

Preliminary Study on the Development Mode of "Internet plus Leisure Agriculture"

Mengshan Zhu

College of Information and Electrical Engineering, China Agriculture University, Beijing, China-100083

Abstract—"Internet plus leisure agriculture" is an Internet application model with leisure agriculture as the main content. The current leisure agriculture faces many difficulties and needs to scientifically grasp the development trend of "Internet plus leisure agriculture" and start with building e-commerce platforms, building big data on leisure agriculture, and building smart leisure agriculture, based on financial support, product safety, and credit evaluation, it can achieve the goal of promoting the adjustment of the agricultural economic structure, taking targeted measures in poverty alleviation, promoting public entrepreneurship, improving the ecological environment, and coordinating urban and rural development.

Keywords— Internet plus; leisure agriculture; model.

"Internet plus leisure agriculture" is an Internet application model with leisure agriculture as its main content. It will integrate "Internet Plus" into leisure agriculture, through Internet applications and penetration in the design, R&D, production, financing, and circulation of leisure agriculture. Improving the level of informatization in leisure agriculture will not only help promote the sustainable development of leisure agriculture, but also help increase the economic benefits of leisure agriculture and increase the income of farmers.

I. STATUS OF LEISURE AGRICULTURE DEVELOPMENT

1.1 The Development of Leisure Agriculture in China

Leisure agriculture refers to the use of pastoral landscape, natural ecology and environmental resources, combined with agricultural and forestry husbandry and fishery production, agricultural business activities, rural culture and farm life to provide people with leisure and promote the residents' agricultural and rural experience for the purpose of agricultural management, but also combined production, life and ecological trinity of agriculture. Since the Chinese Economic Reform and open up, there are five main types of leisure agriculture in China, as shown in table I.

For many years, the Central Government has always put the work of "agriculture, rural areas and farmers" as the top priority of the work of the whole party, and has created a good foundation for the development of leisure agriculture. Local governments have seen the positive effects of leisure agriculture in promoting economic development, the same high development enthusiasm, the increasing enthusiasm for social capital investment participation, and the expanding consumption market for leisure agriculture. As of the end of 2014, China's leisure agriculture received 1.05 billion tourists. In 2015, all types of leisure agriculture in China received 1.1 billion tourists. In 2015, the revenue from leisure agriculture nationwide reached 410 billion yuan. The income scale of the Chinese leisure agriculture market in 2010-2015 is shown in figure 1.

TABLE I. Classification of five types of leisure agriculture.

Leisure agriculture type	Main situation introduction
Urban suburb type	The suburb of the city has a good agricultural foundation, a good ecological environment, outstanding agricultural features, a large market demand, and convenient transportation, and it has excellent conditions for developing leisure agriculture.
Peripheral type	This type is generally close to tourist attractions, with abundant agricultural products, good rural environment, and strong farmer business sense, which are conducive to the development of leisure agriculture.
Village style	This type has a national folk customs, distinctive regional characteristics, and rich rural native products, which can attract tourists to experience folk culture and participate in agricultural production activities.
Base driving type	Agricultural planting and breeding bases, specialty agricultural product bases, and agricultural science and technology parks allow tourists to pick and taste agricultural products, participate in agricultural activities, and purchase agricultural products.
Resource-driven	Agricultural resources include forests, lakes, grasslands, and wetlands, and can develop leisure tourism such as forest recreation, fishery and leisure, animal husbandry and leisure, and ecological leisure.

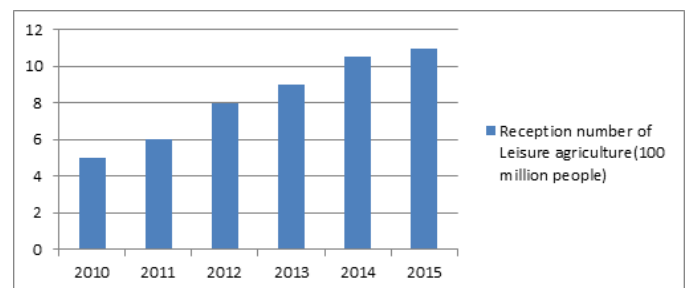


Fig. 1. China's Leisure Agricultural Market Income Scale, 2010-2015.
Note: The data is as of December 2015, from China Merchants Information Network: 2016 China's Leisure Agriculture Industry Development Report.

