

# Study on the Countermeasures of Targeted Measures in Poverty Alleviation by Rural E-commerce in Jizhou District, Tianjin

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**Abstract.** The economic development of rural areas has always been one of the focuses of the central government. In recent years, the government has continuously emphasized the implementation of targeted poverty alleviation policy to liberate poor population in backward areas. With the popularity and development of the Internet, e-commerce has provided new ideas and new ways for targeted poverty alleviation. Taking Jizhou District of Tianjin as an example, this paper starts from the location of the district and puts forward personal suggestions on how to adjust measures to local conditions and to use e-commerce to carry out targeted poverty alleviation.

**Keywords:** Targeted poverty alleviation; e-commerce.

## 1. Introduction

China's poverty alleviation work began in the 1980s and is the only way to enter a well-off society and to bring about a great rejuvenation of the Chinese nation. In 2013, General Secretary Xi Jinping first proposed the concept of "Targeted Poverty Alleviation" during the inspection in western Hunan. Targeted poverty alleviation refers to the poverty alleviation plan that uses scientific methods to formulate targeted countermeasures and precisely helps farmers according to their environmental conditions and personalities.

With the improvement of Internet availability and infrastructure, e-commerce has gradually gained popularity in rural areas. Due to its low cost, openness and comprehensiveness, e-commerce has become an important driving force for economic development in rural areas and an important measure for targeted poverty alleviation. In 2015, the State Council Poverty Alleviation Office listed the "E-commerce Poverty Alleviation Project" as one of the top ten targeted poverty alleviation projects.

Domestic discussion on targeted poverty alleviation is more targeted at the less developed central and western mountainous areas and less focuses on eastern coastal areas. Therefore, there are few studies to share the development results of the surrounding developed cities. This paper takes it as an entry point, with the example of Jizhou District, Tianjin, to discuss in depth how to use the location advantage in the poverty-stricken areas in the east to promote e-commerce to enter rural areas, driving economic development, and achieving targeted poverty alleviation.

## 2. Literature Review

Different researchers have made targeted research on different links of targeted poverty alleviation. For the poverty alleviation process, Yu Liying[1] divided China's poverty alleviation measures into relief poverty alleviation, development-oriented poverty alleviation and participatory poverty alleviation. Zhang Yujia[2] pointed out that rural e-commerce has three basic modes: A2A, A2C and C2C. The main participants are agents and consumers. Chen Shiping[3] divides e-commerce poverty alleviation into three forms. The first one is Direct-to-Home which makes poverty family directly become commercial tenant by e-commerce platforms, thereby achieving income increase. The second one is participation in the industrial chain which absorbs poverty family and increases employment by e-commerce industry chain built through relevant local enterprises and related platforms. The third one is scale development which shares spillover effects and forms healthy market ecology in the aided areas, enabling farmers to share development results. Guiyang [4] said that poverty family is the mainstay of e-commerce poverty alleviation. Poverty alleviation should firstly provide professional

training for farmers, and give full play to the role of cooperatives and leading enterprises. Wang Jing [5] proposed to play the role of government in macro view, to establish and improve the incentive insurance mechanism for rural e-commerce poverty alleviation, to use big data management to optimize the poverty alleviation effect, and to strengthen the organizational guarantee force for poverty alleviation.

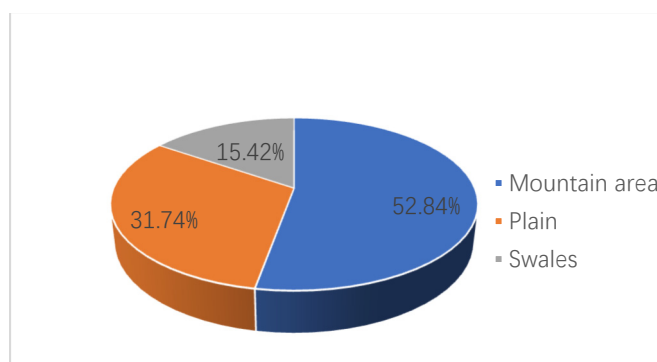
At the same time, many researchers have analyzed the problems that governments, farmers and related enterprises may face in the process of e-commerce entering poverty-stricken areas. Liu Linlin [6] said that the policy planning in some areas stayed at the municipal level, lacking more specific planning and implementation and some government poverty alleviation work was not in place. Moreover, even there were problems such as image projects, which made e-commerce poverty alleviation only nominally. Zhang Hong [7] pointed out that there is a lack of high-tech talents in rural areas. The villagers' concept is conservative and the production capacity is backward. Besides, it is difficult for them to accept the change of the traditional model. Therefore, the development relies mainly on the government's rigid help, difficult to give play to the subjective initiative of farmers, and hard to guarantee routine attention of the entire e-commerce system. Sheng Qianqian [8] proposed that in the background of e-commerce poverty alleviation, although production has been greatly increased, brand awareness has not been formed with single type of product and obvious homogeneity. In the long run, the market tends to be saturated. Zhang Wei [9] conducted in-depth research on the logistics link and found that some areas are still subject to traffic restrictions and high logistics costs. The "Last Mile" problem from townships to villages has not been effectively solved.

