

Development of Fresh Agricultural Products Sales Assisted by E-commerce Under Targeted Poverty Alleviation Strategy

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Abstract

Rural revitalization strategy is a major measure to solve “Three Rural issues (Agriculture, Rural area, and Farmers)” and promote the urbanization process in China. It is also a fundamental solution to solve the problem of imbalanced and inadequacy development in different areas of China. With deep implementation of rural revitalization strategy, the economic development direction turns into E-commerce filed gradually. E-commerce provided new impetus and directions to rural economic development and produce deep influence to traditional rural economic model. As an important part of the digital economy, rural e-commerce has become an important starting point to stimulate the potential of the rural economy, and plays increasingly significant role in helping poverty alleviation, driving famers’ employment and entrepreneurship, promoting the digital transformation of rural industries, and improving rural infrastructure and other aspects. At present, the county rural E-economic development has become a hot issue in rural economic development. In this paper, the Chun’an county of Hangzhou, in Zhejiang Province was taken as an example, the county rural e-commerce development situation and successful experiences were summarized, the important ways of rural e-commerce transformation in the country under the background of rural revitalization were focused, and corresponding countermeasures and suggestions for the present existing problems of rural e-commerce were given. It is hoped that the results can provide some useful samples for the implementation of rural revitalization strategy and provide some reference for the development of other county rural areas in Zhejiang Province and inject new vitality and impetus into the development of rural economy.

Keywords: Rural revitalization; Rural e-commerce; Transformation.

1. Introduction

In October 2017, the report of the 19th National Congress of the Communist Party of China clearly stated that the main contradictions in our society have been transformed into the contradiction between the people’s growing needs for a better life and imbalanced and inadequacy development in different areas of China. However, this contradiction is most prominent in rural areas. In order to solve this contradiction and achieve high-quality economic development, we must take rural areas as the entry points, comprehensively

promote rural revitalization, vigorously enhance rural production capacity, raise farmers' income level, and accelerate the process of urban-rural integration [1, 2]. In October 2022, the Party's 20th National Congress pointed out that China has completed the historical tasks of poverty alleviation and building a moderately prosperous society in an all-round way, but problems such as inadequate rural development, urban and rural have a large development gap, and unbalanced economic and social developments still exist. The General Secretary Xi Jinping emphasized the level of modernization in the countryside determines the level of modernization of the whole of China, and the most difficult tasks are concentrated in the rural. Therefore, if China wants to further realize the second centenary goal to build a modern socialist country, developing agriculture and rural areas and deepening the implementation of the rural revitalization strategy are the top priority of the tasks.

To implement the rural revitalization strategy, the supply of important agricultural products, especially food, should be set as our top priority, and improving overall agricultural production capacity should gain more attention [3, 4]. With the vigorous development of the digital economy, China's E-commerce is fully maturing, and the digital application represented by rural E-commerce is playing a significant role in rural revitalization, rural E-commerce has become a 'leader' in promoting sales of agricultural products, the structural reform of the agricultural supply side, economic development of agricultural and rural. 'Internet +' thinking was used to guide the economy of rural areas to conduct digital transformation, information channels between rural and urban were linked through various digital channels to strengthen the effective integration of resources. According to the data of the Ministry of Commerce, the national rural online retail sales increased from 894.54 billion yuan in 2016 to 21700.0 billion yuan in 2022, always maintaining a high-speed growth trend, and its growth rate has been higher than the overall growth rate of national E-commerce for multiple times, which shows that the rural E-commerce market is developing steadily better. In addition, the scale of rural Internet users in China has expanded to 293 million, accounting for 27.9% of the total Internet users, and the rural Internet penetration rate has also continued to increase, reaching 58.8%. Among them, the advantages of the development of rural E-commerce in Zhejiang Province are particularly prominent, such as Chun 'an county in Hangzhou has made remarkable achievements in the development of county rural E-commerce. At present, Chun 'an county has more than 10 well-known E-commerce agricultural products brands and a number of agricultural products E-commerce professional service providers, and has cultivated 5 provincial E-commerce professional villages and 1 provincial E-commerce town. By the end of 2022, the per capita disposable income of urban residents in Chun 'an county increased by 4.2%, the per capita disposable income of rural residents increased by 6.0%, the per capita disposable income gap between urban and rural residents narrowed to 29,000 yuan, and more than 12,000 E-commerce jobs were created. Judging from these data, agriculture and rural areas will be an important area for the development of digital economy, and the construction of digital rural areas will enter a new era. In addition, the integration and development of rural E-commerce and rural revitalization will also become the general trend of China's future agricultural development, but there are still many problems in the process of building rural E-commerce, and it is difficult to truly mobilize the vitality and role of rural E-commerce development.

The rural revitalization strategy was first proposed at the 19th National Congress of the Communist Party of China in 2017 and has been implemented for five years so far. In recent years, focusing on rural revitalization and digital village construction, the state has announced a series of strategic plans to accelerate rural revitalization and promulgated related policies and measures to standardize the development of rural E-commerce. Rural E-commerce can release the huge potential of agricultural production and rural consumption to the greatest extent; therefore, the government actively supported the

