

Research on the Development of Rural Electronic Commerce from the Perspective of Precision Poverty Alleviation —— Taking Zhangjiachuan County in Gansu Province as an Example

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Abstract: Through an on-the-spot investigation, it was found that the poverty alleviation through e-commerce platforms in Zhangjiachuan County of Gansu Province has various problems, such as the backward of poor people's thoughts, the backward of infrastructure, the lack of precise connection of government policies, and the weak awareness of local brands.

1. Introduction

Targeted poverty alleviation refers to the adoption of scientific and effective methods to accurately identify, accurately assist and accurately manage the poverty alleviation methods in different poverty-stricken areas and different poor households. The targeted poverty alleviation was taken as the starting point in this paper so as to discuss how to develop rural e-commerce in poverty-stricken areas.

2. Domestic and Foreign Research Status and the Poverty Status in Zhajiachuan County

2.1 Domestic and Foreign Research Status

The researches carried out by foreign scholars on rural e-commerce start in 1970s, which are mainly from the perspective of production and sales of agricultural products. [1] While most of the researches carried out by domestic scholars are mostly focused on how to innovate the poverty alleviation mode. [2] [3] Domestic scholars have concluded the following agricultural e-commerce modes that have well developed according to the real situation, which are listed as follows: Shaji Mode [4], Lantian Mode [5], Suichang Mode [6], Wu Gong Mode [7], Shuyang Mode [8]. In addition, domestic scholars also conclude the methods for reducing the transaction cost of agricultural products from rural e-commerce, but the cost for the implementation is relatively high [9]; While, villagers, as the main participants in rural e-commerce, have low cultural level and limited knowledge [10]; So, for governments, the guidance and the training on villages' e-commerce entrepreneurship shall be strengthened so as to avoid homogenization [11]; Talent cultivation should take different training approaches in combination with the local talent structure and regional characteristics [12]; The priority thing which needs to be done is that the villagers' view on the Internet should be changed [13].

Based on the practice of e-commerce poverty alleviation in Zhangjiachuan County, this paper studied how the county can carry out poverty alleviation work through e-commerce in combination with its own characteristics, and relevant suggestions for the government to promote the poverty alleviation through e-commerce were put forward from the aspects of the policy support, the e-commerce talents and the brand development.

2.2 Poverty Status in Zhajiachuan County

Zhangjiachuan Hui Autonomous County is the only minority autonomous county in Tianshui City, Gansu Province. Now the county covers 255 administrative villages in 10 towns and 5 townships. The total population in the county is 339,600, among which 235,400 of them are of Hui ethnic group, accounting for 69.3% of the total population; 313,200 people are of agricultural, accounting for 92.2% of the total population; and there are 78 poverty-stricken villages, the county is the traditional agricultural county mainly engaged in farming and animal husbandry. The population which are suffered from poverty in Zhangjiachuan County have decreased from 104,500 people in 2013 to 26,500 in 2018, and the incidence rate of poverty has decreased from 33.79% to 8.43%. However, compared with the incidence rate of poverty in the whole country and in Gansu Province, that in Zhangjiachuan County is still relatively high, which indicated that the poverty problem in Zhangjiachuan County was still prominent.

3. Investigation and Analysis of E-commerce Development in Zhangjiachuan County

A questionnaire survey and on-the-spot investigation was conducted on the development of e-commerce in Zhajiachuan County in this paper. A total of 150 questionnaires were distributed, while 133 of them were collected as the valid questionnaires. The data analyzed below were from the questionnaire.

3.1 Basic Data Analysis

3.1.1 Analysis on Gender and Age

Firstly, it was found that, from the 133 valid questionnaires, the proportion of men to women was relatively equal, but in the actual survey, there was a tendency that older women would like their men in the family to fill in the questionnaires, which had reflected the thoughts of traditional domestic wife and social husband, and the high proportion of women in rural left-behind population. Secondly, the age distribution was uneven. Since the time of conducting the survey was on holidays, the children who normally went to school were at home. So, some of questionnaires were filled by the students instead of the elderly at home, while the proportion of the elderly over 45 years old which was left behind reached 50.7%. The young and middle-aged labor forces aged between 26 and 35 years old were basically working in other places outside the county, while the moving out of a large number of labor force had led to the vulnerability and dependence of the local economy.

