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Study on the Poverty Alleviation Model of Internet + Agricultural Industry: Taking Anhua Dark Tea Industry as an Example

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Abstract Through field investigation and relevant information collection, the actual cases of poverty alleviation in the development of dark tea industry in Anhua County are analyzed, and the poverty alleviation models and poverty alleviation paths of the dark tea industry are studied. The enterprise + base + farmer and cooperative + base + farmer are the specific forms in the Internet + agricultural industry poverty alleviation model in Anhua County. The help effect of the path and mechanism of poverty alleviation on poor households is analyzed, and the poverty alleviation model of supporting the dark tea industry in Anhua County is summarized. Based on the experience of Anhua City's successful use of the Internet + dark tea industry to alleviate poverty, this article proposes four policy recommendations for the use of the Internet + agricultural industry model to alleviate poverty: strengthening the software and hardware infrastructure construction for the poverty alleviation model of Internet + agricultural industry and fostering leading agricultural enterprises and cooperatives with strong ability to drive, giving play to the advantages of Internet + agricultural industry to alleviate poverty and seizing opportunities, improving the government's capacity to use the Internet + agricultural industry poverty alleviation model and establishing targeted industry-supporting poverty alleviation system arrangements and organizational structure, and establishing a good poverty alleviation path and a close poverty alleviation benefit linkage mechanism to ensure the maximum benefits of poor households.

Key words Internet +, Agricultural industry, Poverty Alleviation, Anhua dark tea

1 Introduction

After the party's 18th National Congress, all members of the Party Central Committee with General Secretary Xi Jinping as the core regard poverty alleviation as an important part of the governance of the country, and poverty alleviation has received unprecedented attention^[1]. At the 19th National Congress of the Communist Party of China, General Secretary Xi Jinping once again proposed to "really help the poor to get rid of poverty". Therefore, poverty alleviation is still an important part of China's economic and social development in the next two years. How to make China achieve high-efficiency and high-quality comprehensive poverty alleviation is an issue worth studying. Obviously, China's past poverty alleviation practices have achieved great success. Among them, industry-supporting poverty alleviation is a model that is conducive to targeted poverty alleviation, and its effect on poverty alleviation is obvious. Jiang Yongpu and Mo Rongmei pointed out that among numerous poverty alleviation models in which government participates, using agricultural industries to achieve targeted poverty alleviation is an important path^[2]. Gu Chuan and Zeng Fusheng^[3] studied the construction of the interest linkage mechanism of industry-supporting poverty alleviation, and it is considered that industry-supporting poverty alleviation has the problem of lack of original capital, human capital and endogenous developmental motivation between the poor, as well as information asymmetry and

inconsistent goals between helpers. Yan Dongdong and Fu Hua^[4] used game theory to study the leading enterprises' participation in industry-supporting poverty alleviation. A game model was selected to analyze the behavior of leading enterprise groups. The Nash equilibrium generated by the leading enterprises' game and the optimal decision that should be taken were obtained. In addition, the game matrix between the leading enterprises and the government was constructed, and the dominant strategy was analyzed. Ma Nan^[5] studied the targeted poverty alleviation by developing characteristic industries in ethnic areas, and analyzed the value brought by developing characteristic industries. It is believed that the key to ensuring the targetedness of industry-supporting poverty alleviation is that the direction of industrial development should be targeted, the policy of stable market development should be targeted and the protection of poverty alleviation results should be targeted. Liu Beihua and Zhan Ling^[6] believed that poverty alleviation by industrializing agriculture is an important way to alleviate poverty. They analyzed the difficulties and problems in the agricultural industries to alleviate poverty. It is considered that poverty alleviation should be targeted, select characteristic industries, establish a good interest linkage mechanism, etc. to achieve the goal of poverty alleviation^[6]. Chen Xiyong^[7] considered that the development of characteristic industries is an important way to lift poverty in mountainous areas, sufficient characteristic industrial resources are the material basis for poverty alleviation, and industry-supporting poverty alleviation is conducive to generating better social and ecological benefits. At the same time, the problems appeared in the industry-supporting poverty alleviation such as inaccurate positioning and inaccurate policy of industrial development

were analyzed. It was proposed to aim at the development of the industry, continuously improve industrial development policies and establish a sustainable path to poverty alleviation.