It can be seen from the existing literature that e-commerce has developed to a certain extent in China's rural areas, and scholars have also conducted detailed studies on the topic of e-commerce poverty alleviation. In the process of e-commerce poverty alleviation, Jizhou District should pay more attention to adjusting measures to local conditions, combining with the current situation of the region, seeking a road suitable for its own development, and making full use of its advantages while avoiding disadvantages.

### 3. Development Status and Existing Problems of Jizhou District

#### 3.1 Complex Geographical Environment and Abundant Mineral and other Resources

Ji County was originally under the jurisdiction of Hebei Province, and was placed under the jurisdiction of Tianjin in 1973. In 2016, the Tianjin Municipal Party Committee and the Municipal Government abolished Ji County and established Jizhou District, retaining the original administrative region and the seat of the government. It has jurisdiction over 26 townships with a total population of 865,700 and agriculture account accounting for about 81%. Jizhou District is located in the northernmost part of Tianjin, and in the heart of Beijing, Tianjin, Tangshan and Chengde. With an area of 1590 square kilometers and a mountainous area of over 50%, it is the only Mid-Levels County in Tianjin. The terrain is high in the south and low in the north with a step-like distribution and a height difference of 1076.7 meters.



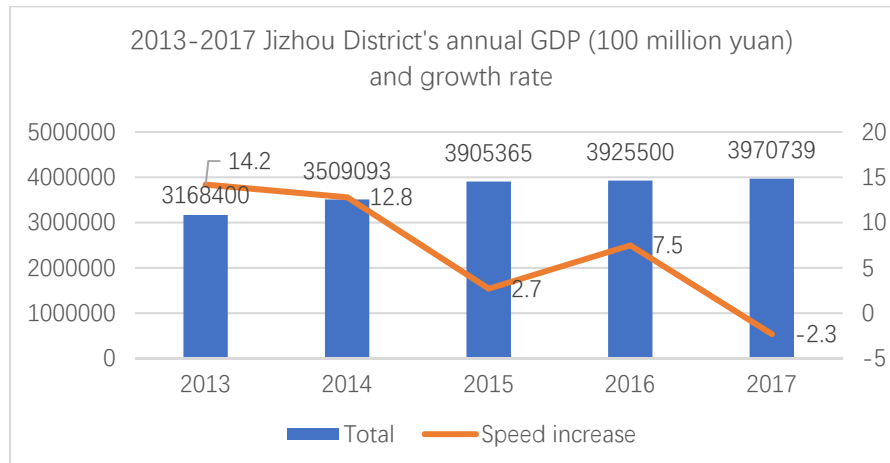
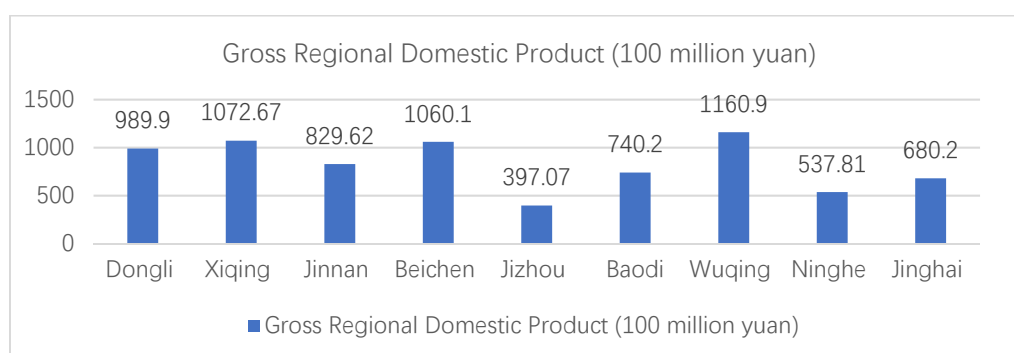
Land Area of the Whole District Land Area of the Whole District

The inland river in Jizhou District is a state river, which joins the Ju River into Jiyun River—one of the main rivers in the northern part of the Hai River Basin. Jizhou District is rich in water resources. Panshan and Beixiaohu mineral spring paddy fields are the best-quality and most abundant mineral water source in Tianjin. Yuqiao Reservoir is an important water source base in Tianjin. Groundwater resources are relatively abundant in Tianjin and water quality is fine.

