

# Research on the Effect of my Country's Local Government's Tourism Industry Policy under the Supply-side Structural Reform

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**Abstract**— Taking 31 provinces (municipalities and autonomous regions) in China as research units, the panel data from 2014 to 2018 was selected from the local government's tourism policy intensity, service support level, industry environment construction, transportation construction investment, and interactive project policy implementation capabilities. Study the relationship between it and the effect of implementing local government policies. The results show that there is a significant spatial positive correlation between the effect of local government policy implementation; the policy intensity, service support level, industry environment construction and transportation construction investment of local government tourism have a significant positive impact on the implementation effect of provincial government policies in China, But excessive intervention may also lead to policy failure.

**Keywords**— Tourism industry; local government behavior; spatial effect; spatial econometric model.

## I. INTRODUCTION

As China's economic development entered the "new normal" in 2014, a series of economic and social development problems have become increasingly prominent. In the context of China's supply-demand relationship facing structural imbalances, General Secretary Xi Jinping proposed a supply-side structural reform in 2015. As one of the industries with the fastest development speed and obvious international competitive advantage in China's national economy, the reform of tourism is also extremely important. According to data from the Ministry of Culture and Tourism of the People's Republic of China: total tourism revenue in 2019 reached 6.63 trillion yuan, an increase of 11.1% year-on-year; the domestic tourism market showed steady growth, of which the number of domestic tourists reached 6.006 billion, an increase of 8.4% over the same period last year, The number of inbound tourists was 145.31 million, a year-on-year increase of 2.9%. In the same year, the number of outbound tourists of Chinese domestic residents reached 155 million, an increase of 3.3% year-on-year. This shows that China's total tourism supply cannot yet meet the quantity and quality gap of China's total tourism demand. In addition, China's tourism industry still has problems such as unbalanced development and insufficient supply. Therefore, understanding the behavior and spatial effects of measures taken by local governments in the tourism industry in recent years is of great significance to further promoting the development of China's tourism industry in terms of quantity and quality.

## II. RESEARCH STATUS AT HOME AND ABROAD

As early as the 1870s, Adam Smith put forward the theory of division of labor from the perspective of the supply side. In the 1970s, some foreign scholars paid attention to the development of the tourism industry from the perspective of government behavior, including government and political investment, tourism management agencies, government

administrative systems, government policies, marketing, official attitudes, and government's attitude towards tourism. Participation in the tourism industry, investment in human resources and other aspects of research.

Domestic research on government behavior and tourism development started late. With the proposal of my country's "supply-side structural reform" in 2015, relevant research has gradually enriched. Sun Panpan sorted out foreign tourism policies, Yang Guanghui conducted research on the effectiveness, efficiency, impact and sustainability of government behaviors in rural tourism, and Fan Rongting reviewed the supply situation of Chinese tourism destinations from the perspective of supply-side reforms. Analysis and policy research. Some studies have adopted quantitative analysis, such as quantitative exploration of spatial effects, multiple regression analysis, and double difference.

Generally speaking, most of them are theoretical studies from a macro perspective, while empirical studies have yet to be enriched. Moreover, supply-side reform policies for the tourism industry have only been proposed and implemented in recent years, and the behavioral effects of measures taken by local governments need to be studied. Based on this, this article takes the government behaviors of 31 provinces and municipalities in China as the research object, and selects panel data from 2014 to 2018 for quantitative analysis, hoping to provide some reference for local governments.

## III. VARIABLE SELECTION AND DATA SOURCES

Government policies and behaviors in the tourism industry are complex, diverse and intersecting. After reviewing the literature and comprehensive consideration, the following indicators are selected for analysis.

The effect of local government policy implementation: The tourism income indicator (Y) is the most intuitive reflection of the economic development of a country's tourism industry, so the sum of domestic tourism income and tourism foreign exchange income of 31 provinces (municipalities and

autonomous regions) in my country is selected as the explanation variable.

Local government tourism policy intensity: The local government's tourism policy regulates and promotes the development of the tourism industry. Related laws and regulations regulate various social relations in the tourism industry. The construction of local tourism standards further provides a good development environment for the operation of the tourism economy. Therefore, this article selects local government policies, regulations, and standard building behavior (zc) as the measurement index, and uses cumulative statistics.

Local government tourism service support level: The number of people employed in the tourism industry (cyr) reflects the service support level of the local tourism industry. Tourism service personnel play an important role in maintaining tourism order, explaining scenic spots, providing tourism consultation, and understanding tourist feedback. Function to further optimize the tourist experience of tourists. Therefore, the sum of travel agencies, star-rated hotels and tourist attractions is selected as the number of employees in the tourism industry.

Local government tourism industry environment construction: the financial industry, catering industry, cultural industry, information service industry, etc. in the service industry are inextricably related to the development of tourism, so the added value of the tertiary industry (dscy) is used to reflect the development of tourism. The construction of the industry environment. Generally speaking, the more perfect and mature the industry development environment, the more stable the development of tourism economy will be.

