Research on Current State, Problems and Countermeasures of Rural E-Commerce Development

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ABSTRACT
As an emerging business model, rural e-commerce has been widely practiced in rural areas. It can drive rural production and consumption and promote rapid growth of the local economy. In the context of frequent rural e-commerce policies, strong rural e-commerce demand, increasingly mature rural e-commerce, and intensified competition in the rural e-commerce market, this paper summarized the inevitable problems existing in rural e-commerce after researches, such as undeveloped rural e-commerce infrastructure, concerns about rural e-commerce quality, low level of rural e-commerce talents, insufficient collaborative participation in rural e-commerce, limited integration of rural e-commerce resources, insufficient support of rural e-commerce, and lack of supervision of rural e-commerce market. As for these problems, the following countermeasures and suggestions were proposed: Improve rural e-commerce infrastructure, establish an agricultural product quality traceability system, strengthen introduction of talents and training of professional talents, establish a rural e-commerce coordination development mechanism, build a rural e-commerce resource integration system, implement rural e-commerce supporting policies and regulations, and establish a rural e-commerce market supervision mechanism, thus providing a certain reference for the development of China's rural e-commerce.

Keywords: Rural, E-commerce, poverty alleviation of E-commerce, rural revitalization strategy

1. OVERVIEW OF CURRENT DEVELOPMENT OF RURAL E-COMMERCE

1.1. Frequent Rural E-commerce Policies
In the context of three rural issues, urban-rural integration, modernization construction of rural areas and rural revitalization, the development of rural e-commerce has received much attention from the State Council. Since 2015, the State Council has successively introduced Opinions on Vigorously Developing E-commerce and Accelerating the Cultivation of New Economic Power, Guiding Opinions on Promoting the Accelerated Development of Rural E-commerce and other policies, in which, make overall plans for rural e-commerce, emphasize support of rural e-commerce development through comprehensive demonstration of rural e-commerce, improvement of agricultural product quality assurance system, development of new types of agricultural businesses, rural e-commerce skills training, construction of rural e-commerce market system, encourage cooperation of logistics, finance, e-commerce, third-party payment enterprises and other resources and promote the development and innovation of rural e-commerce. Driven by the national macro policies, all provinces and cities have successively introduced supporting policies for the introduction of rural e-commerce talents, supporting of rural e-commerce talents, incubation of innovation and entrepreneurship programs, investment and financing services and a "top-down" rural e-commerce policy system has been formed. The introduction of rural e-commerce policies and regulations has officially raised the development of rural e-commerce to a national strategy, providing a strong policy guarantee for the development of rural e-commerce. In the support from supporting policies, rural e-commerce, as one of the core paths of rural economy and industry revitalization, presents broad development prospects [1].

1.2. Strong Rural E-commerce Demand
The Information Center of the Ministry of Agriculture and Rural Affairs and China International Electronic Commerce Center Research Institute held an online press conference of the 2020 National County Digital Agriculture and Rural E-commerce Development Report in Beijing on April 30. It's pointed out at the press conference that in 2019, the network retail sales of 2083 counties nationwide reached USD 3.09616 trillion, a year-on-year increase of 23.5%, of which the network retail...
sales of 832 impoverished counties reached RMB 107.61 billion, a year-on-year increase of 31.2%; The network retail sales of country agricultural products reached RMB 269.31 billion, a year-on-year increase of 28.5%, of which the network retail sales of agricultural products in 832 impoverished counties were RMB 19.08 billion, a year-on-year increase of 23.9%. Demand-side data and information are increasingly becoming a new kinetic energy for supply-side structural reforms and the reconstruction of the agricultural industry chain, supply chain, innovation chain, and value chain is accelerating. As rural e-commerce entrepreneurship environment, logistics system, support policies, guarantee mechanism, talent training and operation system get better, the development level of rural e-commerce has increased significantly, and the network retail sales of rural e-commerce have shown a rising trend year by year. For consumers of "network goods going to the countryside", affected by commodity prices, styles, product systems, service quality, shopping convenience and other factors, e-commerce is impacting rural consumers' traditional consumption concepts and changing their consumption habits and consumption structure. Consumers can buy agricultural and sideline products, specialty products, clothing, health care products, etc. from all over the country while staying indoors, so the rural e-commerce has a strong appeal to rural consumers. While driving the consumption needs of consumers of "network goods going to the countryside", the rural e-commerce also stimulates the consumption of rural consumers and generates huge consumption potential. The rural e-commerce presents the characteristics of diversified demands, frequent demands, and rich demands, so a large number of potential customers have been accumulated for the development of rural e-commerce.

