

Comparative Case Study on Value Creation Mechanism of Public Culture PPP Project

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ABSTRACT

PPPs are wide spread in the infrastructure domain. However, public culture PPP projects different from hard infrastructure encounter challenges which embodied in unclearness of value creation mechanism. From the perspective of partnership attribute, this paper puts forward two variables of market embeddedness (partner attribute) and project complexity (content attribute) to develop a theoretical framework of four types of value creation mechanism in public culture PPP projects. Four demonstration cases are selected to test the four types including Construction and Operation Integration based on Fiscal Support (COI-FS), Construction and Operation Separation based on Fiscal Support (COS-FS), Construction and Operation Integration based on Expected Cash Flow (COI-ECF), and Construction and Operation Separation based on Expected Cash Flow (COS-ECF). This paper attempts to provide reference for the development of public culture PPP projects in China.

Keywords: Public Culture; Public-Private Partnership (PPP); Partnership Attribute; Value Creation; Comparative Case Study

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1 INTRODUCTION

With the rapid development of economy and society in China, demand for public culture service is constantly rising. This drives Public-Private Partnership (PPP) application of the public culture developing rapidly. In 2018, the Ministry of Culture and Tourism (MCT) and the Ministry of Finance (MOF) jointly issued the document "*Guiding Opinions on Promoting the Cooperation Mode between Government and Social Capital in the Cultural Field*", which encouraged local governments to adopt PPP project to enhance public culture service provision. According to the MOF's PPP data, there were 320 public culture PPP projects with an investment of 284.421 billion yuan at the

end of 2020. Public culture PPP projects encounter challenges in value creation in China. Firstly, compared with the traditional infrastructure domain, the investment amount of public culture PPP projects is extremely low with the weak market condition and lacking of qualified partners. Secondly, the public culture attributes are complex including public diversity, concept differences, and ensuring fairness. Hence, public culture PPP project requires the deep participation of the government all the time to ensure its publicity.

However, little knows about value creation mechanisms of public culture PPP project yet. The public culture PPP project operation places more emphasis on creating independent value in the process of multi-subject collaboration. Exploring the value creation mechanism in this collaboration process will help develop PPP application in the public culture domain. Hence, this study develops a framework with the perspective of partnership attribute. Two key characteristics of partnership attribute including "market embeddedness" and "project complexity" is employed to form four types of value creation mechanisms of public culture PPP project in China.

2 Literature Review and Theoretical Framework

Value creation is the core of management research and the core motivation of inter-organization cooperation practice. The value of public-private ties is broadly defined as the value created by two or more parties through value exchange in cooperation.^[1] From the perspective of collaborative governance, partners in PPP projects can create new value by integrating resources together and creating opportunities through collaboration.^[2,3] Nevertheless, the definition of value creation in PPP project is still no consensus yet. For example,^[4] puts forward that public and private enterprises can create economic, administrative, public, and other kinds of values by appropriately distributing interests and risks.^[5] argues that the primary goal of PPP project is to create public value, such as provision performance or public interest.^[6] points that PPPs changes the previous provision mode with government-centered, but integrating government, enterprises, and non-profit organizations through PPPs to share and create more values. PPPs help to integrate various scattered values. When hybrid organizational forms produce positive social results, or as long as certain collectively defined and clear public policy objectives are achieved, social values will be created.

Hence, this paper gives the definition of value creation in public culture PPP project is the satisfaction and benefit of stakeholders who are eager to be satisfied to the greatest extent. Scholars have found that the government not only cares about the value creation of PPP project output, but also about the value creation process during the implementation of PPP project, such as whether it can provide local jobs and training opportunities. Different partners have different knowledge backgrounds, different goals, and values, so that there will be different mechanisms to create value between partners.^[7] This paper constructs a theoretical framework including two factors which are from the perspectives of the social network structure and the knowledge complexity separately.

