

Barriers to PPP Projects in Construction Sector of Pakistan

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Abstract— Public Private Partnership (PPP) is a mechanism adopted to support the development in a country facing financial problems. In achieving successful PPP projects, one of the major criteria is attaining value for money. There are several barriers which can affect adoption of PPP which are essential to uncover for enhancing the adoption level of PPP. Hence, this project has focused on identifying barriers affecting PPP projects of Pakistan. Data collection for this study was done through questionnaire survey among the personnel involved in handling PPP projects. From statistical analysis of collected data it was found that unhealthy bid competition, lack of managerial skills and experience and public sector related problems are major barriers in adoption of value for money in PPP projects of Pakistan.

Index Terms— PPP, Public Private Partnership, Barriers, Pakistan.

I. INTRODUCTION

PPP is a best policy key mechanism that is used for innovating in construction projects to make it attractive for public use and also for generating revenue and it tends to reduce inefficiency, mismanagement in public services [1]. PPP is widely accepted tool used as a financial and social support to government agencies as private sector is agreed to take all the responsibilities to finance, design, construct, operate and maintain the service and change the form of government from owner to buyer of the public infrastructure [2 and 3]. The most captivating element of PPP project is to solve financial limitations issues. PPP is sort of agreement of cooperation, trust, risk management, provision of skilled labor and service between government and public partners in order to identified need and to realized unavailability of social asset [4].

In PPP projects various entities are involved such as government sector, private partner, who is responsible to finance the project, equity funders such as construction and transportation firms, banks who also provide monetary facilities are the lenders participants, operating and design firms [5]. PPP is legal relationship in form of long term contract beneficial for both public and private partners to promote social, cultural around the globe and also the most prominent factor necessary for economic growth of the region. In order to increase flow of investments both public sector and private partner work with collaboration to interchange their instrumentality, public sector provide an opportunity to the

private partner to show their capabilities [6]. Government is beneficiary to avail financial assistance from different financiers to expand infrastructure facilities, economic growth, and reduction in maintenance cost project initiation procedure. Private sector is beneficiary under the shadow of legal security in regulation provided by the government. Hence, it is vital to promote PPP in construction sector of Pakistan. Thus, this study has focused on identifying various barriers which hinder the adoption of PPP system. By controlling those barriers, PPP can be promoted in construction sector.

II. RELATED WORKS

PPP projects have been implemented successfully in different countries. However, information and operation of public private partnership may vary from region to region [7]. Though, PPP projects have become famous and adopted in different countries all over the world but still in many countries PPP projects experiencing hindrances against its adaptation [8]. Barriers to PPP projects have impede the performance and enforcement of projects resulting in less concern of private sectors in PPPs projects [9]. Various authors identified barriers to PPP projects such as lack of experience in establishing PPP projects, inefficient risk assessment and mismanagement [10]. Instable political system, insufficient experience in PPP projects [11], lack of competition, and mismanagement of concessionaires [12] are also major barriers to PPP projects. In identifying common barriers to PPP projects, review of previous research work resulted in identifying 14 common barriers.

III. DATA COLLECTION

This study adopted survey method using structured questionnaire form for seeking perception of the professionals engaged in working construction projects based on public private partnership strategy. Questionnaire form was designed based on the barriers to achieve value for money in PPP projects identified through literature review as presented in table 1 in previous section. This survey was conducted among the professionals from clients, PPP concessionaire (contractor) and consultants. Collected complete forms were analyzed statistically using Average Index (AI) formula as described below:

$$AI = \frac{(1X_1 + 2X_2 + 3X_3 + 4X_4 + 5X_5)}{X_1 + X_2 + X_3 + X_4 + X_5} \quad (1)$$

where;

X_1 = No of respondents for "Not Agree"

X_2 = No of respondents for "Slightly Agree"

X_3 = No of respondents for "Moderately Agree" X_4 = No of respondents for "Strongly Agree"

X_5 = No of respondents for "Extremely Agree".

IV. RESULTS AND DISCUSSION

A total of 100 questionnaires were distributed among various construction organizations across Sindh by hand. The number of responses received by construction industries was 42 from which 14 questionnaire forms were discarded due to insufficient and incomplete data. Most of the discarded respondents lack experience in projects undertaken by PPP procurement. Remaining 28 questionnaire forms were analyzed statically.

Frequency
Percentage Cumulative
percentage
Respondents organization
Contractor
18
64.29
64.29
Client 1035.71 100.00

Project handled by the respondents
Buildings 1 3.57 3.57
Energy 4 14.29 17.86
Energy and Industrial 1 3.57 21.43
Highway projects 18 64.29 85.71
Industrial projects 1 7.14 92.86
Multiple 2 7.14 100.00

Respondent's Experience in Construction Industry

Less than 5 years 5 17.86 96.43
6 - 10 years 6 21.43 78.57
11 - 15 Years 16 57.14 57.14
More than 15 years 1 3.57 100.00

Respondent's Experience in PPP Projects

5 Years 9 32.14
9 years 32.14
6 - 10 years 4 14.29 46.43
Above 10 years 2 7.14 53.57
Less than 5 years 13 46.43 100.00

Qualification level

B.E
10
35.71
35.71
Diploma 3 10.71 46.43 Masters 15 53.57 100.00

They have experience of handling different types of projects, which include building works, highway project, energy, and industrial projects. All the respondents have experience of handling construction projects undertaken with traditional methods as well as public private partnership. These respondents have attained engineering degree while 15 Respondents have completed master degree.

These characteristics show the respondents are considered reliable to provide proper data. Data collected from the respondents was analyzed and assessed based on average index formula and ranked accordingly based.

It depicts that unhealthy competition is first ranked barrier in PPP projects of Pakistan. The respondents highlighted that lack of managerial skills and experience is 2nd major barrier to PPP projects in Pakistan. This is because in Pakistan there are only few PPP projects undertaken under PPP procurement.

The professional have not got enough chance to handle PPP projects. Public sector related problems and private sector related problems are placed at 3rd rank. It might be because of the reason that public sector have well established system with certain protocol while private sector normally works based profit margin. This creates coordination problems between public sector and private sector.

V. CONCLUSION

This study aimed in identifying the barriers which affect the PPP projects in construction projects of Pakistan. Study was carried out by survey method with structured questionnaire containing 14 barriers to PPP projects identified from literature review. In this process, a total of 42 completed questionnaire forms were received among which 28 forms were valid. Statistical analysis of these 28 questionnaire samples revealed that Unhealthy bid competition, Lack of managerial skills and experience, Public sector related problems and Private sector related problems are major barriers in adopting PPP projects in Pakistan.

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Unhealthy bid competition	0	0	1	9	18	28	4.61	1
Lack of managerial skills and experience	0	0	4	5	19	28	4.54	2
Public sector related problems	0	0	2	11	15	28	4.46	3
Private sector related problems	0	0	4	7	17	28	4.46	3
Political Situations	0	0	3	10	15	28	4.43	4
Economic Situation	0	0	3	10	15	28	4.43	4
Social Aspects	0	0	4	10	14	28	4.36	5
Technological Constraints	0	0	4	10	14	28	4.36	5
Lack of Legal framework	0	2	2	12	12	28	4.21	6
Environmental Factors	0	2	2	12	12	28	4.21	6
Lack of financing techniques	0	1	4	14	9	28	4.11	7
Government Policy	0	1	4	14	9	28	4.11	7
Decentralization	2	0	2	14	10	28	4.07	8
Selection of discount rate	0	0	5	16	7	28	4.07	8