

Technology enables agricultural insurance to help the rural revitalization strategy

— Take Guangdong Province as an example

Siru Wang

University of International Business and Economics, Beijing 100029, China.

Abstract: “Agriculture, rural areas and farmers”, as the top priority of the whole Party, is of great significance for China to build a strong agricultural country. Agricultural insurance, as an important tool of agricultural risk diversification, has also attracted wide attention from the country and the society. This paper selects Guangdong province as the research object, from the perspective of rural revitalization development of agricultural insurance science and technology, from the insurance companies, farmers, the government analysis of technology in agricultural insurance power in the strategy of the application practice, achievements and constraints of science and technology applied in agricultural insurance, and relevant suggestions, boost the development of agricultural insurance in Guangdong province.

Keywords: Agricultural insurance; Science and technology; Rural revitalization strategy

1. Introduction

The party’s 20th report emphasizes the importance of accelerating the construction of an agricultural power, comprehensively promoting rural revitalization, and combining the development of agriculture and rural areas with poverty alleviation, which shows the significance of “agriculture, rural areas and farmers” issues to China’s development. Agricultural insurance, as an important tool of risk management and risk diversification, is of great significance to guarantee agricultural production, stabilize farmers’ income, promote the revitalization of rural industries and promote the development of modern agriculture, so it has been paid great attention to by the CPC Central Committee. In February 2023, the Opinions of the CPC Central Committee and the State Council on Comprehensively Promoting Rural Revitalization in 2023 were issued, which repeatedly mentioned the measures to strengthen insurance support for agriculture, including gradually expanding the scope of complete cost insurance and planting income insurance for rice, wheat and corn, optimizing “insurance + futures”, encouraging the development of fishery insurance, and clarifying the direction of insurance support for rural revitalization in the future.

However, with the rapid development of agricultural insurance, the problems of traditional agricultural insurance products are increasingly prominent, such as cumbersome claims process and inadequate service, etc.; insufficient security coverage for poor areas, and the imperfect disaster risk mechanism, which is difficult to meet the needs of farmers (Ding Shaoqun, 2021) ^[1]. In order to comprehensively promote the implementation of the rural revitalization strategy and promote the solution of the problems concerning agriculture, rural areas and farmers, we need to remove these stumbling blocks. The emergence of insurance technology (InsurTech) has brought new opportunities and challenges to the development of agricultural insurance.

Some scholars (Li Ting, 2023) ^[2] take Hebei Province as an example to study the development of science and technology for agricultural insurance, and this paper chooses Guangdong Province as an example. This paper from the perspective of the development of agricultural insurance science and technology, help rural revitalization analysis of technology in agricultural insurance power in the strategy of rejuvenating rural application practice, results and the existing problems, and put forward suggestions on the problems existing in agricultural insurance in Guangdong province, boost the development of agricultural insurance in Guangdong province.

2. Application practice and effect of science and technology in agricultural insurance in Guangdong Province

As a big agricultural province, Guangdong has a large rural area, a large population and a high agricultural output value. But at the

same time, Guangdong is located in the coastal areas, and frequent natural disasters occur frequently. Therefore, there is an urgent need for agricultural insurance to protect them. Guangdong agricultural insurance continues to adhere to the principle of “raising standards, expanding coverage and increasing products”, adapt measures to local conditions, innovate personalized agricultural insurance products, so that customers can deeply feel the benefits of agricultural insurance. At present, how to apply science and technology to agricultural production to play the role of disaster prevention and loss reduction is a concern of the insurance industry in Guangdong province (Wang Xiao, 2023)^[3]. In fact, the wide use of modern agricultural technology in the field of agricultural insurance has early signs. In 2020, Guangdong issued a programmatic document in the field of agricultural insurance, “the Implementation Opinions on the High-quality Development of Agricultural Insurance in Guangdong Province”, which clearly pointed out that insurance institutions should be supported to improve the empowerment of agricultural insurance technology. Agricultural insurance enabled by science and technology is not only beneficial to insurance companies, but also has positive benefits for farmers and the government. This paper will describe the application practice and effect of scientific and technological means in agricultural insurance in Guangdong Province from three perspectives.

2.1 Implications for insurance companies

The application of science and technology improves the efficiency of agricultural insurance underwriting and claims settlement, and makes insurance underwriting and claims settlement more accurate. With the launch of Guangdong agricultural insurance underwriting electronic service platform, the insurance salesman “entering the village door-to-door record” has become a history, improving the efficiency of insurance and claim settlement. Picc Guangdong Branch launched the “YueAnnong Insurance” AI digital comprehensive agricultural service platform, and realized the transformation of the online “insurance according to the drawing and claims according to the drawing” mode of agricultural insurance business with a single map, which greatly improved the accuracy and efficiency of insurance and loss assessment, and promoted accurate claims settlement.

The application of science and technology promotes the innovation and development of agricultural insurance products of insurance companies. In recent years, insurance companies in Guangdong Province have applied scientific and technological means to agricultural insurance. Sunshine Agricultural Insurance Guangdong Branch launched a series of featured aquaculture insurance in Jiangmen City, including: policy eel farming meteorological index insurance, commercial aquaculture meteorological index insurance. As an innovative type of insurance, in terms of risk protection, it not only protects natural disasters encountered in the process of eel farming, but also protects common diseases of eel, effectively making up for the gap of “weather index” type insurance that only protects natural disasters. At the same time, in terms of claims, as long as the meteorological factors announced by the agreed weather station reach the “weather index” compensation standard agreed in the clause, the compensation mechanism will be activated.

