Frontiers in Economics and Management Volume 4 Issue 11, 2023
ISSN: 2692-7608 DOI: 10.6981/FEM.202311_4(11).0011

"Wanmei Agricultural Products"

-- The Transformation and Upgrading of Anhui's Agricultural E-commerce Economy under the Interaction of Blockchain and AR Technology

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Abstract

Our country's economy has gradually entered a stage of rapid development. In the new stage, to realize agricultural modernization and transform the way of agricultural development, the key is to interact with scientific and technological means, give full play to the role of current blockchain and AR technology, and accelerate the integration of science and technology with agricultural electronics . The integration of business economy promotes the development of agricultural e-commerce economy. This article mainly studies the role of blockchain and AR technology in the economic transformation and upgrading of agricultural e-commerce in Anhui Province, and analyzes the current lack of professional talents and government failure of blockchain and AR technology in the economic development of agricultural e-commerce in Anhui Province. Give full play to the role and other issues, and combined with the actual situation, explore specific ways to use blockchain and AR technology to develop agricultural e-commerce, hoping to improve the economic development level of agricultural e-commerce in Anhui Province.

Keywords

Agriculture; Economic Transformation and Upgrading; Blockchain and AR Technology.

1. Introduction

In recent years, new technologies have accelerated their penetration into my country's agricultural and rural areas, providing a good opportunity for the digital transformation of the agricultural economy. The steady development of the agricultural economy is an important part of the high-quality development of the Chinese economy. It is currently recognized by all sectors of society as a blue ocean for the agricultural e-commerce economy that needs to be deeply explored. The integrated development of new technologies and agricultural economy can inject new momentum into the implementation of my country's rural revitalization strategy. Among them, blockchain and AR technology have the characteristics of high security, asymmetric encryption characteristics, and low transaction costs, which can help promote the innovative development of China's agricultural economy. At this stage, our country's economy has gradually entered a stage of high-quality development. It is even more necessary to give full play to the role of blockchain and AR technology and apply it in agricultural e-commerce work to lay a solid foundation for the development of agricultural e-commerce economy and accelerate the development of new technologies and The integration between agricultural e-commerce and economy promotes economic development.

ISSN: 2692-7608 DOI: 10.6981/FEM.202311_4(11).0011

2. The Role of Blockchain and AR Technology in the Economic Transformation and Upgrading of Agricultural E-commerce

Blockchain and AR technology are considered to be the next generation of disruptive technologies after steam engines, electricity, and the Internet. If steam engines release social productivity, electricity solves people's basic living needs, the Internet changes the way information is transmitted, and blockchain, as a "machine of trust", will completely change the value transmission method of the entire human society, with "blockchain The value represented by "+" has broad prospects for Internet applications.

2.1. Can Help Traditional Agricultural E-commerce Economy Discover New Opportunities

In the traditional agricultural e-commerce model, consumers are unable to know the origin, safety and other information of the goods purchased through online channels, which reduces consumers' desire to purchase goods through online channels. At the same time, because the development of traditional agriculture is affected by poor information, unsatisfactory situations such as slow sales are likely to occur. The application of blockchain and AR technology can help avoid economic losses caused by information asymmetry. For example, blockchain technology can be used to trace the origin of products. By scanning the QR code on the product, you can know the specific information of the product. Blockchain technology can be organically combined with the Internet of Things technology to make the product information consistent with the physical object. One-to-one correspondence to achieve product traceability will help strengthen product supervision and promote the development of agricultural e-commerce. Developed economies, led by the United States and the European Union, rely on their solid foundation and first-mover advantages in emerging technologies to comprehensively digitalize agriculture and enhance the sustainable innovation and development momentum of agriculture from the supply side of digital technology. Their digital economy is providing sufficient technology, product and service support for the agricultural economy, thereby reducing transaction costs and significantly improving agricultural production efficiency.

2.2. Be Able to Expand Development Space, Achieve Transformation and Development, and Create a Good Operating Environment

Ordinary agricultural e-commerce companies use blockchain technology to help improve financial supply chain links. For example, small and medium-sized agricultural enterprises often have financing needs. During the loan process, they need to provide a series of supporting documents, and the process is relatively cumbersome. If blockchain technology is used to introduce banks or other investment institutions into the financial supply chain, It can simplify the loan process, provide funds to enterprises directly based on the information in the blockchain, and effectively prevent financial risks. The integrated development of emerging science and technology and agricultural economy can effectively expand the possibility boundary of agricultural production, improve resource allocation efficiency, and solve information asymmetry.

Reduce the cost and control risks of agricultural development, improve the quality of agricultural products and their competitiveness in the international market, thereby promoting agricultural economic efficiency and increasing farmers' income, and optimizing social and economic welfare.