2.1 Market Embeddedness

On the perspective of social network structure, the embedding means that an individual exists in a social network.^[8] The concept of "embeddedness" is widely used in the research of policy networks or social networks. For example,^[9] defined that "embeddedness" in policy networks refers to whether a policy maker or participant belongs to a policy network member or not.^[10] puts forward "loss embeddedness" to describe policy change. As the public culture PPP project includes not only financing, but also construction management and service operation, the embedding degree of partners in the PPP project related market is an important factor on the value creation mechanism of PPP project.^[11]

This study uses "market embeddedness" to measure the embeddedness of project partners in the related market network structure in public culture domain. When the market embeddedness is strong, partners are more likely to identify profitable businesses and build commercial networks in the process of implementation, which will lead to the project being more likely to adopt the market-oriented return mechanism. On the contrary, when the market embeddedness is weak, partners are less likely to identify profitable business in the process of implementation, which will make the project more likely to adopt the fiscal payment for project return mechanism.

2.2 Project Complexity

On the perspective of knowledge complexity, knowledge complexity can be expressed as the intellectual limitations for decision makers to understand relevant policy considerations.^[12] "Complexity" is widely used in public policy and management research. Based on partners' own knowledge structure, strategic behavior logic is generated including strategic complexity as individual behavior.^[13] Scholars have also made in-depth research on the complexity of strategic behaviors in PPP projects.^[14] Others also explore effective ways like communication to reduce the complexity and uncertainty of strategic behaviors in PPPs.^[15]

This study introduces "complexity" into PPP project content, with the use of "project complexity" to measure the degree of professional knowledge involved in the PPP project content. When the project complexity is high, partners are more likely to implement the contents of different disciplines separately, especially separate the construction and operation. On the contrary, when the project complexity of the is low, partners are more likely to take the contents of different stages operating together, especially to integrate the construction and operation.

Table 1 show the theoretical framework of public cultural PPP project on partnership attribute and value creation mechanism.

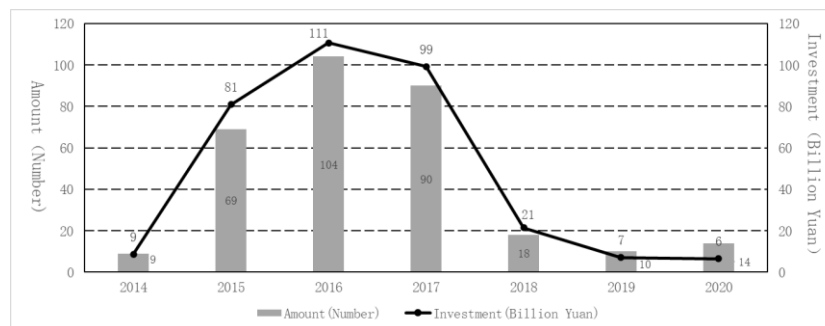
Table 1: Theoretical Framework of Public Culture PPP Project.

Partnership Attribute and Value Creation Mechanism		Project complexity	
		Low	High
Market Embeddedness	Weak	Construction and operation integration based on fiscal support (COI-FS)	Construction and operation separation based on fiscal support (COS-FS)
	Strong	Construction and operation integration based on expected cash flow (COI-ECF)	Construction and operation separation based on expected cash flow (COS-ECF)

3 Data and Method

3.1 Data Description of China’s Public Culture PPP Projects

The cases were selected from the MOF PPP data labeling as public culture domain. According to the MOF PPP data, China’s public culture PPP project has experienced twists and turns. **Figure 1** shows the number and amount of public culture PPP projects launched each year during 2014 - 2020. From 2014 to 2016, the number and amount of public culture PPP projects launched showed a steady growth, which reached a historical peak in 2016, with 104 projects initiated and an investment amount of 110.6 billion yuan. However, the number and amount of PPP projects initiated during 2017 - 2020 declined year by year, with the largest decline in 2017-2018. The amount of PPP projects initiated in 2018 decreased by 78% period-on-period.



Note: The author made it by themselves.

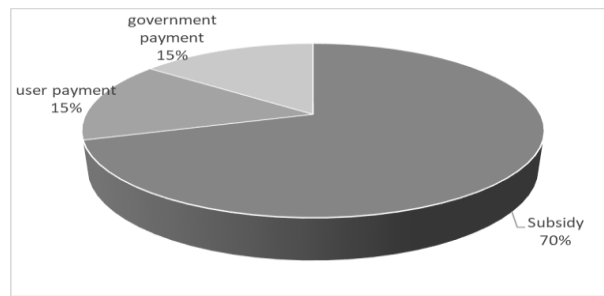
Figure 1: Number and amount of public culture PPP projects launched per year (2014 - 2020)

Table 2 shows the number and proportion of public culture PPP projects with different investment amounts. Among them, the number of projects with 100-500 million yuan accounted for the highest proportion, accounting for 37.9%, followed by the number of projects with 0.5-1 billion yuan, accounting for 28.98%. Compared with other domains, the average amount of public culture PPP projects is small, which is 1.065 billion yuan according to data during 2014 - 2020.

