

# Analysis on the inbound tourist source market in Jiangxi based on geographic concentration index and market competition status

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**Abstract:** In accordance with the related data of Statistical Yearbook of Jiangxi (2007–2016), conduct analysis on the development situation of inbound tourist source market in Jiangxi based on geographic concentration index and market competition status. The result shows: when the geographic concentration index of the inbound tourism market in Jiangxi presents an increasing decline trend, the tourism-generating countries of the inbound tourism in Jiangxi are getting more and more disperse, the tourist markets present the diversified feature and the inbound tourism market tends to be stable; besides, the analysis result of the market competition status shows that the inbound tourism development in Jiangxi has transformed from the rapid development to stable development.

## 1. Introduction

Jiangxi locates in the Southeast China and the south bank of the middle and lower reaches of the Yangtze River. Jiangxi has picturesque scenery as well as numerous tourist attractions such as the Mount Lushan and Jinggang Mountains, which attract large number of foreign tourists to visit Jiangxi for sightseeing and vacations. Since the implementation of the reform and opening-up policy, the inbound tourism in Jiangxi has ushered a good development environment, the inbound tourist arrivals and the foreign exchange earnings from international tourism have been increasing rapidly and constantly, the inbound tourist arrivals in Jiangxi increased by 212.5% from 497,000 persons in 2006 to 1,553,000 persons in 2015, the foreign exchange earnings from international tourism increased by 305% from 0.14 billion dollars in 2006 to 0.567 billion dollars in 2015. In order to comprehensively know the development situation of inbound tourism in Jiangxi, the paper selects 15 inbound tourism-generating countries including Korea, Japan, the Philippines, Indonesia, Singapore, Malaysia, Thailand, America, France, England, Germany, Italy, Russia, Canada and Australia as the research objects, based on the related data of Statistical Yearbook of Jiangxi (2007-2016), analyzes the development situation of inbound tourist source market in Jiangxi based on geographic concentration index and market competition status thus to provide basis for the scientific development of the inbound tourism in Jiangxi.

## 2. Analysis on the spacial structure of the inbound tourist source in Jiangxi

The tourism geographers adopt the geographic concentration index (G) to conduct quantitative analysis on the geographic locations of the tourists and spatial distribution thus to reflect the degree of



concentration for tourist source market distribution in tourism destinations, represent it with the mathematical formula<sup>[1]</sup>:

$$G=100 \times \sqrt{\sum_{i=1}^n \left(\frac{x_i}{T}\right)^2} \quad (1)$$

$$G_0=100 \times \sqrt{\frac{1}{n}} \quad (2)$$

G is geographic concentration index and G<sub>0</sub> is the stablest geographic concentration index. In the formula (1), X<sub>i</sub> is the tourist arrivals of the i tourism-generating country, T is the total tourist arrivals of the destination, n is the total samples of main tourism-generating countries. The smaller the value of G is and the closer it gets to G<sub>0</sub>, the more dispersed the sources of tourism-generating countries are, which is beneficial to the tourism development of the tourism destinations<sup>[2]</sup>.

Under the premise of n=15, Based on the Excel software and by aid of the formulas (1) and (2), calculate the geographic concentration index G and G<sub>0</sub> of the main tourism-generating countries of the inbound tourism in Jiangxi and draw the corresponding variation diagram of main inbound tourist source markets in Jiangxi from 2006 to 2015.( Figure 1).

