

Influence of Modern Science and Technology in China's Rural Economic Development

Rongqing Shi^{1,a,*}

¹Fruit and Vegetable Station of Agricultural and Rural Bureau, Junlian, Yibin, Sichuan, China

^a 1281954402@qq.com

*corresponding author

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Abstract: Agriculture is the foundation of the national economy. It is related to the survival of people and plays a vital role in the development of the national economy. Therefore, the development of agriculture and agriculture is guaranteed in any time in the history of any country in history. The stability of the country and the life of the people can also be maintained. After entering the 21st century, with the gradual improvement of China's socialist market economy, China's agricultural production should, on the one hand, ensure food security, on the other hand, improve the production efficiency of other crops, and promote the optimization and upgrading of the whole national economy by means of market. Modern science and technology has brought a lot of innovations to China's agricultural development in the aspects of management concept, infrastructure construction, production information and so on. China should fully recognize the weaknesses of agricultural development, seize the opportunities of rural economic development brought by modern science and technology, promote China to realize agricultural industrialization, and truly realize the improvement of farmers' income and the reduction of poor people.

1. Research Background

1.1. Modern agricultural science and technology theory

Modern agriculture is actually modernized agriculture. It refers to the use of modern industrial methods, modern science and technology, modern management methods, and modern services to integrate into agricultural development, and to improve the efficiency of agricultural development through new ideas and mechanisms. Modern agricultural theory has gradually developed over time. As peace and development have become the mainstream of the world, the global population has gradually entered a period of rapid growth. In the case that the cultivated land cannot increase significantly or even gradually decreases due to environmental degradation, Only by developing modern agriculture and improving the efficiency of agricultural production can we ensure sufficient food and clothing under a huge population base. The research on modern agriculture in various countries is mainly carried out from the perspective of agricultural production means, that is, modern science and technology. The main agricultural production environment in the United States and Europe is that there are fewer people and more land. There is a large space to improve and enhance agricultural production efficiency through scientific and biological means. . However, China has more people and less land, and the per capita arable land area is smaller. Since the reform and opening up, it has mainly focused on the research of intensive production methods, and explored more efficient agricultural production solutions through a combination of technical research and production relationship research.

1.2. The application of modern science and technology in the rural of China

The practice of modern agriculture in China mainly includes two stages. The first stage is that after the founding of the People's Republic of China and before reform and opening up, China completely abolished the land ownership of feudal landlords, established collective land ownership, optimized production relations, and vigorously developed agricultural production, using some

mechanized agricultural production equipment; The second stage is that since the reform and opening up, China has established a household co-production responsibility system, a socialist market economy system, and a market-oriented agricultural product management system that has been nationally regulated. This has greatly increased the enthusiasm for agricultural production. At the same time, leading enterprises will be cultivated, urban and rural development will be coordinated, and agriculture will be promoted to high efficiency and high added value in a way that the rich first drives the rich, and actively protect food security. Modern agriculture is not only a simple application of high-tech agricultural mechanization tools and high-yield and high-quality varieties, but has to enter social, professional, market, and commercial development. Only by entering the market and facing the market can it truly integrate into urban and rural areas. The integrated layout realizes the integrated development of regional economy, and forms a tightly integrated organic whole with agriculture and other industries.

2. Modern Technology Makes Regional Connections Closer

2.1. Conducive to give play to comparative advantages

The economic development between different regions is uneven, which is caused by the differences in the economic foundation, geographical environment and cultural conditions of each region. Therefore, in a market economy, it is necessary to pay full attention to and take advantage of the imbalances in regional economic development. Cultivate and support the characteristic economy, and realize the location development. Regional economic integration has a wide range of applications and practices in China. China has a vast geographical area and large differences between regions. Promoting regional economic integration is conducive to the use of the comparative advantages of various regions and the integration of advantageous industries between different regions. Inferior industries can achieve balanced development through complementarity. Under the socialist market economy, the rules of market economy development are followed, so there is a lot of room for regional comparative advantages to be brought into play. And through regional economic integration, realizing the strengths and complementing each other's weaknesses, and connecting them closely, can effectively promote poverty alleviation in poor areas, and ultimately achieve common prosperity.

