

Research on the Development Status and Countermeasures of New E-Commerce to Help the Sales of Agricultural Products

Haoran Wu

School of Management Science and Engineering, Anhui University of Finance and Economics, Anhui Bengbu 233030, China

Abstract: Under the background of "rural revitalization" and "Internet+", rural e-commerce has developed rapidly, and has gradually become an important driving force for rural economic development. The new e-commerce model not only provides a new way for farmers to increase their income and get rich, but also provides new ideas and new models for promoting rural industrial upgrading, optimizing the supply chain of agricultural products, and realizing the organic flow of urban and rural resource elements. Based on the current situation of agricultural product e-commerce live broadcast marketing under the new e-commerce model, this paper analyzes in detail the problems and shortcomings of agricultural product e-commerce live broadcast marketing under the new e-commerce model, and puts forward the optimization measures for the live broadcast marketing of agricultural products under the new e-commerce model from the aspects of agricultural product live broadcast talent training, supply chain integration, brand image building and live broadcast supervision. It aims to provide reference and reference for the sale of agricultural products and promote the sustainable development of agricultural economy.

Keywords: New e-commerce, Helping farmers, Sale, Countermeasure.

1. Introduction

With the rapid development of Internet technology and the widespread popularity of e-commerce, new e-commerce platforms have become an important channel for the sale of agricultural products. The new e-commerce not only breaks the geographical restrictions of traditional agricultural product sales, but also brings new opportunities and challenges to the sales of agricultural products through innovative marketing models and efficient supply chain management. It is of great significance for new e-commerce to boost the marketing of agricultural products, create high-quality agricultural product brands, enhance marketing competitiveness, and help rural revitalization. As a new type of sales method, live marketing of agricultural products has emerged in the new e-commerce environment. Through live streaming, producers and sellers of agricultural products can interact with consumers in real time, showcase product features, attract potential consumers, and increase sales. It not only promotes farmers to complete low-cost docking with the market and enjoy the dividends of new e-commerce, but also broadens farmers' horizons and narrows the gap between urban and rural society. Promoting agricultural products to all parts of the country through new e-commerce marketing can effectively help farmers solve sales problems and play an active role in promoting rural revitalization and consumption.

2. The Current Situation of New E-Commerce to Help the Sales of Agricultural Products

2.1. Market Size and Growth Trend

The new e-commerce platform has shown strong growth in the field of agricultural product sales. According to the "2023 China Agricultural Products E-commerce Development Report", China's online retail sales of agricultural products reached 531.38 billion yuan in 2022, an increase of 25.9%

over 2021. Among them, the online retail sales of fresh products exceeded 109.49 billion yuan, becoming the largest category of agricultural products on the upward trend, and the online retail volume increased by 78.4% year-on-year. This growth trend not only reflects the increasing demand of consumers for online purchase of agricultural products, but also reflects the important role of new e-commerce platforms in the sales of agricultural products. From the perspective of specific platforms, the performance of new e-commerce platforms represented by Pinduoduo is particularly prominent. In 2019, the total turnover of agricultural (side) products on the platform reached 136.4 billion yuan, and in 2020, the transaction volume of Pinduoduo's agricultural (side) products exceeded 270 billion yuan. Through the "farmland cloud fighting" model, it allows small farmers to directly face many consumers on the platform, greatly reduces the cost of intermediate links, helps the production area quickly digest the production capacity, and allows consumers to enjoy the "wholesale price", which effectively promotes the optimization and upgrading of the online retail category structure of agricultural products. In addition, the market size of agricultural product e-commerce is still expanding. According to the "2023-2028 Agricultural Products E-commerce Industry In-depth Analysis and Investment Strategy Research and Consulting Report" released by the China Research Institute of Puhua Industry Research Institute, agricultural product e-commerce belongs to the 100-billion-level market, spanning agriculture, e-commerce, urban consumption, new retail and other multi-level markets. With the continuous development and innovation of new e-commerce platforms, it is expected that the market size of agricultural product e-commerce will continue to maintain rapid growth in the next few years.