2.2 Implications for farmers

The application of science and technology has broadened the channels and opportunities for farmers to access innovative agricultural insurance, and helped farmers better understand the relevant national policies for benefiting agriculture. With the popularity of mobile phones, relevant government departments will also promote agricultural insurance products through mobile phone SMS, public accounts, wechat video accounts and other ways. China Property Insurance Guangdong Branch launched the “Agricultural Insurance Micro Class” in 2021, which popularized the knowledge of agricultural insurance in the form of 1-2 minute short videos on platforms such as Douyin and wechat video account, interpenetration introduced the characteristic industries of Guangdong province, and stimulated the enthusiasm of farmers for insurance.

The application of science and technology makes the types of insurance that farmers can take out more abundant. By establishing the “12+8+3+N” insurance system, Guangdong Province has realized that agricultural insurance basically covers the main varieties of agricultural production in the province. With the support of various scientific and technological means, the insurance company has innovatively designed a variety of “technology +” insurance products for agricultural products with Lingnan characteristics in Guangdong, enriching the insurance options for farmers, such as the first remote sensing “rice regional yield insurance” in China launched by the Guangdong Branch of

Pacific Property Insurance.

2.3 Implications for government departments

Government departments strengthen the supervision of agricultural insurance by means of technological means. By establishing policy-based agricultural insurance big data platforms with insurance institutions, we will focus on insurance behavior supervision, premium subsidy management and public services to improve the efficiency of regulatory subsidies. At the same time, sharing data with insurance companies will enable the real-time monitoring of the whole process of agricultural insurance (Zhang Qiao and Zhao Sijian, 2022.)^[4]. In June 2020, the Financial Support think tank was established in Guangdong, which is the first financial support think tank established by provincial agricultural and rural departments in China. The Internet gathers experts and scholars in the financial field to establish a think tank, providing a powerful financial theoretical weapon for rural revitalization in Guangdong.

3.Constraints to development

3.1 Research and development costs are high

At present, most insurance companies are aware that in the short term, the investment cost of science and technology, research and development will be very high, but in the long term, the benefits are very high. However, the initial investment is a great pressure for some small insurance companies. Even if the research and development is successful, the application and promotion of technology will also need time. Therefore, the popularization of science and technology application in agricultural insurance products is still not enough.

3.2 The supply of compound talents is insufficient

In order to play the role of science and technology in agricultural insurance, the ability and professional requirements of operators and users are higher, they not only need to be clear about the knowledge of agricultural insurance, but also need to master the operation of technology. The staff who are familiar with the business of agricultural insurance products are less able to meet the requirements of mastering the use of technology, and the demand for special composite talents is greater.

3.3 Inadequate sharing of agricultural data

Local governments are committed to establishing information sharing platforms, hoping to realize information interoperability. However, for insurance companies, database is their core competitiveness, so the data owned by insurance companies may involve trade secrets and cannot be published. The various departments of the government perform their own duties and have different data, but due to the problem of authority, they can not be fully released, thus limiting the application of scientific and technological means to the development of agricultural insurance.

4. Countermeasures and suggestions

(1) The government has increased its support for the application of scientific and technological means to agricultural insurance. Government departments can encourage insurance companies to innovate and promote the application of agricultural insurance products through establishing incentive mechanisms. For example, give tax incentives; provide data and technology support; introduce relevant policies to create an environment for science and technology to help agricultural insurance.

(2) Accelerate the training of compound talents. Insurance companies can partner with universities. Colleges and universities focus on courses related to computer and insurance technology to lay a good theoretical foundation when cultivating talents. Insurance companies offer internships to students, providing practical opportunities to combine theoretical knowledge with practice.

(3) Accelerate the construction of the digital platform for agricultural insurance and promote information sharing. Relevant government departments in Guangdong Province should take the lead, and insurance companies should cooperate and make efforts to gradually

liberalize the data authority and improve the data sharing mechanism.

References

- [1] Ding Shaoqun, Tan Li, Zhang Yufeng. Level evaluation and realization path of high-quality development of policy-based agricultural insurance in China [J]. Journal of Guizhou University (Social Science Edition), 2021,39(04):98-108+124.DOI:10.15958/j.cnki.gdxbsbh.2021.04.10.
- [2] Li Ting, Wang Ying, Wang Xiaoyi.— Take Hebei Province as an example [J]. Financial economy, 2023(06):81-88.DOI:10.14057/j.cnki.cn43-1156/f.2023.06.001.
- [3] Wang Xiao. The practice of risk reduction of agricultural insurance in Guangdong [N]. Financial Times, 2023-09-13 (012). DOI:10.28460/n.cnki.njrsb.2023.004832.
- [4] Zhao Sijian, Zhang Qiao. Research on promoting the high-quality development of agricultural insurance [J]. Insurance Theory and Practice, 2020 (08): 7-19.