

IMPORTANCE OF CRITICAL SUCCESS FACTOR ANALYSIS IN PUBLIC PRIVATE PARTNERSHIP IN INFRASTRUCTURE DEVELOPMENT IN INDIA

Rajkumar K¹, Selvakumar C², Sharavanakumar P S³

¹Assistant Professor, ^{2,3}UG Student, Department of Civil Engineering,

Kongunadu College of Engineering and Technology, Trichy, Tamilnadu (India)

ABSTRACT

Purpose: *The aim of this study is to identify the major critical success factors in public private partnership in India.*

Design methodology /Approach: *The scope of the study is to find which factor influences the public private partnership in infrastructure development in India. The researcher used questionnaire method for collecting data from many construction companies.*

Findings: *The study noticed the main causes of Delay in Project Approval and Permits, Strong Political Opposition, Availability of Appropriate Labor, Availability of Appropriate Material, Lack of Government Guarantees, Import/Export Restriction of Machineries and Financial Attraction of Project to Investors.*

Research implication: *The identified factors may help the construction company in particular.*

Keywords: *Critical Success Factors, Constructional projects, Indian Rail Roads, Infrastructure development, Public Private Partnership.*

I. INTRODUCTION

The mutual collaboration and cooperation between the Government and Non-Government sectors for making good agreements to run successfully the infrastructure development projects in India. Before the 1800s there was no development of infrastructure in India due to the lack of managerial skills, technical skills, working skills and also financial strength. While India is the fourth largest economy in the world, a key factor obstructing its growth and development is the lack of world class infrastructure. Estimates suggest that this lack of adequate infrastructure reduces India's GDP growth by 1-2 per cent every year. After some years the government focusing on the implementation of the infrastructure development projects for the economic growth of the country. The ADB-Government of India PPP Initiative is being managed jointly by PPP focal points at the Department of Economic Affairs, Ministry of Finance and at ADB with numerous PPP cells undertaking considerable activities across the country. This report is part of a series of reports aimed at capturing these efforts of the cells and this Initiative. Public-Private Partnership (PPP) describes a government service or private business venture which is funded and operated through a partnership of government and one or more private sector companies. As the result the Public Private Partnership was started by combining the public and private sector. To enforce the PPP model the government made many amendments (modifications) in laws to promote Indian infrastructure. Due to

the modifications the doors to the private sector were opened for the participation in infrastructure development projects. The public private partnership model simplifies the works on low risk and high growth with high quality. The legal environment-general country wide, state specific legislation for infrastructure and PPPs, and, project specific contracts-for PPPs is one of the most critical aspects which will govern attractiveness of infrastructure sectors and projects to the private sector. The public-private partnership model has emerged as the favored model of project execution in India, especially in infrastructure, health and education. This article traces the theoretical underpinnings of PPP under a neoliberal, market driven and growth-oriented state. It describes the economic imperatives for public and private resource management and the case for PPP. It critically looks at the ramifications of this paradigm of economic growth and development, which has had limited success with certain projects, but has opened up issues relating to asymmetry of access, equity and efficiency and evidence of further marginalization of the poor. The board sectors encouraged under the PPP framework are highway, ports, power generation and supply, water supply system and urban infrastructure. PPP story began with investment in the project of "INDIAN RAILROADS" in the later half of the 1800s by British companies.

II. AIM AND OBJECTIVES OF THE STUDY

- ✓ Identify Critical Success Factors in Public Private Partnership in Indian constructional projects.
- ✓ Discuss about the case study in construction projects
- ✓ Make recommendations in order to minimize or control Critical Success Factors in construction projects.

III. LITERATURE REVIEW

The literature review process was conducted by studying the various books, journals, papers published, various websites and conference proceedings published in this matter.

