

Article

Does PPP Matter to Sustainable Tourism Development? An Analysis of the Spatial Effect of the Tourism PPP Policy in China

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Abstract: Funding and efficiency have always been important factors that restrict the sustainable development of tourism in developing countries. The PPP (Public Private Partnership) is an innovative model for addressing the above problems and is popular in the sustainable development of tourism around the world. The performance evaluation of tourism PPP is a key step towards promoting the PPP policy and sustainable development. In particular, the analysis of spatial effects that are easily overlooked will help to improve the measure of PPP performance. Based on tourism PPP projects in the PPP database of the Ministry of Finance in China, **this paper analyses the spatial patterns and development characteristics of tourism PPP, identifies and measures the impact factors of tourism PPP by virtue of the GeoDetector method**, and analyzes the function of PPP in tourism development and governance. The research shows that there are significant spatial disparities in the tourism PPP projects. Although tourism PPP is the result of interactions between multiple factors, what plays a critical role is the financial factor. PPP acts as a policy driver in tourism development in China. It corrects spatial mismatch between tourism resources and factors, eliminates space barriers and promotes the realization of spatial justice of tourism development. This study not only contributes to the improvement of China's PPP policy, but also has implications for PPP policies in other developing countries.

Keywords: tourism sustainable development; policy evaluation; spatial effect; PPP (Public Private Partnership)

1. Introduction

The tourism industry is a strategic pillar industry of the national economy. According to China's 13th Five-Year Plan for the Development of the Tourism Industry, the overall contribution of the tourism industry to China's national economy was 10.8% in 2015 (http://www.gov.cn/zhengce/content/2016-12/26/content_5152993.htm). The tourism industry plays an important role in promoting social and economic development, facilitating industrial transformation and upgrade, increasing employment and household income, and improving the quality of life [1,2]. According to the 13th Five-Year Plan for the Development of the Tourism Industry, the total investment in tourism should reach RMB 2 trillion

(\$318 billion) during the 13th Five-Year Plan period. In contrast to the enormous demand, the supply of the tourism industry faces huge factor gaps, especially in relation to funding and experienced professionals. It is important and urgent to introduce the PPP (Public Private Partnership) to attract private capital into tourism development, ease the government's financial pressure and accelerate the development of the tourism industry.

PPP, which is an innovation model under the impact of new public management (NPM) in infrastructure and public service, provides advantages of filling the funding gap of local governments, sharing risks rationally, improving efficiency, promoting institutional reforms, and boosting economic development [3]. To mitigate the debt risks of local governments and promote private capital development, Chinese governments have issued dozens of policies to encourage PPP development, and consequently a PPP fever has developed since 2014 [4]. Since 2014, the application of PPP has covered 19 sectors including energy, transportation, education, municipal works and tourism. In contrast to other fields such as water supply and sewage treatment and transportation, tourism PPP has just emerged in recent years.

It is very difficult to conduct a substantial evaluation of the implementation effectiveness of the PPP in these early stages. Therefore, the current PPP policy evaluation mainly focuses on the ex-post evaluation of theoretical analyses and case studies [5–7]. There is a major flaw in existing research whereby the spatial characteristics and spatial effects of PPP policy and projects have been ignored. Tourism resources, both natural resources or cultural resources, are fixed in location. In the context of globalization and industrial agglomeration, both population and capital flows have obvious directivity and spatial characteristics. Therefore, the sustainable development of tourism resources has a problem of matching resources with development factors. In practice, due to the constraints of conditions, there are usually mismatches. Does the PPP have an effect on the spatial distribution and flow of the elements? In other words, does PPP help to promote the sustainable development of tourism resources through the spatial re-matching of resources and factors? This is the question that this article tries to answer, and it is also the research hypothesis of this article. Based on the data of China's tourism PPP projects, this paper emphasizes the spatial analysis of PPP projects, explores the function of PPP as a bridge between resources and factors especially the capital market, and improves the policy analysis and evaluation of PPP from a spatial effect perspective.

This paper consists of six parts. Section 2 reviews the literature on the development of PPP and its use as a tool in tourism governance. Section 3 introduces the data sources and method adopted in the research. Section 4 analyzes the spatial patterns and impact factors of PPP projects in China. Section 5 discusses and analyzes the research results in detail. Section 6 presents the policy implications and suggestions.

2. PPP Development and Tourism Governance

The definition of PPP is a difficult puzzle worldwide [8]. In general, including this article, there is a tendency for PPP to be regarded as a general concept including BOT (Build-Operate-Transfer), TOT (Transfer-Operate-Transfer), PFI (Private Finance Initiative) and other contract types [9–11]. Hodge and Greve (2016) indicated that PPP as a phenomenon covers five meanings including project, delivery method, policy, governance tool, and cultural context [12]. In terms of its use as a governance tool, since the birth of PPP, its meaning and efficiency have been targets of research [13]. In response to the hot topic of PPP, a large number of empirical studies have been carried out throughout the world, for example, whether PPP is really as good as the advocates claim it is [14,15], whether it has achieved value for money and whether it has promoted urbanization and economic development [16,17]. Some studies suggest that PPP has achieved its purpose [18], and some studies believe that PPP is a scam or financial black holes [19,20]. This diametrically opposed research result not only failed to solve the problem but also created even more confusion.

