

2014

BioTechnology

An Indian Journal

FULL PAPER

BTAIJ, 10(8), 2014 [2910-2915]

Variance analysis on Chinese tourism food economy

Jifei Zhang, Lanlan Yi, Yanfang Liu

School of Business and Management, Hebei Normal University of Science & Technology, (CHINA)

E-mail : zjfbqhd@163.com

ABSTRACT

With the rapid development of Chinese tourism, it not only can drive the rapid growth of China's economy, but also start the title of "beautiful China" at home and abroad. But in the tourism industry, food economy plays a crucial role, it can measure the tourism quality of a scenic spot, an area and a country, and it is also the important manifestation of stable tourism economy. This paper analyzed the Chinese tourism food economy, expounded the current situation and countermeasure of Chinese tourism food safety management, explored the food economy from the region and food species, and analyzed the differences, so as to seek the better development in the future tourism food economy.

KEYWORDS

food economy; food safety management; variance analysis; green food



INTRODUCTION

After 30 years of development, tourism industry has become the most dynamic and potential new industry in China's tertiary industry. The development of tourism industry can drive the rapid development of service industry, lengthen the tourism industry chain and optimize the industrial structure^[1]. Among them, food economy is the main assistance to promote the tourism economy development. As the old saying goes: "Hunger breeds discontentment", in today's highly developed tourism, the food promotion has become the necessary method to publicize the tourism and culture. Under the support of the local government, many large scenic spots publicize the food culture vigorously, after all, the food seizes tourist's stomach, and then it will seize the heart of visitors.

In this trend, many experts and scholars have made a lot of researches, in order to promote the development of Chinese tourism food economy correctly. Zhu Xiaoyan, Hunan Normal University, in the article Research on Development of Green Food Economy in China^[2], combined with the market research of Hunan green food economy, then analyzed the current situation and existed problem of green food economy development, and proposed the relevant measures to promote the green food economy development. Wang Zhigang and Huang Shengnan, in the article Development Trends of New Food Economy and Its Influence on Food Industry^[3], pointed out the direction of future new food economy, so as to promote the food industry to get the high-tech, high-quality and high efficiency development. Zhou Guanghai, in the article Problems and Countermeasures of Food Safety Management of Rural Tourism^[4], researched how to solve the food safety issues, so as to promote the brand building of rural tourism food and accelerate the healthy development of rural tourism. This paper aimed to protect the healthy and rapid development of the food economy, and analyze the regional differences and food species differences of China travel food economy, so as to make great contribution in the future food economy development.

CURRENT SITUATION AND COUNTERMEASURE OF CHINA TRAVEL FOOD SAFETY MANAGEMENT

With the rapid development of the tourism industry, the tourist facilities have improved a lot, and a number of regulations have been introduced. At the same time, the great progress in travel food safety management has improved. For example, the National Tourism Administration drafted Travel Public Emergency Contingency Plans, Beijing drafted Food Safety Management Regulations of Beijing Rural Folk Tourism Household, and Chengdu drafted Chengdu Farmhouse Food Hygiene Knowledge Handbook^[7]. The food and drug supervision authorities, health sector, tourism sector and business sector all strengthened the food safety supervision in tourist areas (spots). Especially the introduction of People's Republic of China Food Safety Law in 2009 also strengthened the security efforts. In short, the overall situation of tourism food safety will go well in the future.

However, in the good condition, there are also many tourist food poisoning cases caused by the food safety issues. Therefore, we still need to do the preventive measures against the unforeseen circumstances, in order to kill these problems in the cradle. Food safety is a systematic project; the establishment of following five systems can protect the quality and safety of tourism food effectively, as shown in the TABLE 1:

TABLE 1 : The systematic tables of food safety guarantee

system	Main content
We need to eliminate the source and establish the safety system of agricultural products	In order to eliminate the food quality and safety problems, we need to manage the source of agricultural sector strictly, reduce the pesticide residues, prevent the biochemical hormone from the plants and animals, and establish the safety system of agricultural products.
We need to process carefully and establish the food safety traceability system	Food safety problem may occur in the processing technology, improper storage, and inappropriate cooking methods, such as over-fried, over-puffed. These processes will produce some harmful substances, and then cause the food safety problem. Therefore, we can apply the food safety traceability system to curb the spread of problem food.
We need to enforce the law strictly and establish the relevant standard regulation system	We need to enforce "food safety law" strictly, and examine the catering units around the tourist attractions. If the restaurants want to do business, they need the hygienic license, health certificate and food hygiene training certificate. The unauthorized business will be investigated and punished.
We need to publicize widely and establish the full participation system	We need to take advantage of various opportunities to educate tourism professionals with health law and regulations, and organize the personnel training regularly for improving the safety awareness.
We need to insist the people-oriented principle and establish the effective emergency treatment system	We can develop the viable contingency plan. Each tourist units have their own food safety emergency plans, and strengthen the construction of the decision-making and command system, the construction of support system for emergency detection technology, the construction of emergency team and material guarantee system. They also need to establish the assistance system and mechanism to deal with the sudden food safety incidents for guiding the emergency work.

