

Research on the Influence of Digital Economy on Farmers' Income

-- Take Anhui Province as an Example

Feifei Li¹, Xiaorong Shi¹, Lele Zhang², Junfei Hao³

¹Institute of economics, Anhui university of finance and economics, Anhui, China

²College of business administration, Anhui university of finance and economics, Anhui, China

³Department of general medicine, Bengbu medical college, Anhui, China

Abstract: General Secretary Xi Jinping pointed out that the digital economy is an important driving force for future economic and social quality, efficiency and structure changes, and increasing farmers' income is the key to solving the three rural issues and realizing rural revitalization. Based on the three indicators of agricultural management level, farmers' digital literacy and agricultural investment degree in Anhui Province, this project deeply analyzes the impact of digital economy on farmers' income, and formulates specific countermeasures by combining the development of digital economy in the production, management and sales of agriculture, so as to effectively solve agricultural production problems. So as to provide some policy reference for the government to improve farmers' income level and narrow the gap between urban and rural areas.

Keywords: Digital economy, Agriculture, Farmers, Anhui Province.

1. Introduction

Solving the "three rural issues" is an important part of China's rural revitalization strategy. How to increase rural economic income and reduce the gap between urban and rural areas is the primary problem to solve the "three rural issues" and the key way to improve people's quality of life. Wang Yongcang pointed out that the development of digital economy promotes the development of rural economy from the aspects of income structure, income sources, income volume, etc., and an in-depth study of the internal relationship between farmers' income and digital economy is conducive to the development of rural economy and the further solution of the three rural issues.

The rapid development of the Internet has changed the rural landscape, and at the same time has a profound impact on the development of rural economy. Digital economy has an impact on consumption, production and experience. According to statistics, in 2020, nearly 60,000 rural anchors in China will join the live broadcast e-commerce, and the number of rural netizens in China will be 309 million. The development of digital economy will bring new sales and shopping channels to farmers. With the development of digital economy, the average growth rate of per capita disposable income of farmers in China was 8.42% from 2016 to 2020. By the end of 2020, the retail sales of rural network was as high as 1.79 trillion yuan, and the wage income and net operating income of farmers relying on endogenous ability accounted for 76.19%. This shows that digital economy promotes rural economic development from production, consumption, sales and other aspects, and also affects people's lifestyle. In addition, the digital economy has different impacts on rural income in different regions, so in-depth analysis of different regions can greatly enhance the effectiveness of measures and suggestions.

The development of digital economy has a profound impact on rural income pattern and development. Therefore, this paper explores the ways of digital economy's impact on rural

economy, and taking Anhui Province as an example, deeply explores the new mode of using digital economy to promote farmers' income, and provides suggestions for rural revitalization.

2. Literature Review

At present, many scholars have made an analysis on the mechanism of digital economy development to increase farmers' income. First of all, the development of digital economy has regional heterogeneity in promoting farmers' income in various regions. Tang Hongtao et al. (2022) pointed out that there is obvious regional heterogeneity in the double promotion effect of income and consumption of digital economy, with the promotion effect in the eastern and central regions, and the opposite effect in the western regions [1]. In addition, the digital economy in smaller regions has different effects on the increase of farmers' income. Sun Wenting et al. (2022) took the Yangtze River Economic Belt as an example and found that the digital economy in the Yangtze River Economic Belt not only directly and significantly promoted farmers' income, but also indirectly promoted farmers' income by improving the level of urbanization. The digital economy in the Yangtze River Economic Belt has significant urbanization threshold effect in increasing farmers' income [2]

The development of digital economy causes the change of income gap between urban and rural areas. Research by Li Yuxin et al. (2022) shows that the digital economy and the income gap between urban and rural areas as a whole show an "inverted U-shaped" relationship. The income gap between urban and rural areas is inversely related to the relationship between human capital, innovation vitality and urbanization rate [3]. Mi Jiawei et al. (2022) pointed out that the impact of the development of digital economy on the income gap between urban and rural areas showed a "U-shaped" trend of change. At present, China has crossed the inflection point and is on the right side of the "U-shaped" curve, and the digital economy shows a tendency to widen the income gap between urban and rural areas [4].

