

# Discussion on the value-added space of digital transformation of insurance industry

**Zhu Xuheng**

*College of Economics, Guangxi University, Nanning, Guangxi, China  
zhuxuhengjingji@163.com*

**Abstract:** *With the rapid development of digital economy, it has had a huge impact on all walks of life. How to promote the high-quality development of insurance industry through digital transformation, build a new pattern of digital finance that adapts to the development of modern economy, continuously improve the ability and level of financial services to the real economy, and effectively prevent and resolve financial risks. This paper discusses the value-added space of China insurance industry under the digital economy from three angles: business management, data ability and scientific and technological ability. In this paper, the development status of China insurance industry is sorted out, and relevant suggestions are provided for the future development direction, with a view to the continuous development and progress of China insurance industry, which can better stabilize the economy, promote economic development and protect the legitimate rights and interests of the people.*

**Keywords:** *Insurance industry, Digital transformation, Value-added space*

## 1. Introduction

As a part of the traditional financial industry, insurance plays an important role in transferring risks. China is the second largest insurance market in the world. At present, there are 300 million people in China who buy long-term life insurance policies, and nearly 600 million people are insured. The coverage of commercial life insurance reaches 42.7%, and the total risk protection exceeds 1,000 trillion yuan. China's insurance market is huge, but there is still a huge gap between developed countries in terms of insurance density. With the rapid development of Internet, how to get on the high-speed train of digital economy and realize the further development of insurance industry is an urgent problem to be solved.

At present, under the great wave of digital transformation, the original business model, sales model and management mode have suffered a huge impact. The traditional industry has encountered a huge impact, but also spawned many new opportunities. Under this wave of digitalization, only by keeping up with the trend of the times, grasping the opportunity of digital transformation, aiming at new customer pain points and discovering new value-added space can we promote the development of insurance industry and promote the stable development of social economy. This paper discusses the value-added space of China insurance industry under the digital economy from three angles: business management, data ability and scientific and technological ability.

## 2. Business management

The COVID-19 epidemic is a big test of the service mode of the insurance industry. The traditional mode of insurance sales and operation services encountered service problems in the epidemic. Under the new market environment, the pressure from the same industry and cross-industry competition increased, the customer stickiness decreased, the traditional advantages of many insurance institutions in service scenarios were weakened, and the profit space was squeezed, which forced the insurance industry to accelerate the development of digital capabilities. The existing insurance business model could no longer meet the needs of high-quality development. In the future, the operation mode of insurance industry will be the combination of online and offline, digitalization and intelligence of the whole business process to adapt to the new scene operation mode, which will be the main mode of insurance operation. Therefore, promoting operational innovation and enhancing service value is the fundamental condition for maintaining customer loyalty and the core competitiveness of insurance enterprises. Please do not add any headers, footers and page numbers in the article, as we will do that uniformly.

According to iResearch's Research Report on Digital Upgrade of Insurance Industry in China in 2021, at present, the insurance industry in China is in the initial stage of global digital transformation and development, and the digital penetration rate of insurance business is only maintained at around 8%. With the explosive demand for digital upgrade services brought by the continuous online penetration of insurance business, it is estimated that the proportion of insurance digital upgrade services will reach more than 43% in 2024. The domestic insurance digital upgrade is mainly in large head insurance companies, such as China Life Insurance, Ping An Insurance and Pacific Insurance, or Internet insurance companies, such as Zhongan Online and Taikang Online. The application of digital and intelligent insurance is still in the initial stage. For example, more than 60% insurance companies focus on customer identification and risk engines, while the digital transformation of intelligent underwriting and intelligent claims is less than 20%, and the disease spectrum and medical catalogue database are still in the stage of perfection. Therefore, the functions of domestic digital operation service software are basically available, and it will take more than 3 ~ 5 years to gradually mature its application<sup>[1]</sup>.

### **3. Data ability**

As a new factor of production, data plays an important role in the process of digital transformation. For the insurance industry, data plays an important role in accurate customers and building an insurance ecosystem.

#### **3.1. Accurate customer, grasp customer needs**

Under the background of digital economy, big data has become the main channel for the insurance industry to obtain user data. According to the statistics of China Internet Network Information Center, by 2020, the internet penetration rate in China has reached 70.4% <sup>[2]</sup>. Insurance companies can obtain a large number of user sample data in a fast, convenient, efficient and low-cost way through big data systems, and analyze the data by establishing relevant models, so as to analyze the exact needs of customers for insurance, which not only reduces the product development cost and shortens the product development time, but also helps insurance companies to further understand the insurance needs of customers.