development of rural E-commerce with expectation of a high-quality direction. In addition, more and more E-commerce companies have gradually recognized the opportunity to develop the prospects of rural E-commerce, Alibaba, Pinduoduo (PDD), Jingdong (JD) and Suning and other large E-commerce companies have deployed strategies in rural areas and began to sink channels. The layout strategies adopted by them are different, PDD drives agricultural products up, JD creates a complete supply chain system, Alibaba dominates digital technology to build a smart agricultural system, and Tiktok uses short video content and live broadcast mode to narrow the distance between agricultural products and consumers. According to relevant data, the national rural online retail sales in 2021 will reach 2.05 trillion yuan, accounting for 15.66% of the national online retail sales, of which the online retail sales of agricultural products will reach 422.1 billion yuan. Obviously, rural E-commerce plays an important role in expanding the sales of agricultural products. Rural areas are the focus of future development. By studying the ways and paths of rural E-commerce transformation at county level, and exploring the potential opportunities in rural areas, the realization of rural revitalization can be expected soon. In this paper, Chun 'an county of Zhejiang Province was chosen as a case study, the development of rural E-commerce in the county was investigated, and the important transformation of regional rural E-commerce under the background of rural revitalization was illustrated, corresponding countermeasures and suggestions for the current problems of rural E-commerce were put forward, to provide certain reference for E-commerce development of other rural areas in Zhejiang Province.

2. Rural E-commerce

2.1. Introduction of Rural E-commerce

Rural E-commerce has experienced five stages: downward trend of industrial products, upward trend of agricultural products, poverty alleviation by E-commerce, upgrading for demonstration county and agriculture promoted by digital commerce. For the aspect of industrial clusters, it is expected that the development of rural E-commerce industrial clusters can be promoted and accelerated from three aspects, products, enterprises and individuals. The rural E-commerce industry cluster should be considered as a dynamic and complex system, the high-quality development of rural E-commerce industry clusters will confront the dilemmas of excessive homogenization competition, and talents loss. In terms of rural E-commerce logistics, several problems emerged in the development of E-commerce logistics in China, such as low scale of enterprises, insufficient circulation channels, imperfect logistics policies, and lack of rural E-commerce logistics professionals [5, 6]. Domestic E-commerce logistics includes three modes: self-built logistics, third-party logistics and integrated logistics. Each kind of logistics has its own advantage and disadvantage. Considering the existing problems and constraints of E-commerce logistics in rural areas, multiple measures should be taken to establish a perfect rural modern E-commerce logistics system, from the perspectives of strengthening rural E-commerce policy and regulation system, terminal distribution system, distribution and transfer system, information management system and talent training system.

The new model of live streaming was studied to help farmers. The connotation, development logic and chain effect of the model was investigated to excavate the value and development paths of live streaming. In terms of development dilemma, the current situation of rural E-commerce development still facing four dilemmas, small and scattered products, weak foundation of rural logistics system, lack of talents and poor financing channels. Strengthening the cultivation of rural E-commerce operators, optimizing the operation mode of rural E-commerce market, and improving the construction of rural E-commerce logistics system can help solve the difficulties in cultivation of operators, and logistics distribution shortcoming in the

development of rural E-commerce. Besides, the main problems among the development of rural E-commerce included the imperfection of rural e-commerce infrastructure and supporting services, the standardization of agricultural products, and the difficulty for talents training, the low level of agricultural product structure, the imperfection of platform after-sales service, the low degree of sharing of information and data resources, and the overlapping of policies [7, 8].

2.2. Influence of Rural E-commerce on Rural Revitalization

The attention to the overall development of rural E-commerce has been intensively studied, few were focused on the current situation of rural E-commerce empowering rural revitalization. Most of the references concerned about how rural E-commerce impact on the “Three Rural issues (Agriculture, Rural area, and Farmers)” and poverty alleviation.

In terms of e-commerce promoting poverty alleviation, the development of rural e-commerce has a positive effect on poverty alleviation and poverty reduction. The various development models of self-employment, cooperative operation, rural enterprise-driven and public institution-led in the region provide a reference for rural poverty alleviation. The shortcomings of rural e-commerce in poverty alleviation mainly included weak foundation of e-commerce poverty alleviation industry, lack of talents for e-commerce poverty alleviation, insufficient funds, and incomplete infrastructure. The path of rural e-commerce to alleviate relative poverty included poverty reduction, empowerment and co-ordination. In terms of poverty reduction, rural e-commerce played important roles in three aspects of (1) controlling the increment of returning to poverty, (2) decreasing the stock volume of poverty and (3) preventing the variables of causing poverty. In terms of empowerment, rural e-commerce provides a relatively fair network platform and information exchange and interactive network system for farmers among the market competition. In terms of co-ordination, the rural e-commerce poverty alleviation platform provides more opportunities for low-income urban residents and migrant workers, who can engage in more value-added investment activities, thereby alleviating the relative poverty gap and reducing the reverse adjustment of income distribution gap on relative poverty alleviation.

In terms of rural revitalization, a ' four-step ' strategy was suggested to break the deadlock from the perspective of rural revitalization based on the research for the development of rural e-commerce, especially concerning the bottlenecks in the development process [9, 10]. The four steps included, (1) improve the traceability system to ensure the product quality, to enhance the consumers' confidence ; (2) to give full play to comparative advantages and create regional agricultural brands with distinctive characteristics ; (3) take the rural e-commerce big data center as the fulcrum to drive the inventory turnover of agricultural products ; (4) drive the innovation and upgrading of related industries and industrial transformation and reconstruction, and further promote rural revitalization. The role of rural e-commerce in promoting rural revitalization included several aspects, deepening the structural reform of agricultural supply side, expanding the agricultural industrial chain and value chain, promoting rural innovation and entrepreneurship, winning the battle against poverty, innovating rural finance, and improving the level of rural public services. The promotion mechanism of e-commerce to rural revitalization from all aspects of economy and society can be divided into four aspects, (1) Promoting the transformation of agricultural development mode and driving the development of characteristic agriculture; (2) Promoting the supply and demand of agricultural products market docking, improve the rural market ability; (3) Improve the ability of rural employment and increase farmers' income; (4) Promote the improvement of rural infrastructure and tap the potential of rural development. The system dynamics model for the interactive development of

rural e-commerce and rural revitalization found that, the implementation of the rural revitalization strategy has a strong interaction with the development of rural e-commerce. Based on the perspective of urban-rural integration, the development of rural e-commerce can help the implementation of rural revitalization strategy in many aspects, such as the integration of industrial chain (the foundation), the informatization of farmers' lifestyle (the wing), the harmonization of rural governance (the marrow), the diversification of rural products and culture (the soul), from the four levels of revitalization.