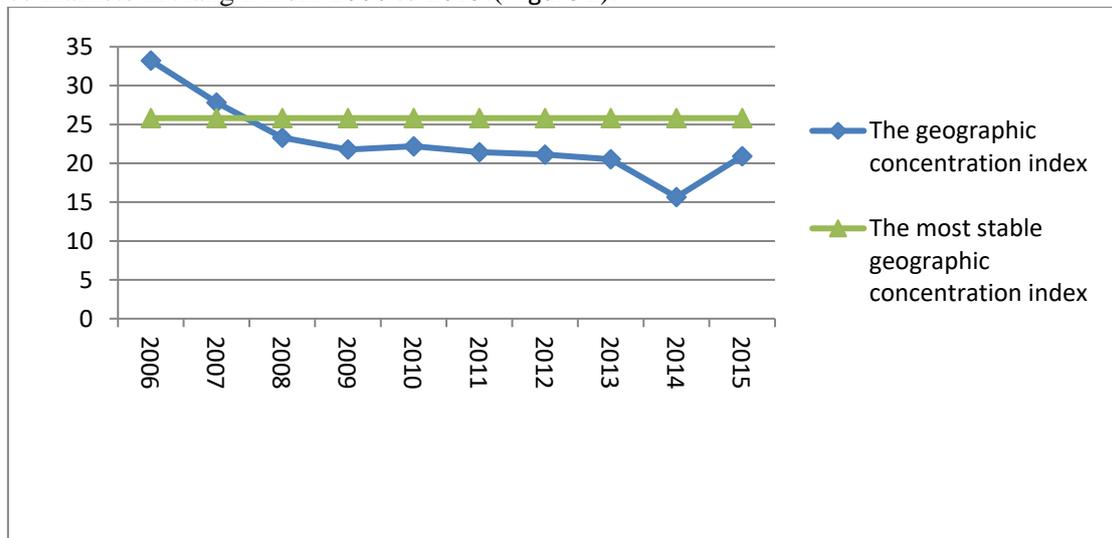


Figure 1. Variation diagram of the geographic concentration index of inbound tourist source market in Jiangxi

It can be seen from figure 1 that the geographic concentration index of inbound tourist source market in Jiangxi presented an increasing decline trend on the whole, had got close to G<sub>0</sub> since 2007 and was always around G<sub>0</sub> for operation, which showed that the sources of tourism-generating countries were getting more and more dispersed and the tourist market presented a diversified feature thus to be beneficial for the stable development of the inbound tourism market<sup>[3]</sup>.

### 3. Analysis on the market competition status change of the inbound tourist market in Jiangxi

#### 3.1. The tourism market competition status model

The Chinese tourism scholars apply the Boston matrix into the tourism market researches and establish the tourism market competition status model<sup>[4]</sup> to research the development of the tourism market, which can be presented with the following formula:

$$a_i = \frac{X_i^t}{\sum_{i=1}^n X_i^t} \times 100\% \quad (1)$$

$$\beta_i = \frac{X_i^t - X_i^{t-1}}{X_i^{t-1}} \times 100\% \quad (2)$$

$\alpha$  represents market occupancy,  $\beta$  represents the market growth rate and they combine to compose the market competition status  $\Omega(\alpha, \beta)$ , which can be used to present the tourism market competition status in the coordinate system, see figure 2. For the type and feature of the tourism market competition status, see Table 1.

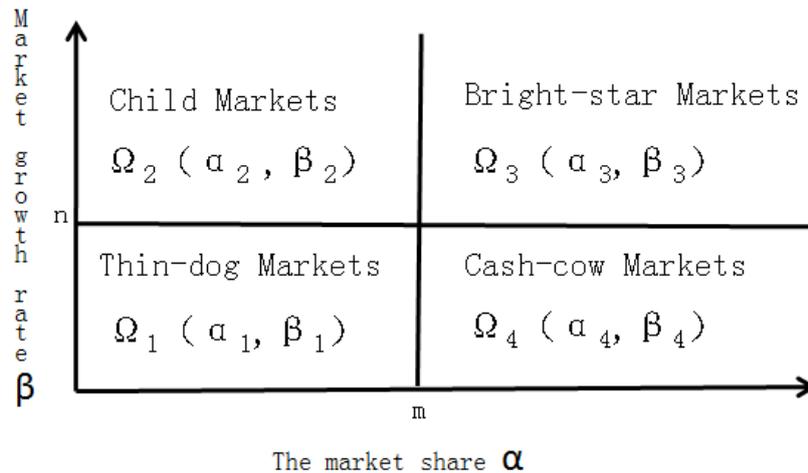


Figure 2. Market competition status schematic figure

Table 1. Basic feature and strategic orientation of the tourism market competition status

