

# Analysis of Collaborative Development of E-commerce in Agricultural Product Logistics

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**Abstract:** *Guangdong province as one of the most developed area in economy in our country, the agricultural products as an important form of economy, in the process of e-commerce development in recent years, agricultural products sales gradually shift to online mode, but limited to the conditions of logistics, make a lot of damage in the process of logistics of agricultural products, affect agricultural electricity benefit and reputation. Therefore, this paper aims to study the cooperative development mode of guangdong agricultural products logistics and e-commerce, so as to promote the development of guangdong agricultural products industry. In the prevention and control of the novel coronavirus pneumonia epidemic, information and technology empowered the digital governance of serious epidemics. The crisis is a turning point, and digital governance has further advanced the development process of the modernization of the national governance system and governance capabilities. This article introduces the practical experience of digital governance in the prevention and control of the novel coronavirus pneumonia epidemic, expounds the active role of digital governance in epidemic monitoring, joint prevention and control, resumption of work and production, and social governance, and analyzed some of the problems exposed when digital governance was applied to serious epidemic prevention and control with great success. Finally looked forward to the future development of digital governance.*

**Keywords:** Guangdong Province; Agricultural Products; Logistics; e-Commerce; Collaborative Development.

## 1. INTRODUCTION

Guangdong province, as a big province in China's economic development, has a large market demand for agricultural products, and with the continuous development of agricultural products market, the tone business sales model has been gradually introduced into the sales of agricultural products. However, as fresh products, agricultural products themselves have relatively strict preservation conditions and are prone to decay and deterioration during long-distance transportation, thus affecting the sales of agricultural products [1]. Therefore, by exploring the collaborative development mode of guangdong agricultural products logistics and e-commerce, precise cooperation between logistics and e-commerce can be realized, and transportation efficiency can be improved while ensuring the quality of agricultural products. In the land consolidation project, it is necessary to monitor the physical and chemical properties of the newly increased cultivated land in real time, so as to guide the implementation of the project and the later land use. In view of the low efficiency, poor timeliness and in-situ detection indicators of traditional sampling and testing, we independently developed a mobile experimental vehicle suitable for land remediation projects, which can establish pH meter and soil nutrient meter to realize accurate and rapid monitoring of soil physical and nutrient indicators.

Epidemic monitoring during the outbreak of the novel coronavirus pneumonia, joint prevention and control after the spread, resumption of work and production after control, and social governance throughout the process are the first-time digital technologies have been applied to the monitoring and prevention of serious epidemics in China. The government service platform builds by government, the application of multiple technologies with social participation, and the grid-based management model of precise services have better transformed technical and institutional advantages into governance advantages, and played a great role in the prevention and control of the epidemic.

## 2. ANALYSIS OF AGRICULTURAL PRODUCTS LOGISTICS PROBLEMS IN GUANGDONG PROVINCE

At the end of 2019, a sudden outbreak of novel coronavirus pneumonia ravaged the land of China. The epidemic broke out instantly and spread rapidly. The harm to people's lives and health and the destructive effect on the economy and society were huge. The tasks of psychological reconstruction, economic reconstruction, and social reconstruction after the epidemic are also extremely arduous, which also brings greater challenges to the already difficult and complex social governance. In the face of serious public health incidents, the Chinese government-led and widely-participated digital governance model has achieved great success in the battle against the novel

coronavirus pneumonia epidemic, which has further promoted the modernization of the national governance system and governance capabilities, and also provided the international community good experience that can be used for reference in fighting the novel coronavirus pneumonia epidemic.

Digital governance is a combination of digital and governance. The former is a technical term, and the latter generally refers to the democratic, collaborative, autonomous, precise and efficient management process of social public affairs under the leadership of the government and the participation of multiple social subjects. Digital governance is not a simple superposition of "digital" and "governance", but an organic combination of the two. "Digital" provides technical support for "governance"; "governance" with the goal of improving the effectiveness of public management and creating public value provides direction for "digital".

