

Analysis Of Risk Factors in Public Private Partnership (PPP) Projects

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Abstract - According to a World Bank report on private participation in infrastructure, private participation in 2011 was highly concentrated in just one country - India. The report ranks India as the largest market for PPP in the developing world. . No doubt, the PPP model is best option in infrastructure projects for developing countries like India, but they are still inferior in comparison to the output that developed nations have been achieving through the same model. A closed approach towards renegotiating contracts and failure to understand the meaning of "partnership" are the main reasons why Public Private Partnership Projects are not running smoothly in India. Also some factors such as political influence, financial problems, land acquisition , delay in clearances and implementation etc. are also responsible for failure of PPP's. these factors may change according to nature of project , region , type of project . And hence now-a-days it has become necessary to analyze and to know the interdependency of such factors. In this paper we are finalizing most critical factors in PPP.

Key Words: PPP, Public Private Partnership, Risk factors, Government, Viable, Questionnaire .

1.INTRODUCTION

A public-private partnership (PPP) is a government service of government and one or more private sector companies. PPP involves a contract between a public sector authority and a private party, in which the private party provides a public service or project and assumes substantial financial, technical and operational risk in the project. In India Most of the projects are undergoing PPP but all are not being successful .Failure of some of projects is due to some risk factors which are not studied before or during the implementation of the project . In this paper first a questionnaire of 20 risk factors from various literature is prepared then these factors are rated by field as well as government experts from 0 to 10 depending in their viability . Most viable factors are rated on higher side this is done almost from 20 experts. Then the average rating of all the factors is carried out . The factors having average rating more than 40% are taken as major factors for analysis. There are 12 factors having avg. rating more than 40%.

2.LITERATURE REVIEW

According to Yadav Ashiwini Ashok and Prof. B.V.Birajdar[1] PPP is the long term contract between public and private sectors that has the purpose of providing facilities and infrastructure in these one of the main goal is to develop the infrastructure projects such as roads hospitals and schools in these paper they mainly focused on infrastructure sector in India and toll projects.

M. A. Ravindhar Raja[2] in his paper mainly analyze infrastructure projects in Tamilnadu. He also discussed investment in infrastructure projects at various sector i.e. at central state and private sector etc they also list out risk factor in PPP using fuzzy average aggregate method and triangular average formula and he found that land acquisition and compensation is a high risk factor with a mean impact of 3.75 from analysis of 40 samples.

Kurunendra Pratap Singh[3],He found that infrastructure and development is said to be key driver of all growth and economic activity only one sector cant helpful for modernization hence government decides collaborating between public and private sector and to develop infrastructure he also mentioned maximum sector can be covered under PPP that are health education power and transportation. The companies having close contact with political parties can take more benefit in receiving the contracts.

Yang Tuo, Lu Ning, Shao Bang[4] committed that government on economy dimension and risk dimension through PPP is improved supply process, reduced cost and upgrade efficiency the key promoting satisfaction of the PPP is to improve the weakness in the tripartite satisfaction. Analysis shows that the risk dimension most noticeable impact on overall satisfaction, take corrective action, raising the level of risk, can improve the level of overall satisfaction.

Yongjian Ke, ShouQing Wang, Albert P.C.Chan[5], Their result show that the public sector partner preferred to retain political and social risk as well as the risk of legislation change and delay in project approvals and permits in China.

Song- Kim, Dong-Youl Lee, Young-June Lee, Min-Jae Lee[6], they conducted study on risk and success factors in the field of water management. They found that some risk factors are general risk factors and others are unique risk

factors only found in China. With respect to operation project water demand and water flow rate are the most threatening risks.

Anil Kumar Gupta, Dr. M.K. Trivedi & Dr .R. Kansal[7], Their study illustrates that the PPP Project carries the higher risk throughout the project life. One of the major reason for high risk is long project duration. The PPP mode bear risks during its entire life span except initiation and transfer phase. The volatile social, economical & legal environment creates major risks upheavals during PPP project life.

