



## EFFECTS OF THE DEVELOPMENT OF TOURISM IN WUYI MOUNTAIN SCENIC SPOT ON LOCAL TEA INDUSTRY AND THEIR CORRELATION

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### ABSTRACT

The rapidly developing Chinese tourism which has increasingly larger influence has significantly motivated the development of other industries. Tea industrial chain includes planting, processing, packaging, transportation, sales and brand marketing. The development of tourism can produce influence on tea industrial chain. There are a lot of successful cases of tea tourism in China; however, few researches concern about the influence of tourism on tea industry. The deep understanding of the effect of tourism on tea industry is of great significance to the tea industry in the areas which focus on tea tourism. On account of this, we analyzed the influence of tourism on tea industry in the perspective of industry chain and industry integration, taking the future direction of improvement of tea industry in Wuyi Mountain as an example. This work aims to further promote the development of tea industry and the optimization of industrial structure based on the influence of tourism on tea industry. Based on theoretical analysis model which is constructed with influence indexes, we discussed over the effect of tourism in Wuyi Mountain which is a typical case of tea tourism on tea industry in perspectives of planting, processing, sales and new operating mode.

### 1. Introduction

Currently, tourism has been one of the strongest and largest industries in global economy (Ksenija and Andreas, 2009). The rapid development of tourism is in demand of more tourism products. People begin to be unsatisfied with the single and rough travelling pattern, but hope to require more knowledge about foreign history, life, culture, production, folk custom and art (Tsang, 2011; Lucock et al., 2013). China, the country of origin of tea, has rich tea cultural accumulation. Tea tourism which is a case of the primary industry extending and penetrating to the third industry is a reformation and improvement on traditional tea industry and is a new form of modern tea industry. The exploitation and development of tourism can motivate the

development of tea industry, tea cultural products, scenic spots, local economy and tea tourism consumption centered on cultural tourism, which is beneficial to stimulate tea consumption and tea market and promote the development of Chinese tea industry (Xiao and Jolliffe, 2007; Qian, 2008; Qiao, 2011).

Foreign researchers launch researches concerning the effect of tourism mainly in perspectives of the economic effect, social cultural effect and ecological environment effect of tourism. For instance, Minkyung Park et al. (Park and Stokowski, 2009) studied rural tourist destination based on the theory of social disruption. Takamitsu et al. (2011) studied from the perspective of the attitude of local people in tourist area on the changes of social culture caused by tourism. Researches on the

economic effect of tourism are few in China; and their content mainly concentrates on analysis of economic effect of tourism, the economic effect brought by tourism, evaluation of regional economic performance and the correlation between tourism and economy. Based on the above condition, this study systematically analyzed the tourism related factors influencing tea industry, applied tourism influence related theories into the practice, constructed a structural model of the effect of tourism on tea industry and finally proposed some suggestions for the development of tea industry and tourist products, the perfection of tourism infrastructure and the improvement of tourism service quality, which can guide the development of tea and tourism of Wuyi Mountain city.

## 2. Materials and methods

### 2.1. Promotion of core competitiveness of Wuyi rock tea industry

#### 2.1.1 Promotion of tea cultural construction project

Wuyi rock tea possessing rich tea culture resources occupies a very important position in the history of Chinese tea and even tea in the world. However, tea culture of Wuyi rock tea has not been fully excavated and used for a long time due to the development concept of focusing on tea only, instead of emphasizing tea culture. Therefore, Wuyi rock tea industry has to promote the tea cultural construction and improve the core competitiveness by making full use of unique cultural charm of Wuyi rock tea, thereby promoting the sustainable development of tea industry. Propaganda is an essential means in the tea culture promotion. The rapid development of tourist industry in Wuyi Mountain scenic spot precisely provides an effective way for popularizing tea culture.

#### 2.1.2. Enhancement of brand cultivation

Although numerous Wuyi rock tea brands have been created, there are few well-known brands, thus brand effect is unable to be

formed. Consequently, in the face of an increasingly competitive tea market, joint efforts of government and enterprises are required so as to build Wuyi rock tea brands and improve core competitiveness of Wuyi rock tea industry. An increasing number of tourists coming to tourist area provide an opportunity to improve core competitiveness.