Chambers, 2006, Rural India needs business to invest in industries such as finance and insurance; in ventures that bring new infrastructure such as telephony and roads. This is where telecommunications can help. Where physical infrastructure may not reach easily, the Internet can. Broadband access is the ideal platform to connect a geographically diverse country such as India. This high speed Internet technology holds tremendous potential, such as distance learning, telemedicine, supply chain management, customer relationship management.

Desai, 2006, In some cases, even though PPP models allow for exclusive right over public assets, it is free from the evil of monopoly business such as high user charges or low service quality. This happens when government follows competitive bidding process to decide on lowest user charges or provide viability gap funding to safeguard consumer interests.

Contracts are designed to ensure service quality.

KC Smita & SN Sangita, 2008, suggested that the PPP is alternative service delivery model to achieve efficiency and address shortages, although unlikely to replace fully traditional services delivered by governments. And efficiency level of service delivery has improved and shown result in some of the public utilities in area.

Mahalingam A, 2008, said given India's infrastructure needs, PPPs are a necessity and not just an option. However there are a myriad of issues that need to be addressed and resolved in order to facilitate a better understanding on how to develop infrastructure efficiently and seamlessly via PPPs.

N Gopal et al., 2009, in the wake of increasing challenges to deliver quality public services in ~ 173 ~ International Journal of Multidisciplinary Research and Development developing countries like India, public private partnerships seems to address some of the major problems governments are facing such as investment needs and trained manpower capacity constraints. These services are now increasingly being used by the citizens.

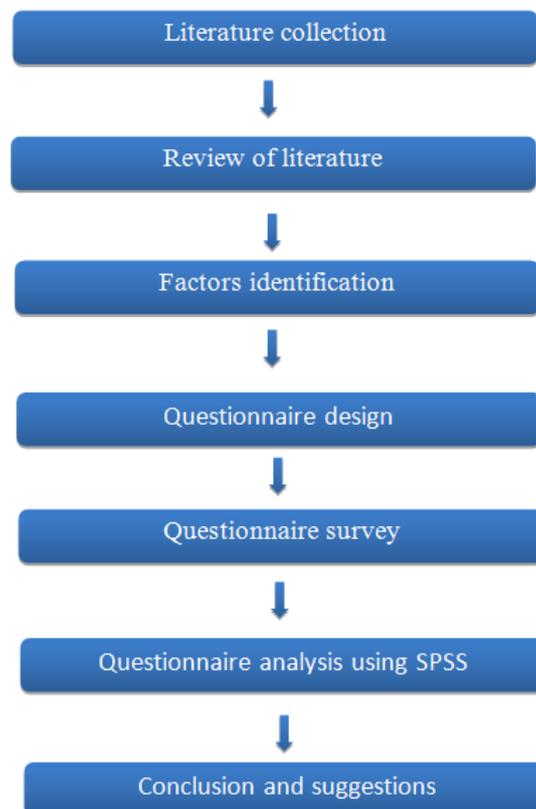
Olaniyan, 2013, the concept of critical success factors (CSF) emanated from the Sloan school of Management as indicated reported in the studies. This concept was first used in the context of information system and project management but later applied to construction management research. Critical success factor defined as ‘those key areas of activity in which favorable results are absolutely necessary for a particular manager to reach his/her goals’

Rawlinson, 1999, Critical success factors are ‘those fundamental issues inherent in a project which must be maintained for team working to take place in an efficient and effective manner.

The International Monetary Fund (IMF), “Public private partnership refers to arrangement where the private sector supplies infrastructure assets and services traditionally have been provided by the government (IMF 2004, p4)”.

The World Bank, “PPP programs are project that are for services traditionally provided by the public sector, combine investment and services provision, see significant risks being borne by the private sector, and also see a major role for the public sector in either purchasing services or bearing substantial risks under the project (World Bank 2006, p13)”.