ISSN: 2692-7608 DOI: 10.6981/FEM.202311_4(11).0011

3. The Current Difficulties Faced by Anhui's Agricultural E-commerce Economic Development

3.1. The Top-level Design to Support the Integrated Development of Emerging Technologies and Agricultural Economy Urgently Needs to Be Refined by Local Governments.

Since blockchain and AR technology are high-tech and have high professional requirements for staff, at the current stage of the promotion of blockchain and AR technology, the Anhui Provincial Government still has shortcomings in policy transparency and professionalism. . For example, from the perspective of the general environment for the development of blockchain and AR technology, although it has provided greater convenience for their development, the Anhui government has been slow to introduce policies in this field and has not yet issued a specific development strategy. The province has only given a relatively general overview of blockchain and AR technology. It can be seen from this that the government is not sufficiently sensitive to high-tech industries. The main reason for this phenomenon is that the staff do not fully understand the technology. Therefore, they should actively learn from the practices of other cities. Taking Shanghai as an example, The city has issued a series of more specific guidance, policies and regulations, pointing out the path for the development of the industry, and providing greater convenience for gathering social forces to develop emerging technologies.

3.2. The Construction of Agricultural Digital Hardware and Software Infrastructure Needs to Be Improved

Because the transformation and upgrading of the e-commerce economy relies on the acquisition, circulation, integration, and application of data, the level of digital infrastructure determines the quality of the e-commerce economy. Affected by a series of reasons such as the scattered distribution of the rural population due to the complex natural geographical environment, restrictions on development thinking and low return on investment, compared with cities, the construction of my country's agricultural digital hardware infrastructure obviously lags behind that of cities, and network base stations are scarce. Low coverage has always been an important reason hindering the digital development of the agricultural economy. Although my country has become a globally important digital economy power, the penetration rate of emerging technologies into the agricultural field has always been at a low level. In addition, although the digital hardware infrastructure in agricultural areas has been gradually strengthened in recent years, the construction of software infrastructure such as credit systems, payment and settlement systems, and supervision systems in agricultural-related areas still lags behind. The integrated development of emerging technologies and agricultural economy is a systematic project that requires the support of complete digital hardware and software infrastructure.

3.3. There are Fewer Projects Related to Emerging Technologies

Currently, Anhui Province has no blockchain projects approved and filed by the Cyberspace Administration of China. Although China introduced and implemented the "Blockchain Information Service Management Regulations" in 2019 , the Cyberspace Administration of China has since actively carried out blockchain projects. Regarding the filing and review work, according to relevant data, 197 blockchain projects were announced in March 2019 , and another 309 projects were announced in October . Judging from the distribution of the number of filing projects, Beijing, Guangdong and Shanghai ranked first Ranking among the top three, accounting for more than half of the total number of registrations nationwide. However, the current number of such projects in Anhui Province is zero. It can be seen from this that Anhui Province currently lags behind in this technical project.

ISSN: 2692-7608 DOI: 10.6981/FEM.202311_4(11).0011

3.4. Lack of Professional Emerging Technology Talents

The development of emerging technology industries is inseparable from the support of professional talents. However, judging from the current talents in the blockchain field in Anhui Province, neither the number of talents nor their professionalism can meet the current development needs. Although the high-tech industry represented by blockchain technology is in a stage of continuous development and has a large demand for talents, it is limited by the current talent training model. The training cycle of universities is slow and the relevant curriculum system is not perfect. It has been unable to meet the industry's demand for professional talents. In short, the lack of professional talents has become an important factor restricting the development of digital economy in Anhui Province.

4. Specific Ways to Promote the Economic Transformation and Upgrading of Agricultural E-commerce in Anhui Province with the Help of Blockchain and AR Technology

4.1. Give Full Play to the Leading Role of the Government and Accelerate the Process of Economic Transformation

Since the development process of blockchain will inevitably involve the reorganization and creation of interests and the game of interests of all parties, it is often difficult to implement blockchain technology specifically by relying solely on external forces. Therefore, in the process of using blockchain technology to develop the digital economy in Anhui Province, the government must do a good job in top-level design and scientifically distribute the incremental benefits after the reform to various ordinary nodes in the system, in order to speed up the reform process and attract more social power. In addition, in order to ensure that blockchain technology develops in a benign direction, the government must give full play to its guiding role, strengthen research on this technology, and gradually introduce it into industrial development and social governance. You can start from the following aspects : First, introduce this technology into the field of agricultural product production. Anhui Province is a major agricultural province. Therefore, using blockchain technology to develop agriculture has great advantages.