1.3. Increasingly Mature Rural E-commerce

In a few swift years, China's rural e-commerce "from scratch" has gone through the rural e-commerce start-up stage, the rural e-commerce development stage and the rural e-commerce prosperity stage, and the current development has been increasingly mature. In the rural e-commerce start-up stage, rural e-commerce startups represented by 51ganjie.com became the "leaders" in the early development of rural e-commerce through building the rural e-commerce ecosystem. During this period, China's rural e-commerce was still blank and rural logistics distribution, e-commerce services, and localization services were still in the exploratory stage. Under the guidance of the central government's macro policies, domestic rural e-commerce entered a development stage. At this stage, rural e-commerce demonstration counties and villages rose rapidly and spread to surrounding cities and counties, rural e-commerce ushered in a new wave of development, and an increasing number of financial institutions, agriculture-related training institutions, rural e-commerce operating enterprises, e-commerce outsourcing service providers and others joined the rural e-commerce market, thus providing reserve of talents, logistics distribution and service support for the development of rural e-commerce. The government also began to continuously invest capital to improve the construction of rural e-commerce logistics, communications, transportation and other infrastructure, thus promoting the expansion of the rural e-commerce market share. Affected by the development of rural e-commerce branding, rural e-commerce entered a prosperity stage. During this period, the development of rural e-commerce presented characterized, branded and professional characteristics, the relationship between rural e-commerce and industrial development, rural economic construction was constantly strengthened. Relying on the radiation effect of rural e-commerce, it was infiltrated into all aspects of rural economy, industry, agricultural product brand building and market operation, thus providing a stable and harmonious operating environment for the development of rural e-commerce, and forming an increasingly mature rural e-commerce development system.

1.4. Intensified Competition in the Rural E-commerce Market

With the prosperity of the rural e-commerce market, the rural e-commerce market has ushered in more intense competition [3]. Macrocosmically, rural e-commerce platforms represented by Rural Taobao, JD Rural E-commerce, and Suning Commerce currently account for most of the market share, while Rural Taobao presents a situation of "one superpower and many powers" and becomes the core force of the rural e-commerce market. While the rural e-commerce market shows strong development potential, the rural e-commerce market has also become the focus of competition among rural e-commerce enterprises. Rural e-commerce enterprises have built rural e-commerce demonstration counties, demonstration villages, and service image stores to expand their coverage in the rural e-commerce market; microscopically, the operation entities represented by startups in various rural e-commerce segments, regional rural e-commerce platforms, and rural e-commerce platform product brands, will also face severe competition trends. Such enterprises and brands often adopt differentiated competitive strategies when participating in market competition, focus on competition in a certain segment of the rural e-commerce market, and have formed different rural e-commerce ecosystems and personalized market deployment schemes around their respective development advantages. In the context of growth of the rural e-commerce market, demand growth, policies support and the continuously open and bring rural e-commerce environment, rural e-commerce enterprises have begun to focus on market operation models and innovation in the rural e-commerce ecosystem to cope with the increasing market competition in the future.
2. CURRENT PROBLEMS

2.1. Undeveloped Rural E-commerce Infrastructure

After years of exploration and development, the rural e-commerce market has achieved notable results in the construction of rural e-commerce service outlets and the rural e-commerce ecosystem. But due to limited capital, geographical environment constraints and other factors, the development of rural e-commerce has some defects in information communication and logistics distribution network construction. It's more difficult for many villagers to enjoy high-quality and excellent e-commerce services, and there is still poor traffic environment and poor road conditions in some areas, thus seriously affecting the distribution and transportation of goods, so that not only the development of rural e-commerce is restricted, but also service experience of rural customers is influenced.