Most domestic scholars' research on poverty alleviation by developing agricultural industries focuses on the problems in agricultural industries, the paths of poverty alleviation, the mechanisms of interest linkage, and the policies of poverty alleviation. There has been rare report on the combination of Internet and agricultural industries to alleviate poverty. Based on the research of predecessors, we have conducted a case study on the poverty alleviation model of Internet + agricultural industry, which not only emphasizes the poverty alleviation effect of agricultural industries but also points out the role played by the Internet in poverty alleviation. This means that this paper is mainly to study and highlight the poverty alleviation effect brought together by the Internet and agricultural industries. Taking the online development of dark tea industry in Anhua County, Hunan Province as an example, the specific application of the Internet + agricultural industry model for poverty alleviation is analyzed, and its poverty alleviation experience is summarized to provide a basis for proposing targeted policies or recommendations to ensure the effectiveness of poverty alleviation in the Internet + agricultural industry model. This is of great significance to fight against poverty, as well as to formation of poverty alleviation mode that can reduce poverty sustainably.

2 Poverty alleviation model of Internet + agricultural industry and its effect in Anhua County

The poverty alleviation by developing dark tea industry in Anhua County is based on the Internet. The use of the Internet in the process of poverty alleviation by developing dark tea industry is mainly reflected in the development of the dark tea industry and the sale of dark tea in the early stage. Through the network, dark tea is vigorously promoted and sold, letting the expanding online dark tea market force the development of the dark tea industry, forming many dark tea leading companies and cooperatives, thus realizing the poverty alleviation modes of dark tea enterprise + base + farmer and cooperative + base + farmer. The development of the Internet in Anhua County is mainly completed in three steps.

First of all, the Internet infrastructure is vigorously built. In the past five years, more than 2 000 communication base stations of three major network operators have been built, realizing coverage of broadband and broadcast in villages in the county. Secondly, a trading platform is established on the Internet. An e-commerce operation center of Anhua County and a three-level e-commerce service system for township and village (community) integrated service agencies are established. A network platform to carry out online microfinance, agricultural procurement, and sales of agricultural products is established specifically. By cooperating with Gong Xiao Yi Jia, Taobao, Youle, etc., an online platform such as "Special China · Anhua Pavilion" is created, attracting more than 3 000 merchants. In addition, *Anhua County Electronic Commerce Industry Development Plan (2017 – 2019)*, *Implemen-*

tion Plan for Electronic Commerce Entering the Rural Comprehensive Demonstration County Construction in Anhua County and other series of policy documents are formulated. Finally, online talent training is carried out, and more than 6,000 e-commerce personnel are trained each year. At the same time, the improvement of the logistics distribution system plays an important role in the Internet transaction in Anhua County. Anhua County takes China Post as the main body, integrating village service center with the e-commerce village-level service center and the village-level delivery center, conducting strategic cooperation between China Post and local logistics companies, SF Express, Zhongtong and Yuan-tong. With the village service center as the position, the express parcels will be delivered directly to the villages, and rural agricultural and sideline products are directly transported to the county. Through these measures, the Internet in Anhua County has developed rapidly. Dark tea enterprises have opened up the online sales market of dark tea through the Internet, and have continued to grow and develop, accumulating the strength and foundation to drive poverty-stricken households out of poverty. After the dark tea industry in Anhua County is developed with the help of the Internet, leading enterprises and cooperatives have joined the poverty alleviation action of Anhua County, forming the help models of enterprise + base + farmer and cooperative + base + farmer. The specific implementation is as follows.