2.2. Conducive to promoting balanced development

Regional economic integration requires the coordinated development of various industries, including agriculture, to achieve complementary advantages. Agriculture is both the foundation and the weak link of the national economy. In developed countries, agriculture is very developed, but agriculture also accounts for only a small part of the national economy, and the tertiary industry is the backbone of the national economy. In China, there is still a lot of room for agricultural industrialization and economic equilibrium. The strategy of regional economic integration has become an effective means to promote balanced regional development. Differences in regional demand can bring about exchanges and promote the prosperity of the market. In a certain region, only by achieving balanced development can the market be promoted to run smoothly and healthily. In some areas, agricultural products are rich in resources and the quality of cash crops is high, but the industrial production system is poor and it is difficult to form effective added value. Therefore, agricultural products are not sold well and farmers' income is also limited. However, if each region becomes a closely linked organic whole, it can take full advantage of its own advantages, which can not only achieve agricultural development and increase farmers' income, but also enrich the industrial system and realize the development of agricultural industrialization.

2.3. Conducive to improving the industrial chain

The three major industries of the national economy are indispensable. If each industry develops abnormally, it will adversely affect the operation of the national economy and national economic security. Global economic ties are getting closer and closer. Under the guidance of China's reform

and opening up policy, China's various regions have formed an interconnected organic whole and gradually integrated into the international market. Regional economic integration, on the one hand, promotes inter-regional interconnection and mutual promotion, and on the other hand, forms a community of interests based on regional internal integration. It can unite to cope with external competition, and actively absorb insufficient economic parts within the region to strengthen regional strength. Under the condition of coordinated development within the region, there is more room for the upstream and downstream industrial chain to form and expand, which is conducive to improving the industrial chain and forming an organic whole with the regional cooperation as a breakthrough. Such as integrating agricultural product production, processing, and sales into a large modern agricultural industrial chain, getting rid of pure agricultural production or pure agricultural product processing economy, and creating new growth points for economic development.

3. Modern Technology Brings Innovation in Chinese Agriculture

3.1. Innovation in management concepts

In the era of mass entrepreneurship and innovation, the innovation of agricultural industrialization starts with the management and management concepts. Only by optimizing the management and management concepts can we fundamentally drive the innovation of other systems and mechanisms. With the continuous emphasis on the development of rural economy, the country has formulated some implementation rules for rural innovation based on the actual situation of rural economic management. However, many places have not thoroughly understood the national policies and policies. They still manage the rural areas from the perspective of urban management and other social aspects understanding the agricultural product market from the perspective of the commodity market is not conducive to the development of modern agriculture, nor is it conducive to the further development of agriculture. Only by innovatively exploring the characteristics of agricultural management in the agricultural product market can we fundamentally improve the level of agricultural modernization.

3.2. Infrastructure construction innovation

Traditional infrastructure construction cannot be ignored. Strengthen the transformation and construction of rural infrastructure and actively increase related infrastructure to lay a solid foundation for rural economic development. Under the concept of coordinated development, strengthening innovation in infrastructure construction not only strengthens infrastructure construction for rural life, but also strengthens infrastructure construction for production activities. For example, to strengthen the construction of water conservancy facilities, the introduction of high-tech breeding, and high-tech irrigation. The construction of infrastructure can minimize production losses caused by the limitations of natural conditions.

3.3. Rural science and technology information innovation

In the information age, whoever has the information can be truly invincible. Saving information through information channels is simple and fast, and it is not easy to lose or alter. Business technical data, cadastral information, share information, etc., can all be preserved by means of information technology. At the same time, through the communication information channels, the latest information on the supply and demand of agricultural products can be obtained in a timely manner. This can minimize the imbalance of information acquisition and make rural operations more rational and scientific. Establishing an agricultural product information platform and agricultural industrialization operation sharing platform can publish agricultural product information to the society, increase sales revenue, and reduce the financial and administrative costs of agricultural collectives, and optimize agricultural industrialization operations.