Market type	Partition criterion	Basic feature	Strategic option
Bright-star Markets	$\alpha \geq m, \beta \geq n$	The market occupancy and growth rate are high, which provides considerable chance for profit gaining and a good development prospect	Expansive strategy
Cash-cow Markets	$\alpha \geq m, \beta < n$	The market occupancy is high and the growth rate is low, which is helpful for recovering large number of cashes, but meanwhile the market tends to be saturated	Harvest-based strategy
Child Markets	$\alpha < m, \beta \geq n$	The market occupancy is low and the growth rate is high, which provides a large development potential.	Selective strategy
Thin-dog Markets	$\alpha < m, \beta < n$	The market occupancy and growth rate are low, which presents a depressed status.	Withdrawal -based strategy

### 3.2 Empirical analysis on the competition status change of the inbound tourist market in Jiangxi

In order to deeply analyze the competition status change rule of the inbound tourist market in Jiangxi, divide the competition status of the inbound tourist market in Jiangxi into two stages from 2006 to 2010 (hereinafter referred to as early stage) and from 2011 to 2015 (hereinafter referred to as later stage); determine the values of  $m$  and  $n$  based on the mean value method, divide the coordinate system into 4 quadrants, calculate the market competition status value based on the formulas (1) and (2), draw the figure 3 and 4 by aid of the Excel software and conduct empirical analysis based on the figure.

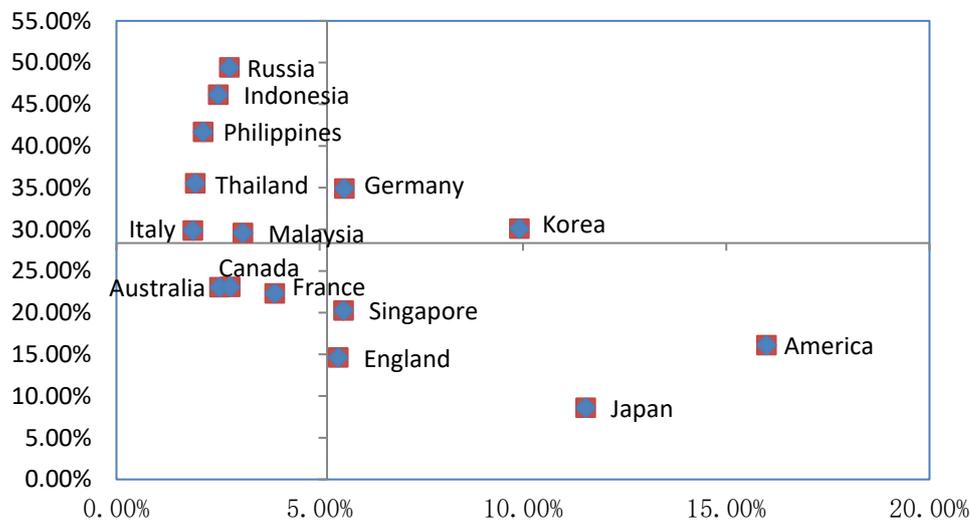


Figure 3. Competition status diagram of the main inbound tourism markets in Jiangxi from 2006 to 2010