#### 2.1.3. Perfection of learning system

The lack of a sound leaning system in enterprises in Wuyi rock tea industry and strong learning atmosphere results in low overall technical ability of Wuyi rock tea industry. Hence, it is very necessary to perfect leaning system of Wuyi rock tea industry and create a sound learning atmosphere, thereby improving core competitiveness of Wuyi rock tea industry. The most important thing in the promotion of learning system is to give hope to enterprises and employees and the development of local tourist industry just has such an effect.

#### 2.1.4. Optimization of industrial structure

Some problems still exist in the industrial structure of Wuyi rock tea. For example, quite a number of tea gardens in the city are low-yielding and aged; most of tea processing production enterprises and factories in the whole city are equipped with old-fashioned and backward facilities and have small family workshops. Hence, to improve core competitiveness of Wuyi rock tea industry, its industrial structure must be optimized and adjusted. The development of tourist industry in Wuyishan City introduces a lot of money in the local and provides a financial support for the transformation and development of tea industry.

## 2.2. Construction of conceptual model on tourist and tea industries

### 2.2.1. Constitution of tourist and tea industrial chains

#### (1) Constitution of tea industrial chain

Modern tea industrial chain mainly consists of 4 basic links of tea planting, processing,

circulation and consumption (Dutta et al., 2010). Tea set, ware, packaging, culture, exhibition, creativity, show, food and derived new forms of tea industry are involved in the 4

links. They are related to each other and directly or indirectly correlated with other industries. Figure 1 below shows tea industrial chain.

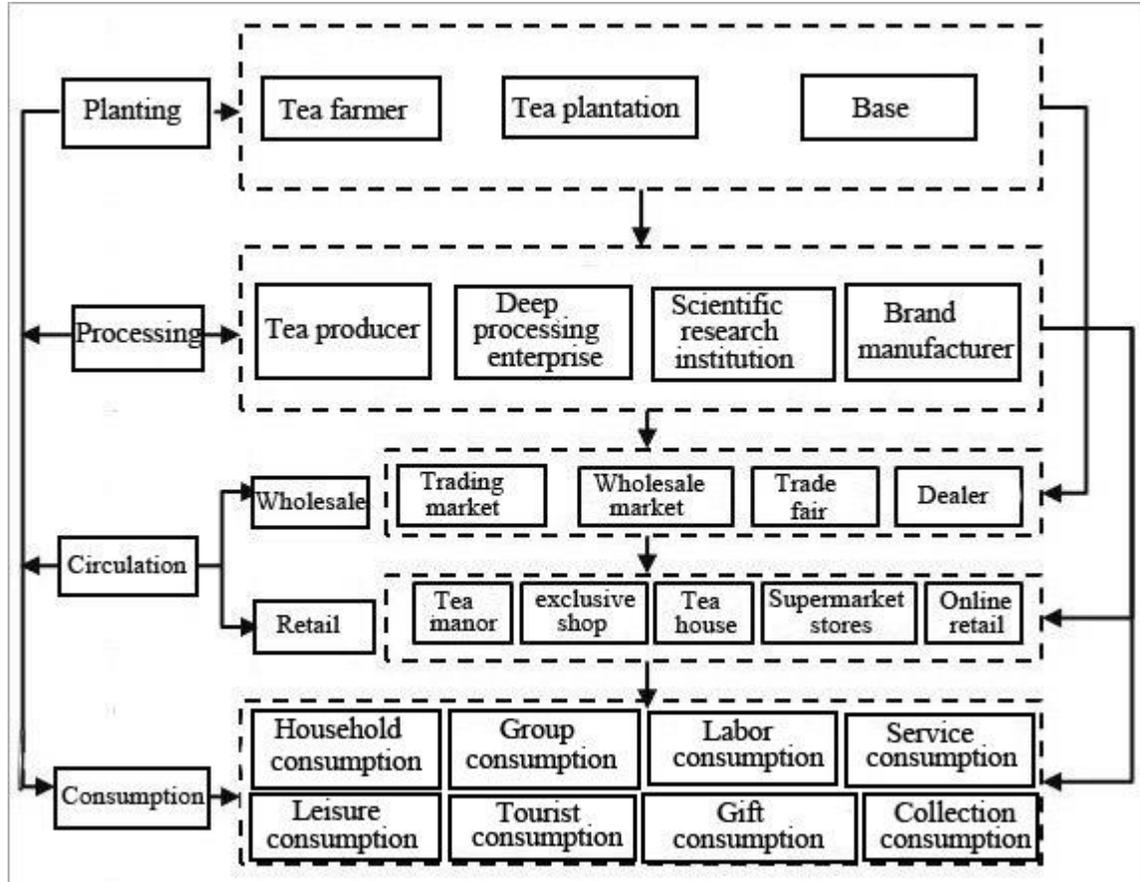


Figure 1. Tea industry chain

(2) Constitution of tourist industrial chain

This study focuses on optimization and updating of the influence of tourist industrial chain in Wuyishan city on tea industry and its drive effect. Figure 2 displays tourist industrial chain. Usually, factors constituting tourist industrial chain can be summarized as travel demand (Chen, 2010), travel agency, wholesalers and retailers of tourism products and some industrial sectors supplying service and products for tourists.