### **2.1 Low circulation efficiency of agricultural products**

Although guangdong provincial government has realized the importance of agricultural products logistics and strengthened the construction of logistics infrastructure, the last mile of logistics is still a key factor affecting the efficiency of agricultural products logistics. Weak infrastructure directly leads to lower efficiency of circulation of agricultural products in guangdong province, from the source to flow into the market of agricultural products in the process of circulation costs become important factors of agricultural products logistics, merchants development makes it hard for agricultural products well into the market, often need to be more into the logistics cost, lack of access to the interests of the. China's e-government construction has made rapid progress after the official release of the "Internet + Government Service" Technical System Construction Guide in 2017. Through the use of the Internet, big data, cloud computing and other technical means, the national basic data and business systems are interconnected based on intercommunication and information sharing, build a highly integrated government service platform, covering online government service platforms, offline government service halls, mobile clients, self-service terminals and third-party platforms, The goal of providing the public with one-stop and integrated government service is gradually being realized. In extraordinary times, in the case of real space isolation, the government service platform has opened up cyberspace for the public to understand the development trend of the epidemic, clarify online rumors, apply for health codes, submit applications for resumption of work and production, and registration.

### **2.2 The circulation of agricultural products processing link loss**

Agricultural products often need to be processed to a certain extent to ensure the quality of agricultural products before entering the market. Through simple processing of agricultural products, the value of agricultural products can be improved, and different price ranges can be set according to different processing degrees, so as to meet different consumer needs of users. At present, the processing of agricultural products in Guangdong province is mainly preliminary processing, which makes agricultural products can be preserved for a short time and their profits will decrease as well [2]. During the epidemic, the government services launched by the national government service platform in response to the new crown epidemic were mainly divided into two topics: epidemic prevention and control and resumption of work and production. The services provided by the topic of epidemic prevention and control mainly include: epidemic prevention and health information code application, all parts of the country epidemic risk level query, Internet information consultation on COVID-19 for overseas Chinese, confirmed patients of COVID-19 and the same trip staff query, close contact personnel self-examination service, national accounting and testing institutions, national medical protective article manufacturers, epidemic prevention patent information sharing, etc.; In addition, the national government service platform also informs the society of the epidemic prevention and control situation authoritatively released daily by the State Council's joint prevention and control mechanism in video and text in real time, which enhances the authority and timeliness of epidemic prevention and control information; In the topic, the museum's online exhibition platform has also been opened, so that the people in the state of isolation at home can visit famous museums across the country without leaving their homes, enriching their spiritual and cultural life.

### **2.3 The compatibility between agricultural products logistics and e-commerce is not high**

With the continuous development of e-commerce, the traditional sales model of agricultural products has been changed, which also makes the sales scope of agricultural products has been expanded. However, the existing logistics facilities in Guangdong province are obviously insufficient, and the guarantee measures for agricultural products are insufficient in the long-distance transportation process, which is easy to affect the sales quality of e-commerce. How to realize on-demand distribution according to e-commerce sales demand and continuously

strengthen logistics efficiency has become an urgent problem to be solved. The main services provided by the national government service platform on the resumption of work and production include: point-to-point docking services for migrant workers returning to work, online employment services, online business registration, online taxation services, online approval of investment projects, online social insurance processing, Internet release of policy information for small and medium-sized enterprises, inquiries on measures to support enterprise development in various regions, etc.

### **3. COLLABORATIVE DEVELOPMENT MODE OF AGRICULTURAL PRODUCTS LOGISTICS AND E-COMMERCE IN GUANGDONG PROVINCE**

Through the new rapid monitoring technology of cultivated land soil quality, the monitoring of 20 000 mu (1333.3 HA) of saline alkali land has reached the acceptance conditions. The rapid monitoring technology plays a decisive role in the control of saline alkali land and plays an important role in restraining the salt reversal of saline alkali land. Yulin Municipal Bureau of natural resources has carried out demonstration application in Yulin land development projects through the rapid monitoring technology of newly added cultivated land soil quality, and a total of more than 6000 hectares of newly increased cultivated land has been detected. The rapid monitoring technology has improved the acceptance rate.

Weinan Natural Resources Bureau has carried out demonstration and application of new cultivated land soil quality rapid monitoring technology in Chengcheng County, Dali County and other county and district land development projects. A total of 10000 hectares of newly increased cultivated land has been detected. The acceptance rate has been improved through the rapid monitoring technology, and the comprehensive objectives of ecological governance, increase of cultivated land, increase of farmers' income, agricultural efficiency and rural development in the project area are ensured. The benefits were significant.

Baoji Municipal Bureau of natural resources has carried out demonstration and application of new cultivated land soil quality rapid monitoring technology in Qianyang County, Longxian county and other counties and districts land development projects. A total of 666.7 hectares of newly increased cultivated land has been detected. Through the rapid monitoring technology, the acceptance rate has been improved, and the goals of ecological management, farmland increase and farmers' income increase in the project area have been ensured, and the acceptance of the project has been completed on schedule. Through the implementation of rapid monitoring technology of soil quality of new cultivated land, the completion unit can complete the project acceptance in advance, which is conducive to the early development of farming work, and is of great significance to ensure the national grain yield and farmers' agricultural income.

