The Discussion on the Interaction and Integration of Modern Agriculture and Rural Tourism Sustainable Development

XIAO Xiao¹ , SONG Peng²
1. School of Business, Chengdu University of Technology, Chengdu 610059, China; 2. College of Earth Sciences, Chengdu University of Technology, Chengdu 610059, China

Abstract The thesis summarizes the connotation of rural tourism and divides it into six types, including rural sight-seeing, rural body-building activity, rural folk culture, rural experience of farm work, rural business affairs, and study and development. It outlines the theory of sustainable development of rural tourism and points out that what sustainable development of tourism concerns is the coordination of ecology, economy, and society centering on human and nature. On the basis of introducing the connotation of modern agriculture, it divides modern agriculture into six types, including sightseeing agriculture, leisure agriculture, green agriculture, characteristic agriculture, factory agriculture, and three-dimensional agriculture. And by concluding, it obtains the combination model of modern agriculture and rural tourism. Based on the introduction of the above related theories, the thesis discusses the interaction and integration model of the sustainable development of modern agriculture and rural tourism. It emphasizes analyzes the integration model of modern agriculture and rural tourism, including pastoral agriculture tourism model (sightseeing village, leisure farm, citizen farm), and science education tourism model (agricultural science and technology education base, tourism and leisure education agriculture park, children’s agricultural education base, agricultural exposition). Based on the interaction and integration relationship between modern agriculture and rural tourism, the thesis puts forward corresponding countermeasures so as to promote their positive development and realize the maximum of ecological, social and economic benefits.

Key words Modern agriculture, Rural tourism, Sustainable development, Interaction relationship, Interaction and integration, China

In recent years, as a new leisure travel form that accords with modern people’s needs, rural tourism is surging forward full of vigor in the vast rural areas. Its appearance not only satisfies people’s needs to return and get close to nature, but also opens up a new development channel for modern agriculture. In the meantime, the development of modern agriculture boosts the development of rural tourism. The interactive development between them promotes each other and becomes an important support for sustainable development of rural tourism¹. The significance of this thesis lies in proposing patterns and methods for integration of modern agriculture and rural tourism, and bringing into full play modern agriculture’s positive contribution to rural tourism. At the same time, it also promotes the sustainable development of rural tourism and provides experience for construction of coordinating urban-rural harmonious society.

1 The related theory of rural tourism and sustainable development

1.1 The connotation of rural tourism Rural tourism in Europe usually refers to all the tourism activities happening in rural areas. The comprehensive and appropriate definition of rural tourism domestically was put forward by Wang Bing in 1999: the so-called “rural tourism” is a series of tourism activities that take agricultural culture landscape, agricultural ecology environment, production activities in farming season and farmers’ traditional ethnic customs as resources, and integrate viewing and admiring, investigation, study, participation, entertainment, shopping and vacation. Rural tourism is a new charm industry emerging as a result of agriculture and tourism penetrating into each other². Considering current situation of the development of China’s rural tourism, this thesis generalizes rural tourism in the following six types.

First, rural sight-seeing. It includes enjoying the view, observing the wild animals and plants, flying kites, rural vacation, rural tavern leisure and so on.

Second, rural body-building activity. It includes hiking, riding horse, bicycling, angling, swimming, going boating, playing tennis, playing golf, hunting, drifting, gliding, spelunking, skiing, climbing and so on.

Third, rural folk culture. It includes celebrating rural folklore gala, enjoying rural dainty food, visiting agricultural handcraft enterprises and so on.

Fourth, rural experience of farm work. It includes sowing, harvesting, grazing, milking, plucking, brewing, agricultural products processing and so on.

Fifth, rural business affairs. It includes medium and small-size meetings, training, researching and so on.

Sixth, study and development. It includes rural summer camp, learning folk handcraft, horticulture training and so on.
1.2 The sustainable development theory of rural tourism

International Union for Conservation of Nature (IUCN) believes that sustainable development is an allowed development process under the circumstance of not depleting or damaging resources. As far as the sustainable development of tourism is concerned, it should also include ecological sustainability, social and cultural sustainability and economic sustainability at the same time. The definition given by World Tourism Organization to sustainable development of tourism is that it maintains cultural and ecological integrity and at the same time meets people’s economic, social and aesthetic needs. Meanwhile, it not only brings today’s hosts and visitors livelihoods, but also protects and promotes the interests of generations in the future and offers them the same opportunities. The core idea of sustainable development of rural tourism is based on the unification of economic, social and ecological benefits. Its goal is not only to satisfy people’s travel needs and achieve full development of individuals, but also to protect tourism resources and environment, so as to make future generations have the same opportunities and rights in tourism development. Therefore, what tourism sustainable development concerns is the coordination of ecology, economy, and society centering on human and nature.\(^3\)