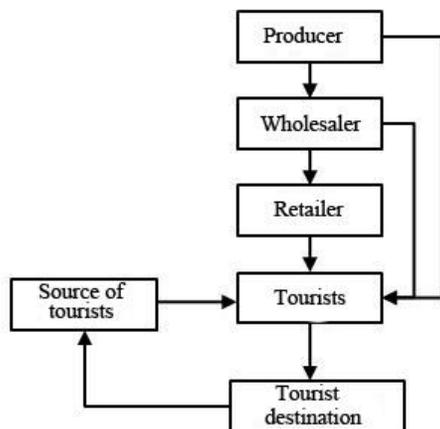
2.2.2. Analysis on relationships between tourist industry and tea industry

(1) Similarities and differences of tourist

industry and tea industry

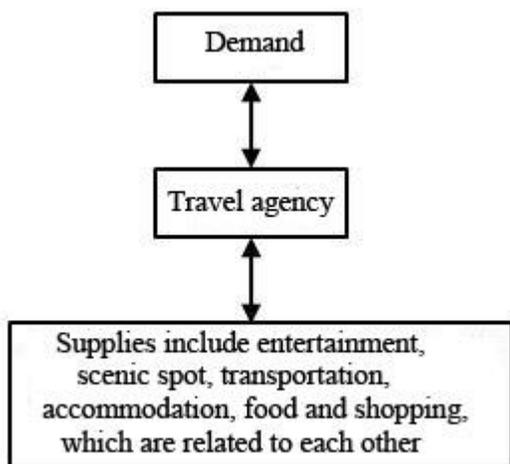
① Similarities of tourist industry and tea industry

Both of tourist industry and tea industry are comprehensive industries and meanwhile they provide products and services and keep the sustainable development of industry depending on persistent innovation (Hu and Zhang, 2008).



**Figure 2.** Schematic chains of the tourism industry

Constitution of tourist industrial chain is shown in Figure 3.



**Figure 3.** Basic composition element chains of the tourism industry

② Differences of tourist industry and tea industry

Product development in tourist industry lays emphasis on designing products according to different tourist groups, but tea products in tea industry are geared to the needs of the general public. The development of tourist industry needs several industries to coordinate with each other, which is more important than their competitions to some extent. However, tea industry is on the contrary.

(2) Intersection of tourist industry and tea industry

Tourist industry and tea industry are largely fused in addition to the above differences and similarities, performing as travel and leisure, tea theme scenic spot, tea cultural trip, tea theme restaurant, etc. Wuyishan City combines tea with travel, such as tea expo garden, impression Dahongpao, tea food, tea culture and so forth. Tourist industry and tea industry build a relationship based on mutual effect and benefit.