1.2 The Dilemma in the Development of "Internet plus Leisure Agriculture"

With the implementation of the "Internet Plus" action plan, leisure agriculture has embarked on the road of informationization, promoted the integration of leisure agriculture and e-commerce platforms, and brought about

transformation and upgrading of the format industry. But overall, the current leisure agriculture still faces many difficulties, which are described as follows:

1.2.1 Unbalanced regional development

Under the promotion of the trend of leisure tourism in rural areas, leisure tourism projects throughout the country are springing up. However, the quality of leisure agricultural business projects across the country is uneven, and regional development is uneven. The development of leisure agriculture in developed areas is relatively good. It started early and the product quality is good. A large number of high-quality leisure agriculture projects have emerged. In the mid-western region, leisure agriculture started late and developed slowly. Some projects have high quality but the overall development level needs to be improved. In terms of information platform construction, most rural leisure agriculture in the central and western regions lacks or does not yet have information technology advantages. Traditional communication platforms and business models still dominate the market, making it difficult for consumers to obtain information on leisure agricultural products.

1.2.2 Product homogenization

The similarity of leisure agricultural products is an objective fact, which leads to the obvious "homogenization" of leisure agricultural products, lack of personality and characteristics, easy to appear aesthetic fatigue, and reduce the quality of consumer experience. As far as the structure of leisure agriculture is concerned, leisure agriculture includes such items as sightseeing and picking, which do not form individualized cultural features. It only provides simple services such as sightseeing, flower viewing, leisure, and catering. Visitors do not have many in-depth experience activities and visitors diversify. The demand has not been met. Some scholars have pointed out that "at present, China's rural tourism or leisure agricultural tourism has developed spontaneously. It lacks scientific and rational market planning, has unbalanced market demands, has a strong seasonality, has a small investment scale, and operates in a decentralized manner, presenting leisure and agricultural tourism in a fragmentation development trend."

1.2.3 Shortage of information platform

Compared to clothing, food, housing, transportation and other consumer products, leisure agricultural products are affected by seasonal and other factors, and their market influence is limited to some tourist groups. Therefore, it is necessary to establish an Internet plus information platform for strong promotion to get long-term market attention. However, at present, the operators of leisure agriculture are mainly rural operators, and their ability to use the Internet is insufficient. They often need guidance and assistance. In addition, the degree of product standardization is low, and the overall quality of service is not high, which easily triggers complaints from tourists. The operating costs of the platform. Coupled with the low degree of organization of the farmers, they failed to form a scale effect and the overall profit level was not high enough to support the high-cost promotion model. In addition, most of the existing information platforms still stay in the promotion of information, such as names,

prices, and locations of leisure agricultural products. They do not provide text, images, and video materials that help build leisure tourism images, and mask the differences in product features.

1.2.4 Limitations of policy space

The starting point for the development of leisure agriculture and rural tourism industry is low, and infrastructure and public facilities need a lot of investment and certain construction land indicators. From a financial point of view, although relevant departments have studied and formulated some policies to support the development of leisure agriculture and rural tourism, their efforts are still not enough. Cross-administrative regional planning and major planning projects are more difficult to implement. From the point of construction land use, due to the lack of indicators for construction land, some leisure agricultural parks are heavily constrained in the construction of parking lots, reception services, accommodation, catering, and toilets.