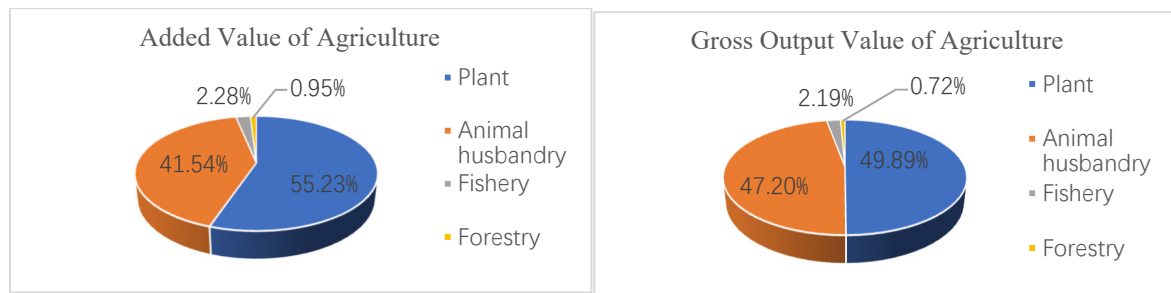
There are more than 30 kinds of mineral resources in Jizhou District. It is the main producing area of Tianjin's solid minerals and nearly a thousand species of wild animals and plants, including rare species. The superior natural conditions and unique ecological environment in the District create a suitable place for the survival of these animals and plants.

### 3.2 Low GDP and Seriously Backward Secondary Industry

In 2017, the total regional GDP of Jizhou District was 39.707 billion yuan, the last among nine suburban Districts of Tianjin, 14.074 billion yuan less than the previous Ninghe District, and 78.383 billion yuan less than the first Wuqing District.

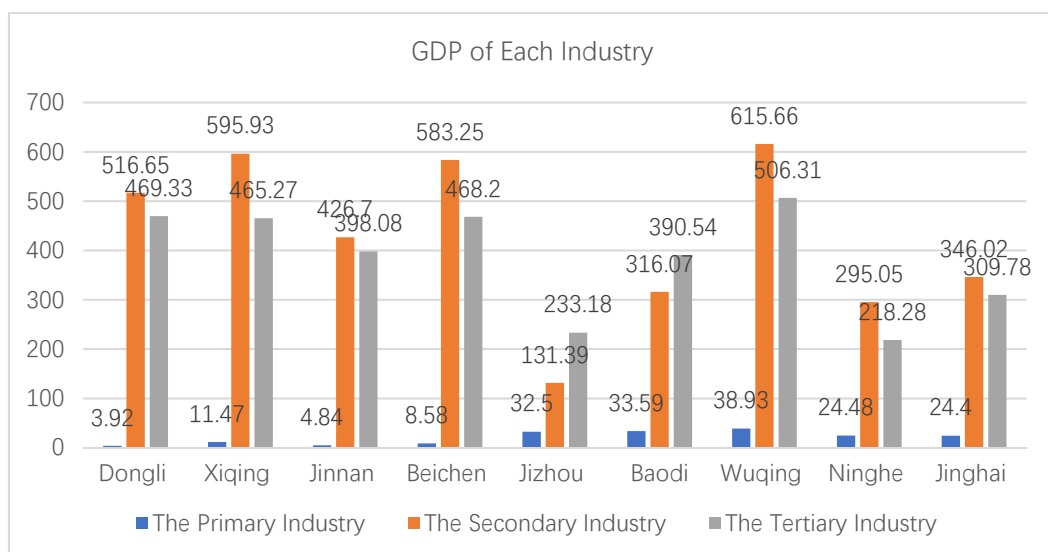


The dominant industries in Ji County are the primary industry and tourism. In 2017, Jizhou District achieved a total agricultural output value of 6.773 billion yuan, a year-on-year increase of 1.8% according to comparable prices with agricultural added value of 3.25 billion yuan, an increase of 1.9%. The planting area and total output of grain crops and vegetables in the region decreased year-on-year. The main livestock production increased and decreased, with decreased meat, eggs and milk. The output of aquatic products was the same as that last year, and the main body of new agricultural operations continued to grow. Jizhou District is China's first green food demonstration zone and China's mountainous agricultural development demonstration county. The agricultural and sideline products as well as animal husbandry products are unique and supplied to surrounding areas throughout the year.