2.2.3. Theoretical model on analysis of influence of tourist industry on tea industry

(1) Model construction

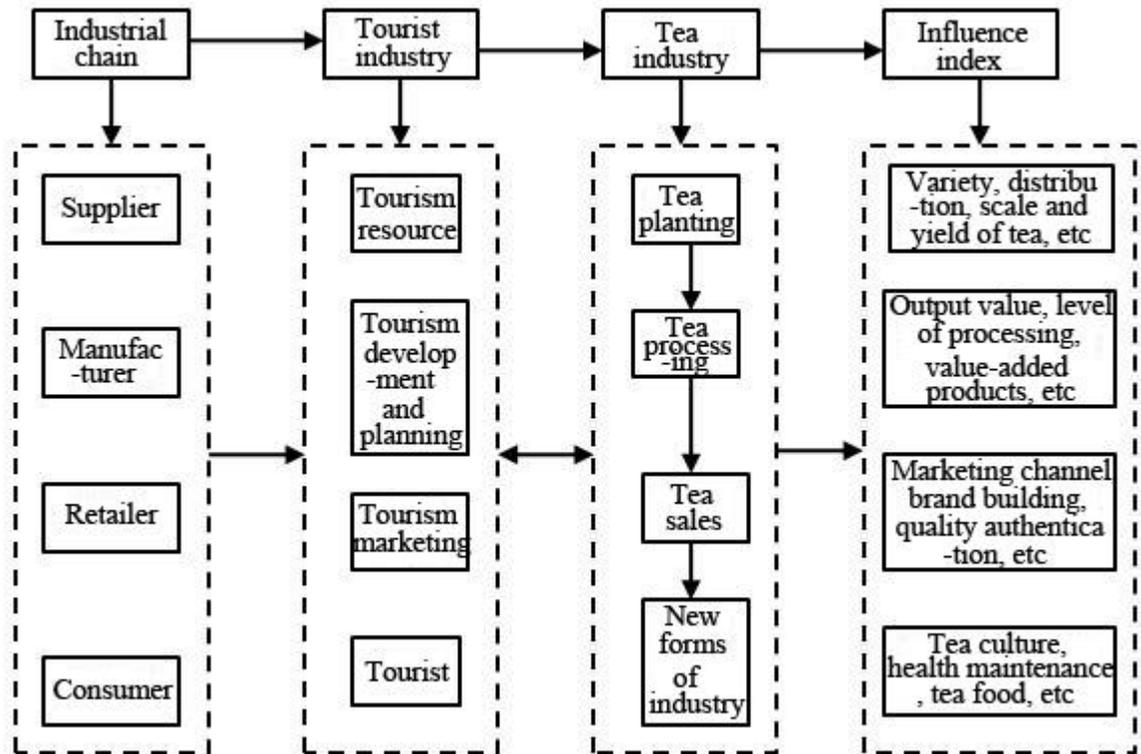
The key of constructing a theoretical model on analysis of influence of tourist industry on tea industry is to establish a frame model on the relationship between tourist industry and tea industry. Generally speaking, the following links are involved: ① confirmation of the relationship between tourist industry and tea industry; ② selection of research objects; ③ investigation; ④ data analysis and construction of theoretical frame model.

(2) Theoretical model

Good tourism resource is the premise of the continuous development of tourism industry. It is required to make a plan on tourism resource in order to transform tourism resource into tourism products and the developed and planned tourism resource should be passed to the tourist market by various channels, which is tourism marketing. Finally, tourism products are delivered to customers so as to promote tourist purchase and consumption. This kind of tourist industry processes are corresponding to suppliers in tourism industrial chain, manufactures, retailers and consumers. The fusion of tourist industry and tea industry happens in the whole process of tea product production and consumption, i.e., from identification of tourism resources to consumption. Based on the above, it can be

seen that the development of tourist industry will bring certain influence on tea industry

from the perspective of industrial chain and industry integration (Figure 4).



**Figure 4.** Tourism impact analysis model of tea industry

### (3) Data acquisition and sorting

Data are collected from tea bureau, forestry bureau, tourist administration, industrial and commercial administration in Wuyishan City as well as official websites of tea expos holding in Mainland and Taiwan.

## 3. Results and discussions

### 3.1. Effect of tourism of Wuyi Mountain on local tea industry

#### 3.1.1. Effect of tourism on tea planting

##### (1) Effect of tourism on planting area of tea

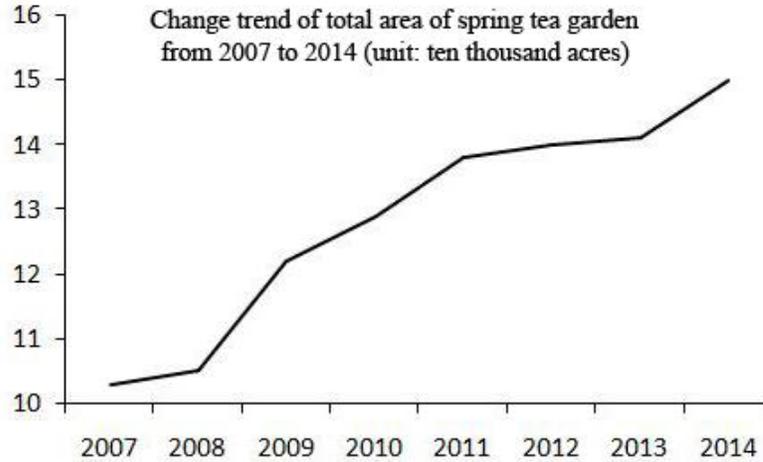
With the development of tourism in Wuyi Mountain, more and more tourists know Wuyi rock tea, which improves the sales and promotion of Wuyi rock tea. Moreover, the planting area of rock tea, for example, tea expo, can also be used as tourism resources to attract more tourists (Cao *et al.*, 2012). According to

the statistics provided by the Ministry of Tea suggest that, the area of tea garden in Wuyi Mountain city had increasingly changes from 2007 to 2014 (Figure 5).