2.1 Dark tea enterprise + base + farmer model Anhua dark tea enterprises and poor households carry out "four contracts and one unchanged" cooperation, *i.e.*, the supply of tea seedlings is contracted, technical guidance is contracted, financial support is contracted, tea acquisition is contracted, and the ownership of the tea farm base remains unchanged. This form of cooperation can achieve the help effect of three times of employment of poor households and three sources of income. First, the company provides farmers with tea cultivation and management to achieve the first employment. Second, the picking of fresh leaves and the initial processing of dark tea provide a second employment opportunity for poor farmers. Finally, poor households go to tea companies to work on tea production, packaging, picking, sales, etc. achieving the third time of employment. This is more conducive to achieving poverty alleviation. For example, Anhua Hualai Biotechnology Co., Ltd. has established a poverty alleviation workshop, launched poverty alleviation products and established a poverty alleviation fund. The poverty alleviation workshop has been arranged for the employment of 121 poor households, and the per capita annual income is more than 30 000 yuan. The poverty alleviation product "Fumin Tea" will donate 5 yuan to the poverty alleviation fund for every sale. The fund is jointly managed by the Poverty Alleviation Bureau of Anhua County and Hualai Company. The common feature of this poverty alleviation model is the combination of the Internet and the tea industry to achieve the company's production and operation and sales upgrades. On the basis of developing and expanding the company's own business scale and improving management efficiency, the company took out some of the fund to

drive poor households out of poverty. This model requires the company to have strong capital, advanced technology, large scale, high management efficiency, wide information channels, and strong driving force. The advantage is that it is conducive to the realization of the connection between small production entities and large market, the flow and combination of production factors, the scale operation and technological progress of agriculture, the promotion of the organization and commercialization of agricultural production, the improvement of comparative gains of poor farmers, and the protection of benefits and interests of farmers^[8].

2.2 Cooperative + base + farmer model The poverty alleviation model of dark tea cooperative can achieve three poverty alleviation mechanisms. First, an agreement is signed between the poor households and the cooperative. The land is transferred to the cooperative to develop a tea planting base, so that poor households can obtain land transfer funds. Second, the farmers are engaged in tea planting, processing, sales and other tea-related work in accordance with the requirements of the cooperatives, thus they can obtain income. Third, the farmers who have joined the cooperative will receive dividends on the profits of the cooperative according to the shareholding ratio. The dark tea professional cooperatives established in Anhua County can be divided into two categories. One is those of which strength is weak. These cooperatives do not have a dark tea sales network, and their tea is generally processed and sold to large enterprises for further processing, acting as an intermediary trader between dark tea enterprises and farmers. The other is powerful cooperatives that not only provide the above services, but also establish their own dark tea processing plants, set up their own dark tea companies, register their own dark tea brands, and realize the sales of dark tea products through the Internet. For example, the tea planting cooperative of Huangshi Village, Anhua County, has registered the Anhua dark tea brand "He Fu" to promote its own sales, and uses the Internet to publish product information, and puts dark tea products online for sale. This poverty alleviation model of cooperatives + bases + farmer is very reliable, closely connected with the interests of farmers, and the benefits of the entire tea industry are shared by farmers. The development of countries around the world also proves that cooperatives have played an irreplaceable role in reducing unemployment, poverty alleviation and building a harmonious society^[9]. The purpose of cooperatives is to serve all members and naturally have poverty alleviation effect. They have always been the ideal tool and means of poverty alleviation, and are also considered to be the most efficient economic entity for poverty alleviation^[10].