2.2.1. Promoting the revitalization of industries in rural area

The most important industry in the countryside is agriculture. On the premise of ensuring agricultural production, local farmers can rely on regional characteristics to develop other related emerging industries, such as farming experience, sightseeing agriculture, rural homestay agritainment, rural sightseeing tourism, and rural health tourism. Rural E-commerce has promoted the flow and allocation of rural production factors to a certain extent and further promoted the transformation and upgrading of rural industrial structure. In addition, rural E-commerce has greatly expanded the network sales of rural areas, making local agricultural products have more opportunities to go out and face a larger market. At the same time, rural E-commerce provides a smoother channel for information transmission. Farmers can use words, pictures, videos and live broadcasts to display agricultural products in an all-round way on the E-commerce platform and introduce the characteristics and selling points of agricultural products in depth. Rural E-commerce can also enable agricultural product sellers connect to logistics more accurately, timely grasp platform orders, reduce the number of transportations, and improve the added value of agricultural products. In general, rural E-commerce helps to build the whole industry chain of county agriculture, promote urban-rural integration, and smooth the urban-rural economic cycle.

2.2.2 Attracts more talents to join the countryside

Rural E-commerce has promoted the development of local industries and formed a joint force with them to jointly promote the increase of rural jobs. With the rapid development of E-commerce, local industries are further expanded and strengthened, gradually forming a complete industrial chain and industrial ecology, releasing a large number of entrepreneurial employment opportunities for young people, which is conducive to the return of rural talents. Facts have proved that rural E-commerce has a very strong absorption effect on rural labor force. E-commerce has driven the development of other industries such as agricultural product processing, warehousing, packaging and logistics, and promoted the development of new business forms in rural area, which has attracted a large number of rural labor force to stay in the local employment and young labor force to return home to start a business. At present, rural E-commerce especially needs compound talents of product planning, operation promotion, art design and data analysis, which is also one of the breakthroughs in the development of rural E-commerce in rural areas.

2.2.3. Promoting the inheritance and innovation of rural culture

While rural E-commerce brings new ideas to local farmers, it also promotes the traditional local culture to go out of the countryside and realize the inheritance and innovation of culture. Rural E-commerce allows farmers to access the Internet, learn new ideas, and gradually change from farmers in the land to new farmers who understand agriculture, be cultured, with high technology, and good at management. They begin to understand how to solve the problem of agricultural product transportation through digital logistics platforms, expand sales channels with the help of new media platforms, and inject new vitality into the

transformation of traditional agriculture with Internet thinking. Rural E-commerce has not only brought people flow, logistics, information flow and capital flow to the countryside, but also brought cultural flow, new things such as ideas, management concepts and life attitudes have deeply penetrated the countryside. These new changes have greatly promoted the construction of rural civilized society. Rural areas pay more attention to cultural communication than ever before. Many platforms have jointly created rural intangible cultural heritage shopping festivals for many times, so that more consumers can understand and experience the local intangible cultural heritage culture in shopping. In addition, there are many short video creators with the theme of rural life in rural areas. They vividly display local characteristics such as rural production process, rural scenery, food characteristics, traditional handicrafts and interpersonal relationships on the platform, which stimulates the curiosity of urban residents and enhances their cultural identity.

2.2.4. Creating conditions for development of rural ecology

The development of rural E-commerce enables rural residents to enjoy many high-quality resources and services such as medical care, education, finance, culture, and entertainment in the city, which greatly improves the quality of life and livable happiness of rural people. In addition, rural E-commerce is not only conducive to the realization of rural livable ecology, but also conducive to the realization of environmental ecology. E-commerce has spread Internet thinking in rural areas, changed the original traditional agricultural production development model, and farmers' awareness of green development and ecological environmental protection has gradually increased. Some mountainous counties make full use of local natural ecotourism resources, vigorously promote local tourism with the help of E-commerce live broadcast platforms, actively explore the development models of 'tourism plus agricultural products' and 'tourism plus culture', and fully package local advantageous agricultural products, using E-commerce platforms and other channels for publicity and sales. Through the deep integration of tourism and agricultural products, tourism and culture, it not only enriches the tourism elements, but also improves the sales and added value of tourism products and agricultural products. Rural E-commerce has truly transformed the ecological resources of mountainous areas into the fruitful results of rural prosperity and transformed the concept of green water and green mountains into the vivid practice of reality.