PPP has a development history of decades in China and has had many development booms [21]. Unfortunately, prior to 2014, PPP application in the tourism industry was almost totally ignored in

China. In sharp contrast, tourism PPP has been widely used in many countries over the last two decades, such as Europe, Africa, and Southeast Asia, and has accumulated a wealth of experience [22–26]. Beginning in 2014, the Chinese government vigorously promoted PPP for infrastructure and public service delivery, including in the tourism industry. The emergence of PPP policy in tourism is not a whim or a policy mutation, but an inevitable result of the evolution of tourism policy under the influence of political, economic, institutional, and culture factors in China [27,28]. PPP in tourism is not only a way of delivering tourism projects, but also an important policy for transforming tourism governance and sustainable development under the influence of neoliberalism and new public management movement [29]. As an innovative governance tool, PPP has changed the traditional government dominant governance model and transformed into a decentralized network governance regime based on the cooperation between stakeholders including the government, private sector and civil society [30–32]. However, while the tourism industry responds to the PPP policy, it should seriously consider whether the standard PPP model is appropriate for the characteristics of the tourism industry [29].

The development of tourism resources is an integrated process that is influenced by various factors such as the economy, society, potential customers, and the local governments [33]. However, regional differences and impact degrees and the processes of the various factors are still a “black box” that requires exploration. In the tourism investment field, there are spatial mismatches between tourism resources and market factors such as professional developer and capital [34]. The mismatch between supply and demand seriously affects the sustainable development of tourism resources [35].

It can be assumed that PPP facilitates the reorganization and rematching of cross-regional factors by virtue of the cooperation between markets and governments, thereby reducing the spatial disparities of tourism investment and expertise and promoting the development of tourism resources. However, the assumption of spatial adjustment and reconstruction of the tourism industry through the PPP model requires further verification.

3. Method and Data

3.1. Data Sources

There are currently three official databases related to PPP in China, namely, the PPI database (Private Participation in Infrastructure Database) of the World Bank (<http://ppi.worldbank.org/>), the PPP project database of the NDRC (National Development and Reform Commission) (<http://tzs.ndrc.gov.cn/zttp/PPPxmkk/xmk/>) and the PPP Project database of the MoF (Ministry of Finance) (<http://www.cpppc.org:8086/pppcentral/map/toPPPMapEng.do>). The PPI database has a broader definition of PPP than the official documents of the Chinese government. In addition, the World Bank denies PPP projects with state-owned enterprises as the investors while state-owned enterprises serve as the major investors of PPP in China and account for more than 50% of the total number. Therefore, this paper does not adopt the PPI database. The PPP databases of the NDRC and MoF were built after 2015. In May 2015, NDRC established the first PPP project database at the state level and announced 1043 projects that involved a total investment of RMB 1.97 trillion. However, the PPP project database of NDRC lacks dynamic updates and fails to track project implementation. MoF requires PPP projects paid for by the government budget must be put into its project database and the basic information of the PPP project must be disclosed. The PPP project database of MoF is updated over time, thereby including rich and dynamic information. As a consequence, this research uses the PPP project database of MoF as the source. As of 31 December 2016, the PPP project database of MoF had 11,260 projects with an investment of RMB 13.5 trillion, covering 19 sectors including tourism, municipal works, transportation and environmental protection. Among them, there are 655 tourism PPP projects, which are the main research data used in this article. The other research data such as impact factors come from websites of the National Bureau of Statistics and National Tourism Administration.

3.2. Research Method

Considering the imbalanced spatial distribution of tourism PPP projects, this research adopted the GeoDetector method (<http://www.geodetector.org>) to measure and analyze the spatial disparities and impact factors of tourism PPP projects. The GeoDetector method is a spatial statistical analysis method developed by Professor Wang Jinfeng of the Institute of Geographic Sciences and Natural Resources Research. GeoDetector is a statistical method for detecting spatial heterogeneity and revealing driving mechanisms. GeoDetector explores the consistency of the spatial distribution between independent variables and dependent variables on the basis of spatial heterogeneity and is mainly used to analyze impact factors of phenomena and interactions between factors [36]. GeoDetector is a novel tool for the exploratory analysis of spatial data, it has been widely applied to regional economy, population geography, planning, archeology and urbanization [37–40].

GeoDetector is suitable for detecting numerical data and qualitative data and can be used to analyze the driving forces, influencing factors and multi-factor interactions of various phenomena [36]. Given the advantages of GeoDetector, this study used it to carry out the analysis of impact factors of PPP policy on the basis of identifying the spatial distribution characteristics of tourism PPP projects.

GeoDetector consists of four parts: the factor detector, interaction detector, risk detector and ecological detector. According to the research aim, this article only adopts the factor detector and interaction detector.

The factor detector mainly explores the explanation power of the independent variable X for the dependent variable Y . Its formula is as follows:

$$q = 1 - \frac{\sum_{h=1}^L N_h \sigma_h^2}{N \sigma^2} \quad (1)$$

In the formula, q ($q \in [0,1]$) is the explanation power of a certain impact factor and the core variable of GeoDetector, that is, X explains $100 \times q\%$ of Y ; N is the total number of samples in the research area; and σ^2 is the variance of the indicator. q represents the explanation power of the impact factors on the spatial disparity between tourism PPP projects and reflects the spatial disparity degree. The greater the q value is, the stronger explanation power X will have on for Y .

The interaction detector identifies whether impact factors work separately or interactively. It calculates the q values of X_1 and X_2 for Y separately, computes the value during the interaction of X_1 and X_2 , and makes comparisons between $q(X_1)$, $q(X_2)$ and $q(X_1 \cap X_2)$.