According to the author's literature survey, the development of digital economy promotes the changes of farmers' income from the aspects of income source, income structure and income. Wang Yongcang et al. (2022) empirically pointed out that digital inclusive finance has a positive and significant effect on farmers' income growth, driving farmers' operational income, wage income, transfer income and property income growth, and promoting the income growth of low-income people in the western region. Generally speaking, The adjustment of rural human capital to the income-increasing effect of digital inclusive finance is not significant, but the adjustment of human capital to the income-increasing effect of digital finance has structural differences [5]. Liu Lei et al. (2022) pointed out the influence of digital operation of homecoming entrepreneurial enterprises on farmers' income and its mechanism by using the regression method of reunion influence function (RIF) and the moderated intermediary effect model [6].

3. Theoretical Analysis of the Impact of Digital Economy on Farmers' Income in Anhui Province

(A) The ways in which the digital economy affects farmers' income

In short, digital economy refers to the economic activities such as trading digital products and using digital technology in virtual digital space, which is a new economic situation. Digital economy industry is an industrial cluster based on the development of digital economy, mainly engaged in the production, processing and transmission of products and services related to digital economy, belonging to the in-depth development of information industry, which covers many industries such as software industry, big data industry, Internet industry, information technology service industry, computer and communication equipment manufacturing industry, e-commerce industry, etc.

The direct mechanism of the digital economy to increase farmers' income is mainly manifested in two aspects: First, the digital economy is infiltrating into various industries, resulting in the development of almost all industries being inseparable from the digital economy, and farmers' income is no exception. First of all, when farmers are planting agricultural products, they need to provide QR codes to receive and pay when selling their own agricultural products. Now people don't take cash when they travel, and all payments are made by Alipay and WeChat. It can be seen that the digital economy directly affects farmers' income at the sales end. Secondly, with the emergence of digital economy, farmers have used various advanced technologies in production, such as mechanized production and unmanned aerial vehicle survey ... The changes of various production technologies have greatly facilitated farmers' production and greatly increased farmers' production output. Finally, the digital economy also has a huge impact on the management of farmers' income. The crops produced by farmers are cooperated by rural credit cooperatives, financial industry and various enterprises to help farmers sell agricultural products.

It can be seen that the digital economy has different degrees of influence on farmers' production, management and sales. It can be seen that the digital economy has an important impact on farmers' income.

(B) Study on the impact of digital economy on farmers' income in Anhui Province

Anhui province has a total of more than 88 million mu of cultivated land and a rural population of 25.43 million, making it a veritable agricultural province. At present, the proportion of primary industry in Anhui Province is large, and the proportion of secondary industry and tertiary industry is obviously smaller than that of primary industry. There are great differences in the development level of agricultural modernization in different areas of Anhui, and the development of agricultural comprehensive strength in the north and south areas is unbalanced. In recent years, the disposable income of farmers in Anhui Province has maintained steady growth, but it is still below the national average. Farmers play an important role in the development of agriculture and rural areas, but the phenomenon of migrant workers entering cities is obvious, and factors of production such as rural land resources cannot be fully utilized. The important reason is that farmers' agricultural income is not high. How to increase the output of agricultural products, open markets, increase farmers' income and attract urban migrant workers to return home has become an important issue in Anhui Province.

Digital economy is an important engine of agricultural economic growth. In recent years, with the increase of rural digital penetration rate in Anhui Province, the construction of rural digital infrastructure and the application of new generation information technology have greatly increased the convenience and scientificity of planting process, opened the market of agricultural products and promoted the integration of urban and rural areas. Therefore, it is particularly important to study the influence mechanism of digital economy on farmers' income.

At present, the agricultural problems faced by Anhui Province are as follows: First, the rural industrial structure is not rational and advanced enough, and the level of modernization is low. Second, the supporting ability of key elements of rural economy is not strong. Third, the problem of massive loss of rural population has not been solved. Third, farmers' cultural quality is low and they lack technical guidance. Four, some rural infrastructure is not perfect. 5. Problems in rural management.

There are great differences in the development level of digital economy among cities in Anhui Province. To analyze the impact of digital economy on farmers' income in Anhui Province, we can consider the local actual situation with the guidance and help of the municipal governments in Anhui Province, find out the main factors restricting the development of local digital economy, and work out the most practical and reasonable development strategy in combination with the development characteristics of digital economy in different cities. At the same time, the cultivation time of crops is long, and the observation and survey of crops are mainly concentrated in spring and autumn. At the same time, we can visit farmers to discuss the process of crop planting.