For ordinary people, people's needs will have different needs according to the changes in the situation. For example, after an air crash, the number of people who buy aviation insurance will increase relatively than usual, and people will also buy COVID-19 insurance when traveling on business during the epidemic. Insurance companies can determine the new insurance demand by searching related terms, so as to design a new insurance scheme to meet people's growing insurance demand. For some insurance customers with specific requirements, insurance companies can unify customers with similar insurance needs into a customer model through big data, and design new insurance schemes to meet the insurance needs of such customers.

#### **3.2. Data sharing, building an insurance ecosystem**

According to the 2020 annual report released by official website of Caesars Medical, the annual operating income of Caesars Medical was US\$ 88.7 billion, an increase of 4.95% compared with US\$ 84.5 billion in 2019. The success of Caesars Medical lies in integrating the tripartite medical model of "hospital+insurance+patients", jumping out of the orientation of simple financial risk transfer of traditional health plan and health insurance, participating in medical service supply and medical management, and establishing closed management with membership as the core. Specifically, Caesars Medical Group mainly includes the integrated closed-loop operation of three entities, namely Caesars Fund Health Plan, Permanent Medical Group and Caesars Fund Hospital. Although these three businesses are relatively independent, they are highly integrated. Insurance companies are responsible for selling insurance and raising funds. Caesar's main customers are companies and enterprises participating in the insurance collectively, and a small amount of others are medical insurance and Medicaid with government background. The proportion of individuals directly participating in the insurance is very small. Through Caesars Fund Health Plan, Caesars Medical Group links its members, permanent medical group and Caesars Fund Hospital, and establishes a risk sharing system and a health responsibility mechanism within its system framework.

The digital economy itself relies on Internet technology, and the most important function of Internet technology is data sharing. Through the data sharing and cooperative operation of relevant institutions,

an ecological circle that is beneficial to the insurance industry and achieves win-win results for many parties may be achieved, which is similar to Caesar's medical operation mode and achieves the consistency of multi-interests.

In the future, insurance competition is all about service. Whoever can better meet the demand and enhance the customer experience will win the market. Digital operation service provides multi-dimensional and rich operation service scenarios by opening the ecosystem, giving full play to digital connectivity and establishing a unique insurance service ecosystem for each company. For example, by connecting multiple insurance and medical institutions, commercial medical insurance can automatically complete claims service without users' application, eliminating complicated links in the middle, introducing external scenarios into the service process, and smart wearable devices, sports apps, hospital platforms, etc. related to health management have become channels for commercial medical insurance to reach users. Customers fully connect with external life scenes in the insurance service process to improve customer stickiness, and at the same time improve the missing links in the insurance service process in the scene, and realize the creation of insurance products, customer situation evaluation, customer portrait data supplement, etc., and get "unexpected surprises".

#### **4. Scientific and technological ability**

Insurance is a form of "mutual aid and risk sharing" with a long history. Now, insurance technology is injecting new vitality into it. With the blessing of science and technology, insurance will undergo an evolution from product, channel and service innovation driven by insurance technology to empowering the entire insurance ecosystem with insurance technology<sup>[3]</sup>. This section mainly discusses the value-added of insurance technology from the perspectives of technology companies and insurance companies.

##### **4.1. Insurance business of technology companies**

Technology companies, that is, related internet companies, have a broad mass base, which means a broad consumption base. The target customers of traditional insurance business are middle and high-end customers, following the "28" principle, that is, relying on 20% customers to make profits, while ignoring the 80% with the largest number of customers. And this 80% was ignored in the past because the traditional insurance agents relied on their own charm to attract customers, so that customers had a sense of trust in them, thus successfully selling insurance, which means that customer acquisition has a greater cost, so this 80% market was ignored. At present, digital technologies such as internet technology and big data analysis are developing rapidly, people's communication is becoming more and more convenient, and the cost of obtaining customers is greatly reduced. In the past, relying on a small number of customers, the operating model of greater profits obviously could not meet the expanding market. Some Internet companies target customers in this 80% sinking market and attract these people through lower premiums. Related to these internet companies, such as Ali's mutual insurance, water drop company's water drop insurance and other businesses.