Local government investment in tourism transportation construction: The traffic conditions of a place play a key role in its tourism development. For example, the construction of "one-hour metropolitan area" maximizes the convenience of transportation conditions and the sharing of tourism resources, effectively promoting The development of regional tourism economy. Therefore, this article uses local fiscal transportation expenditure (jt) to characterize the local government's support for transportation construction and reflect its efforts in transportation development.

Local government tourism policy implementation capacity: The actual implementation of local government policies will also affect its policy effects, and the financial investment in tourism directly reflects the efforts made by the local government after the policy is issued. Therefore, this article uses local fiscal expenditures on culture, sports and media to represent the fiscal expenditures of local governments in the tourism industry. The product of this and the intensity of local government tourism policies is used as a manifestation of the local government's ability to implement tourism policies (x). the study.

The data mainly comes from the "China Tourism Statistical Yearbook", "China Culture and Tourism Statistical Yearbook", "China Statistical Yearbook", the official website of the People's Bank of China (<http://www.pbc.gov.cn>), various provinces (municipalities and autonomous regions) "National Economic and Social Development Bulletin" and

statistical yearbook.

#### IV. SPATIAL EFFECT ANALYSIS

##### A. Global Spatial Effect

Moran's I is usually used to measure spatial correlation. Spatial effects not only exist in adjacent spatial units, but also in some provinces with non-adjacent boundaries. Therefore, this article establishes coordinates based on the latitude and longitude of the capital cities and municipalities of 31 provinces in my country, Use its straight-line distance to establish an inverse distance weight matrix (w). According to the calculation results of the stata software, the implementation effects of my country's local government policies from 2014 to 2018 are all significantly positively correlated at the 1% level, that is, as the spatial distribution gathers, the correlation becomes more significant.

##### B. Local Moran's I Scatter Plot

In order to further understand the spatial differences between each region and surrounding areas, we used stata software to draw a local Moran's I scatter plot of the implementation effects of my country's local government policies from 2014 to 2018, and found that most provinces are located in the first and third quadrants, Has obvious characteristics of "high high concentration" (HH type) and "low low concentration" (LL type), indicating that the regional spatial differences between provinces in these two quadrants are small.

#### V. MODEL SELECTION OF SPATIAL PANEL AND ANALYSIS OF REGRESSION RESULTS

##### A. Model Description

At present, the widely used spatial measurement models mainly include spatial autoregressive model (SAR model), spatial error model (SEM model), spatial Dubin model (SDM model) and spatial cross model (SAC model), SDM model and SAC model are shown in "(1)" and "(2)" respectively:

$$\ln Y_{it} = \alpha_i + \gamma_t + \rho w \ln Y_{it} + \beta_1 \ln zc_{it} + \beta_2 \ln cyrs_{it} + \beta_3 \ln dscy_{it} + \beta_4 \ln jt_{it} + \beta_5 \ln x_{it} + \theta_1 w \ln zc_{it} + \theta_2 w \ln cyrs_{it} + \theta_3 w \ln dscy_{it} + \theta_4 w \ln jt_{it} + \theta_5 w \ln x_{it} + \mu_{it} \quad (1)$$

$$\ln Y_{it} = \alpha_i + \gamma_t + \rho w \ln Y_{it} + \beta_1 \ln zc_{it} + \beta_2 \ln cyrs_{it} + \beta_3 \ln dscy_{it} + \beta_4 \ln jt_{it} + \beta_5 \ln x_{it} + v_{it} \quad (2)$$

$$v_{it} = \lambda w v_{it} + \mu_{it}$$

Among them, when the spatial interaction investigated by the SDM model does not exist, that is  $\theta_i=0(i=1\sim4)$  or  $\lambda=0$ , the corresponding SAR model; when the spatial interaction coefficient  $\theta_i$  and the dependent variable space in the SDM model When the lag term coefficient  $\rho$  and the regression coefficient  $\beta_i$  satisfy  $\theta_i=-\rho\beta_i$ , or when the coefficient  $\rho=0$  of the spatial lag term in the SAC model, the corresponding SEM model is.

##### B. Model Selection

In order to obtain the spatial measurement model with the best fitting effect, this article starts with the SDM model

according to Federico's order to carry out the Hossman test. The P value is 0.0031, which significantly rejects the null hypothesis, so the fixed effects model should be used. In order to further judge the fit of the model, Wald and Lratio tests were used, and the results  $\theta_1=0$  and  $\theta_1=-\rho\beta_1$  hypotheses were significantly rejected, indicating that the SAR and SEM models are not applicable. Add the error lag term to continue to choose between SAC and SDM. From the model fitting test results, it can be seen that the values of AIC and BIC both become smaller, so the SAC model is selected.