Table 2: Distribution of public culture PPP projects with different investment amounts.

Investment amount	< 100 million yuan	1-500 million yuan	0.5-1 billion yuan	> = 1 billion yuan
Number	24	119	91	80
Proportion	7.64%	37.90%	28.98%	25.48%

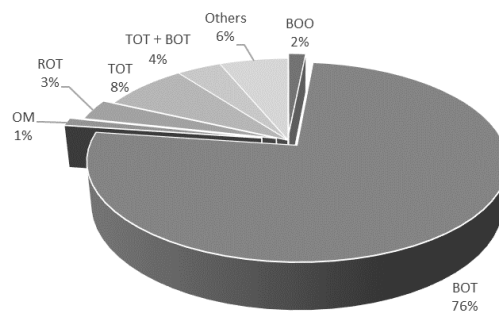
Figure 2 shows the proportion of public culture PPP projects with different reward modes. Among them, 70% of them is paid by financial subsidy and users both, 15% of them is paid by pure government and 15% by pure users. The policy encourages public culture PPP projects to adopt the reward mode of user payment. In fact, 85% of the projects include user payment. However, as most cultural facilities are newly built, government payment or subsidy is the way that public culture PPP projects can be accepted by investors as partners.



Note: The author made it by themselves.

Figure 2: Proportion of public culture PPP projects with different reward modes.

Figure 3 shows the proportion of public culture PPP projects with different operation modes. BOT is still the main operation mode, accounting for 76%. TOT, ROT, BOO, and other modes account for 8%, 3%, 2%, and 6% respectively. The operation mode of public culture PPP projects is like that of other domains, which helps to learn the experience of PPP projects from other more developed domains. Meanwhile, it shows investment of public culture PPP projects in China is still mainly used for new public facility constructions.



Note: The author made it by themselves.

Figure 3: Proportion of public culture PPP projects with different operation modes

3.2 Comparative Case Study Design and Case Selection

This study examines the theoretical framework of value creation of public culture PPP projects through comparative case study.^[1] Case selected obeying “theoretical duplication”.^[16] According to four different PPP project to test the linkage between partnership attribute and value creation mechanism.^[2] Follow the “most similar cases” principle. In order to achieve accurate causality test, this study aims to achieve the expected research purpose by consciously controlling the differences of various interfering variables between cases. Hence, all the cases selected have been included in the MOF PPP data and demonstration projects which were initiated in the same year of 2016. (3) Follow the “reflexivity” principle.^[16] The data collected are all official and secondary materials, without any internal materials or interview records. As people may consciously or unconsciously exaggerate their influence during interview survey, secondary materials help to ensure all the prior knowledge in these materials has been tested by public opinion, which enhance study reliable.

The selected cases are all signed ones with 59 projects in China. We statistically analyze the partners and contents of them.^[1] Partners are divided into builders (counting for 69%) and operators (counting for 31%). Builders are rich in financial strength and construction experience. They can not only obtain funds through loans from commercial banks, but also choose high-quality operators through contract outsourcing, so their partner attributes are strong market embeddedness. In contrast, operators are mostly service providers in specific fields, such as equipment suppliers, cultural service providers, cultural and sports operators. Their registered capital is far less than that of builders, and their experience in facilities construction and management is relatively lacking, so their partner attributes are weak market embeddedness.^[2] Contents are divided into single items (counting for 76%) and industry clusters (counting for 24%). Single items also called cultural venues are mainly urban museums, libraries, exhibition halls, science, and technology museums, cultural and sports centers and theaters. This kind of project venue construction content is relatively standardized, the management boundary is clear, and the operation service content is also clear. The content attribute is low project complexity. In contrast, the industry clusters also called cultural industrial park is more complicated, which includes many sub-projects, including not only the core cultural facilities and resources construction, but also the supporting facilities construction such as roads, water and electricity, parking lots and other pure public facilities and some profitable facilities construction such as catering and accommodation. The content attribute is high project complexity.

The case information screened according to the research design principles and case cooperation attributes is shown in [Table 3](#).