The risk detector is based on the t -test and judges whether the attribute means of two sub-regions have significant differences.

The ecological detector is mainly used to compare the impacts of different independent variables on dependent variables and is measured by F statistics.

3.3. Selection of Impact Factors of Tourism PPP

Since tourism PPP has dual characteristics of PPP and the tourism industry, this paper proceeds from tourism and PPP to identify factors influencing the spatial distribution of tourism PPP projects.

In terms of PPP, the Asian Development Bank argues that governments participate in PPP to attract private capital investment, improve efficiency, make efficient use of available resources and promote reforms in relevant industries through the reallocation of functions, incentives and responsibilities [9]. The Australian government has shown that PPP is mainly introduced to improve service quality, reduce costs, use public and private skills, knowledge and resources, increase public service supply, exert integrated advantages, enhance efficiency, reinforce cost-effectiveness, and provide value for money [41]. According to Hwang et al. (2013), the attractiveness of PPP is influenced by seven positive factors and seven negative factors. The positive factors are sorted in order of importance as better value for money, risk improvement, promotion of innovative and cost-effective solutions,

better quality and service, project cost sharing, introduction of private capital and professional skills, and optimized allocation of resources [42]. Chan et al., (2009) identified five driving factors of PPP: reasonable risk sharing, cost savings and value for money, quality and service improvement, public expenditure reduction and economic development promotion [43]. In China, the major driving forces for the development of PPP include covering financial gaps, improving efficiency and quality, accelerating infrastructure construction, boosting economic development and promoting institutional reforms [44]. Therefore, this research selects GDP, fiscal revenue, fiscal expenditure, fixed assets investment and urbanization rate as the impact factors of PPP on the development and spatial distribution of tourism PPP.

In terms of tourism, research has shown significant spatial disparities in tourism development in China and revealed that the disparities are mainly the result of interactions between multiple factors [45]. Although the composition and impact mechanisms of impact factors are controversial, impact factors generally include tourism resource endowment, geographic conditions, infrastructure, service facilities, and the economic development level [46–50]. Tourism PPP is essentially a supply-side reform and a market-oriented supply mode of tourism products and services. Tourism PPP, which includes infrastructure and service facilities, is mainly free from the influences of domestic and international tourists. On these bases, this paper selected the tourism resource evaluation index (competitiveness), tourism revenue and tourist number as the impact factors of the tourism industry on the development and spatial distribution of tourism PPP.

This research analyzes the impacts of eight factors on the spatial disparity of tourism PPP and corresponding impact mechanisms. The eight impact factors, namely GDP, fiscal revenue, fiscal expenditure, investment in fixed assets, urbanization rate, tourism resource evaluation index (competitiveness), tourism revenue and tourist number, correspond to X_1 , X_2 , X_3 , X_4 , X_5 , X_6 , X_7 and X_8 respectively and the dependent variable is the number of tourism PPP projects in each province. The value of the tourism resource evaluation index (competitiveness) is determined on the basis of the research of Zhang Guanghai and Wang Jia (2013): a study on the evaluation of tourism resource competitiveness and the development mode, during which provincial (municipal or prefectural) scoring systems for tourism resource competitiveness were established in accordance with the empowerment scores for comprehensive, humanistic and natural resources [51]. The remaining indexes come from statistics yearbooks. The PPP project database of MoF includes projects conducted after 2012. Considering the time lag and data availability, all of the factors (excluding tourism resource evaluation index) are panel data between 2010 and 2015. Since the independent variables of GeoDetector are type variables, the impact factors in this research are discretized, clustered, and divided into five categories using the Hierarchical Cluster of IBM SPSS statistics 19 software.

4. Results

4.1. Spatial Pattern and Development Characteristics of Tourism PPP Projects

4.1.1. Spatial Distribution

According to the analysis of tourism PPP projects included in the PPP Project database of the MoF before 31 December 2016, both the project quantity and investment amount have significant spatial disparities at the provincial administrative level (see Figures 1 and 2). Tourism PPP projects are mainly concentrated in the Central and Western provinces, and Shandong Province in the eastern region. Shandong province, as an exception to the Eastern region, has a large number of tourism PPP projects not because Shandong's tourism resources are particularly rich, but because the local governments pay more attention to the PPP model compared to other Eastern provinces. By the end of 2016, Shandong Province had acquired 1087 PPP projects, ranking second in the country, while no tourism PPP projects were found in Tianjin, Jilin, Shanghai or Tibet. There were 137 tourism PPP projects that involved a total investment amount of RMB 184.9 billion (\$29.4 billion) in the Eastern regions, indicating that the average investment in each project was RMB 1.3 billion (\$207 million).

In central regions, there were 108 tourism PPP projects that involved a total investment amount of RMB 115.7 billion (\$18.4 billion), indicating that the average investment in each project was RMB 1 billion (\$159 million). In the meantime, there were 410 tourism PPP projects that involved a total investment amount of RMB 383.8 billion (\$61 billion) in the Western regions, indicating that the average investment in each project was RMB 0.9 billion (\$143 million). Overall, the average investment in single tourism PPP project in the Eastern regions was larger than that in the Central and Western regions. Based on the disparities in tourism resources, it is reasonable to assume that the Eastern regions attach greater importance to the development and driving effects of major projects in tourism investment.