2.3 Analysis on the poverty alleviation effect of developing dark tea industry in Anhua County Among the poor households in Anhua County, 80% of them have tea gardens, and in the past two years, the dark tea industry in Anhua County has helped more than 50 000 people out of poverty. In 2015, Anhua County supported 1 956 registered poor households to develop characteristic dark tea and other industries. In the whole year, 26 753 people were lifted out of poverty, and the incidence of pov-

erty was 11.6%, reduced by 3.9% compared with that in 2014. In 2016, there were 130 poverty-stricken villages in Anhua County, and 25 475 people were out of poverty throughout the year, accounting for 2.79% of the total population. In 2017, 65 villages in 26 townships (towns) were lifted out of poverty, covering 39 963 people in 10 424 households, accounting for 4.38% of the total population. As of the end of 2017, there were 48 565 poor people in Anhua County. From the above data, it can be seen that Anhua County has an extreme poverty and a large number of poor people. At the same time, poverty alleviation has achieved remarkable results, with an average of more than 20 000 people out of poverty each year. Most of these people are out of poverty due to the tea industry, so that the dark tea industry has achieved remarkable results in poverty alleviation, with strong poverty alleviation strength and good poverty alleviation effect. The table below gives a statistical table of the number of people out of poverty in Anhua County in recent years.

Table 1 Statistics on poverty-free population in Anhua County in the past years

Year	Poverty-free population	Percentage of poverty-free population //%
2014	13 180	1.14
2015	26 753	2.93
2016	25 475	2.79
2017	39 963	4.38

Note: The data comes from the Yiyang Statistical Information Network (<http://www.ytj.gov.cn/yytjxxw/index.htm>). The poverty-free population in 2014 is only those out of poverty due to the dark tea industry.

3 Summary of poverty alleviation experience of developing dark tea industry in Anhua City

First, it benefits from geographical and industrial advantages of dark tea in Anhua County. Anhua County's ability to use the dark tea industry to achieve rapid poverty alleviation is based on its developed dark tea industry, powerful dark tea companies and strong industrial development potential. First of all, Anhua County has a long history of dark tea planting, which has been recorded since the late Tang and Five Dynasties. The long history of dark tea planting and processing and the superior geographical environment have resulted in the exquisite dark tea processing technology, rich tea culture and developed dark tea industry. Moreover, the living areas of the poor population coincide with the dark tea planting areas, more conducive to the poverty-stricken households to develop the dark tea industry for getting rid of poverty. Second, the main helpers of poverty alleviation by developing dark tea industry in Anhua County are generally the leading dark tea enterprises, such as Hunan Hualai Biotechnology Co., Ltd. and Baishaxi Tea Factory. These companies are worth hundreds of millions of dollars. In particular, Hualai Company occupies half of the dark tea industry in Anhua County. They have strong capital, strong driving ability and a large number of employees, with the ability to drive poor households to engage in the dark tea industry to achieve poverty alleviation.

Second, it thanks to the use of the Internet. Part of the motivation for the development of dark tea industry in Anhua County

comes from the expansion of the dark tea consumption market, and part of it comes from the expansion of dark tea production and processing scale. The former is the pulling effect of the demand for industrial expansion, and the latter belongs to the supply promotion of industrial expansion. The increased demand for the dark tea industry in Anhua County benefits from the use of the Internet. Through vigorously building Internet infrastructure, establishing an Internet sales platform, cultivating Internet sales talents and improving the Internet logistics distribution system, a large county of the Internet is constructed gradually, and direct communication and sales channels between dark tea industry and dark tea consumers have been smoothed. The scale of the dark tea market online continues to expand. In turn, the development of the dark tea industry will be forced to grow, forming leading enterprises with economies of scale and many companies that carry out Internet dark tea sales. As the scale of the industry has expanded, the number of people employed by dark tea companies has also increased. The poverty alleviation role is also growing.