3.1.2 Analysis of Level for Being Educated

The respondents generally had a low educational level. Among all the respondents, 66.19% of them were only with a level for being educated of primary schools or below, 11.27% of them were of junior middle school, and 8.45% of them were of senior high schools or technical secondary schools. It could be easily found that most of the respondents had an educational level below junior high schools. Some respondents with relatively senior in age had not even attended school, so they may not fill in the questionnaire. We may conclude that the educational level of the general public will have a direct influence on the talent base of e-commerce development.

3.1.3 Analysis on the Usage of Internet

It was found, through the research, that 100% of the villagers were using mobile phones to surf the Internet, and the popularity rate of computers is extremely low in the county, which was mainly because that the villagers would only use their mobile phones to have an access to the social chat tools, such as WeChat and QQ; As could be seen from the statistics, most of the online consumption by those villagers in one month did not exceed 100 yuan; As we could also analyze from the frequency for online shopping, the villagers may sometimes buy things online, but they may not pay a high price on those things. In addition, the main concerns for the villagers were listed as follows: The villagers had doubts on the safety of online payment (66.20%), the quality of things sold

(53.52%), the cost of logistics (40.85%) and the time of logistics (33.80%). These doubts would hinder the further development of e-commerce in rural areas. So, it was quite crucial in changing the villagers' view on e-commerce from a conceptual aspect.

3.2 Main Reasons for Poverty

It could be concluded from the survey that the main reasons for the poverty in local areas were as follows: weak in infrastructure conditions (39.39%); poor in public service conditions (19.72%); fail to have a suitable industry support (16.90%); frequent for the occurrence of natural disasters (15.49%); and the barren land (8.49%). Then we could carry out an analysis with regard to the specific circumstances:

3.2.1 Road and Traffic Conditions

In recent years, the reconstruction and construction of road network in rural areas was accelerated in Zhangjiachuan County, which had made the access of road network to every villages to be realized with a full coverage. However, the road and traffic in some rural areas was still remained at a level that the main roads of every village were connected, the density of road network was still far from enough. Although 98.56% of the rural roads had been hardened, the construction level of rural areas was relatively low. Even if there was an output of high-quality agricultural product, it will still be influenced by the road network. The initial "first kilometer" was still difficult, and the quality and time cannot be balanced, which had greatly affected the development of poverty alleviation through e-commerce in rural areas. So, the construction of infrastructure has become the primary issue.

3.2.2 Network Infrastructure

In terms of network infrastructure, Zhangjiachuan county government had increased its investment on the construction of infrastructure, and had cooperated with express and communication enterprises in the joint development of infrastructure, however, it was indicated through the research results that 22.46% of the villagers were unacceptable for the expensive mobile phone service fee, and 43.66% of them thought the signal was sometimes good and sometimes bad due to bad geographical and topographical conditions. Moreover, for the villagers that had their own online shops, they were complained on the bad signal which greatly influenced their smooth communication with their customers.

3.2.3 The Setting up of Logistics Service Stations

The primary logistics system in Zhangjiachuan County was relatively perfect, with relatively much logistics service stations. In Zhangjiachuan County, a county-level e-commerce center, 15 township-level e-commerce stations and 176 village-level e-commerce service stations had been built, but there were still 82 administrative villages that were not equipped with such e-commerce service stations, which was mainly because of the few permanent residents, the far distance among the villages and the high cost for setting up logistics service stations. It was indicated in the research that 49.44% of the villagers needed to pick their goods from the service stations that were more than 10 km away, and only 11.13% of them had service stations at the village where they lived, which made them fail to enjoy the conveniences brought by the online shopping. In the meanwhile, for villagers that were selling their goods online, they cannot deliver their goods in time. The long delivery time had greatly affected the experience of consumers through online shopping, which had further hindered the development of e-commerce in rural areas.