1.3 The connotation and types of modern agriculture

1.3.1 The connotation of modern agriculture. Accompanied by the advent of agricultural modernization, the modern agriculture is a new concept, so its definition has not been unified. From different perspectives, many scholars have defined and interpreted the concept and connotation of modern agriculture. Member of China Engineering Academy, Lu Liangshu, noted that modern agriculture is a new developmental stage of agriculture after the primitive and traditional agriculture, based on the modern industry and technology. It pays attention to strengthening agricultural infrastructure construction, fully absorbing the quintessence of traditional agriculture. According to the demand of domestic and overseas market and WTO rules, the modern agriculture is to establish agricultural comprehensive system characterized by the adoption of modern technology, use of modern industrial equipment and popularization of modern management concept and method. It integrates all the links of agricultural production, connecting agriculture, industry and trade.\(^4\)

Modern agriculture is a dynamic process of realizing agricultural modernization. The final objective of modern agriculture is to develop agricultural productivity continuously, transform the agricultural growth pattern, and promote the quick and efficient development of agriculture, by adopting modern material condition, modern technology and modern industry system to transform and elevate agricultural structure. Developing modern agriculture must divert the empirical production to scientific production; manual, animal powered and farm equipment production to machine production; small-scale and scattered production to regionalized and industrialized production. It must achieve the goal of high-production, low-consumption, and high-efficiency production.

1.3.2 The types of modern agriculture. Due to the uncertainty of extension, criteria for classifying are different. Modern agriculture generally falls into 6 types as follows.\(^5\)

1.3.2.1 Sightseeing agriculture. Sightseeing agriculture, also called tourism agriculture, is new ecological tourism on the basis of agriculture and rural areas. The farmers take advantage of the favorable local natural conditions to open up places of recreation, provide amenity, and attract tourist, in order to increase income. Apart from the sightseeing, the content of tourism includes hunting, angling, plucking fruits and other agricultural activities.

1.3.2.2 Leisure agriculture. Leisure agriculture is a kind of comprehensive leisure agricultural area. The tourists can not only go sightseeing, pluck fruits, experience farmer’s life, and enjoy rural appeal, but also lodge, go on holiday and have fun. The basic concept of leisure agriculture is a new agriculture which is to use rural equipment and space, agricultural production line, agricultural natural environment, agricultural humanistic resources and so on, to exert the leisure and tourism function of agriculture and rural areas in order to raise the tourism quality, increase farmers’ income, and propel rural development.

1.3.2.3 Green agriculture. Green agriculture, a holistic concept, is to use adeptly the cycling system of ecological environment, practice IPM, INM, biological technology, crop rotation technology, and so on, so as to protect agricultural environment. Green agriculture can be classified into organic agriculture and low input agriculture in general. The green agriculture coordinates the agriculture and environment, propels sustainable development, increases farmers’ income, protects environment, and guarantees the agricultural products safety.

1.3.2.4 Characteristic agriculture. Characteristic agriculture is modern agriculture which transforms the unique agricultural resources and famous products into characteristic merchandise. The feature of characteristic agriculture lies in that the products could win the admiration and favor of consumers, have irreplaceable status in the local market, have absolute advantage in out-of-town market, and have the relative even absolute advantage in international market.

1.3.2.5 Factory agriculture. Factory agriculture is the advanced form of design agriculture. With the development of modern high technology, new equipment and new management methods, factory agriculture is an intensive production which adopts overall mechanized and automatic technology. It can conduct the whole process work continuously in the artificial environment, so as to escape from the restriction of nature.

1.3.2.6 Three-dimensional agriculture. Three-dimensional agriculture, also called layered agriculture, is a kind of agricultural form focusing on developing and harnessing vertical spatial resources. The model of three-dimensional agriculture, based on the three-dimensional agriculture, is to use natural resources, biological resources, and human production skills, and realize the optimization of three-dimensional model comprising species, layer, energy cycling, material transformation, and technology and so on.

1.4 The combination of modern agriculture and rural tourism

According to the types of rural tourism and modern
agriculture, we can combine the rural tourism and modern agriculture, as can be seen in Fig. 1\(^6\).

![Fig. 1 The combination of modern agriculture and rural tourism](image)

2 The interactive model of modern agriculture and rural tourism

2.1 The interactive model of modern agriculture and rural tourism

Rural tourism and modern agriculture lay foundation for mutual development, establish the platform of mutual development, in order to achieve the goal of mutual interactive development. The interactive relationship can be seen in Fig. 2. The sustainable development of rural tourism and modern agricultural development are in the interactive development state and complementary. Under this model, the infrastructure construction of modern agriculture is to lay foundation for the development of rural tourism, while the development of rural tourism will further propel the modern agriculture on the other hand, and avoid use of city scenery in place of transforming rural environment and so on. The two evolve and develop in tandem\(^7\).

![Fig. 2 The interaction between modern agriculture and rural tourism sustainable development](image)

2.2 The integration model of modern agriculture and rural tourism sustainable development

2.2.1 Pastoral agriculture tourism model

Pastoral agriculture tourism model is to use rural pastoral landscape, agricultural production activities and featured agricultural products as tourism attraction, to develop different featured theme travel activities such as agricultural tourism, fruits tourism, flower tourism, piscatorial tourism and husbandry tourism, so as to satisfy the mentality need of experiencing agriculture and returning to nature on the part of tourists. The main types are as follows.