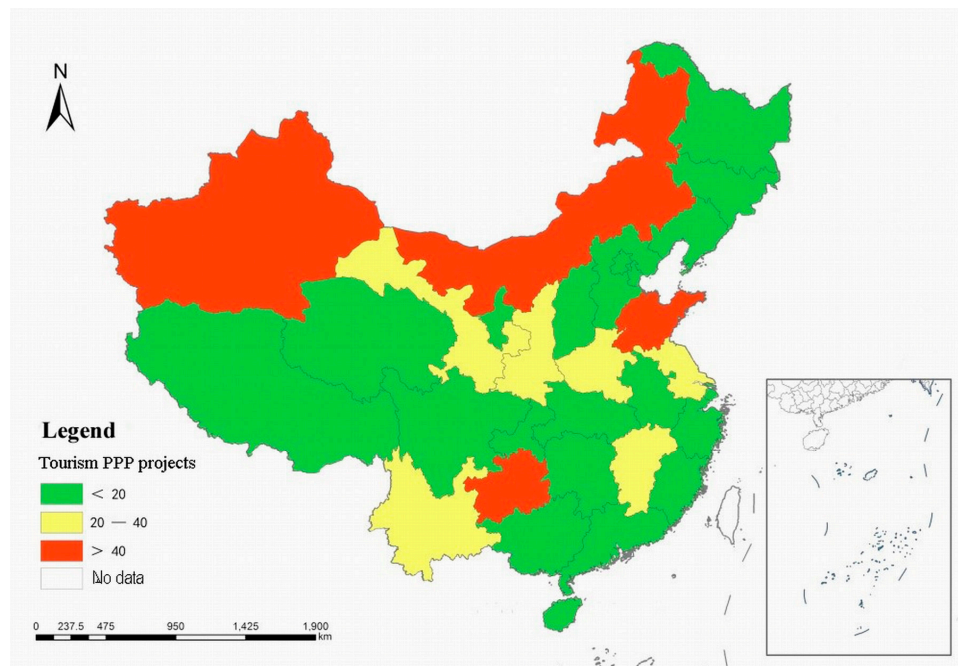


Figure 1. Spatial distribution of tourism PPP projects.

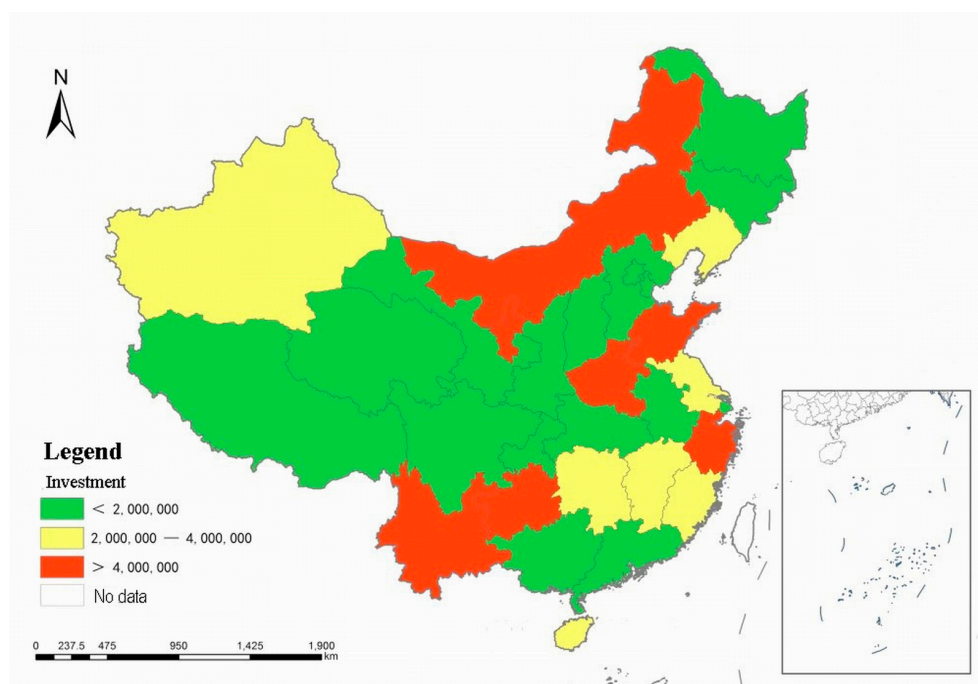


Figure 2. Investment distribution of tourism PPP projects.

4.1.2. Amount of Investment

According to the figure, the 655 tourism PPP projects have involved a total investment of RMB 712.6 billion (\$113 billion), an average investment in each project of RMB 1.08 billion (\$172 million) and a median of RMB 0.45 billion (\$72 million). The project with the largest investment amount was the Yinchuan Silk Road International Tourism Expo (RMB 50 billion, \$8 billion) and that with the smallest investment amount was the Chaoyin Pavilion Project in Fuquan City of Guizhou (RMB 3 million, \$477,760). In addition, there are significant spatial disparities in the average investment in each province (Figure 3). Ningxia, Hainan, and Zhejiang rank in the top three. Generally, as the initial cost of PPP projects is relatively fixed, the low project investment will result in a low-cost performance. Therefore, some countries have set investment thresholds for PPP projects. For example, the threshold in Australia is 50 million Australian dollars. Although there is no state-level limit of PPP project investment in China, it is recommended that investment thresholds are established out of the consideration of tourism PPP project feasibility.