The empowerment of internet plus has brought great impact to many industries, and the insurance business of these technology companies has also brought great challenges to traditional insurance companies. But at the same time, the industry has promoted the digital transformation of traditional insurance companies, improved their business level and ability, and improved their business management. At the same time, it has also enabled traditional insurance companies to continuously improve their own scientific and technological capabilities, empower insurance with technology, and build a more suitable insurance ecosystem to meet people's growing insurance needs.

##### **4.2. Science and technology of insurance companies**

Some insurance types of traditional insurance companies have been unable to calculate the rates and risks well. The most typical example is catastrophe insurance. Catastrophe insurance includes flood and earthquake disasters, etc. The biggest problem of these disasters is that it is difficult to observe at first, and the probability of its occurrence cannot be observed very accurately. Usually, the probability of its occurrence is only based on the number and frequency of past occurrences, and this method has a large error; Secondly, the damage caused by such disasters is extremely huge, and these losses are very huge, which makes it very difficult to estimate the subject matter insured. Nowadays, with the continuous development of internet technology, cloud computing, big data analysis and other technologies, the level of science and technology has been continuously improved, and the accuracy of such models has been

continuously improved, thus making insurance services more and more professional.

In addition, through the continuous development of related face recognition technology and other recognition technologies, insurance companies can form accurate portraits of people through scientific and technological means, which can well identify whether customers have fraudulent insurance and other behaviors, and effectively prevent and control risks.

Through scientific and technological means, insurance companies can greatly reduce labor costs and promote the development of enterprises. On the one hand, artificial intelligence can reduce labor costs and improve cost structure; on the other hand, it can improve customer service level, answer customer-related questions, better solve customer-related problems and enhance customers' willingness to purchase insurance.

By enhancing the level of science and technology, insurance companies can improve the inaccuracy of previous rates and deal with some insurance fraud problems. Science and technology of insurance companies is an inevitable trend in the future development. Insurance companies can greatly improve their business processes and management through science and technology development, and can greatly reduce the losses of people and insurance companies through accurate rate calculation, thus realizing the sustainable development of insurance companies. At the same time, through the scientific treatment of insurance fraud, it can greatly reduce insurance fraud, protect the common rights and interests of both insurers, and promote the harmonious development of China's society ruled by law.

## **5. Other value-added space**

The value-added space of the digital transformation of the insurance industry still has great potential, such as new insurance demand and indirect promotion of the development of the insurance industry, in addition to the above three aspects: business management, data ability and scientific and technological ability.

### **5.1. New insurance demand**

With the rapid development of mobile Internet, e-commerce platform has become the first choice for people to shop. However, in the process of shopping on e-commerce platform, there exists the problem of product information asymmetry between merchants and customers, which leads to the inconsistency between the goods purchased by customers and their psychological expectations. If they are not satisfied with the purchased goods, they need to return the goods, resulting in the loss of freight and the damage of the reputation of the online merchant platform. In order to solve the pain point of online shopping, the online merchant platform should cooperate with insurance companies to launch innovative products. For example, in order to solve the problem of returning freight charges for shopping, Taobao launched return freight insurance<sup>[4]</sup>.

In addition to the new varieties similar to online merchants, people have new insurance needs for traditional insurance types, such as property insurance and life insurance. These new demands require insurance companies to keep pace with the times. For example, the COVID-19 infection insurance occurred during the COVID-19 epidemic. Of course, similar to the new insurance, there is still a lot of room for improvement, but it all shows that people's demand for insurance is increasing and comprehensive. For example, after a related air crash, people's demand for aviation safety insurance will greatly increase. New insurance changes at any time according to different times and different situations. Insurance companies should seize these variables and introduce new insurance varieties according to these situations to meet people's insurance needs. Different customer groups have different needs for insurance products, and homogeneous insurance products cannot meet the needs of customers. Under the condition of digital economy, insurance companies can use digital technologies such as artificial intelligence and big data to mine customers' information, apply digital technologies to customers' environment, deeply analyze customers' needs, and thus develop customized products that meet customers' specific needs<sup>[5]</sup>.