3. OBJECTIVES

- To understand PPP.
- To know the risk factors in PPP.
- To investigate most viable factors.
- To study the viability graph

4. NEED OF THE STUDY

Some of the projects under ppp are being failed due to some reasons these reasons are related to some risks which are not considered or focused during working phase of project. So it has become necessary to study such risk factors . In this paper we are studying those risk factors which are responsible for failure of PPP projects.

5. METHODOLOGY

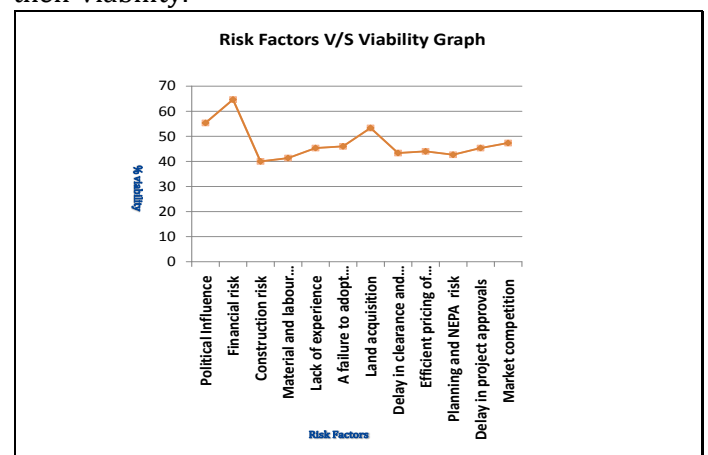
In this paper first we started with carrying out the most viable risk factors from various literature published before from that we collect twenty risks factors ,are then put in tabulated format with rating from 0-10 so that the most viable factors can rated towards higher side and less viable factors rated towards lower side (i.e. 0 for most irrelevant factor and 10 for highly relevant factor) and also left a option for experts to mention that is not including in the questionnaires are then filled up by field experts and then most viable factors from these twenty factors are carried out. These 20 factors along with their average rating are as follows:

Table 1. Rating of factors.

Risk Factors	Avg. Rating%
Political Influence	55.33
Financial risk	64.66
Construction risk	40
Social issues	25.33
Material and labour availability	41.33
Site condition	38
Lack of experience	45.33
A failure to adopt attitude towards partnership	46

Land acquisition	53.33
Regulatory framework	34
Delay in clearance and Implementation	43.33
Uneven private participation	38.66
Efficient pricing of infrastructure	44
Permitting risk	42.66
Planning and NEPA process risk	35.33
Procurement risk	36
Government corruption	38.66
Imperfect law and supervision system	38
Delay in project approvals permit	45.33
Market competition (Uniqueness)	47.33

Out of these 20 factors we carry out most viable 12 risk factors and prepare a graph showing their viability.



Graph 1. Risk Factors V/S Viability Graph

6. RESULT AND DISCUSSION

In this study, the financial, political and land acquisition play important role in PPP projects. In highway projects the financial risk of the contractor to recover his money is most viable factors also land acquisition plays vital role in PPP Projects. In this analysis the twelve factors are found to be most important these factors are then represented in graphical format as shown in graph.1. The following factors are found to be most common and most viable.

- Political influence
- Financial risks
- Land acquisition
- Delay in project approvals
- Market competition

The other factors vary according to nature of project, region, local support etc. some of the factors are found to be common in BOT, BOOT, PPP civil engineering projects.

7. CONCLUSION

After finalizing the most critical factors it has been seen that some factors are common for all type of civil works projects , but some factors are totally dependent on the nature of project .

The most viable factors which must be considered are political influence , financial risks ,land acquisition delay in project approvals and market competition .

This study useful to the researcher, students, government contractor, engineer while coat the tender and analysis of risk factor for PPP projects.

8. FUTURE SCOPE

The factor finalize in this work can be further analyze by using suitable software such as MICMAC and the interdependency relationship among these factors can be found out this interdependency relationship can be further utilize before implementation of any infrastructure project some factors are most common factors can be utilize for any kind of public private partnership project

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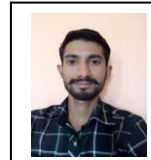
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