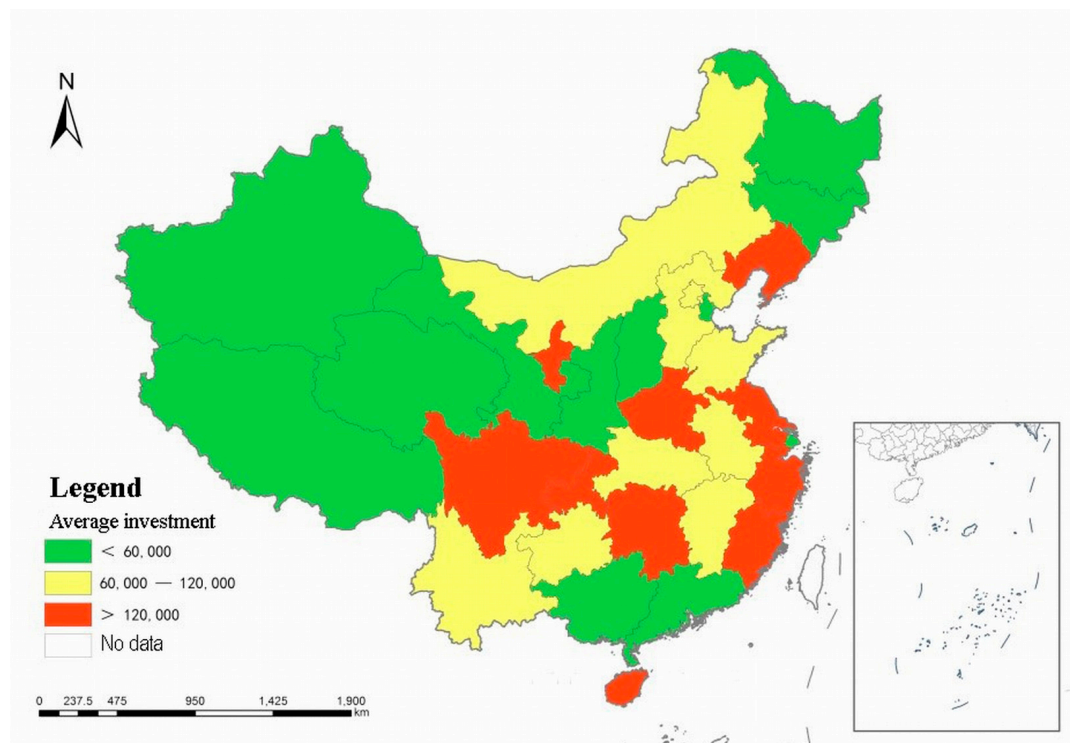


Figure 3. Average investment distribution of tourism PPP.

4.1.3. Contract Type

The PPP guideline of MoF divides PPP into six contract types including BOT, BOO (build-own-operate), TOT, ROT (rehabilitate-operate-transfer), OM (Operations and Maintenance) and MC (Management Contract). There have been 459 BOT projects (including two BOT + TOT projects), accounting for 70% of all tourism PPP projects in the PPP project database of MoF (Figure 4), thereby occupying a dominant status. BOT is a concession model that authorizes private capital to construct, finance, and operate infrastructure through long-term concession contract, which not only retain the ownership of government for the assets, but also gives high proactivity and incentives to the private sector [52]. BOT model is the most popular model of PPP and has a long application history and a wide application scope both in the developed country and developing country because it integrated the advantages of the public sector and private sector.

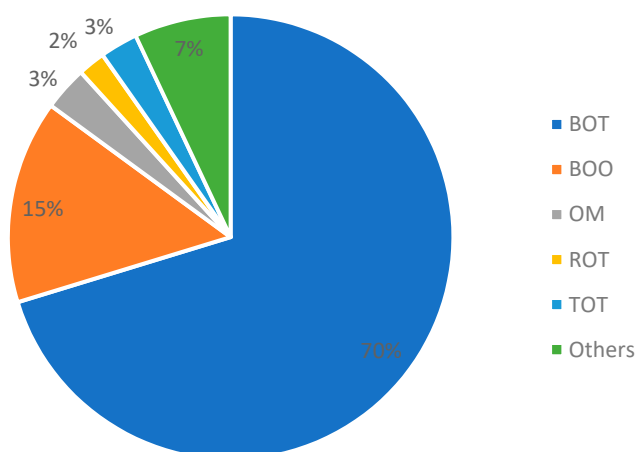


Figure 4. Contract type of tourism PPP projects.

4.1.4. Revenue Mechanism

According to the policy documents of MoF, current PPP revenue mechanisms mainly consist of user charge, government payment and viability gap funding. The user charge means that public products and services are directly purchased by consumers. Government payment means that governments directly pay for public products and services. Governments can make payments to suppliers in accordance with the feasibility of a project's implementation, and the amount and quality of products or services. Viability gap funding means that governments give subsidies to cover income gaps when project revenues fail to realize cost recovery and a reasonable return. Tourism PPP projects adopting the user charge model account for 64.7% of all projects (Figure 5), with the second most popular model being viability gap funding, this is mainly attributed to the property characteristics of tourism. Tourism projects (excluding independent tourism infrastructure projects, such as roads and hydroelectricity)—both tourist attractions and tourist towns—have income sources. Due to the influences of planning, operation, marketing and other factors, however, revenue disparities may occur. In other words, the revenues of some projects are enough to cover the costs and obtain a reasonable return, while those of some projects fail to cover the costs. As a result, it is necessary to formulate revenue mechanisms that involve excess benefit sharing and minimum traffic guarantee in accordance with specific project geneses and environments.