II. DEVELOPMENT MODEL DESIGN OF "INTERNET PLUS LEISURE AGRICULTURE"

2.1 Development Trend of "Internet plus Leisure Agriculture" Model

Understanding the development trend of "Internet plus leisure agriculture" is a prerequisite for designing its development model. With the continuous integration of Internet technology and leisure agriculture, the number of consumers who are accustomed to the decision-making model of the Internet has increased rapidly. The specific data are as follows:

TABLE 2. China's Internet basic resources change table.

Resource Type	Absolute number	Growth situation
IP address	The number of IPV4 addresses is 331.99 million	stable
	The number of IPV6 addresses is 18797/32	Annual growth rate is 12.8%
domain name	20.60 million	Annual growth rate is 11.7%
website	3.35 million	Annual growth rate is 4.6%
Web page	188.9 billion	Annual growth rate is 26.6%
Network international export bandwidth	4118663 Mbps	Annual growth rate is 20.9%

Note: The data is as of December 2014, comes from the China Internet Network Information Center (CNNIC) website: The 35th CNNIC Report: Statistical Report on the Development of China's Internet.

From the above table, the power of the extended development of leisure agriculture depends on the access and integration of Internet information technology. "Internet plus Leisure Agriculture" uses "Internet plus" to give full play to the convenience and timeliness of the Internet, to innovate the development mode of leisure agriculture with many advantages of the Internet, optimize the layout of leisure agriculture industry, and promote the development of leisure agriculture mode. "Internet plus leisure agriculture" should not only pay attention to production and life, but also pay attention to the protection of ecological civilization. It can be said that the use of the new concept of the Internet and constant

innovation of new technologies is a necessary measure to promote the development of leisure agriculture, and it is also an inevitable trend for the development of leisure agriculture.

2.2 The Path to the "Internet plus Leisure Agriculture" Model

The 12th Five-Year Plan for the Development of Leisure Agriculture in China defines leisure agriculture as a new type of agricultural industry that permeates the primary, secondary, and tertiary industries in rural areas, integrates production, living, and ecological functions, and is closely linked to agriculture, agro-industry, and service industries. And new consumer formats. The development of "Internet plus leisure agriculture" must use the innovative technologies and achievements of the Internet to innovate the development mode of leisure agriculture, optimize the layout of leisure agriculture industry, upgrade the level of leisure agriculture, and serve the modern agricultural development model of production, life, and ecology. The following aspects of work need to be done.

2.2.1 Build an e-commerce platform

The e-commerce platform is essentially a channel. The rural market is very broad and scattered, and traditional enterprises can use this channel to organize agricultural channels that were difficult to organize and increase marketing efficiency. Therefore, having the rural channel network resources on the Internet is equivalent to mastering the key points of rural Internet development. E-commerce platforms are bound to play an increasingly important role in optimizing agricultural production and guiding consumption.

2.2.2 Building leisure agriculture big data

Because agricultural data is rich, multi-dimensional, dynamic, incomplete and uncertain, it causes people to be submerged in the ocean of data. Therefore, it is necessary to find hidden laws from large amounts of data and formulate correct agricultural strategies. First of all, it is a typical application of big data to achieve accurate marketing through user behavior analysis. For example, by analyzing the time, quantity, and location of each agricultural product purchased at a supermarket, and statistically analyzing the sales trends and price trends of various products at various locations, we can find the main characteristics of the products with higher sales, and further optimize the sales volume and regulate the price of the products. Secondly, with the advent of the era of big data and the application of cloud computing, using the new concepts and technologies of the Internet, we can determine their preferences through the analysis of user behavior data, so as to develop unique consumer experience projects, and consumers can also pass The virtual platform understands project information and even experiences projects. Finally, the analysis of big data in the industrial chain is strengthened to provide data reference and analysis basis for government public services.