4. Innovative Development Path of the Impact of Digital Economy on Farmers' Income in Anhui Province

Whether a region is developed or not is directly related to some special conditions of the region, which refers to geographical features. The eastern coastal areas of China are located in the northeast, Huanghuai sea area and the middle and lower reaches of the Yangtze River, with abundant water and heat, flat terrain and good ecological environment. The

central and western regions are located in the Loess Plateau, Gan Xin, Qinghai-Tibet and Southwest China, which are mainly mountainous areas and plateaus, and are the inland areas farthest from the ocean in China. There is no geographical advantage in the eastern region. Although Anhui Province is located in the central region, it is near the sea and near the river, with obvious geographical advantages, abundant agricultural resources and a large proportion of agricultural products. It is a typical agricultural province, with the area ranking fourth in the country and the total output ranking fourth to fifth in the country. At the same time, Anhui is a major animal husbandry province in China, with the total output of meat, egg and milk and the slaughter of poultry and live pigs ranking the forefront of the country all the year round. There are 45 livestock and poultry resources in the province, including 29 local livestock and poultry resources. Five local resources such as Wanxi White Goose, Huaizhu, Anqing Liubai Pig, Weinan Black Pig and Zhongfeng are listed in the national protection list, and 55 livestock and poultry genetic resources protection units have been identified in the province.

How to make the digital economy play a role in the existing agricultural products in Anhui Province is the innovative development path of this paper.

Using digital economy to drive the production and sales of agricultural products-taking ten characteristic agricultural products in Anhui Province as an example.

Chrysanthemum morifolium, located in Bozhou, Anhui Province, is a medicinal Compositae plant, dried in the shade and used as medicine. According to the Chinese Dictionary, "Chrysanthemum morifolium is mainly produced in Haoxian County, Anhui Province, with the best quality", the digital economy is introduced into the production and sales channels of Chrysanthemum morifolium, and the digital economy is introduced at the production end, so that enterprises can make quantitative choices, produce according to the quantity, and carry out long-term contracts. This mode of production ensures that both producers and purchasing enterprises are guaranteed to a certain extent. During the period of planting Chrysanthemum morifolium, unmanned aerial vehicles can be used to conduct irregular surveys to ensure the production quality of Chrysanthemum morifolium and detect the growth of Chrysanthemum morifolium. When farmers retail Chrysanthemum morifolium, they can cooperate with rural credit cooperatives through live broadcast in Tik Tok and

Aauto Quicker to bring goods, so as to be guaranteed.

5. Conclusion

For the digital economy to better promote farmers' income. First of all, we should vigorously develop the digital economy to make it more comprehensive. Secondly, we should ensure that the digital economy is better combined with agriculture, and the production, management and sales of crops are integrated into the digital economy.

Acknowledgment

This work is supported by Anhui University of Finance and Economics Undergraduate Scientific Research Innovation Fund Project in 2022, Project number: XSKY22078.

References

- [1] Tang Hongtao, Li Shengnan. Research on the Mechanism of Digital Economy Empowering the High-quality Development of Rural Economy [J]. Science and Technology Think Tank, 2020 (09): 13-18. doi: 10.19881/j.cnki.1006-3676.2020.09.02.
- [2] Sun Wenting, Liu Zhibiao. Digital Economy, Urbanization and Farmers' Income Increase-An Empirical Test Based on the Yangtze River Economic Belt [J]. Exploration of Economic Issues, 2022(03):1-14.
- [3] Li Yuxin, Li Zhixuan. Digital economy development and income gap between urban and rural areas under the background of rural revitalization [J]. Finance and Economy, 2022 (06): 60-67+96. doi: 10.19622/j.cnki.cn36-1005/f.2022.06.
- [4] Mi Jiawei, Qu Xiaoe. How does the development of digital economy affect the income gap between urban and rural areas [J]. Discussion on Modern Economy, 2022 (06): 80-91. doi: 10.13891/j.cnki.mer.2022.06.005.
- [5] Wang Yongcang, Wang Xiaohua. Study on the effect and mechanism of increasing farmers' income in digital inclusive finance [J/OL]. Journal of Jiangnan University (Humanities and Social Sciences Edition): 1-22 [2022-07-19]. <http://kns.cnki.net/kcms/detail/32.1665.c>.
- [6] Liu Lei, Wang Yi. Why does digital management promote farmers' income? —— Based on the survey data of entrepreneurial enterprises returning home from all over the country [J]. China Circulation Economy, 2022,36 (01): 9-19. doi: 10.14089/j.cnki.cn11-3664/F.2022.01.002.