4.2. Improve the Construction of Agricultural Digital Hardware and Software Infrastructure

The improvement of digital hardware and software infrastructure is a prerequisite for realizing the integrated development of emerging technologies and agricultural economy. To this end, it is necessary to increase policy support and capital investment in the construction of agricultural digital hardware and software infrastructure, accelerate the interconnection of data information between urban and rural areas, and expand Digital economic ecosystem surrounding agricultural economic development. Feasible specific measures for this include: First, through policy guidance and with new digital infrastructure as the engine, finance at all levels should increase investment in hardware infrastructure in rural areas, especially remote and ethnic minority areas, and increase the number of telecommunications base stations in rural areas. On the basis of coverage density, we should transform and upgrade basic network facilities such as mobile Internet and digital TV networks to promote the implementation of 5G networks and gigabit optical fiber broadband in rural areas; secondly, use supporting fiscal funds to encourage Alibaba, JD.com, Pinduoduo and other countries in China Large-scale Internet companies actively participate in the layout of agricultural economic e-commerce economic development, expand e-commerce-based industrial models, cultivate and develop new formats and new models of agricultural digital economy, and build a benign mechanism for win-win cooperation between government and enterprises, urban and rural parties, etc.

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Break through the current obstacles to digital technology serving the development of the agricultural economy; finally, it is necessary to improve and strengthen the construction of software infrastructure such as credit reporting systems, payment and settlement systems, and supervision systems in rural areas, and strengthen credit risk databases, credit guarantee systems, and financial information networks construction and use this to ensure the safety and smooth operation of the agricultural economy.

4.3. Introduce a Number of Emerging Technology Projects to Promote the Integrated Development of New Technology and Agriculture

In the process of developing agricultural e-commerce economic transformation and upgrading, the ultimate goal of introducing more emerging technology projects still needs to focus on the basic goal of industrial empowerment. Otherwise, after large-scale adjustments to the original economic structure, a large amount of resources are consumed without increasing economic and social benefits, indicating that the project has failed. Therefore, in the process of developing agricultural e-commerce economic transformation and upgrading, it is necessary to combine the industrial structure and deeply tap the potential of blockchain technology according to the actual situation of the province in order to create higher value. The current development of projects related to blockchain technology has become an important way for various provinces to upgrade and transform, significantly promoting the development of this technology. Therefore, the government must further study this technology, especially in the development of encryption algorithms and consensus mechanisms. Applying this technology to the development of digital economy in Anhui Province has significant advantages. Since my country's scientific research institutions currently have certain advantages in the field of blockchain, the Anhui government should focus on the research and development of this technology and continue to cooperate with scientific research institutions to lay a good foundation for the development of the province's digital economy. In addition, the government should also make good use of blockchain technology to gradually improve the digital financial service system. Currently, most domestic commercial banks have launched blockchain services. Therefore, in order to achieve further development, the government should Play its part to introduce the business of various commercial banks into the province.

4.4. Gradually Improve the Talent Training System and Improve the Quality of Relevant Personnel

Using blockchain technology to develop the digital economy is inseparable from the support of human resources. Therefore, in order to establish a professional work team, we can start from the following aspects. First of all, we should constantly improve the talent training system, formulate scientific and reasonable talent training techniques, and cultivate more outstanding talents. At the same time, it is also necessary to improve the professional quality of relevant staff. For example, experts and scholars in the field can be invited to provide regular training to staff in the province, providing channels for communication with experts, so that they can master the most cutting-edge knowledge and specific working methods in the industry, and comprehensively improve the professional quality of staff. Secondly, talent introduction work should also be done well. When formulating talent introduction policies, blockchain talents can be given certain policy preferences. At the same time, a good salary system and career development direction can be formulated to ensure talent introduction by creating a good working environment. , can also be retained. For example, in addition to providing some basic medical insurance preferential policies for high-end blockchain talents, we can also provide preferential treatment on issues such as settlement, housing, or children's schooling. At the same time, we can formulate relevant measures to encourage staff to innovate and accelerate technological innovation. The achievement transformation process is carried out in multiple ways in parallel, mobilizing the enthusiasm of staff and laying a solid foundation for economic

ISSN: 2692-7608 DOI: 10.6981/FEM.202311_4(11).0011

transformation and development. Finally, gradually improve the curriculum system of universities. For example, majors related to blockchain and digital economy can be opened in some well-known universities in the province, such as Anhui University, Anhui University of Finance and Economics, etc., thereby cultivating a large number of high-quality college students. , injecting vitality into the agricultural economic transformation of Anhui Province. In addition, majors should be organically combined with market demands. In the process of formulating the curriculum system, market demands must be combined and market-oriented to gradually form a three-in-one talent training model of enterprises, markets and industries to ensure the efficiency of talent training.

5. Conclusion

As an emerging technology, blockchain and AR technology are not only highly secure but also low-cost. Their correct application in the development of agricultural e-commerce will help further promote the transformation and upgrading of agriculture in Anhui Province. Therefore, relevant staff should pay attention to the role of blockchain and AR technology in the development of agricultural e-commerce, introduce professional staff, gradually improve the financial system, and at the same time actively introduce them into social governance to boost Anhui agricultural e-commerce. Development of business economy.

Acknowledgments

This work is supported by 2023 National Undergraduate Innovation and Entrepreneurship Training Program, Project number: 202310378158.

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