In addition, Jizhou District has more than ten tourist attractions, among which Panshan is a national scenic area, a 5A tourist attraction, and one of the top 15 scenic spots in China. The tourism system of the whole region has established the national tourism demonstration zone and the national tourism innovation reform pioneer zone as the main line, and fully promoted the transformation and upgrading of tourism. In 2017, the total number of tourists received was 23.92 million, an increase of 14.7% over the same period of last year, and the direct income of tourism was 2.613 billion yuan, a year-on-year increase of 19.3%. The combination of tourism and characteristic agricultural products is a long-term source of foreign exchange earning in Jizhou District.

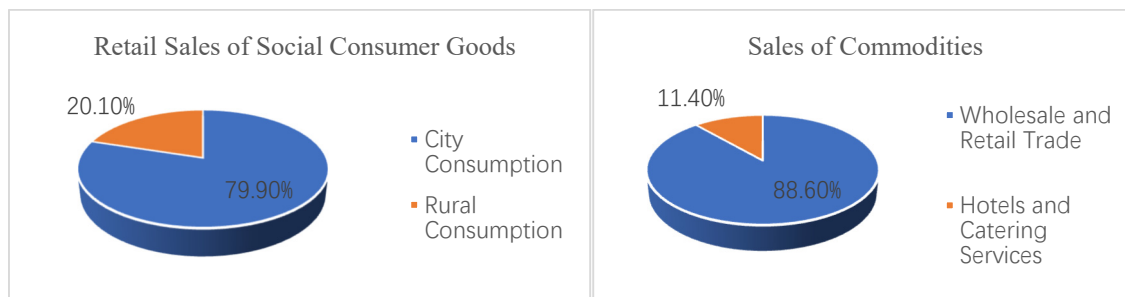
At the same time, the secondary industry in Jizhou District is seriously backward. In 2017, the total industrial output value of the whole District was 9.658 billion yuan, a year-on-year decrease of 1.9%, and the total output value of the secondary industry decreased year-on-year by 7.9%. However, in terms of the quality of the industry's operations, the leverage ratio has decreased, corporate costs have declined slightly, and some industries have experienced varying degrees of growth. The terrain of Jizhou District is complex and the construction of infrastructure is difficult, which makes the secondary industry difficult to develop.



### 3.3 Slow Development of Transportation and Large Gap between Urban and Rural Consumption

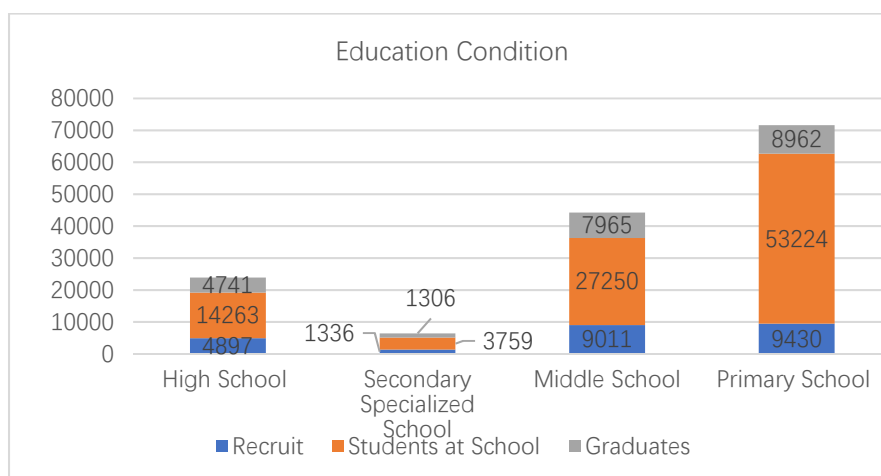
The traffic in Jizhou District is still dominated by highways. It is the intersection of Jinji Expressway, Jingha, Jinwei, Baoping and other trunk highways and township and county highways. Railway construction is still not perfect. Although there are Jingqin Railway and Daqin Railway, the passenger flow is not large. In 2015, the Jingji inter-city railway was launched, and the county officially joined the capital's one-hour economic circle. The Jingji Intercity Express Train is the first intercity express train from the county to Beijing all over the country, but the transportation route has never been used efficiently. The high-speed railway station in Jizhou was also not delivered in the expected November 2018. The underdevelopment of transportation has brought enormous difficulties for the expansion of raw materials and product markets in Jizhou District.