2.2. Main Platforms and Models

The new e-commerce platform has played an important role in the sale of agricultural products, and the main

platforms include Pinduoduo, Taobao, JD.com, etc. These platforms help the sales of agricultural products through different models, and promote the development of agricultural product e-commerce. As a representative of the new e-commerce platform, Pinduoduo's "farmland cloud spelling" model provides new ideas for the sale of agricultural products. This model connects supply and demand in the "cloud", allowing smallholder farmers to directly face a large number of consumers on the platform, and realize the rapid sale of agricultural products. In addition, Pinduoduo has also launched a "10 billion subsidy" channel, covering core products from China's major agricultural producing areas such as Dandong strawberries, Sichuan citrus, and Aksu apples, further increasing subsidies for high-quality fruits, vegetables, meat and eggs and other fresh products, helping agricultural products build regional public brands and boosting rural revitalization. Taobao, as a traditional e-commerce platform, also plays an important role in the sale of agricultural products. Taobao has widely penetrated into rural areas by cooperating with the government, building service stations to open up logistics, and attracting young people to return to their hometowns to start businesses. In addition, Taobao has also launched Taobao Live, which provides a new channel for the sale of agricultural products through live streaming. Taobao Live is highly interactive, and consumers can interact with the live broadcaster in real time, ask questions or discuss, which increases consumers' sense of participation and satisfaction. Jingdong has driven the sales of household appliances, mobile phones, computers and other electronic products in rural areas through "Jingdong Gang" and "Jingdong Home Appliance Stores". At the same time, JD has also launched JD Fresh, which ensures the freshness and quality of fresh agricultural products through cold chain logistics and other technologies, and provides consumers with high-quality fresh products. JD Fresh's logistics and distribution system is perfect, which can quickly deliver fresh agricultural products to consumers, improving the shopping experience of consumers. In addition to the major platforms and models mentioned above, there are a number of other new e-commerce models that also play a role in the sale of agricultural products. For example, some places have realized the online sales and logistics distribution of agricultural products through the establishment of e-commerce platforms for agricultural products. In addition, some companies have cooperated with e-commerce platforms to launch pre-sale and customization models of agricultural products to meet the personalized needs of consumers. The emergence of these new e-commerce platforms and models has provided more choices and opportunities for the sale of agricultural products and promoted the development of agricultural product e-commerce. With the continuous innovation of technology and the continuous change of consumer demand, new e-commerce platforms and models will play a greater role in the sales of agricultural products in the future. The operation mode of agricultural product e-commerce has a B2B model: transactions between enterprises, and the wholesale and procurement of agricultural products are carried out through the platform. B2C model: transactions between enterprises and consumers, direct sales of agricultural products through e-commerce platforms. C2F model: consumers directly connect with farmers to achieve direct procurement and direct supply of agricultural products. O2O model: a combination of online and offline, consumers place orders through online platforms, and pick up or experience offline. Live broadcast

e-commerce model: Promote and sell agricultural products through live broadcast platforms to increase consumer interaction and purchase intentions. JD Farm Model: JD cooperates with farms to achieve full traceability and quality control of agricultural products.

2.3. The Concept and Characteristics of E-Commerce Live Broadcast of Agricultural Products

Concept: Agricultural product e-commerce live broadcast refers to an emerging e-commerce marketing model that uses live broadcast technology to display and sell agricultural products on online platforms. This model plays an important role in rural revitalization, selling agricultural products through live webcasts, broadening sales channels, enhancing consumers' trust in agricultural products, and thus attracting consumers to buy. New e-commerce refers to the e-commerce models that have emerged in recent years compared with traditional e-commerce platforms, mainly including social e-commerce, live e-commerce, community group buying, etc. These new models make full use of new technologies such as mobile Internet, social media, and short videos, and are more interactive, real-time, and interesting. Social e-commerce relies on social networking platforms to promote and sell products through sharing, recommendation, etc. Typical representatives include Xingsheng Preferred, Pinduoduo and so on. This type of model uses the chain of acquaintances to quickly form a purchase decision, which is especially suitable for the sale of daily necessities such as fresh food. Live e-commerce is to display products in the form of live broadcasts and interact with consumers in real time. Douyin, Kuaishou, Taobao Live, etc. are all important platforms. Anchors can increase trust through on-site tasting, planting process display, etc., which is especially suitable for agricultural product sales. Community group buying is based on the community, and the lower price is obtained through group buying. Xingsheng Preferred, Xingsheng Preferred, etc. are representative enterprises. This model can be purchased in bulk, reducing costs, and is very beneficial to the sales of agricultural products. The development process of new e-commerce can be roughly divided into three stages: The first stage (2010-2014): the embryonic stage. With the rise of social media, there is an initial attempt to introduce social elements into e-commerce. The second stage (2015-2018): a period of rapid development. With the popularization of mobile Internet, various new e-commerce models have begun to emerge and develop rapidly. Stage 3 (2019-present): Maturity. With the application of 5G technology, live e-commerce has exploded, and new e-commerce has become the mainstream.

