

Risk Prevention Research for Urban Public Utilities PPP Projects in China

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Abstract. By combing literature on risk identification of PPP projects, summarizing political risks, legal policy changes, project risks are Key risk factors for PPP projects of public utilities. On this basis, guided by the spirit of contract, with the premise of government supervision, focusing on previous prevention, focusing on the prevention of key risks of PPP projects in urban public utilities, and proposing to prevent PPP project risks from six aspects: establishing a contractual spirit, honesty on both sides Trustworthiness; improve relevant policies and regulations; establish a PPP project monitoring platform, and implement project classification management; build a diversified supervision system; build a PPP project financing platform; pay attention to project market research and talent training.

Introduction

Since the reform and opening up, the urbanization rate of China's population has increased rapidly from 17. 9% in 1978 to 58. 52% in 2017, with an average annual growth rate of more than 1%. At the same time, the demand gap for urban public utilities in China is also expanding rapidly. It is estimated that the urbanization rate will reach 60% in 2020, which will generate 42 trillion yuan of investment demand, while the total fiscal revenue in 2017 is only 17. 2 trillion. It is difficult to continue relying solely on financial support. Enabling social capital to participate in the construction and operation of urban public utilities has become a major issue facing the central and local governments at all levels.

As early as the 1980s, China began to try BOT/TOT mode in sewage, roads and other fields. Although it has achieved certain results, due to the short development time and lack of experience, this model has also caused problems such as excessive rise in public service prices, difficulty in safeguarding universal services, and even the loss of state-owned assets, resulting in the failure of most projects. Addition to the inherent institutional causes, there are some important reasons which cause the PPP projects failure. such as risk identification is not comprehensive, risk sharing imbalance, risk response mechanism is not perfect and government supervision is not in place, etc. Therefore, critical reflection and normative correction on the practice of the previous stage, and Discussion on the effective mechanism of cooperation between urban public utilities government and social capital in the new era, play an important role in supporting the healthy and orderly development of urbanization in China. Especially in the current international economics turn down, and economic growth rate declines in china. Comprehensively identifying the risk factors of PPP projects, establish a dynamic risk prevention mechanism, and formulate corresponding countermeasures, which is an important Significant for improving the successful operation of PPP projects, and is also value for maintaining macroeconomic stability.

Risk Identification of PPP Project for Urban Public Utilities

Any project cannot escape risk, the risk is controllable, can be reduced, transferable, acceptable, but not negligible [1]. Effective risk identification and allocation is an important way to ensure project

success and improve project performance [2]. Whether it is project risk management or risk sharing, the first step is to implement a comprehensive risk identification for PPP projects.

Case study and questionnaire survey are the main research methods to identify the risk of the PPP project. The PPP project risk identification mainly through the single case analysis, the key risk factors affecting the PPP project in the early stage [3]. In the later period, the risk of PPP projects was mainly studied through multiple case studies [4]. There are two main views on PPP risk in the world: one is to classify risk factors into three categories: national risk [5], market risk and project risk; the other is to divide risk factors into three levels: micro, meso and macro [4].

The implementation of PPP projects in China is short-lived and small in scope. Domestically, the risk identification of PPP projects is mainly carried out through literature research, case study methods and questionnaire surveys. In this paper, the key risks of utility PPP projects are identified through literature methods, as detailed in Table 1 below.

Table I Analysis of key risk factors of the PPP project

Author	research method	Key Risk Factors of the PPP Project					
Xiaopeng Deng et al. , 2009 [6]	Questionnaire investigation	Project Decision-Making Errors	High Financing Cost	market risk	Imperfect regulatory system	Engineering quality problems	credit risk
Xia yuan et al. , 2009 [7]	Multiple case analysis	Government discredit	Changes in market demand	Project uniqueness	Political decision mistakes	Legal change	Financing risk
Tong Chen et al. , 2011 [8]	Questionnaire investigation	Environmental risk	Contract conflict,	Design change, cost overrun	Engineering quality risk	Interest Rate Risk	Project decision risk
Yan li and Lei Zhao, 2015 [9]	Single case analysis	Financing risk	Economic risk	Political policy risk	Natural risk	Partnership risk	Approval extension
Jincun Fu, 2016 [10]	Multiple case analysis	Government risk	market risk	Project risk			
Kai Guo and Hui Sun, 2017 [11]	Questionnaire investigation	Approval delay	Government Credit	Changes in market demand	Project Competitive Financing Risk	Tax change	Interest rate change

As can be seen from Table 1, regardless of the conclusions of the research method, political risk has always been the biggest risk faced by PPP projects, including government default, approval delay, decision-making mistakes, and government regulation.