2.2.1.1 Sightseeing village

The sightseeing village means developing the ripe orchard, vegetable garden, flower nursery, tea plantation and so on, to let visitors pick fruit and vegetables inside, enjoy flower, and pluck tea, which makes visitors enjoy the pastoral pleasures. Although the sightseeing village increases the investment of facilities, it saves the expense of picking and transportation, which will promote the competitiveness of agricultural products. The model of picking and buying by themselves will satisfy the consumers so as to achieve the effect of leisure. Therefore, the sightseeing village has already become one of the most common forms in sightseeing agriculture currently\(^8\). Represented by Shufang Village in Long Quanyi of Chengdu, the tourist income has greatly exceeded the fruit income. This flower and fruits tourism features viewing the peach blossom in spring and enjoying the fresh fruit, like honey peach, loquat, and pear, in summer.

2.2.1.2 Leisure farm

Leisure farm is a kind of comprehensive leisure agricultural region such as Qianjiangyue Leisure Farm in Fujian Province and so on. The leisure activities the leisure farm provided include enjoyment of the scene of pastoral life, agricultural experience, ecological observation, fishing, game tasting and so on. Besides sightseeing, picking fruits and vegetables, experiencing farming, understanding farmers’ life, and enjoying local life, we can lodge, go on vacation and travel.

2.2.1.3 Citizen farm

Citizen farm refers to the farmland provided by farmers where the citizens can participate in farming. In terms of renting purpose, the citizen farm falls into the type of self-help garden, the type of leisure and sightseeing and the type of experiencing rural life. In view of the operation pattern, most renters only labor on the citizen farm when holiday. The farmland is usually managed by the farmland providers. In terms of the development trend, some citizen farms blend with sightseeing orchards and flowerbeds, adopting diversified management model\(^9\). Citizen farm has already been popular overseas for a long time. The renters of citizen farm have already reached more than 0.8 million households and the rented area has reached 0.03 million hm\(^2\). Other countries such as England, Japan are also emulating it. There are many typical regions in China such as the citizen farm in Zheng Tanghe Village of Anshan City, and the weekend farm in Beijing City.

2.2.2 Science education tourism model

By using agricultural sightseeing park, agricultural science and technological park, agricultural product exhibition hall, agricultural exposition garden or museums, it is the tourism activity which makes the tourists understand the agricultural history, study agricultural science and technology, and increase the agricultural knowledge.

2.2.2.1 Agricultural science and technology education base

On the basis of the agricultural scientific research base, it is new science and technology agricultural park which provides the agricultural technology education for the agricultural personnel and tourists by using research facilities and high-technology agricultural techniques integrating agricultural production, science and technology demonstration, and scientific research education, such as the Yangling National Agricultural and Technological Park in Shaanxi Province, and Xiaotangshan Modern Agricultural Science and Technology Park in Beijing City.

2.2.2.2 Tourism and leisure education agricultural park

It is to use resources and environment, modern agricultural facilities, agricultural management activities, agricultural production process, high-quality agricultural products in the local agricul-
tural park, to conduct agricultural sightseeing, agricultural experiencing and DIY education activity, such as the sightseeing agricultural park in Yuhuan Town, Wenzhou City.

2.2.2.3 Children’s agricultural education base. By using the local agricultural planting, husbandry, breeding, farming culture, agricultural technology and so on, it is to make the primary and middle school students participate in leisure agriculture activity and receive the agricultural technical knowledge education, such as Jifa Agricultural Ecological Sightseeing Park in Qin Huangdao City, and the children agricultural science and technology experience education base in Qiongshan District, Haikou City.

2.2.2.4 Agricultural exposition. By using the local agricultural technology, agricultural production process, agricultural products, the production culture, it is to make the tourists to visit, such as the agricultural exposition in Shenyang City, Shouguang Ecology Agricultural Exposition in Shandong Province and so on.

3 Conclusion

The combination of the rural tourism development and modern agriculture reflects benign interaction between the tertiary industry and the primary, secondary industry during the contemporary China’s economic and social development. In terms of tourism resources, guest source, facilities, and economy, the rural tourism promotes the modern agriculture development while modern agriculture provides the material foundation, technical conditions, special tourism products and financial support for sustainable development of the rural tourism. So the modern agriculture and rural tourism promote and support each other mutually. Meanwhile, it needs to establish effective integration model and guarantee mechanism, reasonable planning, and develop rural resources, in order to make the marvelous interactive relationship between them. The interaction of the modern agriculture and rural tourism can realize the maximization of ecological, social and economic effects, and the sustainable development of rural tourism, so as to promote development of the modern agriculture and rural tourism concurrently.

References


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progress of intra-county and rural areas, indicating that the research theories of regional spatial structure at present, mainly focus on macroscopic region or urban space, but there is shortage of researches on county spatial structure, especially microscopic rural spatial structure. On such basis, 4 kinds of theoretical models and characteristics of regional spatial structure have been introduced. The result of analysis shows that in Jinhu County the passage network system of infrastructure has not taken shape, and county economy presents diseconomy of scale.

References