##### (2) Effect of tourism on spatial distribution of tea planting

In early stage, tea is planted in ravine area of Danxia landform whose spatial height is consistent with scenic spots; but afterwards, the spatial distribution of planting changes due to the diversity of demand (Gao, 2012). The changes reflect on the transfer of planting space and transformation of land use pattern. Some areas where is suitable for growing tea change land use pattern due to the development of tourism. For example, rest pavilion and steps are constructed besides seed tree of Da Hong Pao; some areas combines tourism and tea together spatially, for instance, the areas where scenic spots highly concentrates are also

planted with highly-concentrated tea, which can not only satisfy tourists but also promote the better development and utilization of tourism resource.

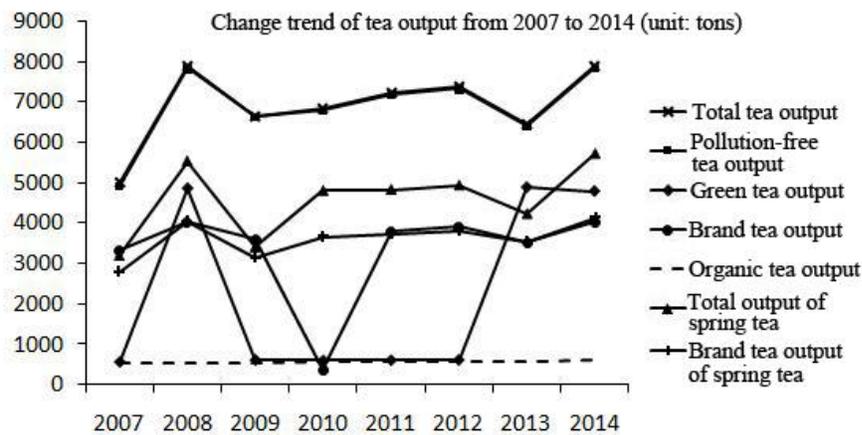


**Figure 5.** From 2007 to 2014, spring tea tea garden area of change trend chart (unit: ten thousand mu)

*(3) Effect of tourism on tea output*

The development of Wuyi Mountain city promotes the sales of tea, which affects the output of tea in Wuyi Mountain city. The variation of tea output from 2007 to 2014 is shown in Figure 6. The large number of tourists

Increases the demand of tea. The diverse demand changes the category of tea needed as well as the output of tea. Tea of some brands exhibited in tea expo has been recognized and favored by the public, which can promote the increase of output.



**Figure 6.** Tea yield trend chart in 2007-2014

*3.1.2. Effect of tourism on the processing of tea*

*(1) Effect of tourism on tea processing levels*

Tea production factory is the center of

production, processing and handling of tea which can directly affect the quality of tea products. The previous processing level has not able to satisfy the development of tea industry currently. Hence some tea production factories in Wuyi Mountain city took the leading in improving the processing level of tea. The detailed works done by those tea factories includes emphasis on the cleaning of internal and external environment of processing factory, introduction of advanced processing equipment and training of processing staffs.

(2) *Effect of tourism on high added-value tea product*

With the increase of tourist, highly processed tea products and development projects are introduced to Wuyi Mountain city. The government has tried to develop and produce products with high added-value using low and medium grade tea or the scraps of tea such as tea stem, single leaf and tea dust. Deeply processed tea products mainly include tea beverage, traditional Chinese medicine health care tea, tea wine, tea food, tea polyphenol and tea polysaccharide. Deep

processing can increase the technological content and economic value added, expand consumption channels of tea products, promote the optimization of tea product structure and prompt the transformation and upgrade of tea industry.