VARIANCE ANALYSIS ON FOOD ECONOMY FIELD

Consumption Difference of Food Types

In the tourism consumption, food consumption occupies the important revenue and expenditure. Visitors can choose the various food types based on their hobbies. Therefore, there exist the obvious economic differences in the food type consumption. Now, we can apply the recent variety of food consumption condition in Shanghai to explore the variance analysis on food economy field caused by food types.

TABLE 2 : The consumption condition of various food

Years Percentage Types	Grains	Grease	Meat, poultry and their manufactural products	Eggs	Aquatic products	Vegetables	Sugar and condiments	Alcohol, tobacco and beverage	Dried fruits	Milk and milk products	Pastries and other foods	Health products
2006	17.56	4.13	23.57	3.94	6.83	10.75	2.70	8.79	7.49	1.78	3.33	9.13
2007	15.02	3.64	23.66	3.79	7.26	10.50	2.68	9.43	7.69	2.13	3.70	10.51
2008	14.59	3.91	22.38	3.48	7.39	10.22	2.70	9.61	7.53	2.49	3.88	11.82
2009	13.79	3.82	21.14	3.39	7.45	10.07	2.71	9.84	7.93	2.91	3.98	12.96
2010	12.13	3.39	21.00	2.89	7.33	9.82	2.76	10.42	7.73	3.50	4.28	14.74
2011	11.81	2.92	20.53	2.82	7.55	9.65	2.76	10.31	7.74	3.98	4.29	15.64
2012	10.33	2.84	20.03	2.60	7.47	9.40	2.58	9.92	8.41	4.61	4.57	18.25
2013	10.82	3.29	19.44	2.52	6.57	9.47	2.37	9.50	8.13	4.89	4.42	19.72

From the above table, we can see, in the economic proportion of food consumption, meat and food occupied a large proportion, but the proportion has decreased year by year. In contrast, the consumption proportion of other foods increased gradually, among them, the health product proportion increased rapidly.

Geographic Differences of Food Economy

Each place has its own culture and heritage tourist attractions, along with the differences; the food culture also has its characteristics, which can form the economic differences of various areas. In order to describe the economic development level of tourism food and regional differences of development spread, we need to solve the following two questions: partition area and selective measure index. At present, in the academia studies of our country, the region can be divided based on the following methods: we can divide the eastern, central and western region according to “Seventh Five-Year Plan”. The eastern region includes Beijing, Tianjin, Hebei, Liaoning, Shanghai, Jiangsu, Zhejiang, Fujian, Shandong, Guangdong, Guangxi, Hainan. The central region includes Shanxi, Inner Mongolia, central Jilin, Heilongjiang, Anhui, Jiangxi, Henan, Hubei, and Hunan. The western region includes Chongqing, Sichuan, Guizhou, Yunnan, Tibet, Shaanxi, Gansu, Ningxia, Qinghai, Xinjiang^[5]. The absolute difference and relative difference can reflect the selective measure index of regional economic difference degree. Now, we can collect the foreign exchange data of food consumption in China’s inbound tourism. The specific data is shown in the below table:

TABLE 3 : Variance analysis on foreign exchange earnings of Tourism food consumption in China’s three regions

Years Indicators	Central and eastern region			Eastern and western region			Central and western region		
	Average value (Million USD)	Standard deviation (Million USD)	Coefficient of variation	Average value (Million USD)	Standard deviation (Million USD)	Coefficient of variation	Average value (Million USD)	Standard deviation (Million USD)	Coefficient of variation
2004	3841	4770	1.242	3890	4700	1.208	517	70	0.135
2005	4368	5291	1.211	4424	5211	1.178	683	80	0.117
2006	4788	5608	1.171	4803	5587	1.163	837	21	0.025
2007	4941	5910	1.196	4999	5829	1.166	819	81	0.099
2008	6587	7841	1.186	6632	7750	1.169	1107	63	0.057
2009	7346	8546	1.163	7333	8565	1.168	1289	19	0.015
2010	8523	9871	1.158	8494	9912	1.167	1514	41	0.027
2011	9745	11494	1.179	9705	11550	1.190	1578	56	0.036
2012	11869	13814	1.164	11755	13976	1.189	1986	161	0.081