4. Shortcoming of China's Rural Economic Development

4.1. Lack of financial and asset management awareness

Farmers' awareness of collective property management and their own property management needs to be strengthened. Many farmers are indifferent or unable to participate in village collective decision-making and collective property disposal operations due to their cultural level and historical reasons. Agricultural production and management will also be affected by village collective factors; and many farmers do not have a correct awareness of their financial management and often rely on clan forces and violence to safeguard their own interests, neglecting to preserve evidence and protect their rights and interests through legal means. When production lacks funds or wants to operate cooperatively, it is often maintained through personal relationships and feelings, rather than through formal channels such as share financing, debt financing, and cooperative business models.

4.2. There is a little scale of production and operation

At present, China is mainly based on independent, decentralized family-based operations. It is difficult to expand the scale of production and operation, and it is difficult to improve production efficiency. Although the state has clarified relevant regulations and policies for the transfer of land management rights, the progress of land integration is still slow and agricultural production The scale is still small. Decentralized operation has caused cash production technologies brought about by scientific and technological progress, such as mechanized technology and information technology, which cannot be thoroughly and widely applied, science and technology cannot be popularized, and the majority of farmers have not received more benefits in the development of the economic and social environment. The impact of economic level is still dominated by manual mode and manual traditional mode in agricultural production.

4.3. Mismatch between economic management level and technology application level

In the process of China's new rural construction, rural economic construction is an important part of rural grassroots development and the cornerstone of new rural construction. In many areas, although science and technology have been improved, they are difficult to apply, and it is difficult to establish a system of rural industrial advantage. This has resulted in empty technologies in these areas, but it is difficult to get benefits, and the level of economic management does not match the level of science and technology applications. Agricultural industrialization should also improve the level of management , and use the promotion of management technology to realize the true and effective use of science and technology. The improvement of the rural economic management level should be taken seriously by most farmers. It is necessary to abandon the traditional backward thinking, integrate products into the market, and truly allow farmers to get benefits.

5. Countermeasures for China's Rural Economic Development

5.1. Enhance the level of agricultural industrialization

The Chinese government needs to conduct a differential analysis of the different conditions of Chinese agricultural product management, and explore a more scientific rural management model based on different operating characteristics. The state implements different management models for the purchase and sale of grain production and the production and sale of cash crops and livestock products. For the purchase and sale of grain, the state implements price protection and separates strategic and policy grain reserves from market-oriented grain flow operations. On the basis of grain, the surplus grain produced is allowed to be purchased and sold on a commercial basis, so as to ensure the strategic security of the country without harming the interests of farmers. For cash crops and livestock products, the state mainly implements a market-oriented mechanism, free flow of commodities, and government departments supervise and guide the market.

5.2. Strengthen education and training for farmers

To promote agricultural modernization and improve the level of rural economic management, we

need to develop rural economy from the root, cultivate modern agriculture, and improve the level of agricultural industrialization. In the process of promoting the realization of agricultural industrialization, farmers have gradually developed a sense of standardized management and optimized management, which has gradually increased the endogenous motivation for improving the level of rural economic management. Only when a certain scale effect is achieved and the product has a certain market and brand, can social capital and resources from all parties gradually gather in the countryside, and the agricultural industrialization will realize the material foundation. We can vigorously develop the advantageous industries, make the agricultural industry bigger and stronger, and on the basis of giving full play to the farmers' ingenuity and adapting to local conditions to develop characteristic agriculture, rely on the advantages of scale to promote rural economic development and safeguard farmers' interests.

5.3. Frontier scientific research leans towards agriculture

Science and technology are boosters of human progress and industrial progress, and the development of rural economy is inseparable from the investment in science and technology. In the current society, the frontier disciplines of scientific research are often not in agriculture, and the advancement of frontier scientific research in agriculture is limited. China should encourage agricultural scientific research and increase investment in scientific research. At the same time, it is necessary to expand the channels for the transformation of agricultural scientific research results, rely on the development of agricultural industrialization, and provide funding support and research motivation for agricultural scientific research. If scientific research can be more deeply integrated into the development of the rural economy, the agricultural market can be further developed, and the international competitiveness of China's agriculture and China's overall economy will be further improved.

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