It is characterized by real-time interactivity, broadening sales, and channel chain effect. Consumers' questions and opinions can be responded to instantly by the anchor, enhancing the interaction between consumers and agribusiness. Provide convenient sales channels for agricultural-related enterprises or farmers, break through geographical restrictions, and consumers can understand the actual growth environment and status of agricultural products without leaving home, and buy them directly. It not only provides an innovative way for the sale of agricultural products, but also drives the development of related industries and forms a complete industrial chain.

2.4. The Achievements of New E-Commerce in Helping the Development of Agricultural Product Sales

The new e-commerce has achieved remarkable results in helping the sales of agricultural products, and the following are some of the main aspects: Sales channel expansion and market expansion break through geographical restrictions: The new e-commerce platform enables agricultural products to break through the geographical limitations of traditional sales and expand the scope of product sales to the whole country and even the world. For example, some special agricultural products in remote areas, such as dried fruits in Xinjiang and barley in Tibet, can be easily sold to all parts of the country through new e-commerce channels, so that more consumers can taste these special products, which greatly expands the market space for agricultural products.

Docking with a broader market: New e-commerce provides a platform for agricultural products to directly connect with the big market, reducing intermediate links. For example, Pinduoduo's "farmland cloud fighting" model allows smallholder farmers to directly face many consumers on the platform and deliver agricultural products directly from the field to consumers, which not only improves the circulation efficiency of agricultural products, but also reduces costs and increases farmers' income. The increase in farmers' income and employment opportunities has a significant effect on direct income: under the new e-commerce model, farmers can obtain higher sales prices for agricultural products, thereby directly increasing their income. For example, in some areas where rural e-commerce is well developed, farmers can increase their income by about 30%-50% compared with traditional sales methods by selling their home-grown agricultural products on e-commerce platforms. Taking Yanyuan apples in Daliangshan, Sichuan Province as an example, with the help of e-commerce channels, the proportion of online sales of apples has jumped to about 50%, and the income of fruit farmers has increased significantly.

Promote employment and entrepreneurship: The development of new e-commerce has given rise to a large number of employment opportunities related to the sale of agricultural products, including e-commerce operations, logistics and distribution, packaging and processing, etc. After training, many farmers have become e-commerce practitioners and have achieved employment at their doorstep. At the same time, it has also attracted a large number of young people to return to their hometowns to start businesses, injecting new vitality into rural areas. According to statistics, China's rural e-commerce industry will flourish in 2023, with the annual rural online retail sales reaching 2.49 trillion yuan, and the online retail sales of agricultural products also reaching 0.59 trillion yuan, driving many farmers to increase their income and employment. Agricultural industry upgrading and brand building promote industrial integration: New e-commerce has promoted the integrated development of primary, secondary and tertiary industries in rural areas. On the one hand, through the e-commerce platform, the processing, packaging, warehousing and other links of agricultural products have been better integrated and optimized; On the other hand, e-commerce has also driven the development of rural tourism, cultural creativity and other related industries. For example, some places have combined local characteristic culture, tourism resources and agricultural product sales to carry out rural tourism e-commerce, cultural

and creative agricultural product sales and other businesses, enriching the rural economic format and promoting the diversified development of rural industries.

Helping brand building: The new e-commerce platform provides strong support for the brand building of agricultural products. Farmers and enterprises can display the characteristics, quality and cultural connotation of agricultural products through e-commerce platforms, and create agricultural product brands with regional characteristics. For example, Wuchang rice has enhanced its brand awareness and reputation on the e-commerce platform through the establishment of a traceability and anti-counterfeiting system and the formulation of local standards, and has become a well-known domestic agricultural product brand. In addition, some places have also created regional public brands through government guidance and enterprise participation, such as "Yanyuan apple" and "Gannan navel orange", which have improved the overall market competitiveness of local agricultural products.