3.1.3. *Effect of tourism on tea consumption*

(1) *Effect of tourism on output value of tea*

The development of tourism in Wuyi Mountain city, for example, the activities such as tea expo, tea cultural festival and live-action performance of Da Hong Pao, improves the popularity of Wuyi rock tea especially Da Hong Pao. As a result, the price of tea grows and thus the output value of tea increases. Figure 7 shows the output value of spring tea from 2007 ~ 2014. Advertisement implant, naming and sponsoring of tea enterprises also improves the output value of tea. A large-scale international seminar held along with Zhuyi Cultural Tourism Festival can attract many foreign tourists, improve the popularity of Wuyi Mountain and increase the output value of tea.

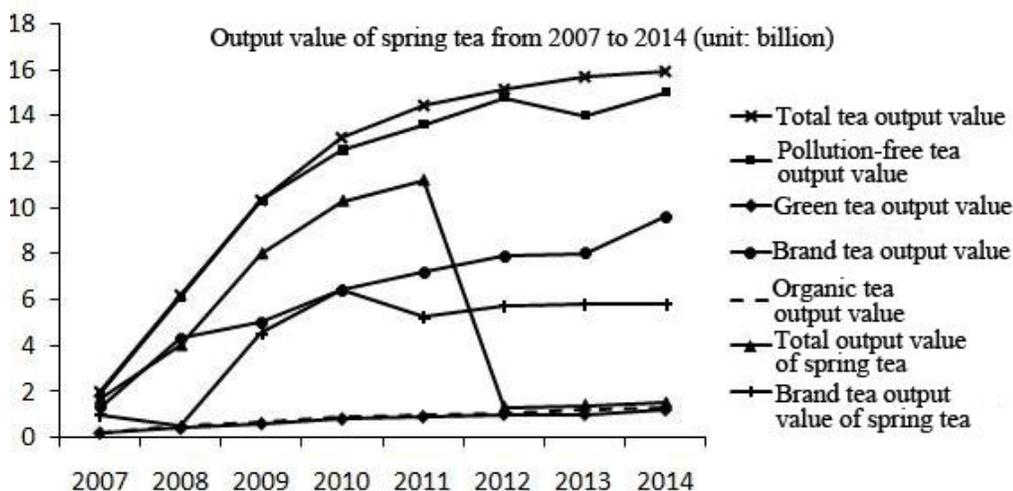


Figure 7. 2007-2014 season tea production

(2) *Effect of tourism on tea marketing channels*  
Tea marketing channels in Wuyi Mountain

includes store sales, online sales, sales along with activities, tea expo, etc. Tourists can

purchase tea directly from tea farmers. The development of tourism improves the informatization of tea industry, for example, the launching of intelligence tourism. Platforms such as Qunar, Tuniu and Taobao provide nonlocal tourists with the choice of tourism packages, hotels and restaurants. Such kind of online marketing pattern has been gradually accepted and recognized and applied into tea sales.

### *3.1.4. Effect of tourism on new operational pattern of tea*

#### *(1) Effect of tourism on tea industry*

To promote the constant development of tourism in Wuyi Mountain city, Wuyi Mountain city combines the local culture with tourism, aiming to explore new approaches for the joint development of culture and tourism. The city is constantly enriching the local tea culture by collecting stories and paper relating to tea, exploring tea culture and constructing tea building. The current tea buildings include Wuyi Mountain expo garden and Da Hong Pao museum. Combing Wuyi rock tea and local tourism together, the city has released several travelling routes, for instance, “travelling Chinese tea country and exploring the source of tea ceremony” and “Travelling of rooting seeking of Taiwan Dongding oolong tea”. Travelling routes such as “Leisure tourism of tea culture” and “tourism of health” which focus on tea motivate the promotion of tea culture.

#### *(2) Effect of tourism on health maintenance of tea*

Since 2007, Wuyi Mountain scenic spot has began to build itself an international health maintenance and leisure tourist destination as well as the brand of leisure and health maintenance. Wuyi rock tea growing in special environment contains many mineral substances and microelement such as potassium, zinc and selenium (Zhao et al., 2014; Chun-Hua et al., 2013). Wuyi city is constantly exploring the content of health maintenance of tea. For

example, Wuyi rock tea is found to be effective in improving eyesight, benefiting thinking, refreshing mind, promoting digestion, eliminating phlegm, treating asthma, resisting radiation, tumor and aging as well as lowering blood lipid, blood pressure and cholesterol.

