

# Research on Rural e-Commerce Development Strategy under the Background of Big Data

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**Abstract:** Under the background of the improvement of China's modern intelligent mobile devices, mobile Internet technology has been widely popularized. With its diversified advantages, the "PC + Mobile" mode has gradually replaced the traditional PC based operation methods, and created a good environment for the effective realization of the goal of cross screen interaction. It not only makes the role and value of big data more and more obvious, but also enables big data technology to benefit all fields. Therefore, this paper makes a detailed analysis on the effective development ways of China's rural e-commerce marketing model under the background of the big data era, so as to lay a solid foundation for China's rural e-commerce to make full use of a large number of opportunities and comprehensively resist various challenges.

## 1. Introduction

According to the detailed analysis of the development status of rural e-commerce in China, we can know that rural e-commerce is developing at a rapid speed. The continuous expansion of market scale and the continuous improvement of development ability make rural e-commerce present an unprecedented development trend. In this context, the rural service industry and rural consumption level have been significantly developed and improved, so that the transformation and upgrading objectives of agricultural product processing enterprises have been effectively realized. The strong combination of big data technology and rural e-commerce provides a continuous driving force for China's rural economic development. Using big data technology to promote the comprehensive transformation of rural traditional business model is an important way to improve farmers' economic income and agricultural economic level. However, through the objective analysis of big data technology, we can know that in the actual use process, its data sharing degree is difficult to improve and its security can't be guaranteed, so that the role and value of big data technology can't be brought into full play in the development of rural e-commerce industry, which seriously restricts the improvement of the development level of rural e-commerce. Therefore, we must strengthen the in-depth research on the effective development strategy of rural e-commerce under the background of big data era, so as to contribute to the overall transformation of China's rural economy.

## 2. Main Marketing Advantages of Rural e-Commerce under the Background of Big Data Era

First, improve the accuracy of marketing activities. When customers browse the e-commerce platform and buy products, they will inevitably leave some traces. By analyzing these data, e-commerce operators can formulate highly reliable and targeted marketing plans for consumers, so as to improve the accuracy of marketing activities.

Second, improve the operation efficiency of e-commerce. In the era of big data, a data model can be built by effectively integrating online order processing and offline logistics distribution. When an order is generated, it can formulate the optimal distribution scheme with the help of big data technology to provide a reference basis for e-commerce platform operators. It can not only save a lot of time and labor costs, but also further improve the accurate marketing efficiency.

### **3. China's Rural E-Commerce Marketing Development Approaches under the Background of Big Data**

#### **3.1 Use Big Data Technology to Improve the Efficiency of Agricultural Product Logistics Distribution**

For a large number of agricultural products, the shelf life is short. When users place an order online, it is necessary to combine cold chain logistics and other transportation methods to ensure that agricultural products are transported to consumers with quality and quantity within the shelf life, so as to successfully complete the whole link of e-commerce sales of agricultural products. However, according to the actual investigation and research, it can be known that a large number of agricultural product sales platforms are affected by various factors, making it difficult to improve the overall management level of logistics and distribution. The quality of agricultural products can't be guaranteed after they are delivered to consumers, which has a great impact on the development of rural e-commerce. In order to effectively solve this problem, rural e-commerce enterprises should strengthen the flexible application of big data technology and ensure the active cooperation between online sales and offline distribution of rural e-commerce platforms, which can not only solve the occurrence of agricultural product safety crisis from the root, but also provide active help for e-commerce platform operators to plan logistics distribution methods and coordinate logistics distribution time. In the process of actually implementing various measures, rural e-commerce enterprises should first ensure that online and offline data information is effectively shared, and adopt highly rational and modern management principles to reasonably adjust logistics distribution, so as to ensure that the functions and values of big data technology can be effectively implemented in the distribution of agricultural products <sup>[1]</sup>.

#### **3.2 Use Big Data Technology to Improve Differentiated Production Efficiency of Agricultural Products**

When using big data technology to analyze the marketing data of rural e-commerce platform, whether the specific analysis effect has high standards and standardization directly determines whether the coordinated development can be realized between the production and sales of agricultural products. In the context of the big data era, the demand of consumers has undergone great changes. Rural e-commerce enterprises should constantly optimize and adjust their own development concepts and measures, and carry out differentiated production in combination with the personalized needs of consumers on the basis of ensuring the realization of the goal of efficient supply, which can not only effectively realize the goal of precision marketing, but also provide consumers with a shopping experience with high satisfaction and comfort. It should be noted that in the process of carrying out e-commerce marketing activities of agricultural products, we should strengthen the rational application of big data technology, not only to fully meet the personalized needs of consumers, but also the inevitable trend of realizing the transformation goal of agricultural production mode under the background of modern society <sup>[2]</sup>.