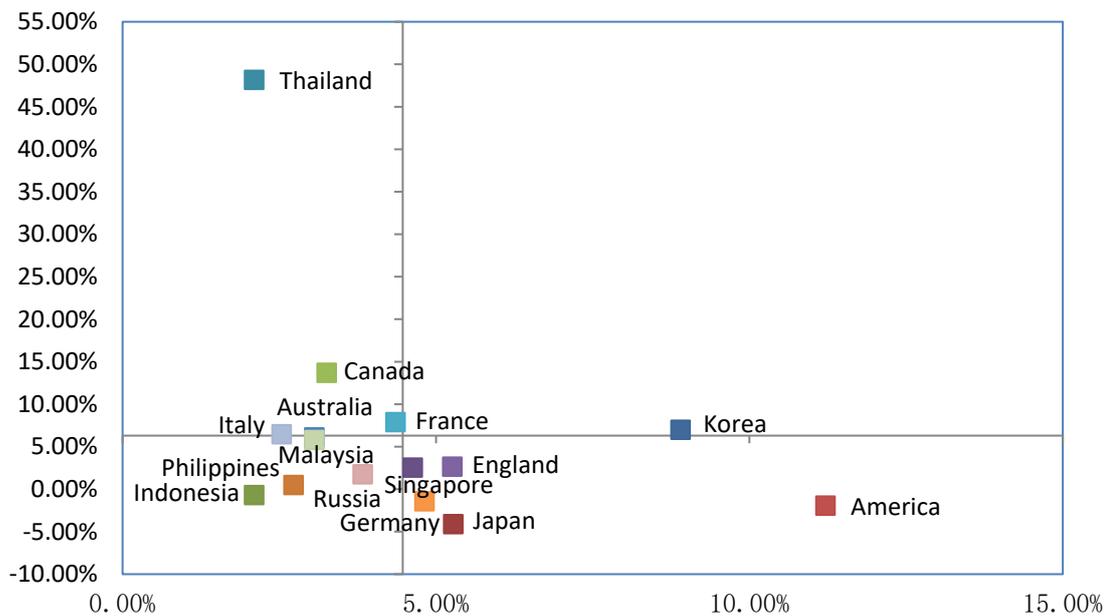


Figure 4. Competition status diagram of the main inbound tourism markets in Jiangxi from 2011 to 2015

3.2.1 The Thin-dog Markets present a trend of slight increasing

Canada and France revived to the Child Markets in later stage from the Thin-dog markets in early stage, Russia, Indonesia, the Philippines and Malaysia depressed to the Thin-dog markets in later stage from the Child markets in early stage, wherein, the Thin-dog market occupancy rate increased to 33.3% in later stage from 20% in early stage. Therefore, it is needed to pay attention to the countries facing depression and adopt corresponding marketing measures to recover the position of the Child markets.

### *3.2.2 The Child markets present a trend of slight decline*

Russia, Indonesia, the Philippines and Malaysia depressed to be the Thin-dog markets from the Child markets in early stage, Canada and France recovered to the Child markets from the Thin-dog markets in early stage, Thailand and Italy still remained to be the Child markets. Wherein, the Child market occupancy rate declined to 26.7% in later stage from 40% in early stage, which showed that the inbound tourism development of Jiangxi had transformed to be stable increasing with low speed from the rapid increasing, besides, owing to the feature of the high increasing of the Child markets, it is needed to pay attention to cultivating the Child markets thus to make more countries become the Bright-star Markets and Cash-Cow Markets.

### *3.2.3 The Bright-star Markets present a trend of slight decline*

Germany belonged to the Bright-star Market in early stage and became stable to be the Cash-Cow market in later stage, meanwhile, Korea still remained to be the Bright-star Market and declined to be 6.7% in later stage from 13.3% in early stage in the Bright-star Market occupancy rate.

### *3.2.4 The Cash-Cow markets present a trend of slight increasing*

Singapore, England, Japan and America belonged to the Cash-Cow markets in early stage and had no change in later stage, while Germany became the Cash-Cow market in later stage to make the Cash-Cow markets increase to be 5 in later stage and realize the Cash-cow market occupancy rate of 33.3%, which showed that the inbound tourist market in Jiangxi had entered the stable development stage.

## **4. Conclusion**

*4.1 The geographic concentration index of the inbound tourism market in Jiangxi presents an increase decline trend on the whole, which shows that the sources of tourism-generating countries are getting more and more dispersed and the tourist market presents a diversified feature thus to be beneficial for the stable development of the inbound tourism market.*

*4.2 The analysis result of the market competition status shows that the inbound tourism development of Jiangxi has transformed to be stable development from rapid increasing.*

## **References**

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