3.3 How did Villagers View the E-commerce in the Poverty Alleviation

3.3.1 Villagers' Understanding of Poverty Alleviation by E-commerce

39.44% of the subjects being investigated deemed that the poverty alleviation through e-commerce could drive economic development and help the villagers to get rid of poverty; 36.62% of the subjects deemed that network could be used to sell their agricultural products; while the rest

23.94% of the subjects deemed that the development of the poverty alleviation through e-commerce was in response to the call from the government.

3.3.2 Conditions for Participating in Poverty Alleviation by E-commerce

When investigating the willingness of ordinary villagers to participate in poverty alleviation through e-commerce, 50.7% of them deemed that they were qualified to carry out e-commerce activities, while the rest 49.3% of them deemed that they were not qualified to participate in poverty alleviation activities through e-commerce. There were three specific reasons for their without conditions: No relevant e-commerce skills (61.97%), no start-up funds (45.44%) and having no ideas for what to do (43.46%). In addition, the proportion of people who are content with the status quo and unwilling to participate in poverty alleviation activities through e-commerce is also large (39.44%), which was mainly because some family members of villagers were working in other places outside the county all the year round, their children also settled down in other places and worked stably, and only the elderly were left in the county. They deemed that since the level of their family income could be maintained to let their have a stable life, there was no need to give up their work outside and came back to the county. Compared with the lack of external conditions, the main reasons for the insufficient enthusiasm for the villagers to participate in the poverty alleviation through e-commerce lay in their lack of confidence and their doubts on the future development of e-commerce.

3.3.3 Enthusiasm of Villagers

It was indicated in the research that the leadership of township-located enterprises (28.31%) and the young people that were dare to innovate (28.17%) were the two types of people with the highest degree of accepting the e-commerce in rural areas, which was mainly because they had a higher level on their cultural level, they could know the relevant information for poverty alleviation through e-commerce in a more comprehensive way than the ordinary villagers, and also they had certain knowledge and real operation capability. While, the elder cadres in the village (18.31%) and the ordinary villagers (18.17%) had similar enthusiasm, they were lack in their innovative awareness.

4. Countermeasures and Suggestions on Accelerating the Development of Rural E-commerce in Zhangjiachuan County

4.1 Clarifying the Main Responsibility of Poverty Alleviation through E-commerce

It was indicated in the research that the poverty alleviation through e-commerce did not have much positive push force for the especially poverty-stricken villagers, which stated that the precision of identification on the real poverty-stricken villagers during the poverty alleviation process was far from perfect. As in the future development, governments shall make good use of relevant platforms and data for targeted poverty alleviation, so as to tilt the development of e-commerce towards the poverty-stricken villagers, and the support of human, material and financial resources shall be increased. Also, the governments shall cooperate with enterprises to jointly create a good and fair market environment and to develop a standardized and branding agricultural products.

In addition, it was shown through the survey in Zhangjiachuan County that the common problems existed in poverty-stricken areas of Gansu Province were the low cultural level of the population and the lack of knowledge and skills. Therefore, villagers themselves should improve their self-learning ability, transform their traditional conservative ideas or thoughts, actively respond to the call of the government and enterprises, and participate in poverty alleviation through e-commerce according to their own conditions and capabilities so as to get rid of poverty.