Followed by changes in policy laws. finally, project risks, including project financing risks, market demand changes, quality risks, insufficient returns, etc.

PPP Risk Prevention Measures for Public Utilities in Three Cities

In view of the key risk factors that may arise in PPP projects, the following policy recommendations are proposed from the perspective of pre-control:

Establish a Spirit of Contract, both Partners must be Honest and Trustworthy.

In the operation of PPP projects, the government lost its trust and the failure to perform the contract was considered to be the main risk faced by the PPP project. The PPP project has a long cycle, many participants, and complicated operations. This requires the PPP project to have a

contractual spirit in the course of operation, and fulfill its duties with honesty and trustworthiness. We should also establish a contract system, formulate penalties for breach of contract to varying degrees under the principle of equality and mutual benefit, warn the government and social capitalists, improve the credit rating system, focus on the assessment of breach of contract, and strictly manage it.

In addition, the participants are required to fully understand the characteristics of public utilities and cooperate sincerely. Social capitalists can not reduce the quality of products or services, exaggerate costs, increase the prices of products or services, and pursue high returns on investment, thus harming the interests of the public. Government departments can not make use of their functional advantages to extrude the reasonable interests of social capital parties. Government departments cannot take advantage of their functions and over-squeeze the legitimate interests of social capital. The basis of cooperation is honesty, social investors must be self-disciplined, and the government must fulfill its promises. In the negotiation process of PPP projects, government departments cannot easily promise various preferential conditions for social capital parties in order to increase the attractiveness of the project. They should be cautiously promised to avoid disputes with social capital parties and project companies in the future. In the operation of the PPP project, when problems or disputes arise, the interests of all parties should be taken into consideration. According to the measures for handling disputes determined by the PPP contract, the two parties will negotiate and resolve the results, and the results of the negotiations will be clearly determined through the signing of the agreement.

Improve Relevant Policies and Regulations.

PPP related policies and regulations are the basis for guiding the operation of PPP projects. Sound policies and regulations can effectively control various risks in the operation of PPP projects, and help project participants to comprehensively and objectively identify and analyze the risks faced by PPP projects. At present, there is no separate legislation in China that guides the operation of PPP. There are only some laws and regulations, guidance documents, and some laws and regulations related to the operation of PPP projects, such as the Contract Law and the Government Tendering Law. There are still many blind spots. Conducive to the smooth progress of the PPP project. Therefore, it is necessary to introduce a higher-level law such as the Government and Social Capital Cooperation (PPP) Law as soon as possible to regulate the operation of public utilities PPP projects, and the franchise law and the government of the People's Republic of China involved in the management of current PPP projects. In the "Procurement Law of the People's Republic of China", the unsuitable content is adjusted in a timely manner to clarify the rights and obligations of the government and social capital parties, and to ensure that PPP projects have laws to follow in the areas of bidding, financing, operation, and supervision.

Establishing a PPP Project Monitoring Platform and Implementing Project Classification Management.

The duration of PPP projects is generally 10-30 years. The project cycle is long, there are many risk factors, and the operation situation is difficult to measure. The PPP project monitoring platform is established to track and monitor the project, which is easy to find problems and solve in time. At the same time, various types of public utilities have their own industry characteristics, and classified management can be compared horizontally, making it easier to identify problems. In particular, sensitive issues in the ongoing PPP project, such as pricing issues, quality issues, etc. The monitoring platform can also play the role of information disclosure, especially for public welfare projects, which are closely related to the public interest. Information disclosure can give the public the right to know and participate in decision-making. Through the PPP project platform, the classification management of PPP projects can be realized, which is convenient for effectively controlling the risk of PPP projects.

Building a Diversified Regulatory System: Contract, Government and Society.

One of the main purposes of the government's use of the PPP model in the public sector is to improve the quality and efficiency of utility supply by introducing the management concepts and technologies of social capital. The PPP project has a long cycle, and regulatory measures are

essential to ensure that social capital parties provide qualified or excellent products and services for a long time. The supervision of PPP projects should establish a diversified regulatory system, in which contractual constraints, government regulation and social supervision are the key elements.