#### **3.1 E-commerce model of agricultural products**

It refers to a business model in which farmers or enterprises operate, promote and sell agricultural products through Internet platforms, which can be divided into B2C, B2B and C2B. E-commerce in Guangdong province is developing rapidly. According to relevant research results, there were 798 city-level Taobao villages and 155 county-level Taobao towns in Guangdong province in 2019, and online sales of agricultural products ranked first all the year round. In this process, promoting the coordinated development of agricultural products logistics and e-commerce can create higher economic benefits. The second is to achieve democratic, collaborative, autonomous, precise and efficient public services and demand response through digital technology, that is, public services are accurately and efficiently provided to the public and respond to specific public governance needs in a timely and accurate manner. Third, digital governance is not only a means and tool to realize the ideal of grand political and administrative values, but also has value attributes in itself. Therefore, "digital governance" refers to the diverse social entities led by the government through the extensive use of digital technology to promote effective coordination among multiple governance entities to achieve democratic, collaborative, autonomous, precise and efficient public governance.

#### **3.2 Strengthen the introduction of relevant talents**

In order to realize the coordinated development of agricultural products logistics and e-commerce in Guangdong Province, it is necessary to introduce professional and diversified talents, who not only need to have professional knowledge of logistics and e-commerce, but also need to have the practical ability to integrate the two. At present, there is an obvious imbalance in the development of e-commerce of agricultural products in Guangdong Province. Therefore, strengthening the training of e-commerce and logistics knowledge in rural areas, especially the poor

population, can promote the overall level of e-commerce of agricultural products merchants. the government and all social organizations should pay attention to the training of e-commerce development for young entrepreneurs and self-employed households, encourage them to participate in the innovation and entrepreneurship of agricultural e-commerce, and further expand the scale of Guangdong Rural E-commerce expo to attract more people to participate in the development of rural e-commerce. Secondly, enterprises can also cooperate with local colleges and universities. Through the cooperation talent training mode with e-commerce, logistics management and other related majors, colleges and universities can improve students' professional theoretical knowledge, while enterprises can provide a practice platform for them, and integrate relevant talents into enterprises after graduation to promote the improvement of overall talent quality.

### 3.3 Improve the agricultural products logistics distribution system

In the process of developing e-commerce agricultural products logistics, it is necessary to reduce logistics costs first to obtain higher economic benefits. Therefore, merchants involved in agricultural products e-commerce should actively reach cooperation with express delivery companies to seek more favorable logistics prices by reaching a certain number of express deliveries every month. Secondly, Guangdong province should pay attention to the construction of refrigeration equipment and carry out intensive operation by improving the quantity and quality of refrigeration equipment, which can effectively reduce the logistics cost of agricultural products [3]. Second product compared with other electric business products, to logistics transportation conditions harsher, after the logistics time affected by uncertain factors, is likely to cause the damage to the product, so agricultural electricity company will actively cooperate with logistics companies to achieve, to improve the existing rural areas distribution of the number of professional organizations, and to establish a professional team of logistics distribution, To form professional logistics lines from the source of agricultural products to consumers, reduce the obstacles in the logistics process as much as possible, and improve the logistics and distribution environment of the existing e-commerce agricultural products.

### 3.4 Establish a standardized agricultural product system

According to the regional development model of agricultural products, establish a standardized agricultural products system, covering production, sales, logistics and other links, so that agricultural products toward modernization. Among them, it is of great significance to strengthen the standardization of agricultural production and processing. Through unified training for relevant enterprises and merchants and processing training according to the types of agricultural products, the agricultural processing procedures in Guangdong province can be standardized. And customized logistics special lines according to the types of agricultural products, such as fruits, vegetables and other logistics storage conditions, there will be significant differences in the requirements for logistics infrastructure. the unified distribution of similar agricultural products can be realized through customized special lines, which greatly improves the logistics efficiency and is conducive to the coordinated development of agricultural e-commerce and logistics in Guangdong Province.

## 4. CONCLUSION

In v., agricultural products in guangdong province have a close relationship between logistics and electricity, by strengthening relevant talent introduction, improving the agricultural products logistics distribution system, establish a standardized system of agricultural products, agricultural products logistics and electricity, the coordinated development between the in order to improve logistics efficiency and improve economic efficiency, electricity to agricultural economic development in guangdong province.

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