2.2. Concerns about Rural E-commerce Quality

The quality of agricultural and sideline products is a serious problem in the development of rural e-commerce at this stage. How to improve the quality of agricultural and sideline products and ensure the quality safety of agricultural and sideline products becomes an important issue concerned by current rural e-commerce enterprises. Different from the agricultural and sideline products circulating on the physical market, the agricultural and sideline products planted and produced by farmers lack quality supervision and there is no clear quality control system, so that the quality of agricultural and sideline products can't be effectively controlled. Once some agricultural and sideline products with quality problems come into the market, serious food safety problems may be caused and hidden food safety risks may be generated.

2.3. Low Educational Level of Rural E-Commerce Talents

At this stage, most of the rural e-commerce employees are mainly rural farmer entrepreneurs, who have a low degree of education, and different degrees of quality, professional ethics, and professional skills. Most of them will work upon simple e-commerce knowledge training, so that the rural e-commerce transaction processing and after-sales service needs can't be met and then service quality and satisfaction will be directly affected. With the participation of college student entrepreneurs in rural e-commerce, the current situation of the various educational levels of rural e-commerce talents has been improved to some extent. However, due to the lack of professional skills training, operation guidance, and technical support, the problem of low level of talents in rural e-commerce is still widespread.

2.4. Insufficient Collaborative Participation in Rural E-commerce

In its development, the rural e-commerce has formed a rural e-commerce ecosystem with a complete system and a rigorous framework. In the rural e-commerce ecosystem, it includes both rural e-commerce platforms and buyers, sellers, middlemen, manufacturers, suppliers and other rural e-commerce transaction entities, and related enterprises such as rural e-commerce training institutions, financial service institutions, investment and financing institutions, business consulting institutions, operating institutions, and outsourcing service institutions. However, affected by the imperfect operation mechanism and development model, the rural e-commerce ecosystem lacks effective connections, and there are the phenomena of disconnections between some commercial entities, which can easily affect the overall operation of the rural e-commerce ecosystem.

2.5. Limited Resource Integration of Rural E-commerce

The integration of advantageous resources in the development of rural e-commerce is of great significance to the construction of rural e-commerce ecological system and the connotative development of rural e-commerce. In the exploration of the development of rural e-commerce, some regions have developed unique forms of e-commerce resource integration forms based on their own characteristics, which has driven the improvement of the rural e-commerce development level. For most regions, the forms of rural e-commerce resource integration are relatively passive, most of which enter the rural e-commerce market under the passive guidance of policies and lack active participation, with the limitations of single rural e-commerce resource integration mode, low level of resource integration, etc., which are not conducive to the coordinated and sustainable development of rural e-commerce.

2.6. Insufficient Support of Rural E-commerce

Over the years, the state has promoted lots of rural e-commerce support policies, the content of which involves talent training, industry development, logistics distribution system construction, cross-border export trade, investment and financing support, etc., with a relatively wide policy coverage, and has also proposed many rural e-commerce support countermeasures. However, in the aspect of policy implementation, there are difficulties such as many implementation restrictions, long implementation cycle, and large investment scale. It is difficult for the rural e-
commerce support to "settle the matter at one go", and it is also difficult to improve the rural e-commerce service level fundamentally, affecting the operation and development of rural e-commerce.

2.7. Lack of Market Supervision of Rural E-commerce

The market supervision of rural e-commerce has its particularity. In the face of the characteristics of diversified transaction entities, diverse transaction categories and flexible transaction time in the rural e-commerce market, it is difficult to adopt the traditional market supervision means to manage and control the rural e-commerce market. To realize the supervision of the rural e-commerce market, it not only needs the coordination in terms of technology, management, talent and process, but also needs to strengthen the management and control of the transaction process and actively identify the risks and hidden dangers that may exist in the operation of the rural e-commerce market to cope with the market supervision problems. Presently, the domestic rural e-commerce is still at the preliminary development stage in terms of market supervision, and the rural e-commerce market supervision mechanism and supervision modes are still not mature.

3. COUNTERMEASURES AND SUGGESTIONS

3.1. Improve Rural E-commerce Infrastructure

Improve the rural e-commerce infrastructure from aspects of warehousing, logistics distribution, cargo transportation, and information communication. On the warehousing level, surrounding the rural e-commerce clusters, rural e-commerce industrial parks, and rural e-commerce demonstration villages, establish standardized warehousing centers to meet the needs of the operation of the rural e-commerce market; on the logistics distribution level, establish rural-commerce service stations also with rural e-commerce clusters, industrial parks, and demonstration villages as the core to guarantee the first-time logistics distribution to solve the problem of the "last kilometer of logistics distribution"; in the aspect of information communication, strengthen the coverage of the rural e-commerce information communication facilities to provide a foundation for the construction of rural e-commerce infrastructure.