Transformation of agricultural production methods and improvement of quality. Promote standardized production: E-commerce platforms have strict requirements for the quality of agricultural products, which prompts farmers to pay more attention to standardization and standardized operations in the production process. In order to meet the standards of e-commerce sales, farmers will carry out standardized management of planting, breeding, picking, packaging and other links according to the requirements, which improves the quality and consistency of agricultural products. For example, in some fruit-producing areas, farmers strictly screen and grade the size, color and sweetness of fruits according to the standards of e-commerce platforms to ensure that consumers can buy high-quality products. Promote agricultural science and technology innovation: The development of new e-commerce has also led to the application of agricultural science and technology innovation. In order to better adapt to the needs of e-commerce sales, farmers and enterprises are actively introducing advanced agricultural technologies and equipment, such as smart agriculture and precision agriculture, to improve agricultural production efficiency and product quality. At the same time, the e-commerce platform also provides a platform for farmers to learn and communicate, so that they can keep abreast of the latest agricultural technology and market information, and constantly absorb new knowledge and technology to improve production efficiency and product quality.

Improvement of rural infrastructure and optimization of logistics and distribution. Improve the logistics network: With the development of new e-commerce, the logistics and distribution network in rural areas has been continuously improved. In order to meet the demand for online sales of agricultural products, logistics companies have increased their layout and investment in rural areas, built more logistics outlets and distribution centers, and improved the efficiency and coverage of logistics and distribution. Today, many rural areas are able to pick and ship produce on the same day, allowing consumers to receive fresh produce in a short period of time.

Development of cold chain logistics: For fresh agricultural products, cold chain logistics is the key to ensuring product quality and safety. New e-commerce has promoted the development of rural cold chain logistics, and some e-commerce platforms and enterprises have invested in the construction of cold chain logistics facilities, equipped with

refrigerated trucks, cold storage and other equipment to ensure that the quality of fresh agricultural products in the transportation and storage process is not affected. For example, Jingdong's "Jingxi Farm" and Alibaba's "Hema Village" and other projects have made a lot of investment and construction in cold chain logistics, providing a strong guarantee for the sales of fresh agricultural products.

3. Challenges and Problems

3.1. The Quality and Standardization of Agricultural Products and The Difficulty of Quality and Safety Supervision

While the new e-commerce has achieved remarkable results, it is also facing a series of challenges and problems, the following are the main aspects: the quality and standardization of agricultural products. The quality is uneven: the production of agricultural products is mainly based on small farmers, and the production scale is small and scattered, which makes it difficult to ensure the quality of agricultural products. For example, some fruits vary greatly in size, sweetness, color and other indicators, which affects the purchase experience of consumers. In addition, some farmers overuse chemical fertilizers and pesticides in order to pursue yields, which makes agricultural products have problems such as excessive pesticide residues, which pose a threat to consumer health. Low degree of standardization: The standardized production of agricultural products is the key to improving product quality and market competitiveness, but at present, the degree of standardization of agricultural products in China is generally low.

The lack of a unified production standard and quality certification system makes it difficult to standardize the operation of agricultural products in packaging, grading, storage, transportation and other links. For example, there are differences in packaging specifications and preservation methods of vegetables in different regions, which increases logistics costs and sales difficulties, and it is difficult to supervise the production process: the production process of agricultural products is relatively scattered, involving many small farmers, and it is difficult for the regulatory authorities to monitor each production link in real time. Moreover, some farmers do not have a sufficient understanding of the quality and safety regulations of agricultural products, and there is illegal use of agricultural inputs. For example, in the process of vegetable planting, individual farmers use excessive pesticides in order to prevent and control pests and diseases, resulting in excessive pesticide residues in vegetables and bringing hidden dangers to consumers' health. Difficult traceability of circulation links: Agricultural products are easily lost or tampered with through multiple links of transshipment and sales in the circulation link, resulting in difficult traceability of product quality and safety. Once the quality and safety of agricultural products occurs, it is difficult to quickly and accurately trace back to the source, which affects the timely solution of the problem and the investigation of responsibility.