#### *(3) Effect of tourism on tea food*

A variety of tea foods including tea pie, tea beverage and tea feast have been developed to satisfy the demand of more and more tourists. More and more tourism travelling in Wuyi Mountain choose to live tea garden and taste tea meals. Wuyi Tea feast which takes Wuyi rock tea as the major seasoning have favored by many tourists. To better satisfy tourist, tea used in the feast includes not only black tea and oolong but also green tea.

## **4. Conclusions**

This study explored the effect of tourism in Wuyi Mountain on tea industry and found that the rapid development of tourist industry produced obvious effects on the planting, processing and sales of tea as well as new operational type of tea. We obtain four conclusions. First, tourism of Wuyi Mountain affects the planting area, spatial distribution of planting, output and price. Secondly, the growing consumption market promotes the adjustment and updating of tea processing, including processing levels and high-value-added product. Thirdly, effect of tourism of Wuyi Mountain on the sales of tea mainly reflects on the marketing channel and output value of tea. Fourthly, to satisfy different demands of tourists on tourist products, Wuyi Mountain city integrates the element of tea into eating, walking, accommodation, traveling, amusement and shopping, which extends the application of tea products. The new operational types of tea mainly include tea culture, tea health and tea food.

## **5. References**

- Cao, R.Y., Qian, D., Sun, H.R., et al. (2012). Planning of the Modern Tourist Tea Expo Garden-Taking the Planning of Tea Expo

- Garden in Jiangsu Polytechnic College of Agriculture and Forestry for Example. *Journal of Fujian Forestry Science & Technology*, 39(2), 160-163.
- Chen, W. (2010). Recognition of the Tourism Brand of "Zhoushan Islands" from the Perspective of Travel Package Arrangement of Tourist Agency. *E-Product E-Service and E-Entertainment (ICEEE), 2010 International Conference on*. IEEE, 1-3.
- Chun-Hua, M.A., Tan, C., Wei-Lin, L., et al. (2013). Identification of the Different Aroma Compounds between Conventional and Freeze Dried Wuyi Rock Tea (Dangui) using Headspace Solid Phase Microextraction. *Food Science & Technology Research*, 19(19), 805-811.
- Dutta, S., Sarmah, S.P., Goyal, S.K. (2010). Evolutionary stability of auction and supply chain contracting: An analysis based on disintermediation in the Indian tea supply chains. *European Journal of Operational Research*, 207(1), 531-538.
- Gao, H.R. (2012). Correlation between the Pb and Cr contents of Wuyi Rock Tea and soil. *Chinese Journal of Ecology*, 31(12), 3203-3206.
- Hu, S., Zhang, J. (2008). Study of Regional Innovation Networks based on Industry Amalgamation. *Proceedings of the First International Workshop on Knowledge Discovery and Data Mining*, 150-153.
- Jimura, T. (2011). The impact of world heritage site designation on local communities – A case study of Ogimachi, Shirakawa-mura, Japan. *Tourism Management*, 32(2), 288-296.
- Ksenija, Z., Andreas, M. (2009). The bioclimatological leaflet as a means conveying climatological information to tourists and the tourism industry. *International Journal of Biometeorology*, 53(4), 369-374.
- Lucock, M., Yates, Z., Martin, C., et al. (2013). The relationships among business strategies, organizational performance and organizational culture in the tourism industry. *South African Journal of Economic & Management Sciences*, 16(5), 1-8.
- Park, M., Stokowski, P.A. (2009). Social disruption theory and crime in rural communities: Comparisons across three levels of tourism growth. *Tourism Management*, 30(6), 905-915.
- Qian, S.W.E.A. (2008). Study on Tea Cultural Tourism of China in Recent Years. *Journal of Anhui Agricultural Sciences*, 36(35), 15617-15169.
- Qiao, Q.M.E.A. (2011). Development Strategies of Tea Culture Tourism in the Age of Experience Economy. *Journal of Anhui Agricultural Sciences*, 97-99.
- Tsang, N.K.F. (2011). Dimensions of Chinese culture values in relation to service provision in hospitality and tourism industry. *International Journal of Hospitality Management*, 30(3), 670-679.
- Xiao, H.G., Jolliffe, L. (2007). Tea Culture and Tourism in Fujian Province, China: towards a Partnership for sustainable development. *Lee Jolliffe*, 115-132.
- Zhao, F., Lin, H., Yang, J., et al. (2014). Online quantitative determination of Wuyi Rock Tea quality compounds by near infrared spectroscopy. *Transactions of the Chinese Society of Agricultural Engineering*, 30(2), 269-277(9).