3.2. Establish an Agricultural Product Quality Traceability System

Guided by the establishment of a traceable agricultural product quality management and control system, improve the special management system of the rural e-commerce agricultural product quality traceability system, and identify the construction principles, management mechanism and implementation requirements of the rural e-commerce agricultural product quality traceability system. With the national agricultural product quality management system as the basis, in combination with the specific environment of the rural e-commerce market circulation, design perfect agricultural product quality traceability evaluation indicators, and realize the agricultural product traceability management through the unified agricultural product identification management, testing code, and testing process management.

3.3. Strengthen Talent Introduction and Professional Talent Training

Adopt the rural e-commerce talent training strategy of "bringing in" and "going global". On the "bringing in" level, through the introducing of well-known rural e-commerce enterprise operation talents, management talents, technical talents, etc., to go to rural e-commerce demonstration villages and rural e-commerce parks for operation training and entrepreneurship guidance to enable rural e-commerce operators to contact the advanced concepts and development ideas in time and optimize the service process; on the level of "going global", with the training of rural e-commerce leaders and rural e-commerce technical backbones and so on as the target, organize them to go to domestic excellent rural e-commerce parks to conduct empathic learning and rural e-commerce operation experience exchange and share to train and improve the professional level of rural e-commerce talents.

3.4. Establish a Collaborative Development Mechanism of Rural E-commerce

According to the characteristics of each component of the rural e-commerce ecosystem, in combination with the business characteristics and needs of each entity, establish a rural e-commerce collaborative development mechanism with rural e-commerce platforms, buyers, sellers, middlemen, manufacturers, suppliers and rural e-commerce training institutions, financial service institutions, investment and financing institutions, business consulting institutions, operating institutions, and outsourcing service institutions as core, identify the collaborative development goals and management principles of the rural e-commerce ecosystem, and establish standardized and perfect rural e-commerce collaborative development modes to adapt to the development needs of different rural e-commerce entities.
3.5. Construct a Rural E-commerce Resource Integration System

With the common development and common progress of all stakeholders of rural e-commerce as the core, construct a rural e-commerce resource integration system with rich systems and diversified types, and conduct the dovetailing between the rural e-commerce platforms and relevant resources according to the respective development advantages of rural e-commerce platforms, financial enterprises, consulting enterprise, and operating enterprises and so on. Formulate targeted resource integration measures and guarantee and support policies to support some excellent midstream and downstream enterprises in the rural e-commerce field to reduce their development concerns and promote the in-depth integration of rural e-commerce information flow and resource flow.

3.6. Implement Rural E-commerce Support Policies and Regulations

With national macro policy as the guidance, surrounding talent development, infrastructure construction, innovation and entrepreneurship support, rural industrial development and e-commerce dovetailing and so on, formulate supporting rural e-commerce policies and regulations in all cities and counties, implement relevant responsible persons, implement rural e-commerce development performance appraisal system, and identify the rural e-commerce development indicators in all regions to ensure the progress and level of rural e-commerce development [4].

3.7. Establish a Rural E-commerce Market Supervision Mechanism

Based on the four aspects of technology, management, talent and process, establish a rural e-commerce market supervision mechanism. On the technical level, strengthen the development and application of new technologies, and apply advanced rural e-commerce market operation and management means for market supervision. On the management level, organize professional market management teams, inspection teams and appraisal teams to supervise the healthy degree of the operation of rural e-commerce market. On the talent level, equip professional rural e-commerce market supervision talents to supervise the logistics, market circulation, distribution and product quality of rural e-commerce; in the aspect of process, sort out the rural e-commerce market supervision process again to adapt to the market supervision needs.

4. CONCLUSION

Rural e-commerce is gradually developing towards clustering, new retail, branding, informatization, as well as localization and living. The development of rural e-commerce can better solve the contradictions between the “small household farmers and the big market” in the current situation of agriculture in China and solve the problems existing in the rural e-commerce development process, and can increase the competitiveness of the rural economy and promote the development of rural revitalization strategies.

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