3. The development status of rural e-commerce in Chun'an County, Zhejiang Province

3.1. The development status of rural e-commerce in Zhejiang Province

Zhejiang Province has always been a major economic province, in which the rural economy has played an important role in promoting the economic growth of the province. By 2022, the GDP of Zhejiang Province is 7771.5 billion yuan, among which the output value of agriculture, forestry, animal husbandry and fishery reaches 375.6 billion yuan, accounting for 4.8 % of the total GDP. However, compared with Shandong, Henan and Sichuan province, the contribution of the output value of agriculture, forestry, animal husbandry and fishery in Zhejiang Province to GDP is not very high. Zhejiang has always had the saying of "seven mountains and one water and two fields." The arable area is only 2.0817 million hectares, but the agricultural and rural work of Zhejiang province has always been at the forefront of the country. The government attaches great importance to agricultural and rural development and strives to make limited land play a greater value. According to the latest 'Implementation Opinions', in 2022, the level of digital development of agriculture and rural areas in Zhejiang Province will be as high as 68.3 %, the per capita disposable income of rural residents will reach 37,565 yuan, and the income difference between urban and rural residents will be narrowed to 1.9. The disposable income of rural residents in Zhejiang Province has

ranked first among the provinces and regions of the country for 38 consecutive years. It can be seen that Zhejiang Province has made great achievements in agricultural and rural development, especially in promoting the common prosperity of farmers and rural areas.

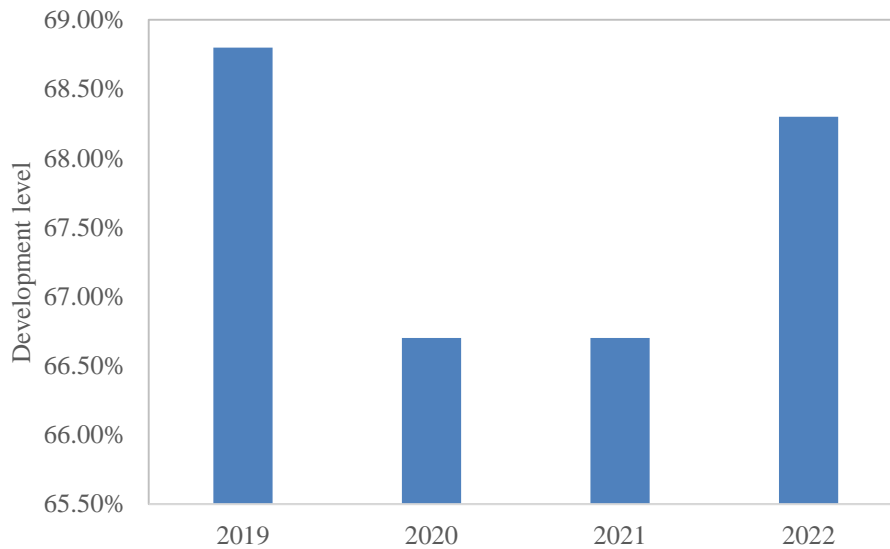


Fig.1 Development level of agriculture and rural digitalization in Zhejiang Province, 2019-2022

In recent years, Zhejiang Province has been developing agriculture in the direction of efficient and ecological, continuously and deeply promoting the "Double Strong" action of agriculture and the "Ten Million Project" strategy. The government was always guided by the digital reform, accelerating the high-quality development of digital villages, and striving to realize the revitalization of rural industries, the good place to live and work and the construction of beautiful villages. In the process of promoting the construction of digital countryside and building a demonstration area of common prosperity, rural e-commerce has played a role that cannot be ignored. As early as 2013, Zhejiang Province began to focus on the implementation of the "e-commerce entering million villages" project. It plans to set up more than 20,000 e-commerce service points in the rural and suburban areas of the province within five years, actively promote the construction of a modern agricultural product circulation system and strive to provide more goods and services for rural residents to narrow the gap between urban and rural areas. Among the 33 counties in Zhejiang Province, 26 counties locate in mountainous and hilly areas, with rough roads and difficult logistics distribution. Therefore, Zhejiang Province attaches great importance to rural logistics issues, vigorously builds county-level distribution centers for agricultural products, optimizes logistics layout, and actively builds a logistics and distribution system based on county-level transit, village-level service points, and home delivery as a terminal. Zhejiang Province also attaches great importance to building regional public brands, to increase the added value of products and realize the large-scale production of local agricultural products. The province has accumulated 54 regional public brands of multi-category agricultural products, such as 'Lishui Shangeng', 'Zhoushan belt fish', 'Anji white tea', 'Lin'an Pecan', 'Xianju waxberry' and 'Ouyue Xianfeng', and the popularity of high-quality agricultural products in Zhejiang has been continuously improved. In addition, the province has also focused on the standardization of the whole industrial chain of modern agriculture, improved the quality and safety traceability mechanism of agricultural products, and also launched digital scene applications such as

'Zhejiang Agricultural Products ' to strengthen the quality supervision of agricultural products and reassure consumers.

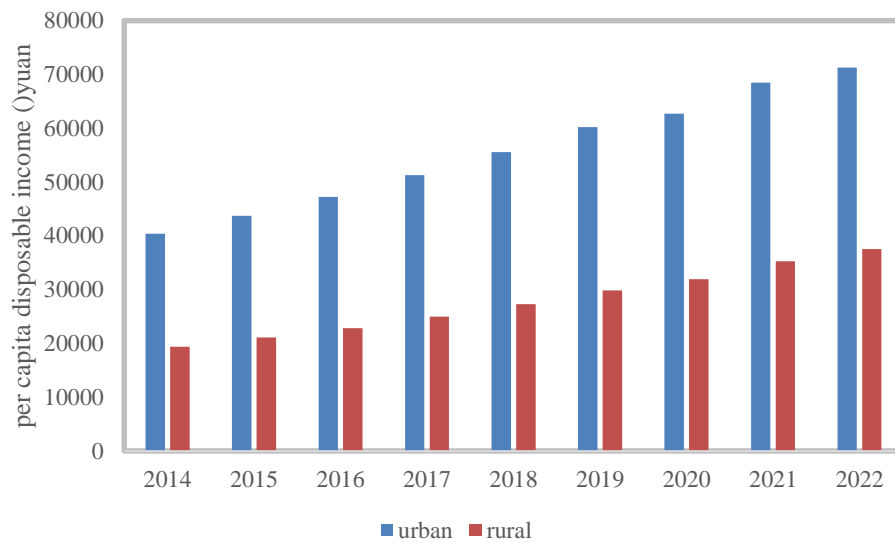


Fig.2 Per capita disposable income of urban and rural residents in Zhejiang Province, 2014-2022

