

Analysis of the Impact of “Internet + Agriculture” on Promoting Rural Economic Development

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Abstract: This paper analyzes the influence of the “Internet + agriculture” model on promoting rural economic development. By sorting out the basic concepts and development status of Internet+ agriculture, this paper summarizes the impact of Internet+ agriculture on agricultural production and agricultural product market, as well as its contribution to rural economic development. Specifically, Internet + agriculture can enhance agricultural production efficiency, improve the quality of agricultural products, optimize the employment and income level of rural people, and innovate and optimize agricultural product distribution channels, marketing models and brand images. However, the development of Internet + agriculture still faces problems and challenges such as digital divide, lagging infrastructure and quality and safety. Hence, this paper puts forward corresponding policy suggestions and countermeasures, including promoting rural digital transformation and informatization, strengthening talent training and technological innovation, and improving the marketing and regulatory environment. Finally, this paper looks forward to the future development of Internet + agriculture.

Keywords: Internet + Agriculture; Rural Economic Development; Agricultural Production Efficiency; Digital Transformation

Introduction

With the rapid development of information technology and the popularization of the Internet, the deep integration of the Internet and traditional industries has become an important force to promote a new round of industrial transformation. In China, agriculture is an important part of the national economy, and its modernization, industrialization and urbanization have become one of the important strategic directions of national development. However, rural areas face problems such as backward infrastructure and informatization level, unreasonable industrial structure and marketing model, and lack of quality and brand image of agricultural products, which restrict the sustainable development and upgrading of rural economy [1]. The “Internet + Agriculture” model came into being in this context, through the deep integration of Internet technology with traditional agricultural production, circulation, sales and other links, promote the transformation and upgrading of agricultural production methods and business models, improve the competitiveness and added value of agricultural product markets, promote rural economic development and increase farmers’ income. However, Internet + agriculture also faces many problems and challenges in practice, such as digital divide, information security, and imperfect infrastructure and logistics support. Therefore, it is of great practical significance and theoretical value to study the impact and role of the “Internet + agriculture” model on promoting rural economic development, explore its advantages and shortcomings, and put forward corresponding policy suggestions and countermeasures.

1. The basic concept and development status of Internet + agriculture

1.1 The definition and significance of Internet + agriculture

Internet + agriculture, referred to as “agricultural Internet”, refers to a new agricultural production and business model that promotes agricultural modernization and rural revitalization through Internet technology and information means. Its main purpose is to

speed up the process of rural informatization, improve agricultural production efficiency and the quality of agricultural products, promote rural economic development and increase farmers' income. The development of Internet + agriculture will not only help solve the bottlenecks and problems in agricultural production, but also help promote the transformation and upgrading of traditional agriculture to modern agriculture, and inject new impetus and vitality into rural economic development.

1.2 The development history and current situation of Internet + agriculture

The development of Internet + agriculture can be traced back to 2003, when Zhuji City, Zhejiang Province took agricultural informatization as one of the key development projects and launched the five-year plan of "rural informatization". Since then, Internet + agriculture has been widely promoted and applied nationwide, and various innovative agricultural production and business models have emerged, such as agricultural product e-commerce, smart agriculture, precision agriculture, etc. At present, Internet + agriculture has become an important means and way to promote rural revitalization and agricultural modernization, and has received extensive attention and support from the government and all sectors of society.

1.3 The main models and technical means of Internet + agriculture

Internet + agriculture mainly includes agricultural e-commerce, agricultural informatization, smart agriculture, precision agriculture and other modes and technical means. Among them, agricultural e-commerce is an important part of Internet + agriculture, and the development of agricultural product sales and rural e-commerce is realized through the e-commerce platform, providing farmers with more sales channels and opportunities to increase income; Agricultural informatization mainly includes agricultural informatization construction and agricultural informatization services, through the application of information technology, improve agricultural production efficiency and management level; Smart agriculture is the use of the Internet of Things, cloud computing, big data and other technical means to build a smart agricultural production system to achieve the development of precision agriculture and sustainable agriculture; Precision agriculture is to achieve precision agricultural production through refined management and decision support systems, including soil detection, meteorological prediction, crop monitoring and other technical means [2].

2. The impact of Internet + agriculture on agricultural production

The development of Internet + agriculture has brought a huge impact on agricultural production. This section will analyze the impact of Internet+ agriculture on agricultural production efficiency, product quality, risk management, and the improvement of employment and income levels of rural people.