3.2. Logistics and Distribution Problems

Insufficient cold chain transportation: Fresh agricultural products have high requirements for preservation and transportation conditions, and a perfect cold chain transportation system is needed to ensure their quality. However, the cold chain transportation facilities in rural areas

of China are relatively weak, and the number of cold chain transportation vehicles is limited and unevenly distributed. In the process of transportation, due to improper temperature and humidity control, the decay and deterioration of fresh agricultural products occur from time to time, and the loss rate is high. For example, after the fruits in some remote areas are transported to the city, the freshness is greatly reduced due to the untimely cold chain transportation, which affects the sales price and farmers' income. Difficulties in "last mile" distribution: rural areas are sparsely populated and the transportation infrastructure is relatively backward, and the "last mile" problem of logistics and distribution is prominent. The incomplete coverage of express delivery outlets and the high cost of distribution lead to the inability of agricultural products to be delivered to consumers in a timely and accurate manner. At the same time, the quality and efficiency of logistics and distribution services in rural areas are also difficult to meet the needs of e-commerce development, which affects the sales speed and consumer satisfaction of agricultural products.

3.3. Brand Building Lags Behind and There Is a Shortage of E-Commerce Talents

Weak brand awareness: Many farmers and rural enterprises have insufficient awareness of the importance of branding, and lack awareness and experience in brand building. They pay more attention to the production and sales of agricultural products, and ignore the role of brands in enhancing the added value and market competitiveness of products. As a result, there are many brands of agricultural products in the market, but there are few well-known brands, and it is difficult for consumers to identify and choose high-quality agricultural products. Difficulties in brand promotion: Even though some agricultural product brands have been established, they also face many difficulties in brand promotion. Rural areas have limited publicity channels and lack of professional brand promotion talents and financial support. Compared with urban areas, there are relatively few promotion methods such as advertising and marketing activities in rural areas, which makes it difficult to quickly increase brand awareness and influence. For example, some agricultural product brands with local characteristics, due to the lack of effective promotion, can only be sold in the local market and cannot go to the national market.

Shortage of e-commerce talentsLack of professionals: New e-commerce to help agriculture involves e-commerce platform operation, network marketing, data analysis, art design and other professional fields, requiring talents with corresponding professional knowledge and skills. However, it is difficult to attract and retain these professionals in rural areas due to the level of economic development and the limitation of educational resources. As a result, there is a general shortage of talents in rural e-commerce enterprises, which affects the quality and efficiency of e-commerce operations. The training system is not perfect: Although there are some training programs for rural e-commerce, the training content and methods are often not systematic and professional. The training mostly focuses on the teaching of basic operation skills, and does not involve in-depth content such as e-commerce marketing strategy, brand building, and supply chain management. Moreover, the follow-up guidance and practical guidance after the training are insufficient, and it is difficult for the trainees to apply the knowledge they have learned to practical work, and the training effect is greatly

reduced.

Lack of coordination of e-commerce policies and difficulty in departmental coordination: New e-commerce to help agriculture involves the responsibilities of multiple government departments, such as agriculture and rural departments, commerce departments, transportation departments, market supervision departments, etc. However, due to the lack of horizontal communication and cooperation between various departments, an effective coordination mechanism has not yet been established, resulting in a greatly reduced effect of policy support. For example, in the construction of rural logistics and distribution system, there may be inconsistencies in the planning of the transportation department and the commercial department, which affects the optimal layout of the logistics distribution network. Duplicate investment of funds: Due to the lack of unified planning and coordination, the problem of duplicate investment of funds may occur when various departments promote the development of rural e-commerce. For example, multiple departments subsidize the construction of rural e-commerce infrastructure at the same time, resulting in excess funds for some projects, while some links that really need financial support cannot get enough investment, resulting in a waste of resources.