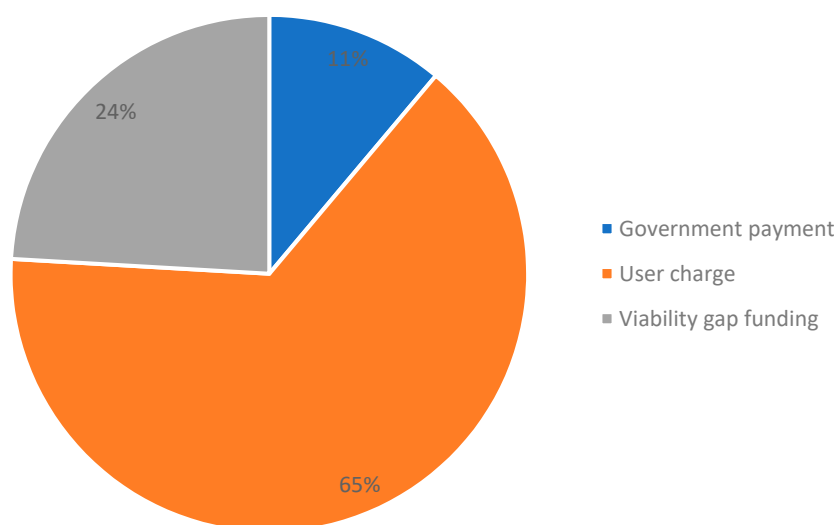


Figure 5. Payment mechanism of tourism PPP projects.

4.1.5. Concession Period

Although there is no specific required PPP concession period (with a maximum of 99 years) internationally, the concession periods stipulated by various states range from 10 to 30 years. Since projects with concession periods of 10 to 30 years account for 95% (Figure 6) of all tourism PPP projects in the PPP project database, most of the tourist PPP projects conform to the standards stipulated by the state. In terms of the high growth of tourism projects, a long concession period facilitates the success of a PPP project.

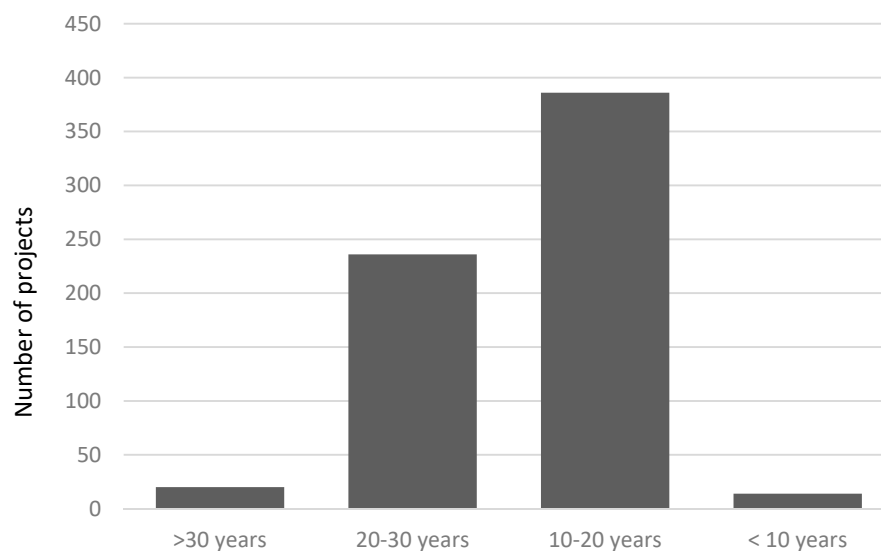


Figure 6. Cooperation period of tourism PPP projects.

4.2. Impact Measurement of Tourism PPP Projects

This research employed the factor detector and interaction detector of GeoDetector to analyze the factors influencing the spatial distribution of tourism PPP projects in China, with an aim of preliminarily revealing the impact mechanisms on the spatial distribution of tourism PPP in China.

4.2.1. Factor Detector

The results of the factor detector analysis are shown in Figure 7. The impact factors are sorted in order of explanation power as X_3 Fiscal Expenditure > X_4 Investment in Fixed Assets > X_2 Fiscal Revenue > X_5 Urbanization Rate > X_1 GDP > X_8 Tourist Number > X_6 Tourism Resource Competitiveness > X_7 Tourism Income. The impact factors of the tourism industry rank in the bottom three, which indicate that the spatial distribution of tourism PPP projects is mainly influenced by PPP. To a certain extent, it is reputed that the tourism characteristics of tourism PPP are not significant or pertinent enough. Currently, tourism PPP projects are mostly launched to promote the PPP model, rather than to develop the tourism industry. As far as single impact factors are concerned, the top three factors (fiscal expenditure, investment in fixed assets and fiscal revenue) are more influential than other factors, indicating that the coverage of financial gaps for fixed asset investments is the major driving force for tourism PPP.