2.2.3 Creating smart leisure agriculture

The demand of leisure agriculture consumers not only stays in tourism, but also more in terms of leisure and experience. Therefore, the use of "Internet plus" technology advantages, rapid upgrade of rural tourism products, such as the use of the Internet to achieve consumer tracking and

observation, so that consumers feel comfortable eating their own agricultural products. At the same time, adopting the APP marketing model of various leisure agricultural products to enable consumers to obtain a portable experience based on the mobile Internet platform in a timely manner, change some of the situation in which leisure agricultural products "have no knowledge in the mountains" and provide consumers and The consumer interaction platform for consumer experience evaluation can disseminate product evaluation information to potential consumers, so that potential consumers can obtain more comprehensive information on leisure agricultural products and improve the economic benefits of leisure agriculture projects.

2.3 Basic Support for "Internet plus Leisure Agriculture" Model

The sustainable development of "Internet plus leisure agriculture" requires internet financial support, product safety traceability and market evaluation as the basic support system.

2.3.1 Internet financial support

With the help of the Internet, the establishment of an internet financial platform centered on leisure agriculture provides financial services such as investment and financing and online payment for upstream and downstream industries, which is a prerequisite for the development of leisure agriculture. Through the application of "mobile finance" in the field of leisure agriculture, we have created a brand new mobile internet leisure agriculture O2O, end-to-end direct sales model, and introduced financial services such as prepayment, payment settlement, and consumer credit, which can provide customers with guest rooms, catering reservations, and specialties, it also can provide One-stop service experience with service and information recommendation, purchase, and logistics.

2.3.2 Product safety traceability

Internet technology can enable agricultural products to achieve full transparency from "field" to "table" and ensure quality and safety. For example, through the real-time monitoring and automatic control of the Internet of Things during the agricultural production process and the application of big data for analysis and forecasting, it is possible to realize automatic collection, transmission, and judgment of production information and guarantee the provision of safe and reliable agricultural products to consumers. If you find product quality problems, you can use the Internet platform to track product quality and find problems.

2.3.3 Interactive credit rating

The development of the Internet has also enabled the real-time and precise interconnection of supply and demand information. From web forums to social platforms to various apps that carry self-media, user review information facilitates user interaction with users. Under the interaction, B2C, C2C, O2O and other e-commerce platforms are spawned, and consumers can evaluate the consumer experience within the platform. The fragmented evaluation information constitutes the overall credit evaluation of the product, allowing future consumers to understand more comprehensive product information, and then make purchase decisions, activate

potential consumers, and also promote the continuous optimization of product quality by farmers or farmers' organizations.

III. THE PRACTICAL VALUE OF "INTERNET PLUS LEISURE AGRICULTURE"

3.1 Promote Structural Adjustment

The integration of "Internet Plus" and leisure agriculture means the upgrading and transformation of the agricultural industry. "Internet plus leisure agriculture" is not only to use the Internet to support leisure agriculture, but also to change the production and lifestyle of farmers, managers and consumers on the chain, and to respond to rural tourism supply and consumption with innovative thinking. In a sense, while transforming traditional leisure agriculture, the Internet has also promoted the efficient use and mutual transformation of resources, transformed the mode of agricultural growth, cultivated new points for rural economic growth, and promoted the "innovation and drive of agriculture". "Transformation and development" is also of great significance in promoting the reform of the agricultural supply side.

3.2 Taking Targeted Measures in Poverty Alleviation

"Internet plus" has the advantages of expanding the scope of agricultural product transactions, lowering costs, increasing farmers' incomes, optimizing the structure of rural industries, and allowing farmers to truly enjoy the economic benefits brought about by "Internet Plus", which is the new ideas, new strategies and new measures of the current poverty alleviation in rural areas. Therefore, we must make full use of the "Internet Plus" and actively guide farmers to learn e-commerce poverty alleviation policies and e-commerce related knowledge to improve the overall quality of farmers. "Internet plus leisure agriculture" and precision poverty alleviation policies have a positive role in symbiotic development, which can reduce the waste of human resources and materials, and promote the transformation of new agricultural industry patterns in agriculture, agro-industry processing and service industries, and the cultivation of new consumption patterns. It has created space for the transfer of surplus rural labor to the service industry, which has ensured the stability of the rural economy, the improvement of farmers' income, and the upgrading of agriculture.