4. Countermeasure Research

4.1. Strengthen Infrastructure Construction and Rural Internet Construction

Improve the logistics and distribution system and improve the modernization level of logistics facilities: Promote the digital transformation of county-level logistics distribution centers (logistics parks) and township express delivery outlets, improve facilities such as smart warehousing, automatic sorting, radio frequency identification, and new energy distribution vehicles, and improve the efficiency of village-level distribution. Support the construction of county-level mail and delivery public distribution centers in convenient transportation locations, and promote the construction of rural passenger, freight and mail integration sites, so as to achieve "one point with multiple functions and one network with multiple uses". Optimize the layout of the logistics network: Rationally arrange the logistics center and distribution outlets to shorten the transportation time and distance of agricultural products and ensure freshness. Support logistics enterprises to improve the layout of smart express cabinets and improve the convenience of rural logistics. Development of cold chain logistics: Strengthen the construction of cold chain logistics facilities, introduce phase change material technology, and improve the preservation capacity and transportation efficiency of fresh agricultural products. Cultivate localized logistics service enterprises, develop rural e-commerce express brands, promote the integrated development of rural logistics and e-commerce, and build a new model of "Internet + rural logistics". Strengthen the construction of the Internet in rural areas and increase the Internet penetration rate: Accelerate the construction of broadband networks and Internet of Things infrastructure in rural areas to ensure the stable transmission and processing of data. As of December 2020, China's rural Internet penetration rate was 55.9%, still lower than the 79.8% in urban areas, especially in the central and western regions. It is necessary to increase investment to improve the Internet penetration rate in rural areas, especially in the era of mobile Internet, and accelerate the coverage of

5G in rural areas. Optimize network services: Improve the network speed and stability in rural areas, reduce the cost of network use, and provide a better network environment for farmers and e-commerce practitioners.

4.2. Improve the Quality and Standardization of Agricultural Products

Establish a whole-process quality control system and formulate strict quality standards: Cooperate with national and local agricultural departments to establish strict quality standards covering the whole process of planting, picking, transportation and sales of agricultural products. This standard should cover the quality, safety, nutrition and other aspects of agricultural products to ensure that the quality of agricultural products meets or exceeds industry standards.

Strengthen quality inspection: set up strict quality inspection points in key links such as warehousing and sales of agricultural products, and conduct comprehensive quality inspection of agricultural products through professional testing equipment and personnel. Any agricultural products that do not meet the standards will be denied access to the market, ensuring that the quality of agricultural products meets the requirements of the state and consumers. Establish a traceability system: use the Internet of Things, blockchain and other technologies to establish a traceability system for agricultural products. Through this system, the whole process of agricultural products from production to sales can be traced, so that consumers can understand the source and production process of agricultural products, and enhance consumers' trust in agricultural products. Promote the standardized production of agricultural products and formulate production standards: cooperate with industry associations, research institutions, and logistics enterprises to increase the research on technical standards, measurement standards, operation and service standards, and cost calculation standards for agricultural products, formulate national and industry standards, and engage in production and business activities in strict accordance with the standards. Implement standardized planting: Through standardized planting, crops can achieve high yield and increase income, high-quality value-added, and finally achieve a great increase in output value. Standardized planting has strict and complex requirements, including soil modification, fertilization, picking, packaging, etc., to ensure the quality and consistency of agricultural products. Establish an electronic file system: demonstrate and promote integrated pest control measures, guide producers to scientifically prevent and control vegetable pests and diseases, and improve the quality and safety level of real estate vegetables. Establish an electronic file system for vegetable production, record and supervise the production process of agricultural products, and ensure that the products from the "vegetable garden" to the "vegetable basket" meet the standards and are well documented.

4.3. Strengthen Brand Building and Marketing and Cultivate Professional Talents

Build an agricultural brand system and formulate a brand development plan. Combined with factors such as resource endowment, industrial foundation and cultural inheritance, formulate a strategic and forward-looking brand development plan. Cultivate the brand strategy implementation mechanism of differentiated competitive advantages, build an agricultural brand system with distinctive characteristics and complement each other, and improve the industrial quality and brand

premium ability. Cultivating regional public brands: focusing on the county level, strengthening brand authorization management and property rights protection, conditional areas should be closely integrated with the construction of special agricultural product advantage areas, and a special area will strengthen a regional public brand. Combined with the construction of grain production functional areas, important agricultural product production protection areas and modern agricultural industrial parks, we will actively cultivate "large and excellent" bulk agricultural product brands such as grain, cotton, oil, meat, eggs and milk. Create a brand of special agricultural products: with the main carrier of new agricultural operations, create a brand of special agricultural products with distinctive regional characteristics of "small and beautiful". Agricultural enterprises should give full play to the advantages of organization and industrialization, combine them with the construction of raw material bases, strengthen independent innovation, quality management and marketing, and create a highly competitive enterprise brand. Enhance brand marketing capabilities and innovate marketing methods: Guided by consumer demand and aiming at high quality and high prices, we will promote the integration of traditional marketing and modern marketing, innovate brand marketing methods, and implement precision marketing services. Comprehensively strengthen the management of the use of packaging labels for brand agricultural products, and improve the recognition and use rate of packaging labels. Use multi-channel promotion: make full use of marketing and promotion platforms such as agricultural exhibitions, production and marketing matchmaking meetings, product launches, etc., and broaden brand circulation channels with the help of modern information technologies such as big data, cloud computing, and mobile Internet. Explore the establishment of various forms of marketing platforms for branded agricultural products, encourage the construction of counters and franchise stores, and expand the market share of branded agricultural products.