### C. Result Analysis

According to the above test results, the three effects under the SAC model were tested (Table 1), and it was found that the coefficients of the spatial interaction term in the model were all significant, but the level term of lnY under the fixed effect at the time point all had a significant impact on it, so It is believed that the fixed effect of time point is more suitable for this model.

TABLE I. Comparison of individual fixed effects, time point effects and individual time point double fixed effects of SAC model.

Model Variable	Ind	Time	Both
lnzc	0.354*** [0.0937]	0.428** [0.1323]	0.350*** [0.0978]
lnycrs	0.04 [0.1038]	0.252* [0.0999]	0.0645 [0.1082]
lnjscy	0.288* [0.1323]	0.737*** [0.0831]	0.167 [0.1817]
lnjt	-0.00801 [0.0705]	0.338*** [0.0973]	-0.0253 [0.0842]
lnx	-0.0751*** [0.0211]	-0.0942** [0.0288]	-0.0714** [0.0231]
$\rho$	0.824*** [0.0614]	0.409** [0.1569]	0.742*** [0.1275]
$\lambda$	-1.679*** [0.2857]	-1.332*** [0.3723]	-1.585*** [0.3287]
$\sigma^2$	0.0341*** [0.0033]	0.144*** [0.0167]	0.0349*** [0.0035]

Note: t-values are in parentheses, and \*\*\*, \*\*, and \* indicate 1%, 5%, and 10% significance levels respectively.

The results of the SAC model under time-point fixed effects show that all explanatory variables have passed the significance level test, and the estimated coefficients of other explanatory variables are positive except for the interaction term, which has a positive effect on my country's provincial tourism. Regardless of the influence of other factors, for every 1% increase in the intensity of local government tourism policy (zc), the government's appropriate intervention can increase the effectiveness of China's local government policy implementation by 42.76%, which also shows that China's tourism industry in recent years The supply-side structural reforms are quite effective; and every 1% increase in local government tourism service support level (ycrs) can improve the effectiveness of China's local government policy implementation by 25.24%, and tourism practitioners from all over It plays an important role, not only responding to policies and serving the government, but also serving the industry and

tourists with due diligence, supporting the development of the tourism economy of the place; the local government tourism industry environment construction (dscy) occupies a major position, and every additional 1% investment can be The 73.67% increase in tourism revenue shows the importance of a good development environment for the development of the tourism industry; for every 1% increase in local government's investment in tourism construction (jt), the effect of local government's policy implementation in China can increase by 33.78%. Convenient transportation conditions improve the comfort of tourists, and the well-connected transportation network also promotes the effective flow of tourists, thereby promoting the development of regional tourism; and the local government tourism policy intensity (zc) coefficient is positive, and the interaction term local government tourism The coefficient of industrial policy implementation capacity (x) is negative, indicating that local governments continue to implement policies through fiscal means, but will reduce their implementation effects. The phenomenon of "government failure" appears, indicating that government actions should take into account the established environment and its continuous changes and interactions. Related factors, otherwise it may bring negative impacts to the tourism industry, such as waste of resources, low economic benefits, and unfair competition.

### VI. POLICY SUGGESTION

This paper uses the panel data of 31 provinces (municipalities and autonomous regions) in China from 2014 to 2018 to carry out spatial effect analysis and spatial econometric analysis. The research found that the policy implementation effects of local governments in my country are significantly positively correlated in space, and various local governments Behaviors and policies have a significant positive impact on the development of tourism economy, but excessive government participation may also distort the effect of policies. Based on this, this article puts forward the following policy recommendations:

First, local governments should make reasonable adjustments based on actual conditions on the basis of cooperating with central policies. We will further improve laws, regulations and relevant standards for the overloaded operation of popular scenic spots, low safety factor of travel platform transactions, and malicious extortion to protect the rights and interests of tourists. Strengthen regional tourism cooperation and share the dividends of tourism economic development.

Second, adjust the enrollment plans of tourism colleges and universities in various provinces according to the supply and demand situation. As my country gradually enters the era of "smart tourism", the demand for high-quality and high-level practitioners has further increased. Future talent training should be based on smart services Focus on creating a personalized and high-quality tourism service concept.

Third, local governments should continue to improve the macro environment for industry development, increase the proportion of the tertiary industry, and further enhance the overall development level of the service industry.

Fourth, increase capital investment in transportation construction, use the Internet and Internet of Things to integrate transportation with scenic spots, hotels, and restaurants, and use transportation to drive the development of tourism. Improve the transportation network in neighboring areas, use the tourist routes of urban agglomerations to rationally divert tourists, and balance the demand relationship between tourism resources and the source market.

Fifth, in areas with a developed tourism economy, the government should focus on coordination, avoid excessive direct intervention, and adopt more indirect-guided tourism industry policies to avoid the government's own limitations, improper execution, and shortcomings. Negative effects of bit behavior.

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