### **5.2. Indirectly promote the development of insurance**

The development of digital economy is a huge impact and development for all walks of life. Some scholars have found that digital economy can promote China's insurance through digital finance and other aspects through empirical research. For example, Wang Renzeng (2021) <sup>[6]</sup> empirically studies the

influence of digital inclusive finance on the demand of family commercial insurance by matching the data of SWUFE-CHFS with the data of PKU-DFIIC. It is found that the development of digital inclusive finance can significantly improve the purchase possibility of family commercial insurance, and the demand for family commercial insurance in China is deeply influenced by the development of digital inclusive finance. Further research on the influence mechanism shows that the development of digital inclusive finance effectively promotes the family's demand for commercial insurance through three channels: family income level, financial knowledge and trust in commercial insurance. Liu Dongjiao (2021) [7] Based on the data of China labor force survey in 2016 and Peking University Digital inclusive finance Index, this paper empirically tests the relationship between the development of digital inclusive finance and the purchase decision of family commercial insurance. The results show that the development of digital inclusive finance has significantly increased the probability of families buying commercial insurance, and the development depth of digital inclusive finance has a more obvious impact on it.

Similar research has led to changes in a certain industry from the digital economy, which has led to the development and changes of the insurance industry. At present, more research is conducted on digital inclusive finance. Relevant research found that digital inclusive finance can promote the demand for insurance. On the one hand, digital finance has realized the characteristics of inclusive finance, and in terms of coverage, it can serve the public better than traditional financial institutions. Traditional financial institutions can greatly reduce the cost by setting up branches, so that more people can enjoy the convenience brought by digitalization. Secondly, the depth of use, the rapid development of digitalization, let people have a deeper understanding of digitalization, finance and commercial insurance, change their inherent thinking, and greatly improve their willingness to buy commercial insurance.

## 6. Conclusion

This paper discusses the value-added space of digital transformation of insurance industry, with a view to providing some help for the future development of insurance industry. At present, the digital transformation of the insurance industry has a huge value-added space. Specifically, from the perspective of business management, through digital transformation, insurance procedures can be more convenient for insurance customers through online mode, at the same time, relevant procedures can be saved, insurance customers' willingness to purchase insurance can be enhanced, insurance purchase and claim settlement procedures can be greatly improved, and at the same time, customers can fully understand the insurance content of related insurance. From the perspective of data capabilities, on the one hand, through big data analysis, it can accurately describe customers, so that insurance companies can better understand customers' needs, and at the same time, it is also convenient for insurance companies to discover customers' new needs, thus enhancing insurance customers' willingness to buy. On the other hand, through data sharing, the circulation of customer data can be enhanced, customer needs can be better met, and an insurance ecosystem more suitable for customers can be built. From the perspective of scientific and technological capabilities, on the one hand, the insurance business of technology companies has impacted the traditional insurance model, but at the same time, the industry has promoted the digital transformation of the traditional insurance industry. On the other hand, traditional insurance companies have new ways to deal with the problems of rate calculation and insurance fraud through the transformation of scientific and technological capabilities, which makes the insurance content more scientific and enhances customers' willingness to purchase insurance.

## References

- [1] Wu Xudong, Qin Xiaoling, Li Dan. Discussion on digital transformation and innovation of commercial insurance operation services [J]. *China Insurance*, 2022(02): 45-48.
- [2] Tang Jincheng, Licensing. Coping Strategies of Property Insurance Industry in Digital Economy Era [J]. *Hainan Finance*, 2020(11):66-77.
- [3] Chen Hui. The Value of Insurance Technology: Empowerment, Capacity Enhancement and Productivity [J]. *China Insurance*, 2022(04):14-17.
- [4] Hao Liang, Du Jin Xiang. Analysis of the impact of digital economy on China's insurance industry [J]. *Investment and Entrepreneurship*, 2021, 32(17):56-58.
- [5] Lin Li. Countermeasures of the insurance industry in the era of digital economy [J]. *China Insurance*, 2018(11):30-33.
- [6] Wang Renzeng, Huang Xiaoying. An Empirical Study on the Influence of Digital inclusive finance on Family Commercial Insurance Demand [J]. *Journal of Northwest University for Nationalities*

*(Philosophy and Social Sciences Edition), 2021(04): 123-137.*

[7] Liu Dongjiao, Zhuang Pengtao. *Digital inclusive finance and Family Commercial Insurance Purchase [J]. Consumer Economy, 2021, 37(02):67-78.*