From the development degree, we can know that, in China’s three regions, the absolute difference of the economic development degree in inbound tourist food has expanded, among them, the maximum expand magnitude of absolute difference were in the central provinces. In recent years, the relative difference in national inters- provinces and eastern provinces have narrowed, while the relative difference in central and western provinces has small change. Between the three regions, the absolute difference of economic development degree in inbound tourist food in eastern and central region, eastern and western region has expanded year by year; the relative difference of economic development degree in tourist food economy in central and western region has decreased. For the relative difference, in the central and western region, the relative difference of economic development degree in inbound tourist food reduced significantly, while in the central and eastern region, eastern and western region, the relative difference of the economic development degree in inbound tourist food changed slowly. For the development degree, in China’s three regions, the absolute difference of economic development degree in inbound tourist food reduced on the whole, the relative difference had slow decline. The growth rate of absolute difference and decline rate of relative rate in western provinces was higher than the central and western region. Among the three regions, the central development speed was faster than western region; the eastern development speed was behind the central and western region. And the relative difference between the eastern region and central and western region has expanded gradually.

THE ECONOMIC DEVELOPMENT OF GREEN FOOD

The food economy can promote the tourism development, but ecological environment are more important. Therefore, under the tide of coordination ecology and food economy, the green food appeared. The green food consumption is the combined products of social development and natural environment. Consumption conflicts have become acute increasingly. The new food consumption pattern formed based on the traditional food consumption method^[6], the green food began to grow rapidly in the worldwide in the 1980s and 1990s. Green food consumption is a new food consumption pattern, it is conducive to promoting the consumption culture, protecting human health and life safety, promoting the transformation of economic growth mode and building the harmonious society, promoting the development of China's tourist food economy and the protection the tourist attraction.

The development of green food economy depends on the rising of the green food and green food industry. Green food follows the sustainable development principle, and produces in the specific production mode. And green food can get the green food symbol from the specialized institution, and then people can get the non-polluting, safe, quality and nutritious food^[8]. Green food does not refer to the green color food, and the green foods need to possess all the following conditions (1) the producing areas of products or product materials need to accord with the environmental quality standards of green food; (2) the crop planting, animal feeding, aquaculture and food processing need to accord with the production operating rules of green food; (3) the products need to accord with the green food quality and health standards; (4) the product packaging needs to accord with the common standard for national food labeling. The green food industry should be supported on the strong capital and strong scientific technology, based on the raw material supply base of good ecological protection, and the effective supervision is also needed. In China, the green food conception was introduced in the 1990s. After nearly 20 years development, the green food has become a new industry from a conception. The government and society has invested large amounts of funds to form a series of green technology, and build the green food production base, which is matching with the green food production and processing enterprises. In recent years, the number of green food enterprises and green food products has increased, the green food market has formed, and the legislation and regulation of green food has changed gradually. Therefore, the green food has become an industry in China, and become a powerful guarantee to support the green economy development.

CONCLUSION

As the pillar of China tourism industry, food economy has attracted more and more attention. Now, the food economy is the counterpart of the tourism. In this paper, we expounded the importance of food safety management, analyzed the economic consumption difference of food types and distribution regions, so as to explain the development condition of food economy in China, consolidate its status and promote the green food development. It can promote the harmonious development of tourist food economy and environmental protection, which is important to establish the correct development conception for the tourism marketing. It can also improve the industrial structure in tourism, increase the food economy control and improve the economic differences caused by the food types and food regions, in order to promote the economic development of China's tourism industry.

REFERENCES

- [1] Zhang Lingyun, Li Nao, Liu Min; On the Basic Concept of Smarter Tourism and Its Theoretical System. *Tourism Tribune*, **27(5)**, 66-73 (2012).
- [2] Zhu Xiaoyan; Research on Development of Green Food Economy in China. Changsha, Hunan Normal University, 11 (2010).
- [3] Wang Zhigang, Huang Shengnan, Zeng Yilan; Development Trends of New Food Economy and Its Influence on Food Industry. *Chinese Food and Nutrition*, **18(9)**, 5-7 (2012).

- [4] Zhou Guanghai; Problems and Countermeasures of Food Safety Management of Rural Tourism. *Food and Machinery*, **11**, **29(6)**, 79-88 (2013).
- [5] Holler Churchman, Gundy Thorvaldsen, Lars Barnstorm, Martin Gerzabek, Olaf; Andre Fundamentals of Organic Agriculture - Past and Present Organic Crop Production - Ambitions and Limitations, 13-37 (2010).
- [6] Renee Shaw Hughner, Pierre McDonagh; Who are organic food consumers? A compilation and review of why people purchase organic food. *Journal of consumer behavior, Journal of Consumer Behaviour*, (3-6), 94-11 (2007).
- [7] Zhang Manlin, Wang Hui; Supervision Mechanism of Food Safety in Tourist Attractions. *Journal of Beijing Agricultural College*, **1**, 64-66 (2013).
- [8] Wang Yunhao; Development Status and Development Strategy of China Green Food. *Chinese Journal of Agricultural Resources and Regional Planning*, 6, **32(3)**, 8-13 (2011).