With its many advantages, big data technology can take the rural e-commerce platform as a bridge and give full play to its role and function in the process of differentiated production of agricultural products. For example, use big data to conduct in-depth analysis of consumers' actual consumption, then effectively integrate the results obtained, and feed back the integrated results to e-commerce platform suppliers, so that suppliers can accurately process the types and quantities of agricultural products based on the feedback results. It can not only fully meet the needs of consumers, but also reduce the cost input to the greatest extent while improving the economic benefits of suppliers, and ensure the comprehensive integration of agricultural product supply chain <sup>[3]</sup>.

#### **3.3 Use Big Data Technology to Improve the Marketing Quality of Agricultural Products**

To ensure that the diversified advantages of big data technology can be truly implemented in rural e-commerce marketing, we can start from the following aspects:

First, integrate consumers' behavior of retrieving and browsing agricultural products, take the

relevant information as the original data, combine with the information content registered by consumers in the marketing platform, take in-depth mining of the purchasing power of downstream consumers as the goal guidance, and ensure that the established marketing model is highly reasonable and scientific through detailed analysis of consumers' various behaviors. On this basis, push highly targeted and personalized agricultural product information to consumers according to the established model, so as to ensure the effective realization of precision marketing objectives <sup>[4]</sup>.

Second, by deeply integrating marketing strategic management measures with big data technology, ensure that agricultural product sellers can make full use of the functions of e-commerce platform. On this basis, questionnaire survey can be carried out through the Internet to collect consumers' needs and preferences for agricultural products in detail, and then the relevant data can be analyzed in detail by using big data technology to form a complete analysis report, so as to provide a scientific basis for e-marketing managers to formulate practical strategic development plans <sup>[5]</sup>.

In this way, we can not only bring the role and value of big data technology into full play in e-commerce related work, but also provide diversified and rich channels and measures for the effective development of agricultural product marketing, and provide technical support for further promoting the development of rural e-commerce in China <sup>[6]</sup>.

### **3.4 Use Big Data Technology to Improve the Quality of Agricultural Product Safety Supervision**

According to the detailed analysis of the overall development level of rural e-commerce in China, we can know that one of the outstanding problems is the lack of effective supervision on the food safety of agricultural products. Although government departments and dealers have taken a series of measures and methods, they have not played an ideal role, causing a serious blow to consumers' confidence in the safety of agricultural products and affecting consumers' purchase decisions. In order to effectively solve social problems, government departments and dealers should not only attach great importance to the food safety of agricultural products, but also strengthen the effective application of big data technology, ensure real-time control over the food safety of selling agricultural products with the help of big data technology, and strictly supervise every link and channel, so as to greatly improve consumption safety. Only in this way can we provide a positive driving force for the sales of agricultural products. We can start from the following aspects:

First, in the process of implementing measures related to big data technology, we should always focus on the agricultural product food safety monitoring system currently established by rural e-commerce operators to ensure that big data technology can play a role in every supervision link, such as agricultural product production link and agricultural product distribution link.

Second, we should strictly supervise the produced agricultural products, formulate practical emergency plans by using big data technology, predict possible problems in advance, and reduce losses as much as possible <sup>[7]</sup>.

## **4. Conclusion**

In the process of the continuous improvement of the development level of big data technology in China, although it can bring more opportunities for the development of rural e-commerce, it also puts forward higher and stricter requirements. In order to effectively improve the level of rural e-commerce development, we should not only give the right cognition and great importance to the importance of big data technology in promoting the reform of rural economic system, but also take various effective measures to actively apply advanced technological achievements to the rural e-commerce sales platform, keeping pace with the development of the times. Constantly updating and optimizing the traditional e-commerce development concepts and measures to ensure the full implementation of big data technology can not only continuously improve the marketing quality and effect, but also promote the healthy and sustainable development of rural economy and shorten the distance between rural areas and cities.

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