Third, it has seized good opportunities. First, it has seized the policy opportunity. A series of policies on targeted poverty alleviation and supply-side structural reforms have increased agriculture-related funds, and have increased the resolution of the issues of agriculture, farmers, and rural areas. The government of Anhua County has seized these policy opportunities to distribute poverty alleviation funds to poor households to develop the dark tea industry. Second, it has seized the market opportunity. The dark tea enterprises in Anhua County have taken advantages of the Internet market with broad prospects. In 2017, Anhua County was successfully selected as one of the 100 state-level poverty-stricken counties that have characteristics in e-commerce poverty alleviation activities. The 100 poverty-stricken counties participated in the ten-day "one county, one product" e-commerce poverty alleviation activity, which recommended the agricultural products that are most needed to be sold in poverty-stricken counties through news reports, webcasts, and video broadcasts within ten days. Anhua dark created sales of 15.77 million yuan in the ten days, ranking first in the 100 poverty-stricken counties. Through the self-built online sales platform or third-party sales platforms, online sales channels are opened. The tea produced by poor households is sold on the Internet, solving the sales problem of industry-supporting poverty alleviation, thereby achieving the goal of poverty alleviation smoothly. In addition, people's health awareness has improved, and the market opportunities brought about by the welcome of health products have also been seized by Anhua County. Dark tea is good for health, including regulating blood pressure and blood sugar balance, delaying aging, beautifying, and preventing cancer. Therefore, a large number of health elements are integrated into production, processing and publicity of dark tea. Finally, it has seized the opportunity of technological innovation. The Anhua County government and dark tea enterprises have seized the opportunity of scientific and technological innovation and actively cooperated with universities and research institutes in production, learning and research, and achieved good results. For example, the Anhua County government and Hunan Agricultural

University conduct scientific research cooperation. In 2016, the project of *Innovation and Industrial Application of Key Technology for Dark Tea Quality and Efficiency Improvement* led by Professor Liu Zhonghua won the National Science and Technology Progress Award (second class). In 2016, Anhua dark tea has applied for 260 national patents, including 40 invention patents.

Fourth, the government has formulated a good system and organizational structure with a strong support role. First of all, Anhua County organizes specifically a leading group for industry-supporting poverty alleviation, issues the *Anhua County Industry-supporting Poverty Alleviation Implementation Rules*, *Anhua County Poverty Alleviation Microfinance Repayment Operation Management Measure* and other rules and regulations, and establishes an expert database of the industry-supporting poverty alleviation project evaluation committee. More importantly, the industry-supporting poverty alleviation is included in the performance appraisal. The Standing Committee Meeting and the Executive Meeting of Anhua County focus on the research of industry-supporting poverty alleviation work in a timely manner, and timely solve the difficulties and problems in the process of industry-supporting poverty alleviation. Each poverty-stricken village establishes an industry-supporting poverty alleviation association and establishes a residential assistance team. Second, an industrial support fund of 180 million yuan is established for the cultivation and development of the industry, solving the financial problems of poor households. In this way, more than 20 000 poor households have been supported to develop more than 1 000 ha of tea gardens.

Fifth, a good poverty alleviation model has been adopted. The Anhua County government selects 20 high-quality enterprises as the leading enterprises in the dark tea industry; and adopts the models of enterprise + base + farmer and cooperative + base + farmer to implement entrusted assistance, and these models are very grounded. On the one hand, these poverty alleviation models can directly and closely connect the interests of companies and cooperatives with those of poor households. Companies and cooperatives can obtain tea leaves grown in green trees. The quality of raw materials for tea is guaranteed, and therefore, the production of high-quality, green, pollution-free and healthy dark tea products is guaranteed. On the other hand, these companies are strong in strength, large in scale, highly motivated by poverty alleviation, and strong in responsibility. They use big data and the Internet to connect the traditional dark tea industry with the online market, realizing online purchase and order placement of production materials, live broadcast of dark tea production, online sales of dark tea products and traceability of dark tea after sale, thereby letting the dark tea industry spread its wings on the Internet. Therefore, these models strengthen the linkage mechanism between companies and farmers, as well as cooperatives and farmers, and achieve mutual dependence and synergy. More importantly, a poverty alleviation mechanism that can provide multiple employment opportunities and multiple income sources to poor households is established. There are many opportunities for poor households to participate in the poverty alleviation process, making poverty alleviation more objective, stable and efficient.