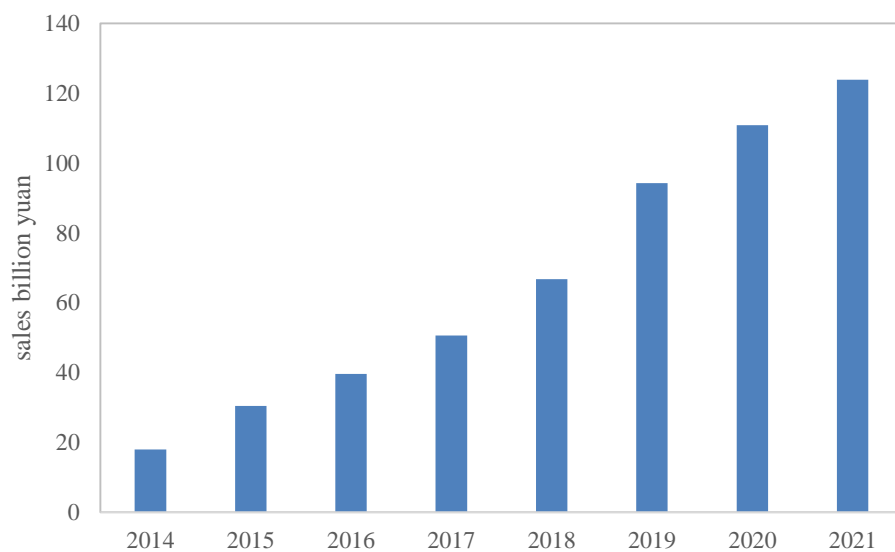


Fig.3 Online retail sales of agricultural products in Zhejiang Province, 2014-2021

Rural e-commerce in Zhejiang Province is gradually showing a trend of rapid development. By the end of 2021, the province has cultivated a total of 949 e-commerce demonstration villages, 1634 rural e-commerce demonstration service sites, 2444 e-commerce professional villages, and 349 e-commerce towns. The scale of e-commerce operators is large and the agglomeration degree of industrial development is high as described. In addition, the network retail sales of county agricultural products in Zhejiang Province increased from 84.29 billion yuan in 2019 to 123.89 billion yuan in 2021, almost doubling by 1.5 times. The rural network retail sales have expanded year by year, and the scale of agricultural products and industrial products has also increased. Zhejiang 's rural consumption potential has been fully developed. All districts and counties in the province continue to strengthen the cultivation of their own superior

products, make use of location advantages, and vigorously promote the development of county e-commerce, to stimulate county economic growth. Of course, the rapid development of rural e-commerce is inseparable from the construction of information infrastructure in Zhejiang Province. According to the data of 'Zhejiang Internet Development Report 2021' released in May 2022, the whole Zhejiang Province has already achieved the same network and speed, the total length of optical cable lines is 3.715 million kilometers, the Internet penetration rate reaches 84.2%, more than 360,000 mobile phone 4G base stations, more than 120,000 5G base stations, the full coverage of 4G and optical fiber in administrative villages has been realized, and the full coverage of 5G in key towns has been basically realized. However, there are also some problems in the development of rural e-commerce in Zhejiang Province, such as the unbalanced development of counties in the province, the serious homogenization of market entities, the need to strengthen the brand building of agricultural products, the low degree of organization of rural production, the shortage of e-commerce talents, the imperfect rural logistics system, and insufficient financial support strength.

3.2. Rural e-commerce development overview of Chun'an County

Chun'an County is one of the 26 mountainous counties in Zhejiang Province, and it is the largest county in the province. The total area of the county accounts for 26.7% of the entire Hangzhou City. As a national key ecological function area, the most prominent advantage of Chun'an County is green ecology. The county has the best Qiandao Lake reservoir with the best water quality in China. Its forest coverage rate has reached 76.9%, and the air quality has maintained a good state for a long time. The ecological development of the county is far ahead of the country. The people of Chun'an have always adhered to and practiced the theory of 'green hills and clear waters are invaluable assets'. They rely on mountains waters for living. The government cultivate local characteristic industries and develop county economy according to local conditions. Among the 26 mountain counties in Zhejiang Province, Chun'an County's overall level of economic and social development is in the forefront. In 2022, the regional GDP will reach 26.951 billion yuan, of which the total output value of agriculture, forestry, animal husbandry and fishery will be 5.916 billion yuan, and the per capita disposable income of rural residents will be 26,156 yuan. Although the GDP of Chun'an County only accounts for 1.4% of the total amount of Hangzhou, but agriculture, forestry, animal husbandry and fishery account for 11.5% of the city, and the per capita disposable income of rural residents is 57.9% of the city's rural residents. From these data, Chun'an is very effective in the development of agriculture. It is not only a good example in ecological construction, but also a good example for development of underdeveloped areas, to constantly find the best balance between ecology and development.