In 2017, the total retail sales of social consumer goods in Jizhou District was 18.882 billion yuan, a year-on-year increase of 2.4%. From the sales area, city consumption still dominates the market, achieving retail sales of 15.09 billion yuan, while rural sales reached 3.79 billion yuan. Sales of commodities in the region reached 27.54 billion yuan, a year-on-year decrease of 7.9%, of which wholesale and retail sales reached 24.4 billion yuan and hotels and catering sales reached 2.931 billion yuan.



### 3.4 Low Level of Education, Science & Technology and Increasing Awareness of Science and Education

In 2017, there were 478 educational institutions at all levels in Jizhou District. The number of students enrolled in the school was 24,674 and the number of graduates was 22,974. There are 27,983 kindergarten children in the kindergarten and the total number of graduates in adult amateur education schools in the year is 54,210.



By the end of 2017, there were 13,057 scientific and technical personnel with titles in Jizhou District, and the technology market transaction volume was 526 million yuan. A total of 128 technical seminars were held in the District, with a total of 22,489 participants and 223 practical technical trainings, with a total of 13,667 participants. In the whole year, the Jing jin Zhou he Science and Technology Industrial Park completed a fixed asset investment of 700 million yuan and newly identified 26 small and medium-sized technology-based enterprises, with a total of 278. Panshan Cultural Industrial Park completed a fixed asset investment of 125 million yuan and newly identified 4 small and medium-sized technology-based enterprises, with a total of 18. At present, there are 2 e-commerce creation spaces, and 30 e-commerce enterprises in the initial stage.

The development of e-commerce in Jizhou District currently has the following shortcomings. Industrial development starts late and the foundation is weak. E-commerce enterprises are small in number, small in scale, and lack competitiveness. E-commerce is mainly based on O2O and online transaction scale is small. Regional logistics is underdeveloped. The entrepreneurial atmosphere is not strong enough. The financing channels of enterprises are few and difficult and the populace lack

innovative impetus. The reserve of professional talents is insufficient and the loss is serious. Besides, the policy support is not enough.

Overall, the social resources of Jizhou District are backward and difficult to match with abundant natural resources. This suggests that Jizhou District Government should actively guide, increase investment, innovatively develop existing resources, improve resource utilization efficiency and reduce resource waste.

## **4. Targeted Poverty Alleviation Strategy of Jizhou District by E-commerce**

### **4.1 Optimizing Infrastructure, Improving 4G Network Coverage, Building E-commerce Network and Improving Logistics Network**

The degree of network coverage and the improvement of the logistics distribution system directly affect the development process of rural e-commerce. Therefore, on the one hand, the government should encourage the three major operators to improve the construction of information networks in the region, to accelerate fiber-optic broadband access, to improve network coverage rate and popularity rate, to build village-level e-commerce service stations, and to build systematic e-commerce platforms. Farmers are free to choose to join cooperatives, to cooperate with leading enterprises or to operate independently, thus trading agricultural products to save costs.

On the other hand, relevant departments should cooperate with professional logistics enterprises, use the existing logistics industry chain in the region, integrate logistics resources, build a rural e-commerce logistics information platform, and realize information sharing, so that enterprises and individuals at various nodes of logistics can communicate more closely and timely. At the same time, the government should increase investment, improve the transportation system and improve the utilization rate of existing railways and highways. Besides, the government should optimize the technology of storage centers and distribution centers to improve the problems of goods storage—improving transportation efficiency, reducing transportation costs and reducing proportion of goods damaged by improving logistics conditions, thus establishing an efficient interface with raw material suppliers and external markets.

### **4.2 Focusing on the Development of Featured Products, Grasping Market Demand, Fully Developing Tourism, and Establishing own Brands**

Giving full play to the advantages of distinctive agricultural products and creating brand advantages, which is one of the important ways for the development of rural e-commerce.