4 Policy recommendations

4.1 Strengthening software and hardware infrastructure construction and cultivating leading enterprises with strong ability to drive When using the Internet + agricultural industry model to help the poor, government should first develop and expand the Internet and agriculture in poverty-stricken areas. For poor areas without any industrial base, the industrial development infrastructure in these areas should be gradually improved first, such as strengthening the construction of road traffic facilities, land planning and construction of industrial parks and planting areas, construction of logistics systems, and construction of network facilities. In terms of software, they should cultivate a group of Internet agricultural compound talents who understand agriculture, understand the Internet, love agriculture and love farmers, introduce a group of experienced, skilled and capable professionals, establish or join online agricultural information release and agricultural procurement network, and establish an online agricultural product sales platform. Utilizing network big data, cloud computing, and the Internet of Things, the networked production management of agriculture is gradually realized, thereby establishing the industrial foundation for Internet + agricultural industry to alleviate poverty. For poor areas with an industrial base, first of all, they should strengthen the planning and construction of networked and large-scale industrial development according to their own situation, cultivate a group of leading enterprises with strong strength, strong capital and strong management ability to enlarge and strengthen the agriculture, and to drive poor households to develop agricultural industries to get rid of poverty relying on the leading enterprises. Second, government should encourage poor households to set up agricultural industrial cooperatives that represent their own interests, improve the productivity, management capabilities and operational capabilities of the cooperatives, strictly implement the quality standards for agricultural industrial cooperatives, also encourage cooperatives to establish their own agricultural product brands to grow and develop, so as to realize the rapid development of Internet + agricultural industry for poverty alleviation.

4.2 Giving play to the advantages of Internet + agricultural industry and seizing opportunities First of all, we should give full play to the advantages of Internet + agricultural industry poverty alleviation model, such as accurately identifying and helping the poor households, driving local economic development through the industrial development, reducing the use of "cramming" poverty alleviation funds, improving the efficiency of poverty alleviation funds and realizing long-term poverty alleviation, so as to increase confidence and effectiveness in poverty alleviation, and form a virtuous cycle of development of the poverty alleviation model. Second, we should improve the conceptual skills of the main body of poverty alleviation. In the process of the poverty alleviation, we should be good at grasping the numerous opportunities brought by the current economic, social and ecological environment changes for the Internet + agricultural industry poverty al-

leviation model, and tapping potential opportunities. For example, the economic supply side structural reform and the rural revitalization strategy introduced a series of policies that help develop agriculture and improve the landscape of rural, peasants and agriculture, bringing policy opportunities and capital opportunities for poverty alleviation by developing agricultural industries. The rural revitalization strategy has brought about many potential advantages, including those the country will pay more attention to the countryside, the future attractiveness of the countryside will increase, and farmers will be more prosperous. These potential opportunities are more conducive to the widespread promotion and development of the Internet + agricultural industry poverty alleviation model in the future. Second, the improvement of social living standards and the market opportunities brought about by the changes in the concept of healthy consumption cannot be ignored. Currently, the total amount of agricultural products is large, but their quality is low. In the process of poverty alleviation through the Internet + agricultural industry model, we must seize the market opportunity of changing consumption from quantitative to qualitative. At present, local products are in short supply in the market, and there are not many opportunities to buy these high-quality agricultural products. Therefore, in the process of Internet + agricultural industry poverty alleviation, priority should be given to the development of souvenir agriculture. Finally, we must seize the opportunity of science and technology. China has proposed to implement the strategy of driving development with scientific and technological innovation. The current scientific and technological progress is rapid, and the scientific research strength has been significantly improved. In the process of carrying out the Internet + agricultural industry poverty alleviation, we should seize the opportunities of science and technology, cooperate with scientific research institutions and universities to increase the use of scientific research results in agricultural industries, and let the scientific and technological forces act on the whole process of poverty alleviation to better achieve the goal of poverty alleviation.