Chun'an County has carried out different industries according to the characteristics of different blocks. In the north of the county, pecans and Chinese herbal medicines are planted. In the southwestern area, silkworm raising, and mulberry leaf planting is conducted. In the east, tea, bamboo, oil tea, and Chinese herbal medicines are cultivated. The main development of loquat, honey peach, persimmon with no seeds, citrus and other fruit and vegetable industries along the Qiandao Lake and the cultivation of organic fish in the center of the lake. In general, Chun'an County generally carried out local agriculture, animal husbandry and fishery around 'tea, fruit, vegetable, medicinal and honey', 'silkworm raising and mulberry leaf planting' and 'Qiandao Lake organic fish'. With the help of the advantages of ecological resources, the proportion of the county's primary industry in the county economy has increased year by year, and the development of the secondary and tertiary industries has been limited, but this will affect the high-quality

development of agriculture and forestry to a certain extent, which is not conducive to increasing farmers' income. Therefore, Chun'an county must grasp the relationship between 'ecology' and 'development', explore the new positioning of agricultural development, and vigorously promote the improvement and development of the whole agricultural industry chain with greener and higher standards of production requirements. At present, Chun'an County is actively exploring the development path and mode of rural e-commerce, hoping to use this means to fully transform local resource advantages into economic advantages, further promote farmers' income, open greater agricultural product sales channels, boost rural revitalization, and achieve significant development in mountainous areas.

In recent years, many rural areas in Zhejiang Province have been vigorously developing county-level rural e-commerce, showing a trend of sparks. Chun'an County also attaches great importance to e-commerce of agricultural products, and has cultivated five provincial e-commerce professional towns and one provincial e-commerce town. The county has made many measures to promote the development of e-commerce, such as continuously standardizing the standard identification of agricultural products, optimizing relevant service facilities, accelerating the construction of online media marketing matrix, and actively exploring new forms of rural e-commerce, such as live broadcasting e-commerce of agricultural products, e-commerce of agricultural culture and tourism, and social network e-commerce. However, compared with other developed rural areas, there are still some problems in the development of agricultural products e-commerce in Chun'an County, such as the low level of agricultural products, the small scale of agricultural products, the lack of a unified quality and safety guarantee system, the lack of full expression of brand advantages of agricultural products, the deficiency of e-commerce talents, the low ability of e-commerce operators to use the network, the need to improve logistics and storage technology, the relatively low scale and industrialization of rural production, and the need to improve policy support. Chun'an County still has a long way to go to achieve the overall goal of 'resource e-commerce, e-commerce branding, brand industrialization'.

3.3. Changes of rural e-commerce policies in Chun'an County

E-commerce development of Chun'an County started late, the foundation is relatively weak, but the rapid development in recent years is inseparable from the policy support of the local government. In 2014, Chun'an County established the e-commerce work leading group and the e-commerce public service Center for the first time, and has formulated and revised the e-commerce industrial policy twice. In order to promote the development of the local e-commerce industry and speed up the process of "e-commerce for the city", Chun'an County will put forward the corresponding e-commerce support policy opinions every year, and the policy support mainly in four directions, respectively, cultivating and expanding the main business of e-commerce, supporting the construction of e-commerce platforms, improving the warehousing and distribution support system and supporting the development of rural e-commerce. In terms of supporting the development of rural e-commerce, in the past few years, policy support has focused on guiding enterprises to open online stores, encouraging enterprises to create their own brands, promoting the construction of e-commerce villages, supporting the construction of e-commerce trading platforms, supporting the rural e-commerce public service systems, and supporting the development of rural e-commerce express delivery networks [13, 14]. In recent years, policy support has focused on the "first and last kilometer" problem of rural logistics, supporting the development of e-commerce industry clusters, supporting enterprises' live broadcasting sales and the training of live e-commerce talent teams, supporting

the development of new farmers, supporting the development of excellent content e-commerce and encouraging the development of new e-commerce products.

3.4. Characteristics and advantages of rural e-commerce development in Chun 'an County

3.4.1. Emerging "new farmers" engaged in new retailing

The key to the realization of rural revitalization lies in people, and it is to really let farmers be the protagonist of the countryside. For Chun 'an County, cultivating more new farmers who understand agriculture, have Internet thinking and are good at management is the top priority goal. Many local new farmers are aiming at the new model of "short video + assisting agriculture + e-commerce", which allows consumers to understand the characteristics and highlights of each agricultural product through live broadcasting, and shows the production process of agricultural products to the audience in a real and transparent way, and the sales of agricultural products have been improved [11, 12]. The typical representative of the new farmers are "Qiandao Lake mother of the fish" Song Jianfang, "Qiandao Lake boss of the fish store" Wang Feifei, "Qiandao Lake Lingyun fisherwoman" Fang Lingyun and a group of people, among which "Qiandao Lake mother of the fish" Song Jianfang is quite famous. Song Jianfang came into contact with e-commerce in 2011, learned to use Taobao e-commerce platform to sell some ecological agricultural products in his hometown, and personally selected products, purchased, packaged, online store operation and promotion, customer service, and made orders, and later established a number of Wechat communities in order to expand sales and started do business by Wechat. Song Jianfang continues to learn and grow on the e-commerce industry. In recent years, following the development trend of the Internet, she began to live sell Chun fish. She insisted on live broadcasting every day and won many fans and orders. In the video, Song Jianfang showed the whole process of fish packaging and delivery to the audience, establishing trust between the audience and establish their own corporate brand image. Zheng Xinfu is another commendable excellent representative of new farmers. Different from Song Jianfang who conducted Taobao live broadcast, as a cultural promoter of Yanjia Village in Jieshou Township, Zheng Xinfu repeatedly researched the history of the village and collected old fishing equipment, integrated the cultural inheritance and cultural characteristics of the village into the new ecological landscape of the fishing village, and worked out a unique road of fishing cultural tourism e-commerce. Every year, many young "new farmers" in Chun 'an County come to work and start businesses. They run B&Bs, restaurants, sports and leisure halls, handicraft experience stores, greenhouses, rural camping, and farmhouse music. They constantly innovate their business model, develop new agricultural technologies, excavate high-quality agricultural products, bring new business forms and new models to rural revitalization, inject new vitality, and make Chun 'an County full of vitality.