Strengthen the training of farmers and build a multi-dimensional training system. Build a multi-dimensional and all-round farmer e-commerce live broadcast training system, adopt the "online + offline" hybrid teaching mode, combined with virtual simulation technology, to create an immersive learning environment. The curriculum should cover core content such as e-commerce platform operation, live streaming skills, agricultural product marketing strategies, brand building, etc., and integrate cutting-edge knowledge such as data analysis and consumer psychology. Introduce a mentorship support mechanism: invite successful farmers, Internet celebrities and industry experts to provide one-on-one guidance to achieve knowledge transfer and experience sharing. Establish a training effect evaluation and feedback mechanism, and continuously optimize course content and teaching methods through big data analysis. Explore the establishment of a farmer e-commerce live broadcast skills certification system to provide career development paths for students.

Organize innovation and entrepreneurship competitions: Organize e-commerce live broadcast innovation and entrepreneurship competitions to stimulate farmers' innovative thinking and cultivate teamwork ability. Trainees are encouraged to form mutual aid groups to form a learning community and promote knowledge exchange and skill improvement.

Cultivate e-commerce professionals and strengthen the

construction of professional e-commerce service organizations. Strengthen the cultivation of e-commerce talents, encourage all localities to build professional training bases for rural e-commerce talents, establish a long-term mechanism for talent training in school-enterprise cooperation, and cultivate compound talents and talents in short supply who are familiar with agriculture and are willing to take root in rural areas. Cultivate a professional team: Strengthen practical guidance, and carry out offline and online integration, multi-level, multi-gradient network operation, art, promotion and other business guidance and training. Intensify the training of online and offline new media talents, cultivate "village reds" and "farmers with goods anchors", so that the masses can deepen their knowledge and understanding of e-commerce, and become agricultural producers, creators, and disseminators who can effectively provide market information and effectively use market information needs [1].

4.4. Improve Policy Support to Promote the Upgrading of The Agricultural Industry

Strengthen policy coordination and establish departmental coordination mechanisms. Government departments at all levels should establish departmental coordination mechanisms around promoting the development of rural e-commerce, strengthen top-level design and overall planning, and promote the integration of rural e-commerce infrastructure and public service resources with existing engineering projects as the starting point. Give full play to the synergistic and complementary effect with market investment, establish and improve a more effective mechanism for linking the interests of government and enterprises, and work together to improve the support and guarantee capacity of rural e-commerce public services. Optimize policy support. Encourage local integration of agriculture-related funds, and concentrate on supporting key areas and key links of agricultural brand building. Agricultural and rural departments at all levels should integrate internal resources, arrange special funds, and adopt various forms to increase support for regional public brands of agricultural products. Give full play to the guiding role of financial funds, and leverage social capital to participate in the construction of corporate brands and special agricultural product brands. Guide banks, securities and other financial institutions to participate in the construction of agricultural brands, innovate investment and financing methods, and broaden the channels of capital sources.

Provide special support for the establishment of special funds. Set up special funds to provide low-interest loans and risk compensation to ease the financial pressure on farmers and e-commerce enterprises. Implement differentiated preferential tax policies, and give appropriate exemptions and exemptions according to the scale and development stage of entrepreneurs.

Establish a business incubation base: Establish a business incubation base integrating training, incubation and financing to provide one-stop services. Improve laws and regulations on the quality and safety of agricultural products, clarify the boundaries of responsibility, and protect the rights and interests of consumers. Strengthen the protection of intellectual property rights, encourage brand innovation of agricultural products and the development of cultural IP. Simplify the administrative approval process: Explore the "Internet + government service" model, simplify the

administrative approval process, and improve service efficiency. Carry out entrepreneurship competitions to create a good entrepreneurial atmosphere.

