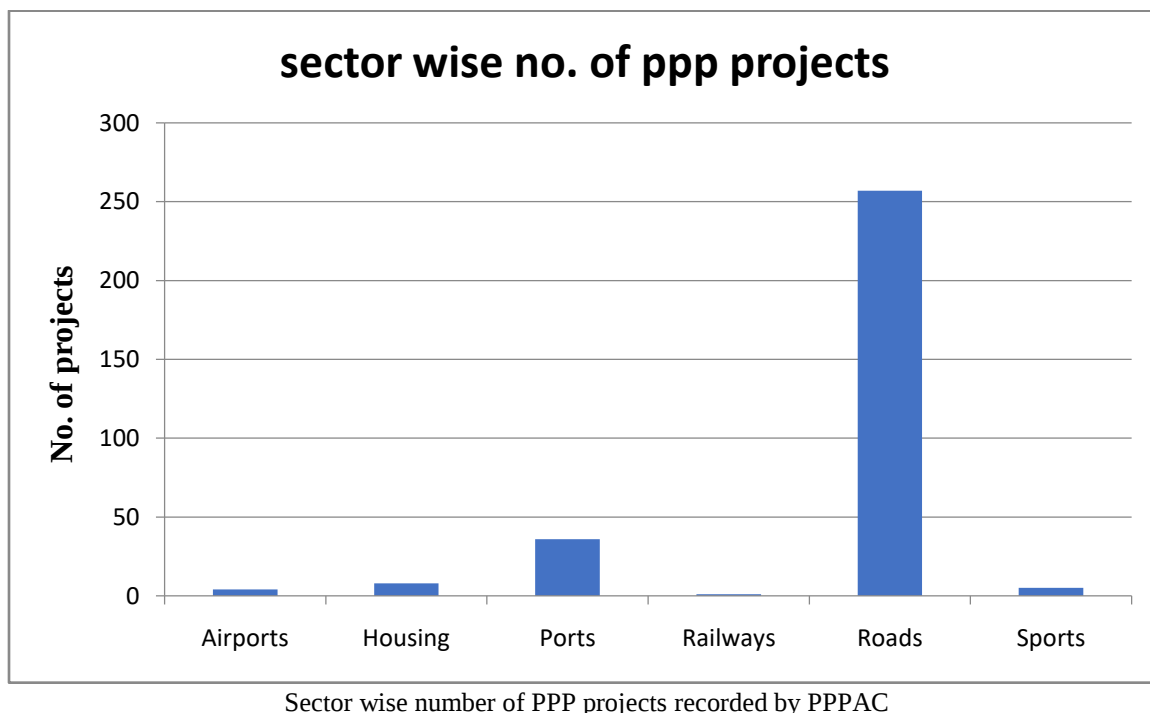
Xiaosu Ye et al.(2017) identified the factors in influencing the willingness of private firms to participate in infrastructure PPP projects. It was found that 53.2% of private companies were willing to participate in PPP projects. External factors, political connections and government intervention have positive and negative influences on firms' willingness to participate in PPP projects. Firm's project experience and profitability play an important role in its willingness to participate in PPP projects. The experienced firms have an advantage in successfully gaining the PPP project. The project experience can improve firms' capabilities and investment performance, because experience helps the firms decrease complexity or uncertainty to shape and refine their routines. Government intervention and Project complexity has a negative influence on participation in PPP projects.

III. Major Findings:

In the PPP acronym the most important P is the third one: Partnership. It is important that the public administration proposing the concession, properly plan the project and arrange a fair contract, financially attractive for the private sector. Also the risk analysis is a fundamental step in the study of a PPP project. Although both the internal (e.g., firm's financial status) and external factors (e.g., government support) influenced the willingness to participate in PPPs, a firm's project experience, profitability, and political connections appeared to be more powerful than the other factors. The political connections help the firms to gain some critical resources that they cannot gain from the market, and they help the firms' secure favorable policies or tax conditions to increase the firm's competitive advantage. For success of PPP projects most critical factors especially to be considered by the general public is an acceptable level of toll/tariff. Besides, the existence of a long-term demand for the proposed services, availability of strong private consortium, alignment with government's strategic objectives, as well as reliable service delivery are also rated as important success factors for PPP projects. Active participation and engagement of the general community during feasibility stage and scheme development may minimize future conflicts. Shorter tender periods may increase the investment risks for the private sector, which may ultimately result in higher service charges or deter investors away from bidding. Year wise and Various Sector wise Summary of Projects recorded by the Public Private Partnership Appraisal Committee (PPPAC) from 20th December, 2005 - 22nd September, 2017. Total 312 PPP projects recorded which has total project cost of Rs. 367014 crore.

Table2. PPP projects from 2005 to 2017

Sr. No.	Financial Year	Number of Projects Approved	Total Project Cost (In Rs. Crore)
1	2017-2018	4	7851.78
2	2016-2017	9	12401.28
3	2015-2016	17	28465.76
4	2014-2015	18	29070.77
5	2013-2014	25	55326.29
6	2012-2013	25	25641.53
7	2011-2012	52	53248.6
8	2010-2011	33	26010.24
9	2009-2010	53	57854.97
10	2008-2009	48	53381.78
11	2007-2008	13	11227.46
12	2006-2007	15	6533.54
13	2005-2006	0	0
	Total	312	367014



IV. Conclusion

PPPs play an important role in bringing private sector competition to public infrastructure monopolies and inmerging the resources of both public and private sectors to better serve the needs of the public that otherwise would not be met. PPP projects are targeting towards financing, designing, implementing and operating infrastructure facilities and services that were traditionally provided by the public sector. Looking at the global scenario and various governments' active

participations in PPP projects, it is very clear that, most of the PPP projects have good success rates. Government agencies in different countries are trying to leverage kind of opportunity for the mutual benefits of both public and private sectors. The government of India is leading the process of promoting PPP projects in India to create a success story. To sum up we can say that the success of the project would depend finally on getting the different stakeholder rallying for it, which requires a high level of awareness and a genuine effort for a consensus. Generally, transparency (trusts, openness and fairness) is the basic foundation of successful PPPs. Partnering should be mutually viewed as representing an opportunity rather than a threat and loss of control. In this context, while recognizing the immense complexities in working across sectors with different strategic and operational realities, the focus should be on identifying common goals, delineating responsibilities, negotiating expectations and building bridges including common working practices and specific reporting and record keeping requirements. Hence, while PPPs can bring added value to the public and private sector partners, a sound legal and regulatory framework and complete transparency particularly with regards to financial accountability are essential elements.

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