2.1 Improvement of agricultural production efficiency

Internet + agriculture has realized the digitalization, automation and intelligence of agricultural production through the application of information technology. In the production process, agricultural production can be refined through big data analysis, decision support system and other technical means to improve production efficiency and production quality. For example, smart agriculture has realized precise irrigation, precise fertilization, precision plant protection and other technical means through Internet of Things technology and cloud computing technology, effectively improving agricultural production efficiency and yield.

2.2 Improvement of the quality and brand effect of agricultural products

Through the application of Internet + agriculture, the quality and brand effect of agricultural products have also been improved. The logistics and distribution services provided by the e-commerce platform ensure the freshness and quality of agricultural products. At the same time, e-commerce platforms can also improve the popularity and brand value of agricultural products through brand marketing and promotion, and further enhance the added value and economic benefits of agricultural products.

2.3 Optimization of agricultural risk management and intelligent decision-making

Internet + agriculture provides more information technology means to help farmers carry out risk management and intelligent decision-making in agricultural production. For example, the use of big data technology for meteorological prediction can warn the occurrence of natural disasters and avoid the loss of agricultural production. In addition, the decision support system can also help farmers make reasonable decisions on crop planting, fertilization, irrigation, etc., further improving production efficiency and

agricultural economic benefits.

2.4 Improvement of the employment and income level of the rural population

Internet + agriculture has provided new employment opportunities and ways to increase income, and has also had a positive impact on the employment and income level of the rural population. The rise of rural e-commerce has provided farmers with a new sales channel to help them sell agricultural products and increase their income. At the same time, the development of Internet + agriculture has also provided more opportunities for entrepreneurs, attracting some young people to return to rural areas to start businesses. For example, some entrepreneurs use Internet platforms to carry out agricultural e-commerce, agricultural product processing, agricultural science and technology services and other businesses, injecting new vitality into the rural economy. In addition, the development of Internet + agriculture has also spawned some new occupations, such as e-commerce operations, agricultural science and technology personnel, etc., providing more employment opportunities for the rural population. Through entrepreneurship and employment, Internet + agriculture provides more sources of income for rural people, promotes the development of rural economy and improves people's living standards.

3. Internet + agricultural development policy recommendations and countermeasures

With the rapid development of Internet + agriculture, the government should take corresponding policy recommendations and countermeasures to promote the sustainable development of Internet + agriculture and promote the further development of rural economy.

3.1 Promote the digital transformation and informatization of rural areas

The government should encourage and support digital transformation and informatization construction in rural areas, strengthen infrastructure construction, and improve the level of informatization in rural areas. The government can encourage rural enterprises and farmers to use Internet + agricultural technology through financial support, tax exemptions and other means to improve rural production efficiency and management level.

3.2 Strengthen the training of Internet + agricultural talents and technological innovation

The government should increase support for talent training and technological innovation in the field of Internet + agriculture, encourage universities and scientific research institutions to strengthen cooperation with agricultural enterprises and farmers, and promote the research and development and application of Internet + agricultural technology ^[3]. In addition, the government can promote the innovative development of Internet + agriculture by establishing innovation platforms and incentive mechanisms.

3.3 Improve the marketing and regulatory environment for agricultural products

The government should strengthen the supervision and management of agricultural product markets, establish a sound regulatory system, and regulate market order. At the same time, the government should strengthen support for the brand promotion of agricultural products, encourage agricultural enterprises and farmers to establish brands, and improve the added value and market competitiveness of agricultural products. In addition, the government can promote the development of agricultural markets by optimizing the circulation channels of agricultural products and improving the quality of agricultural products.

4. Conclusion

With the continuous development of Internet technology and the transformation and upgrading of agricultural production methods, Internet + agriculture has become one of the important directions of agricultural development. This paper systematically discusses and evaluates the basic concept, development status and influence of agricultural production, agricultural product market and rural economic development of Internet + agriculture. Finally, this paper proposes policy suggestions and countermeasures to promote the digital transformation and informatization construction of rural areas, strengthen the training of Internet + agricultural talents and technological innovation, and improve the marketing and regulatory environment of agricultural products, in order to accelerate the healthy development of Internet + agriculture and contribute to promoting agricultural modernization, rural revitalization and the

comprehensive construction of a modern socialist country.

References

[1] Xiaoyong Lv XY. Research on County E-commerce Development Strategy in the Context of “Internet plus” [J]. *Internet Weekly*, 2023 (07): 24-26.

[2] Bai YX. Research on the Implementation Path of E-commerce Agriculture Assistance in the Context of “Internet +” [J]. *China New Communications*, 2023,25 (04): 63-65.

[3] Wang KJ, Lv J. The Impact of “Internet + Agriculture” on Promoting Rural Economic Development [J]. *Shanxi Agricultural Economy*, 2022 (03): 85-87.