4.2 Perfecting the Infrastructure and Completing the Industrial Matching

The government is the leader and promoter of poverty alleviation through poverty alleviation. The government should actively take effective measures to fully perform government functions and continuously improve the infrastructure. Firstly, the level of Internet construction and Internet

quality in rural areas shall be improved. Measures, such as setting installation subsidies, setting up special policies for poverty alleviation through e-commerce and lowering the installation fees for Internet, should be taken to promote the publicity of Internet in rural areas. Secondly, the construction of logistics service network in rural areas should be perfected. A three-level logistics service system covering the counties, the townships and the villages shall be established, and the logistics service stations in rural areas shall be scientifically planned, so as to ensure that the logistics service stations could be more accessible to the general public. And thirdly, the construction of rural roads shall be accelerated, and the project for every households in rural areas to be accessed to roads shall be actively promoted, so as to further improve the road conditions in rural areas.

4.3 Accelerating the Formulation and Implementation of Poverty Alleviation Through E-commerce in Rural Areas Policies, and Improving the Accuracy of Policies

When the government were formulating policies, the direct embodiment of the public's income should be taken into account, and the public should be directly involved in the poverty alleviation through e-commerce, so as to improve the initiative awareness of the poverty-stricken people in developing the e-commerce. Also, incentives for e-commerce shall be formulated so as to strengthen the incentive effect. Also, the supervision and implementation over the poverty alleviation through e-commerce policies shall be implemented to ensure the various incentive and supporting policies were in place.

As in the background of targeted poverty alleviation, the e-commerce in rural areas was combined with the targeted poverty alleviation. Since the key to poverty alleviation through e-commerce is to achieve "the targeted", which involved the object targeted, the method targeted, and scope of support targeted of poverty alleviation through e-commerce. So, for governments, the poverty alleviation policy through e-commerce shall be first combined with the existing poverty alleviation plans and policies, so as to accurately identify all poverty-stricken households, and to distinguish those who can get rid of poverty through e-commerce. And then they can be distinguished according to the personnel situation, and they will be provided with opportunities for entrepreneurship and employment in e-commerce industry, so that the participation of the general public could be gradually increased, and the overflow income of the poverty-stricken public could be increased.

4.4 Combined with Local Characteristics, Developing Brands with Special Characteristics

4.4.1 Focusing on the Development of E-commerce Products

Zhangjiachuan County is rich in natural resources. The government should develop economy with regional characteristics with a basis on the characteristics of local products, and enrich the content of e-commerce products. For example, local halal food, which mainly includes halal beef and mutton, halal fried special food, Zhangjiachuan halal special spice and halal preserved almond; Light industrial products, which mainly includes cashmere bed blankets and wickerwork bamboo mats, which are with very local characteristics and are worth promoting and selling in the form of e-commerce.

4.4.2 Establishment of E-commerce Brands

The development of e-commerce in rural areas often involves a large number of product samples. There is no typical e-commerce brand, which is prone to the homogenization of e-commerce products, which further leads to a decline in competitiveness. While, one of the key factors in the development of e-commerce economy in the county is to reflect the economic and cultural characteristics of the county. Currently, e-commerce products have obvious deficiencies in the exploring of the typical feature and have a low degree of integration with local minority cultures. So, the government should actively develop the combination of e-commerce products and regional culture. By building regional brands of e-commerce products as well as promoting and inheriting cultural stories, e-commerce products can be formed with their own characteristics and their competitiveness can be improved.

5. Conclusion

In this paper, the rural poverty alleviation work in Zhangjiachuan County of Gansu Province was investigated and analyzed, and also the current situation of poverty in rural areas of Zhangjiachuan Hui Autonomous County of Gansu Province were analyzed with the conducting of a questionnaire survey. Moreover, though some achievements had been obtained on the poverty alleviation work in Zhangjiachuan County as some of poverty-stricken villagers had got rid of poverty through e-commerce, there were still various problems faced by the poverty alleviation work in Zhangjiachuan County, such as the backward of the public in their thoughts, and their distrust in e-commerce, the backward in the infrastructure, which made it hard to satisfy the development needs of e-commerce, the incomplete government policies, with no targeted connection and the weak brand awareness in the region. Those problems mentioned above were the problems that needed to be solved in time in the poverty alleviation and the development of e-commerce in rural areas within the region.

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