Table 3: Descriptive statistics of public culture PPP project cases.

Mechanism	Selected case	Region	Partner	Content
COI-FS	Ninghai County Cultural Complex	Zhejiang	Operating service provider	Cultural venue
COI-ECF	Linquan Citizen Center	Anhui	Building contractor	Cultural venue
COS-FS	Jianshui County Protection and Restoration of ancient city	Yunnan	Operating service provider	Cultural industrial park
COS-ECF	Gaomi city Moon Bay Cultural Park	Shandong	Building contractor	Cultural industrial park

4 Case Analysis and Discussion

4.1 Case 1: Ninghai County Cultural Complex PPP project in Zhejiang Province

In 2016, Ninghai County Development and Reform Bureau initiated the project. Ninghai County Cultural Development Co., Ltd. was appointed as the government representative to give angel capital to the project. The project is located in the downtown area of Ninghai, with the estimated investment of 770 million yuan in BOT mode. The special purpose vehicle (SPV) set up for the project has the responsible for design, construction, operation, and maintenance, and handing over after the franchise expires. The assets involved in the public service part of this project are provided by the SPV in the form of zero-rent lease, and the period is consistent with the contract period of the PPP project. The project combines the government's high credit and the high efficiency of private capital management, to link the market allocation of resources, financing cost reduction, and fully construction efficiency. This project was rated as demonstration projects of the MOF, which was also the only selected cultural PPP demonstration project in Zhejiang Province.

The project partner is a private enterprise consortium led by Zhejiang Dafeng Industrial Co., Ltd. and joined by Shenzhen Ju Orange Network Technology Co., Ltd. The consortium won the bid through competitive negotiation. Therefore, the partner attribute of this case belongs to the type of low market embeddedness. The project mainly focuses on cultural business, including the Grand Theatre, Cultural Center, Cinema, etc., with a total construction area of about 35,240 square meters. The construction is completed in 2021. The content attribute is low project complexity. The value creation mechanism of this case is Construction and Operation Integration based on Fiscal Support (COI-FS).

4.2 Case 2: Linquan County Citizen Center PPP project in Anhui Province

In 2016, the project was initiated by the Linquan County Housing and Urban-Rural Development Bureau. How to integrate the cultural and historical resources of Linquan County and provide a place for citizens to enrich their cultural life was a problem Linquan County faced before the project initiated. This project innovates the investment

and financing system, and aims to improve the performance of public service provision. This project was rated as the third batch of demonstration projects of the MOF.

The project partner is the private construction contractor Jiangxi Zhaohui Urban Construction Engineering Co., Ltd., which is a joint venture with local investor representative Gaomi Moon Bay Cultural Tourism Development Co., Ltd. Therefore, the partner attribute belongs to the type of high market embeddedness. The content of this project is the maintenance of project facilities, including the custody and maintenance of the four halls and one center of the civic center, the ancillary public facilities (water supply and drainage, etc.), the supporting facilities (central garden, etc.) and property management services, as well as the project operation, including the opening of cultural and leisure venues, property management of public venues, minor repairs during the operation period and restorative overhaul before handover, etc. Hence, the content attribute is low project complexity. The value creation mechanism of this project is Construction and Operation Integration based on Expected Cash Flow (COI-ECF).

4.3 Case 3: Jianshui County Protection and Restoration of ancient city PPP project in Yunnan Province

In 2016, the project was initiated by Jianshui County Government of Honghe Hani and Yi Autonomous Prefecture. The investment amount of this project is 3,357 billion yuan, and the BOT mode is adopted to authorize private enterprises to franchise for 30 years. Through PPP mode, the project will promote the prosperity of the cultural tourism market in Zhujia Garden Scenic Spot and provide supporting facilities. By introducing social capital, the short-term construction expenditure can be converted into long term payment, which alleviates the local financial pressure. Moreover, this project will help to improve the efficiency of Zhujia Garden tourism scenic spot construction, operation, and management, through reducing the life cycle cost and improving the income on the premise of ensuring the service quality. This project was rated as the second batch of demonstration projects of the MOF.