3.4.2. Integrate government, tourism and postal resources, and integrate online and offline development

In order to build the reputation of Qiandao Lake agricultural products, Agricultural Office, county tourism Commission and post Office of Chun 'an County jointly created the official e-commerce platform "Qiandao Lake brand agricultural products Museum", combining the government, tourism, postal resources together. The agriculture and rural Bureau provide agricultural products with safe supply, the tourism commission is responsible for developing customer sales market, postal Office undertakes logistics transport. It can be said that the resources of the three parties have achieved mutual promotion and symbiosis and have jointly nurtured the development model of "agriculture, tourism and postal" integration

of rural e-commerce. The brand pavilion platform integrates various functions such as high-quality agricultural products exhibition and marketing, activity promotion, brand building, logistics distribution, training incubation and big data analysis, providing convenient sales channels for local agricultural products enterprises and farmers [15]. The brand pavilion also makes use of online channels such as Post.com, Wechat mall, and Tiktok, and relies on the offline channels of Post Office to give full play to the advantages of the three-level logistics distribution system of Post Office and provide delivery services for agricultural products, thus realizing the efficient connection and joint layout of online and offline. Through the analysis of the current online and offline sales data, the brand pavilion guides farmers and enterprises to plant agricultural products with good sales and higher value, and ensures the lowest purchase price of their products, which not only improves the income of local farmers, but also provides an effective plan for the realization of local common prosperity. In addition, the brand pavilion fully utilizes the postal warehousing and distribution network to open up the last kilometer in the countryside.

By 2022, the Postal Service has built 56 postal routes and more than 170 express stations in Chun 'an County, achieving 100% comprehensive coverage of postal delivery in administrative villages, and effectively helping the advancement of the "express delivery into villages" project. The Tourism committee of Chun 'an County provides public tourism resources for the postal service free of charge, and achieve full coverage of the promotion and promotion of agricultural products in Qiandao Lake. The government, postal service, county tourism committee, agricultural enterprises and other actors made joint efforts, and the full utilization and sharing of resources greatly promoted the local rural development. In addition, the brand pavilion also carries out offline activities in conjunction with the Agricultural Fair and the E-commerce Fair, encourages farmers to carry out live broadcasting with goods, and promotes the "Thousand Island agricultural products" series of agricultural products in a multi-directional way, which helps to expand the brand influence of "Thousand Island agricultural products" and expand sales channels. In short, the agricultural products online store has vigorously promoted the sale of Chun goods out of the mountain, in addition to achieving its own sales, but also to drive county agricultural products sales of more than 100 million yuan.

3.4.3. Build an online media marketing matrix and expand the sales network.

Due to the differences in types, output and quality of agricultural products in Chun 'an, various online media marketing forms such as "short video + agricultural products", "live e-commerce + agricultural products" and "Wechat community + agricultural products" have been established locally. The creation of online media marketing matrix closely links rural areas and county towns, greatly promoting the promotion, brand building and external sales of agricultural products between the production end and the consumer end. Farmers and agricultural enterprises in Chun 'an County rely on new media platforms such as Wechat public accounts, Tiktok, Kuaishou, Weibo and various e-commerce platforms to widely carry out and promote the e-commerce operation model of "community + live broadcast", and build a relatively complete we-media matrix. Chunan County opened the Blue Horse live e-commerce town, which is a research and teaching base with live e-commerce as the core. The town not only has the internet celebrity training room, internet celebrity broadcast room and other hardware places, there are 22 broadcast rooms with different theme characteristics. In addition, the live broadcast town also opened the Blue Horse Planet business School, which helped Chun 'an County cultivate a group of agricultural products e-commerce anchors who can speak well. These anchors have studied and explored from many aspects such as personnel cooperation, product organization, equipment use, etc., and the number of viewers and sales in the live broadcast room

are rising every day. The county will frequently organize a variety of live competitions, such as "sharing Zhejiang goods, to rich Mountains" Zhejiang live e-commerce competition, "taste Qiandao Lake, looking for hometown flavor" Chun 'an County's first internet celebrity competition and other competitions. With the extension and development of live streaming e-commerce industry to mountainous rural areas, more and more rural makers, farmers, farming operators, etc., have joined the study, and short videos and live streaming have become a new channel for high-quality agricultural products to go up.

3.4.4. Create a regional public brand of "Thousand Island agricultural products"

In order to let the local ecological high-quality agricultural products go out of the mountains and strive to transform to efficient ecological modern agriculture, Chun 'an County has created a unified and standardized regional public brand of "Thousand Island agricultural products" according to the county's natural ecological environment, cultural tourism resources and industrial characteristics. The government want to conduct the policy of the "Thousand Island agricultural products" regional public brand construction three-year action plan (2021-2023) ", accelerate the promotion of agricultural brand construction, making" Thousand Island agricultural products "become a well-known regional public brand of agricultural products in Zhejiang Province and all over the country. The success of regional public brands has long been obvious to all, such as the local "Chun six flavor" regional public brand, not only increased Chun 'an County to open the national Chinese herbal medicine market sales, driving per capita income growth, but also made Chinese herbal medicine gradually become the regional support economy of Chunbei. The county's agricultural products, agricultural products, agricultural products have progressed with the Thousand island brand effect, creating a good image of "organic, green, healthy", and greatly improve the market competitiveness and expand their own sales channels. Farmers and agricultural enterprises have really enjoyed the dividend of brand premium, so far, the total brand value of the Thousand island agricultural product brand matrix has exceeded 10 billion, and the brand scale benefit is huge.