3.3 Promote Public Entrepreneurship

Under the atmosphere of "popular entrepreneurship and innovation", "Internet plus" reshapes the traditional agricultural industrial chain. In 2015, the Central No. 1 document pointed out that innovating the circulation of agricultural products and supporting the participation of e-commerce, logistics, trade, finance, and other enterprises involved in e-commerce platform construction provided opportunities for rural development. Therefore, the implementation of "mass entrepreneurship, innovation," and guide and support the return of migrant workers, college graduates, professional and technical personnel, etc. through the operation of leisure agriculture to achieve their own

business, is to achieve full employment in society, an important measure and method.

3.4 Improve the Ecological Environment

Leisure agriculture is the city's green ecological barrier, through which it can improve the city's taste. Leisure agriculture achieves the integration of greening, ecology, and leisure functions, and will promote the improvement of rural infrastructure and protection of the ecological environment. Especially the development of rural tourism has attracted a large number of social capital to enter, which has provided a more solid guarantee for the infrastructure construction of "Internet plus leisure agriculture". The new planning for rural tourism construction has also created conditions for rural ecological construction and provided farmers with a sense of ecological protection. It is of great value for both wining economic development and creating a win-win environment.

3.5 Promote Urban and Rural Planning

The development of leisure agriculture provides opportunities for urban residents to enter rural areas and experience pastoral life, promotes the understanding and understanding of urban residents on agriculture, rural areas and farmers. It also promotes interactive interaction between urban and rural residents and capital, technology and culture of the city. Science and technology and even ideas were brought to the countryside. The "Internet Plus" has also enabled peasants who are not staying in the house to reach out to modern civilization. This has helped to improve the quality of the peasants, changed the ideology and concepts of the farmers, led the transformation of agriculture, narrowed the differences between urban and rural areas, and promoted the integration of urban and rural development and social harmony.

IV. SUMMARY AND SUGGESTIONS

All in all, making full use of the "Internet plus" information technology to transform and upgrade leisure agriculture is an important support for the active development of new forms of agriculture, the extension of the agricultural industry chain, the integration of agricultural resources, and the creation of an "Internet plus leisure agriculture" public service information platform. How to seize market opportunities and improve the level of informatization development of leisure agriculture are the most important issues in solving the problem of agriculture, rural areas and farmers.

REFERENCES

- [1] 2016 China's Leisure Agriculture Industry Development Report, China Business Information Network, 2016-3-21.
- [2] Fang Qiaofeng, Mei Yan, Lei Wen. Research on Leisure Agricultural Tourism in the "Internet Plus" Era [J]. Guangdong sericulture, 2016, (02):46-47.
- [3] Fan Ziwen. Study on the Development of Leisure Agriculture and Rural Tourism in Beijing during the 13th Five-year Plan Period [J]. Journal of Beijing Vocational College of Agriculture, 2016, (05):5-16.
- [4] 2016 China's Leisure Agriculture Industry Development Report, China Business Information Network, 2016-3-21.
- [5] Rednet, Internet plus leisure agriculture, boosting Hunan's "precise poverty alleviation", <http://news.sina.com.cn/o/2015-09-24/doc->



- ifxiehns3180655.shtml, 2015-9-24.
- [6] Fan Ziwen. Study on the Development of Leisure Agriculture and Rural Tourism in Beijing during the 13th Five-year Plan Period [J]. Journal of Beijing Vocational College of Agriculture, 2016, (05):5-16.
- [7] Yuan Yawen, Wang Shuang. "Internet Plus" to Solve the Bottleneck of Leisure Agriculture Development [J]. Chinese Business Theory, 2016, (20):80-81.
- [8] Liu Yali. An Overview of "Internet plus Agriculture" Integration Innovation in the Perspective of "Accurate Poverty Alleviation": Based on the Study of Xiangxi Autonomous Prefecture [J]. Science and Technology Economics Journal, 2016, (24):84plus67.