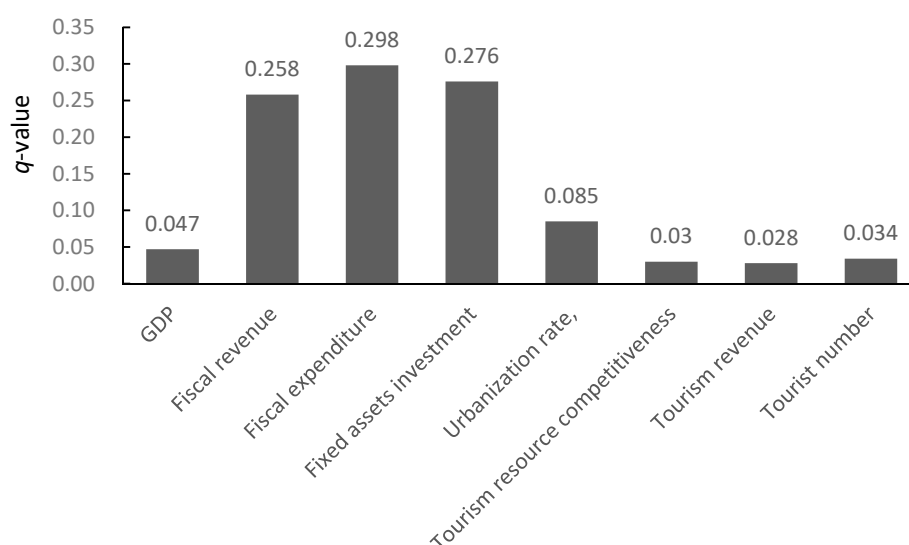


Figure 7. Explanation power of impact factors.

4.2.2. Interaction Detector

The interaction detector is mainly used to identify interactions between different impact factor, namely, it is used to evaluate whether the two factors working together will increase or decrease the explanatory power of the dependent variable. The results are show in Table 1 and indicate that the explanation power of impact factors for the spatial disparity of tourism PPP significantly strengthens after interactions and far exceeds that of the single impact factor. For example, the q -value (representing explanation power) of X_1 GDP is 0.047 and that of X_2 fiscal revenue is 0.258, while the q -value of the interaction between X_1 and X_2 ($X_1 \cap X_2$) is $0.648 > X_1$ 0.047 $> X_2$ 0.258. The rest can be seen in the same manner. That is to say, tourism PPP projects are affected by all impact factors.

Table 1. Interact results for the impact factors.

	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8
X_1	0.047							
X_2	0.648	0.258						
X_3	0.377	0.728	0.298					
X_4	0.755	0.773	0.883	0.276				
X_5	0.186	0.665	0.618	0.760	0.085			
X_6	0.291	0.889	0.406	0.787	0.312	0.030		
X_7	0.168	0.806	0.477	0.331	0.189	0.195	0.028	
X_8	0.215	0.423	0.529	0.758	0.279	0.157	0.090	0.034

(Note: X_1 GDP; X_2 Fiscal Revenue; X_3 Fiscal Expenditure; X_4 Investment in Fixed Assets; X_5 Urbanization Rate; X_6 Tourism Resource Competitiveness; X_7 Tourism Income; X_8 Tourist Number).

5. Discussion

How important is PPP to the development of China's tourism industry? It is too early to draw conclusions at present. Although PPP has a history of more than 30 years in China [21], it has only been in recent years that PPP has been applied to the tourism industry. Despite the total investment amount of RMB 712.6 billion (\$109.7 billion), the investment in PPP projects that have accomplished procurement is merely RMB 39.9 billion (\$6.1 billion). In 2015 alone, China realized a tourism investment of RMB 1007.2 billion (\$154.9 billion). There is still much room for the development of tourism PPP.

Although PPP is expected to become the important policy and tool for promoting tourism governance innovations and sustainable development, the research results and existing practices of tourism PPP show that the main driver of the local government to adopt the PPP model in the tourism

industry is to address the funding gap, reduce public debt and improve efficiency. The reason for the deviation from expectations may partly lie in the lack of capacity and preference of local governments, and partly lie in the constraints of the political and economic environment.

High quality tourism resources, especially natural tourism resources in China, are mostly concentrated in Central and Western China where transportation is inconvenient and the economy is undeveloped. The constraints of geographical factors and resulting economic underdevelopment have seriously affected tourism investment and tourism development [45]. In addition, it is the government that has the ultimate control over tourism resources in China. In the traditional model, local governments establish state-owned enterprises to be responsible for tourism project financing, construction, and operation. Due to the lack of funds and technical specialists, the development of tourism resources seriously lags behind and the efficiency remains low [53]. Although corporate operations are partially entrusted and outsourced in market-oriented reforms, the results have been unsatisfactory. The operation and management systems of state-owned enterprises are defective in respect to management efficiency, professional operations, and financing channels. Government failure is particularly prominent. Considering the non-profit nature of tourism products, excessive market orientation of market entities and market failure, it is unwise for them to be totally marketized. Therefore, PPP combines the advantages of governments and enterprises and rationally allocates the risks; therefore, it is worth trying out.