3.4.5. Build an efficient logistics system

China Post has played an important role in solving the last mile problem in rural areas. The postal service has integrated logistics resources and cooperated with other private couriers to jointly build a three-level logistics system of counties, townships and villages, which has greatly promoted the process of e-commerce express delivery into rural areas. In 2018, the Commerce Bureau of Chun 'an County proposed the project of "village-level e-commerce logistics shuttle bus". The project solves the problem of going up and down to the countryside in the last kilometer through government subsidies and the transfer of profits from cooperative enterprises, so that rural residents can send express packages at their doorsteps, which effectively solves the problem of selling and transporting agricultural products, and further promotes the development of rural e-commerce.

In order to adapt to different transport distances and business volumes and other factors, the local village-level e-commerce logistics shuttle bus is divided into five routes, and a transit center is set up for each route. These 5 routes are respectively operated by Zhongtong, Yuantong, Shentong, Yunda, Baishi and other 5 express companies, they will be sorted out in the transit center, and then transported from the county to the village level service point, the uplink express is received and sent by the service point, and the logistics shuttle bus will be regularly picked up and sent to the service point every day. At present, the village-level logistics shuttle project operates smoothly, and 230 village-level express service outlets have been built in 337 administrative villages in the county, and the express delivery has been successfully

realized. With the acceleration of logistics shuttle buses and the reduction of logistics costs, pecans, tea, vegetables, local chicken, local pork, honey and other agricultural products have left the mountain area, and villagers' income and village-level collective economy have continued to grow [16].

4. Path to promote rural revitalization by rural e-commerce of Chun 'an County

4.1. Development based on local agricultural industry resources

The people of Chun 'an always keep in mind the development concept of "clear water and green mountains are gold hills and silver mountains", based on the local ecological factor endowment, accelerate the promotion of industrial ecology and ecological industrialization of rural industries, select and develop characteristic industries according to local conditions, and strive to transform the value of ecological products into economic value. In recent years, the Chun 'an government has actively organized and guided agricultural related departments, enterprises, farmers and other social subjects to participate in the cultivation of local characteristic industries, and strive to develop towards efficient ecological agriculture. Relying on the unique natural geographical environment and climate characteristics to develop different industries, and through the e-commerce platform to promote local high-quality agricultural products to the province or all over the country.

Linqi town takes traditional Chinese medicine as the leading industry, vigorously develops raspberry planting, and creates rural tourism with traditional Chinese medicine as the theme. Wenchang Town takes growing tea, peanut as the main source of economic development, at the same time to develop leisure tourism, farming, residential and health care and other new rural industries. Fenkou Town is famous for its high-quality rice, and the town has created a "rice +N" ecological breeding industry. Weiping Town is the "mulberry fruit strong town" in Chun 'an County, Hangzhou. It mainly develops various crops such as sericulture, fruits and vegetables, grain and oil, chili, pecan, medicinal materials and tea. Weiping Town actively promotes live delivery of goods, effectively improving the independent production and marketing ability of farmers, and driving the development of rural leisure picking tour and other agricultural tourism industries, transforming the advantages of agricultural resources into economic advantages, and realizing high-quality and efficient agriculture. In general, the agricultural industries of different towns and villages in Chun 'an County have their own characteristics, including those dominated by aquaculture and rice planting, as well as those dominated by tea planting, fruit planting and bamboo shoot planting. These characteristic industries not only bring economic benefits to local farmers, but also provide rich and diverse agricultural tourism resources for tourists.

4.2. Strengthen regional brand building of agricultural products

In order to form a unified market competitiveness, Chun 'an County launched the regional public brand of "Thousand Island agricultural products", which not only played the tourism reputation of Thousand Island Lake, but also shaped the high-quality image of ecological agricultural products of Thousand Island Lake. Chun 'an County in the major e-commerce platforms have established the "Thousand island agricultural products" official flagship store, in addition to make full use of Tiktok, Kuaishou and other new media to display a full range of "Thousand island agricultural products" for online sales, to expand the brand effect. Through the leadership of the public brand of "Thousand Island agricultural products", the county's agricultural branding construction has stepped into the right track, and the building of public brands is conducive to the realization of large-scale industrial development, and the construction of a county rural e-commerce value chain with quality agriculture, green agriculture and brand strength agriculture. Chun

'an County attaches great importance to product certification, there are 277 certificated agricultural products of "three products and one standard", with "Bai Hua Qian Hu", "Chun 'an raspberry", "Hua Zhu" and other national geographical indication agricultural products. The realization of large-scale management is also important, large-scale and standardized production helps to improve the production efficiency and economic benefits of agricultural products and helps to promote the construction of brands.

4.3. Cultivation of "new farmers"

The core of the implementation of rural revitalization strategy lies in people, and the emergence of new farmers has changed the traditional appearance of rural areas. New farmers are good at expanding channels with the help of new media platforms, promoting the transformation of traditional agriculture with "Internet thinking", and leading the villagers who are immersed in land cultivation to explore a broader online e-commerce platform. More and more farmers carry out e-commerce through network broadcast and short video platforms, bring goods for their own agricultural products, enjoy the dividend of digital technology, and achieve increased income and prosperity. The most important thing is to strengthen the training of new farmers. The government should actively guide agricultural makers, young makers and college students to join the e-commerce training organized by the agricultural bureau and local e-commerce service providers. Through centralized teaching, practical teaching, independent learning, theoretical assessment, and other ways to improve their agricultural production, product marketing, publicity planning, logistics and other aspects of the comprehensive ability.

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