

The Impact of Digital Transformation of Circulation Industry on The Circulation Efficiency of Agricultural Products

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Abstract: This paper aims to study the impact of the digital transformation of the circulation industry on the efficiency of agricultural product circulation. Through literature review and empirical analysis, this paper finds that digital transformation can promote the improvement of the circulation efficiency of agricultural products, mainly in the aspects of informatization, logistics and intelligence. Digital transformation can improve the information transparency of agricultural products, reduce circulation costs, increase circulation speed, and shorten the length of the supply chain. Digital transformation can also improve the transportation efficiency of agricultural products through the application of logistics technology, and further improve the circulation efficiency. Digital transformation can also improve the quality and safety of agricultural products and increase consumers' trust in agricultural products through the application of intelligent technologies. This paper proposes the impact mechanism of digital transformation on the circulation efficiency of agricultural products, and puts forward policy recommendations to promote the application of digital transformation in the circulation of agricultural products.

Keywords: Digital economy; rural revitalization; role; mechanism

1. INTRODUCTION

Agriculture is an important part of the national economy, and the circulation of agricultural products is crucial to the development of agriculture and the increase of farmers' income. However, there are problems such as information asymmetry, high cost, and slow circulation speed in the traditional agricultural product circulation mode, which makes it difficult to meet market demand. With the continuous development of information technology, digital transformation has become an important development trend of the circulation industry.

Digital transformation can improve the circulation efficiency of agricultural products, reduce circulation costs, and shorten the length of the supply chain through informatization, logistics, and intelligence, thereby promoting the development of agriculture and increasing farmers' income. Therefore, studying the impact of digital transformation on the circulation efficiency of agricultural products is of great significance for promoting the transformation and upgrading of the circulation industry and the sustainable development of agriculture. Digital transformation can improve the informatization of agricultural product circulation and reduce information asymmetry. The establishment of the agricultural product information platform can provide farmers, dealers and consumers with basic information, price information, quality information, etc. of agricultural products, which improves the transparency of agricultural product information. Informatization can also provide a brand-new sales method for the circulation of agricultural products, that is, sales through e-commerce platforms.

This method can make agricultural products directly to consumers, reduce intermediate links, thereby reducing circulation costs and improving the circulation efficiency of agricultural products. Digital transformation can improve the transportation efficiency of agricultural products through the

application of logistics technology, and further improve the circulation efficiency. Logistics can reduce transportation time and loss, and reduce circulation costs by establishing a cold chain logistics system, optimizing transportation routes, and improving vehicle utilization. At the same time, logistics can also improve the freshness preservation ability and quality of agricultural products and increase consumer satisfaction.

2. THE PROPOSED METHODOLOGY

2.1 Current status of digital transformation in the distribution industry

There are still some problems in the application of digital transformation in the circulation of agricultural products. First of all, the construction of digital infrastructure in rural areas is relatively lagging behind, and many places lack network coverage, which affects the application of digital transformation. Secondly, there is still information asymmetry in the production and sales of agricultural products, and it is difficult for consumers to obtain real information about agricultural products, which affects consumers' purchase decisions. Finally, new problems brought about by digital transformation also need to be solved, such as quality supervision and after-sales service of agricultural product e-commerce platforms.

The improvement of the circulation efficiency of agricultural products by digital transformation provides us with some enlightenment. First of all, the government should strengthen the construction of digital infrastructure, increase network coverage in rural areas, and create favorable conditions for the application of digital transformation. Secondly, the supervision of the circulation of agricultural products should be strengthened, the quality supervision should be strengthened, and the trust of consumers should be improved.

Finally, digital transformation is not only a change at the technical level, but also requires changes in systems, culture,

and concepts to improve farmers' digital literacy and promote the widespread application of digital transformation in rural areas. Digital transformation refers to the process in which an enterprise changes its business model and operation mode on the basis of information technology and the Internet, thereby enhancing the core competitiveness of the enterprise. With the development of information technology and the popularization of the Internet, digital transformation has become a common choice for all industries, and the circulation industry is no exception. The core goal of digital transformation is to optimize the operation mode of the circulation industry, improve circulation efficiency, reduce circulation costs, and improve the profitability of enterprises.

2.2 Ways to improve the circulation efficiency of digital agricultural products in the circulation industry

Digital transformation can realize the intelligence and automation of logistics management through technologies such as the Internet of Things and big data, optimize distribution routes and distribution efficiency, and improve the distribution efficiency and service quality of agricultural product circulation. Traditional agricultural product distribution methods often have too much or too little inventory, resulting in waste or out-of-stock.

Digital transformation can optimize inventory management and sales forecast through big data analysis and artificial intelligence technology, improve inventory utilization and sales forecast accuracy, and reduce inventory and distribution costs. Digital transformation is an irreversible trend. For the agricultural product distribution industry, digital transformation is both an opportunity and a challenge. Digital transformation can improve the efficiency of agricultural product circulation, optimize resource allocation and enhance market competitiveness.

However, digital transformation needs to fully consider issues such as the interests of all parties and privacy protection, and needs to be jointly promoted by the government, enterprises and all parties in society. Specifically, digital transformation requires:

- 1) Promote the innovation and application of digital technology to improve the intelligence and automation of agricultural product circulation.
- 2) Strengthen the coordination and cooperation of the industrial chain, promote information sharing and optimize the allocation of resources.

3. CONCLUSION

Digital transformation is of great significance to the improvement of the circulation efficiency of agricultural products. Digital transformation can improve the information transparency, transportation efficiency, quality and safety of agricultural products through informatization, logistics, and intelligence, thereby improving the circulation efficiency of

agricultural products. However, in the application of digital transformation, there are still some problems to be solved, such as digital infrastructure construction, information asymmetry and other issues.

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