Since tourism resources have significant spatial disparities, PPP projects relying on the development of tourism resources should also be mainly influenced by the spatial distribution of resources. However, this research shows that current PPP projects are more influenced by financial factors than spatial factors, which are mainly attributed to the following reasons: firstly, tourism PPP is still in its infancy, thereby being more vulnerable to government preferences and capabilities. Secondly, tourism development in China is still driven by investment and is focused on capital. Finally, PPP plays a role in correcting the regional disparities of tourism resources. In other words, it is feasible to reallocate tourism investment by virtue of PPP, thereby reducing the spatial disparities of tourism resources and promoting the balanced development of regional tourism. Although both capital and tourism resources in China are characterized by concentration, the spatial patterns differ greatly. China's capital is mainly concentrated in Eastern China cities such as Beijing and Shanghai. Taking the example of banking financial institutions in 2016 (Table 2), Eastern China is significantly larger than central and Western China and Northeast China in terms of both the number of institutions and the size of assets. In contrast, tourism resources are concentrated in Central and Western China, especially in mountain plateau regions. The excessive concentration of capital in Eastern China has caused the financial exclusion of the under-funded central and Western China [54]. Capital imbalance and information asymmetry have led to an increase in tourism financing costs in the central and Western regions, reduced efficiency, hindered development and formed an invisible space barrier. PPP acts as a bridge and attract funds from Eastern regions to central and Western regions where tourism resources are intensive, which eliminates space barriers to a certain extent and promotes the docking of capital and tourism resources. Under the influence of capital, other factors, such as professional technical personnel, and management personnel, shall move to central and Western regions. In the traditional model, governments in the central and western regions can also perform cross-regional financing. Due to the inadequate overall operation capability and unreasonable risk sharing, capital markets generally have a cautious attitude about investment and many additional conditions are proposed to the local governments in the central and Western China. In the PPP model, an experienced investor (usually a consortium) is specified to be responsible for the planning, financing, construction, and operation of tourism projects. By virtue of integration of the whole life cycle, risks are effectively transferred and efficiency is maximized, thereby enhancing the investment confidence and enthusiasm of financial institutions. As a result, tourism PPP projects in central and Western China can more easily obtain funds.

Table 2. Regional distribution of banking financial institutions in China, 2016.

	Institutions	Employees	Total Assets
Eastern China	39.7%	43.2%	57.4%
Central China	23.8%	21.5%	15.9%
Western China	27.1%	24.5%	19.3%
Northeast China	9.4%	10.8%	7.4%
Total	100%	100%	100%

Data sources: 2017 China's regional financial operation report.

In the PPP project database of the MoF, tourism PPP projects mainly include cultural tourism, eco-tourism, agricultural tourism, sightseeing tourism, and tourism infrastructure projects. From the perspective of products; however, tourism PPP can be divided into the integrated development of tourist attractions, the development of tourism infrastructure (roads, sewage treatment, etc.), and the development of new operational types of tourism (tourist towns, tourism complexes, etc.). Since the three kinds of projects differ in their characteristics, different contract types can be adopted. For example, TOT, ROT, and OM can be applied to the integrated development of tourist attractions and BOT can be introduced to the development of tourist towns. Tourism infrastructure, which belongs to the non-profit project or quasi-profit project category, can be bundled with other business projects. Tourism is a high-growth industry. With the increase of tourist flow and the diversification of consumption patterns, future revenues shall be considerable. However, this is inseparable from professional operations, which is precisely what the Chinese tourism development market lacks. The consortium of financial investors, professional tour operators, and engineering companies, which shall become mainstream, is most in line with the development needs of PPP.

6. Conclusions

The promotion of PPP in the tourism industry and the introduction of the experienced private sector through PPP are conducive to the development of the tourism industry, the alleviation of poverty, and the promotion of economic development. By empirically studying the PPP projects included in the PPP project database of the MoF, this paper identified significant spatial disparities between tourism PPP projects. Although tourism PPP is the result of interactions between multiple factors, what plays a critical role is the financing factor. Therefore, PPP acts as a bridge in the current tourism development in China and corrects spatial mismatches between tourism resources and capital markets to a certain extent. PPP introduces funds and professionals from Eastern China to central and Western China where resources are intensive and funds are insufficient, thereby promoting the development of tourism resources in central and Western China and the realization of the spatial justice of tourism.

Based on the research results, this research argues that tourism PPP should emphasize the pertinent improvement of the tourism industry from a policy perspective. Specifically, it should:

- (i) Formulate guidelines for tourism PPP development in accordance with the development characteristics of the tourism industry and the institutional requirements of PPP.
- (ii) Local governments should be encouraged to take special measures to develop local tourism PPP projects based on their own characteristics and needs.
- (iii) Adhere to the combination of normal implementation and encouraging innovations, and to stick to the combination of the effective market and active government.
- (iv) Consider the importance of tourism operations, clarify the responsibilities of governments and enterprises, and actively cultivate suitable and innovative private enterprises emerging from market competitions.
- (v) The government should achieve the benefit of the integration of the economy, society and environment in tourism development through sustainability-oriented PPP.

The sustainable tourism development is a comprehensive process that integrates economic, social and environmental dimensions. PPP has great potential as a governance tool to promote sustainable tourism development. At the current stage, the role of PPP is mainly focus on the economic sustainability based on China's experience. More specific, PPP promotes spatial equity through the redistribution of factors such as funding, talent, technology and management. That is a start but not nearly enough. PPP also play a key role in social sustainability and environmental sustainability, but its mechanism and path are still worthy of further exploration in the subsequent research.

Over the past two decades, tourism PPP has become popular in western market-led economies, and developing countries have been in a situation of neglect [55]. In recent years, China's tourism PPP exploration and implementation experience, including successful and failed policies and measures, has provided best practices and path references for other emerging market countries. According to the Chinese experience, PPP is suitable for the tourism industry with many advantages including the promotion of spatial rematching between tourism resources and factors. At the same time, it must be acknowledged that PPP is mainly a financing instrument rather than a governance tool for developing countries.

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