The project partner is a private consortium led by Maitreya Urban and Rural Construction and Installation Co., Ltd., and joined by Kunming Yifeng Tourism Partnership (Limited Partnership), Suzhou Garden Development Co., Ltd., Yunnan World Expo Investment Co., Ltd., and Kunming Yifeng Tourism Partnership (Limited Partnership). The consortium includes five enterprises, which implies the led investor lacking of market resources. Hence, the partner attribute belongs to the type of low market embeddedness. The construction contents of the project include Zhujia Garden, Chongzheng Academy, Chenghuang Temple and Sizhitang, which specifically include the restoration of cultural relics and restoration. Protect, repair, restore, and transform abovementioned public facilities including construction and decoration of tourist reception center, business district, parking lot, etc. Hence, the content attribute is high project complexity. The value creation mechanism of this project is construction and operation separation based on fiscal support (COS-FS).

4.4 Case 4: Gaomi city Moon Bay Cultural Park PPP project in Shandong Province

In 2016, the project was initiated and implemented by Weifang Gaomi city Cultural Management Committee. The project, also known as Mo Yan Cultural Center, is a theme park focusing on the achievements of Mo Yan. Mo Yan is the first Nobel Prize winner of Chinese in literature. The popularity and social attention of the project are very high. The project is located in Mo Yan's hometown of Gaomi city, with a total planned design area of 58,102 square meters and a total investment of 480 million yuan. This project aims to improve public cultural service and highlight the city's cultural characteristics. It will become a window to show high-density culture and a new cultural landmark. The whole process including project identification, project establishment, social capital selection, bidding, and other aspects, which were carried out in strict accordance with relevant national norms and guidelines. This project is also the third demonstration projects of the MOF.

The project partner is Zhaohui Urban Construction Group. The whole group attaches great importance to this project, and Jiangxi Zhaohui Urban Construction Engineering Co., Ltd., a subsidiary of the group, holds 90% of the shares of Gaomi Moon Bay Cultural Tourism Development Co., Ltd. (i.e. the SPV). Zhaohui not only regards this project as a construction project, but also an honor for investment. They hold high respect for Mo Yan, invest the best resources and strength in the construction and operation with a professional and efficient working attitude, and build this project into a business window of Shandong and a spiritual hall of China relating to world-class construction. Hence, the partner attribute belongs to the type of high market embeddedness. The cooperation content of this project is Moon Bay Cultural Park, which includes a series of cultural venues and sculpture parks. After the completion of the construction, while ensuring that the functions of public welfare undertakings can be brought into full play to meet the cultural needs of the masses, the industrial income will be generated by holding academic exchanges, seminars, exhibitions of literary and artistic works, professional lectures, training courses and venue leasing to ensure the operation of venues. The content attribute is of high project complexity type. The value creation mechanism of the project is Construction and Operation Separation based on Expected Cash Flow (COS-ECF).

5 CONCLUSIONS

This study focuses on the value creation mechanism of public culture PPP projects by putting forward two key factors “market embeddedness” and “project complexity” to form four types of value creation contexts. This study selects the cases among the demonstration projects of the MOF to test four different value creation mechanisms. **Table 4** shows the main research conclusions.

Table 4: Summarizaes of value creation mechanism in public culture PPP project.

Mechanisms	Partner	Content	Financing	Building	Operation
COI-FS	Builder lead	Single item	Fiscal support	Considering operation	Integrated
COI-ECF	Builder lead	Single item	Cash flow support	Considering operation	Integrated
COS-FS	Operator lead	Industry cluster	Fiscal support	Phased construction	Separated
COS-ECF	Operator lead	Industry cluster	Cash flow support	Phased construction	Separated

There are five implications for the practice in public culture PPP projects.(1) The reform and opening-up has rapidly cultivated the market and capacity of public service, especially the construction management capacity of construction contractors. However, after the completion of public facilities, the service operation capacity develops relatively slowly. Hence, operators are weak in market embeddings comparing to builders.(2) Similar to the economic infrastructure, the construction of public facilities is still the main investment in public culture. Hence, many cultural venues or industrial parks are in the context of no clear market return mode when initiated.(3) The financing for public culture PPP projects based on both strong fiscal support and project cash flow support.(4) As operation of public culture projects is very complicated, operation content in PPP projects includes two types: separation of construction and operation, integration of construction and operation.(5) The operation mode is the key to the successful public culture PPP projects. It should consider the efficiency and fairness in service supply and facilities operation, and have reasonable financial returns. Therefore, it is recommended to strengthen the public demand research in the project plan stage.

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