Chestnut, fermented bean curd, jujube, walnut, and millstone-like persimmon are all distinctive agricultural products in Jizhou District. Producers should develop new products while keeping the advantages of existing products. They also should filter products by e-commerce big data and retain best-selling products. Producers can produce a variety of distinctive agricultural products, analyze market demand, and adjust the product for seasonal changes in customer demand, thus avoiding excessive income fluctuations.

Farmers can open stores directly on the e-commerce platform, or sell through local leading enterprises. The key is to avoid market saturation caused by excessive homogenization competition. This requires farmers to focus on developing product features, creating quality products and attracting fixed customer group to form private brand.

Next, farmers should combine effectively tourism with e-commerce. For example, farmers can rent out their own spare rooms and post relevant information online. And their target customer group is hotel guest whose accommodation budget is less and who wants to experience local customs. Farmers can integrate the information via e-commerce platform to form a direct and effective communication and transaction between them and tourists.



#### **4.3 Rationally Planning Marketing Plans, Making Full Use of the Network Platform and Tourism, Combining Online with Offline, and Developing New Markets.**

For farmers who are initially exposed to e-commerce, overly complicated marketing strategies are not conducive to learning and operation. Social networks can be used to increase product popularity by blog articles and short videos etc. Leading enterprises with advantages should make full use of their own resources to hire influential big V to propagandize and popularize, and to buy advertising position from e-commerce platforms. After the development of e-commerce in Jizhou District, they should improve online marketing level, establish their own user database, conduct precise marketing, and increase attention to product packaging design and personalized customization.

In addition to online marketing, offline promotion is also an effective promotion means. Jizhou District is close to Beijing and Tianjin so it has good market conditions. It can cooperate with small retail stores and fruit and vegetable markets in long term and expand wholesale business. It can also introduce different product combinations and on-site tasting activities through these physical stores to attract customers and to develop new customer groups.

Jizhou District can also use its more developed tourism industry as a medium to expand the market, and combine tourism with experiential agriculture to attract tourists. It can enhance the popularity of agricultural products to help brand building and to facilitate the promotion of new products. After the passenger leaves Jizhou District, they can continue to consume through the e-commerce platform.

#### **4.4 Strengthening Education and Technology Investment, Publicizing Internet Awareness, Training High-tech Talents, and Achieving Sustainable Development**

The low level of education and the backwardness of science and technology are important reasons for the slow development of e-commerce in Jizhou District, but education and technological development cannot be achieved overnight. The legacy of traditional ideas caused by the small-scale peasant economy in history has made farmers' industrial concept relatively conservative and backward, and made them lack trust and recognition for e-commerce, which makes it difficult to adapt to the development of modern society. Social factors such as backward infrastructure are the objective factors that restrict the economic development of Jizhou District. The subjective factors have a deeper impact on the long-term development of Jizhou District.

For Jizhou District, the introduction of talent support construction from the outside is feasible in the short term, but in the long run, Jizhou District must have its own high-tech talent team. The Jizhou District Government should increase investment in education, improve educational conditions, and adjust the educational program to make it closely integrated with the development of the times. At the same time, the government should increase publicity efforts to fundamentally reverse the old ideas of farmers, to strengthen farmers' awareness of e-commerce, and to increase the enthusiasm of farmers to use e-commerce to get rich. The government should also invite outstanding e-commerce talents from other regions to hold lectures, training courses etc., to teach relevant knowledge, so that farmers can learn how to apply modern information technology. The ultimate goal is to cultivate a group of scientific and technological talents and management talents who are willing to be stationed in the countryside to drive the development of e-commerce in Jizhou District.

### **5. Conclusion**

The Jizhou District Government has also issued a series of policies to promote the development of e-commerce, but it is more important to identify problems, to formulate targeted measures, to maximize the role of advantageous resources and advantageous industries, achieving further development on this basis. At the same time, the realization of e-commerce poverty alleviation cannot rely entirely on the government's efforts, and enterprises and individuals should also respond positively. The government gives full play to the role of the organization by increasing investment, actively guiding, reducing obstacles for the development of rural e-commerce and providing convenience. At the same time the government strengthens supervision and regulation to ensure transaction security. Enterprises play a leading role and use their superior resources to expand their

business and market. Besides, enterprises attach importance to product quality, openness basing on sincerity, close communication between enterprises and establishing cooperative relations. Farmers should participate actively, learn actively, participate in relevant courses, improve their self-cultivation, practice actively, explore actively and seek a way out of poverty.

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