Strengthen the application of science and technology and promote smart agricultural technology. The use of the Internet of Things, big data, cloud computing, artificial intelligence and other modern information technology to promote agriculture to standardize, intelligent, efficient direction. Through intelligent perception systems, big data analysis platforms, precision operation systems and information service platforms, the comprehensive production capacity of high-standard farmland will be improved and green and low-carbon development of agriculture will be realized.

Establish a database of agricultural products: Using the quality traceability system of agricultural products, consumers can find the producers, inspectors and medications, fertilization, picking dates and other contents of the agricultural products in the packaging bag through QR code scanning, and can even find the seeds and seedlings of the batch of agricultural products. Establish a traceability system for agricultural products from the field to the table to ensure food safety and enhance consumer trust. Promote industrial integration and promote the integration of primary, secondary and tertiary industries in rural areas: New e-commerce promotes the integrated development of primary, secondary and tertiary industries in rural areas. On the one hand, through the e-commerce platform, the processing, packaging, warehousing and other links of agricultural products have been better integrated and optimized; On the other hand, e-commerce has also driven the development of rural tourism, cultural creativity and other related industries. For example, some places combine local characteristic culture, tourism resources and the sale of agricultural products.

5. Conclusion

In the new e-commerce environment, the live marketing model of agricultural products has become a powerful promotion and sales tool, bringing new opportunities and models for the sale of agricultural products. With the promotion and development of the live broadcast marketing model, it not only breaks through the limitations of time and space, but also breaks the barriers between sales, logistics and communication. The gradual maturity of e-commerce live streaming of agricultural products has promoted the transformation and upgrading of rural industries and the integrated development of urban and rural areas, increased the economic income of farmers, and promoted the development of the rural economy. However, at the same time of rapid development, there are also certain problems in the selection of live broadcast personnel, supply chain integration, brand

building and industry supervision of agricultural products, which requires the joint efforts of relevant subjects to achieve breakthroughs and development of agricultural product e-commerce live broadcast, and further promote the transformation and upgrading of the rural economy.

Acknowledgments

Anhui University of Finance and Economics College Student Innovation and Entrepreneurship Training Program Funding (202310378301).

References

- [1] Chen Xinyi, Cai Qi, Li Guangpeng. Research on the development strategy of new e-commerce to help cultural tourism from the perspective of digital commerce and agriculture: A case study of rural areas in Jilin Province [J]. *Modern Business*, 2024, (24):68-71. DOI:10.14097/j.cnki.5392/2024.24.042.
- [2] Hou Yueyue, Chen Hui. Research on the marketing optimization strategy of agricultural products boosted by new e-commerce [J]. *Agricultural Economics*, 2024, (12):138-141.
- [3] Chen Wenjing. Rural youth open a "good prescription" for live broadcast to help farmers [J]. *Director of the Village Committee*, 2024, (23):155-157.
- [4] Ge Minmin, Tong Liangyi. *Shanghai Business*, 2024, (08):33-35.
- [5] Zhang Fan. New e-commerce helps consumption expansion and upgrading [N]. *People's Daily*, 2024-04-12 (005). DOI:10.28655/n.cnki.nrmrb.2024.003712.
- [6] Li Li, Yang Li. Research on the status quo and optimization measures of e-commerce live marketing of agricultural products under the new e-commerce model [J]. *Rural Science Experiment*, 2024, (07):187-189.
- [7] Xiong Xiaoxi, Jia Xianglin. Research on the development trend and problem countermeasures of rural e-commerce under the background of rural revitalization: Based on the perspective of the upward path of agricultural products [J]. *Management and Technology of Small and Medium-sized Enterprises*, 2023, (23):154-156.
- [8] Lina Jie. *Shanxi Agricultural Economics*, 2023, (22):179-181. DOI:10.16675/j.cnki.cn14-1065/f.2023.22.055.
- [9] Dai Xin, Pan Qing. Construction of "live broadcast +" marketing model of agricultural products under the background of new e-commerce [J]. *Agricultural Economics*, 2023, (08):126-128.
- [10] Li Xuwen. Practical exploration of e-commerce industry to help rural revitalization: A case study of Zhijiang City, Hubei Province [J]. *Party and Government Cadres Forum*, 2023, (05):42-44.