4.3 Improving the government's ability to use Internet + agricultural industry to alleviate poverty and establishing industry-supporting poverty alleviation system and organizational structure The government should improve the ability to use the combination of the Internet and agricultural industries to alleviate poverty. First of all, we must be good at learning and using the experience of the Internet + agricultural industry poverty alleviation to give full play to the basic role of agricultural industries and exert the catalyst effect of the Internet on poverty alleviation by developing agricultural industries. Second, the Internet + agriculture industry poverty alleviation is included in the performance appraisal, and the Internet + agriculture industry poverty alleviation seminar is regularly carried out, focus on solving various problems encountered in the process of poverty alleviation and developing and planning poverty alleviation content. Finally, the government should fully provide organizational guarantees, institutional foundations, material foundations, funds and information for the Inter-

net + agricultural industry poverty alleviation, solve the pre-production, mid-production and post-production problems encountered by poverty-stricken households in developing agricultural industries, and eliminate the doubts of poor households. Industry-supporting poverty alleviation rules and regulations such as the *Implementation Rules for Internet + Agricultural Industry Poverty Alleviation Plan* and the *Measures for the Use and Management of Poverty Alleviation Funds* can be formulated to simplify and standardize the poverty alleviation management process and improve poverty alleviation efficiency. At the same time, it is necessary to set up special industry-supporting poverty alleviation groups, resident work teams and other organizational structures to guide and supervise all aspects of poverty alleviation by developing agricultural industries, and provide institutional and organizational support for the poverty alleviation model of Internet + agricultural industry.

4.4 Establishing a good poverty alleviation path and mechanism

In the process of using the Internet + agricultural industry model to alleviate poverty, we must fully protect the interests of poor farmers and ensure that the interests of farmers are not damaged. All or part of the profits from agribusiness operations is returned to poor households to maximize the benefits of poor households. We must remain true to our original aspiration, unwaveringly establish and maintain a poverty alleviation mechanism that maximizes the interests of poor households, recommend the good poverty alleviation models such as enterprise + base + farmer and cooperative + base + farmer to link the interests of the poor households with those of the agricultural industries^[11], let poor households participate in the production, processing and sales of the agricultural industries, provide jobs in the entire industry chain, and establish a variety of poverty alleviation paths and close linkage mechanisms for poor households. All aspects of the interests of peasants should be taken into account to maximize the poverty alleviation effect of the Internet + agricultural industry model.

(From page 8)

- [21] ZHU XC, WU JW, WU PP, *et al.* The expanded form of gravity model and its application in measuring inner-city linkage of Chinese megalopolises[J]. *Urban Studies*, 2015, 22(9): 43–50. (in Chinese).
- [22] LAO X, SHEN TY, YANG Y, *et al.* A study on the economic network of the urban agglomeration in the middle reaches of the Yangtze River: Based on social network analysis method with gravity model[J]. *Urban Studies*, 2016, 23(7): 91–98. (in Chinese).
- [23] LU TZ, WU ZQ, HUANG L. International comparison of creative cities cluster: An analysis of social network and spatial organization on innovative collaboration; International comparison of creative city cluster between the Bosnywash Megalopolis and the Yangtze River Delta Region [J]. *Urban Planning Forum*, 2016, 39(7): 35–44. (in Chinese).
- [24] WANG W. A comparative study on eco-spatial morphological features of the three major urban agglomerations in China[J]. *Urban Planning Forum*, 2009, 32(1): 46–53. (in Chinese).
- [25] ZHANG ZB, CHEN YR, ZHAO L, *et al.* The analysis of metropolitan areas spatial self-organization evolution in China based on the theory of central place[J]. *Economic Geography*, 2014, 34(7): 44–51. (in Chinese).