IV. RESEARCH METHODOLOGY



V. IMPORTANT CRITICAL SUCESS FACTORS

- 1) Delay in Project Approval and Permits
- 2) Strong Political Opposition
- 3) Availability of Appropriate Labor
- 4) Availability of Appropriate Material
- 5) Public Opposition of Project
- 6) Interest Rate Volatility
- 7) Environment
- 8) Construction Time Delay
- 9) Legislation Changes / Inconsistencies
- 10) Waste Material
- 11) Weather
- 12) Low Operating Productivity
- 13) Lack of Government Guarantees
- 14) Import/Export Restriction of Machineries
- 15) Financial Attraction of Project to Investors
- 16) Maintenance Cost Higher than Expected
- 17) Financiers unwilling to take High Risks
- 18) Availability of Finance
- 19) Financiers unwilling to take High Risks
- 20) Contractual Failure
- 21) Technology Risk
- 22) Market Demand
- 23) Geotechnical Condition / Ground Condition
- 24) Design Deficiency
- 25) Quality Risk

VI. RESPONDENCE RATE

No. of companies = 200

No. of companies responded = 70

Response rate = 35%

VII. DEMOGRAPHIC PROFILE OF THE RESPONDENT

S.No	Demographic profile variable	Category	No. of Response	Percentage
1	Gender	Male	45	63%
		Female	25	37%
2	Age	21-30 years	15	20%
		31-40 years	14	28%
		40-50 years	25	30%
		Above 50 years	16	22%
3	Experience in construction field	Less than 2 years	7	7.5%
		2 years to 5 years	10	17.5%
		6 years to 10 years	33	40%
		11 years to 15 years	9	15%
		Above 15 years	11	20%
4	Work type	Quality engineer	6	16%
		Project engineer	20	30%
		Proclamation engineer	8	20%
		Site engineer	26	34%
5	Education qualification	Diploma	0	5%
		B.E	31	58%
		M.E	26	34%
		Dual degree	3	3%

VIII. RELIABILITY OF DATA

To Establish Internal Consistency, Cronbach Alpha value was used to assess the reliability of the scale, considering the minimum value of 0.7 (Cronbach 1970, Nunnally, 1978). The calculator value was 0.82 which exceeds the threshold limit.

IX. MOST CRITICAL SUCCESS FACTORS AND THEIR SOLUTIONS

RANK	MEAN VALUE	FACTORS	SOLUTIONS
1	4.83	Delay in Project Approval and Permits	To provide approval as soon as possible
2	4.76	Strong Political Opposition	Approve the projects when it has proper documents against the politicians.
3	4.69	Availability of Appropriate Labor	Reduce the manual power and increase the machineries
4	4.61	Availability of Appropriate Material	Estimate and bring the needed materials before starting the project
5	4.54	Public Opposition of Project	Explain the benefits of the projects
6	4.49	Interest Rate Volatility	The rate of interest should be less and compact to access
7	4.41	Environment	Start and finish the projects at suitable environment
8	4.15	Construction Time Delay	The construction project should be start with planning and proper proceedings
9	3.95	Legislation Changes / Inconsistencies	Restrict the power of cancellation of the approved projects due to any reason
10	3.83	Waste Material	Reduce the wastage of materials and proper utilization of materials

X. CONCLUSION

The study identifies the dimensions of critical success factors such as Project Approval and Permits, Strong Political Opposition, Availability of Appropriate Labor, Public Opposition of Project, Environment, Financial Attraction of Project to Investors, Interest Rate Volatility, Maintenance Cost Higher than Expected, Technology Risk, Market Demand, Construction Time Delay, Waste Material, Geotechnical Condition / Ground Condition,

Design Deficiency, Quality Risk from the various case studies and literature reviews. The future study will be identified that significant impact exist between those factors.

XI. LIMITATION AND SCOPE FOR FURTHER RESEARCH

Even though the study achieved its objectives, we found some problems in PPP projects. Initially we considered only few factors. In future researches more number of factors will be considered. This study has been conducted only in India. This study will be extended in many other countries. In addition to this, comparative study can also be conducted with regard to different companies.

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