1. Contractual constraints. There are a large number of PPP project participants, and it is necessary to clarify the responsibilities of the relevant parties in the contract. However, the long project cycle and many uncertain factors make the contract and agreement content of the PPP project impossible to include all matters. Based on the incompleteness of the contract, the PPP project must protect the coordination parties through formal or informal contract documents. Responsibility and benefits. The PPP contract should not only pay attention to the legal seriousness of the contract, but also consider the flexibility of the contract, and it is convenient to deal with the unconsidered matters. The official PPP contract document is an important tool for regulating the cooperative relationship between the government and the social capital, and it is the main basis for sharing the benefits and sharing the risks.

PPP contract documents can constrain the behavior of PPP project participants, avoiding human factors interfering with PPP project operations, and also help to clarify the responsibilities and interests of government, social capital and project companies, and ensure the normal operation of PPP projects, thus achieving multi-party win-win situation. .

2. Strengthen government regulation. The characteristics of utility PPP projects determine that their health and efficient operation are inseparable from the effective supervision of government departments. Effective government regulation can start from the following aspects: First, correctly handle the two roles of the government: participants and regulators. In the operation of the public utility PPP project, even if the project participants need to participate in the PPP project to complete the project decision, bid the social capital party, negotiate with the social capital party, share the project risk, etc. ; also the project supervisor, supervision Companies can't exaggerate prices and provide at least qualified products and services. Second, we must base on China's national conditions and industry characteristics, promote the in-depth reform of government regulatory agencies, formulate a regulatory mechanism that suits China's national conditions, and build a complete government regulatory system. Third, innovative regulatory policies to improve the level of regulation. Construct an incentive regulatory policy, enhance the enthusiasm of PPP project companies, and encourage enterprises to actively and actively provide high-quality products and services, such as implementing incentive pricing mechanisms.

3. Social supervision. Strengthen public participation, establish and improve the dialogue and coordination mechanism between government regulatory authorities, PPP project enterprises and consumers, further improve the price hearing system and the regulatory negotiation system, so that all social forces can participate in the operation of PPP projects. Preventing government corruption and failure of projects due to public opposition; it can also minimize government supervision errors and improve the quality of government supervision; supervise enterprises to provide high-quality products and services, provide a good social atmosphere for the healthy development of public utilities, and create more favorable conditions of. Establish a third-party supervision work mechanism, improve the social supervision network and public opinion supervision feedback channels, and form an effective and perfect social supervision mechanism.

Building a PPP Financing Platform.

The current difficulties in financing and high financing costs constrain the actual operation of PPP projects. PPP project financing is different from the financing method of general enterprises. The direct financing of PPP projects is generally obtained from the bank by the future cash flow (revenue) of the project. The direct financing of enterprises can be obtained from banks through various forms such as mortgage, guarantee and credit. loan. The financing channels of PPP projects are relatively narrow, and the government should strongly support and guide social capital to participate in the construction of PPP projects. First, the government should introduce a financing policy. The PPP model operates on project franchise for project financing, which requires complex legal, financial, and financial policy support. Second, local governments at all levels can establish innovative financing platforms, broaden financing channels, and attract social capital. At present,

some local governments have established PPP special funds, have invested in project companies, or loaned to project companies to support the construction of PPP projects, and have gained certain experience. In addition, special funds for ecological and environmental management can be established to support PPP projects in the fields of environmental governance and ecological governance.

Pay Attention to Project Market Investigation.

Project factors such as insufficient project income and insufficient market demand are important factors leading to project failure. At the same time, the market research of the project is also the basis for the initial decision of the project. Both the government and the social capitalists need to conduct sufficient market research at the beginning of the project. Scientific and adequate market research can provide a strong guarantee for market forecasting and avoid huge changes in future project market demand. It is particularly important to note that the social capital side cannot take the government's commitment as the actual demand of the market, and the government cannot blindly accept the market demand forecast provided by the social capital party. Both of them should conduct on-the-spot investigations to grasp accurate decision-making information and formulate feasibility study. On this basis, establish a scientific and sound decision-making mechanism, and if necessary, hire a professional consulting agency to provide support to make up for the lack of professional knowledge.

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