References

- [1] XIANG JQ, ZHOU CY. Evolution and policy choices of new three rural issues[J]. *Chinese Rural Economy*, 2017, 33(10):13–25. (in Chinese).
- [2] JIANG YF, MO RM. Cadres going to the countryside, targeted poverty alleviation and agricultural industrialization development: Based on the case analysis of "the first secretary industry alliance" [J]. *Social Sciences in Guizhou*, 2016, 37(5): 162–168. (in Chinese).
- [3] GU C, ZENG FS. Construction of interest linkage mechanism in industrial poverty alleviation: Taking the "four follow four walk" experience of Yizhang County in Hunan Province as an example[J]. *Rural Economy*, 2017, 35(8): 45–50. (in Chinese).
- [4] YAN DD, FU H. Evolutionary game analysis of leading enterprises participating in industrial poverty alleviation[J]. *Rural Economy*, 2015, 33(2): 82–85. (in Chinese).
- [5] MA N. Research on targeted poverty alleviation of characteristic industries in ethnic regions: Taking the development industry of traditional Chinese medicinal materials as an example[J]. *Journal of South-Central University for Nationalities: Humanities and Social Science*, 2016, 36(1): 128–132. (in Chinese).
- [6] LIU BH, ZHAN L. Problems and countermeasures of poverty alleviation through agricultural industrialization[J]. *Journal of China Agricultural Resources and Regional Planning*, 2016, 37(3): 1–4, 175. (in Chinese).
- [7] CHEN XY. The plight and countermeasures of targeted poverty alleviation in mountain industry: A survey from Pingwu County of Sichuan Province [J]. *Rural Economy*, 2016, 34(5): 87–90. (in Chinese).
- [8] MOU DP. Economic thinking on the innovation of agricultural industrial organization: A preliminary study on the production and management mode of "company + base + peasant household" [D]. Changchun: Jilin University, 2004. (in Chinese).
- [9] DENG HS, WANG WC. The essential regulation and reality inspection of cooperatives: Is there any real farmer cooperatives in China? [J]. *Chinese Rural Economy*, 2014, 30(7): 15–26, 38. (in Chinese).
- [10] LIU JW. The influence of specialized farmer cooperatives on the income and stability of poor peasant households: A case study of Shandong and Guizhou Provinces[J]. *Chinese Rural Economy*, 2017, 33(2): 44–55. (in Chinese).
- [11] WEI FY, WEI P, LIANG YD. The main role, existing problems and suggestions of broiler chicken industry in targeted poverty alleviation [J]. *Guangxi Journal of Animal Husbandry & Veterinary Medicine*, 2017, 33(6): 323–324. (in Chinese).
- Chinese).
- [26] MEI ZX, XU SJ, OUYANG J, *et al.* The spatio-temporal evolvement of spatial interaction among cities of Zhujiang River Delta in recent 20 years[J]. *Scientia Geographica Sinica*, 2012, 32(6): 694–701. (in Chinese).
- [27] ZHANG X, SHEN QJ, LI YZ. Study on diversity and spatial structure of Chinese top ten urban agglomerations [J]. *Urban Planning Forum*, 2016, 39(3): 36–44. (in Chinese).
- [28] SUN DQ, ZHANG JX, HU Y, *et al.* The formation of metropolitan shadow from the perspective of industry spatial contacts: A comparison between Changjiang River Delta and Beijing – Tianjin – Hebei metropolitan region[J]. *Scientia Geographica Sinica*, 2013, 33(9): 1043–1050. (in Chinese).
- [29] FANG CL. Progress and the future direction of research into urban agglomeration in China [J]. *Acta Geographica Sinica*, 2014, 69(8): 1130–1144. (in Chinese).
- [30] GU CL. Study on urban agglomeration: Progress and prospects[J]. *Geographical Research*, 2011, 30(5): 771–784. (in Chinese).