

The Analysis of the Application and Practice of Big Data Technology in Life Insurance Business

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Abstract: In the context of the Big Data era, the life insurance business is presented with new challenges and opportunities. How to protect and apply the data obtained and give full play to its value in life insurance operations has become an issue for major insurance companies who must consider and urgently tackle. Now that big data technology is widespread in all industries, including the production, sales and operation of products, this article focuses on how life insurance can use big data technology to further realize value creation in the new market environment. The essay analyses the various aspects of life insurance business operations and provides an analysis of the current reality of the use of big data technology in the life insurance business, following with personal views.

Keywords: Data Technology ; life Insurance Business ; Analysis of the Application and Practice

1. Background and theoretical overview of life insurance business in the context of big data technology

The combination of big data technology and life insurance business can promote the market application prospect and operation mode of this industry, effectively reshaping the ecological chain of the insurance industry, and all major enterprises have participated in the digital transformation and construction, aiming to gain an advantageous position in the future market competition. As we all know, the traditional insurance industry has always been plagued by many difficulties, such as difficulties in product design, the homogeneity of the products launched by various enterprises is serious, and the personality cannot be highlighted, basically forming the same type of products. For the marketing of insurance products, companies rely on an intermediary-based sales model, but they do not have a comprehensive understanding of the product information and therefore lack of customer service. Analysis from an insurance claims perspective as a starting point shows that there are few technical means of fraud prevention, which also allows many offenders to find an opportunity to take advantage of the situation. Once an insurance claim has been formed, the process is cumbersome and customers often have to wait a long time and waste too much effort before they can obtain a claim. The procedures are very cumbersome, especially the offline collation of information, coupled with various audits by staff in the business, thus greatly consuming the patience of the staff. In addition, the application of big data can also give customer service and the efficiency of the various business processes, by this mean enhancing customer experience and reduce the cost of life insurance business operations, from the overall perspective of big data technology to the development of life insurance business actually contributed the convenience.

2. Application scenarios of big data technology in the life insurance business

Specific analysis of different life insurance business through the application of big data technology can be filled with diversified space development, mainly including four modules of product management, sales management, operation management and risk management. The application of big data technology in product design can improve the product design online and give recommendations to customers, so that consumers can much more deeply understand the life insurance business and then enhance their purchasing power. Big data can be used in product pricing to help new products launched by the life insurance business to carry out accurate risk detection, to predict risks in the early stages, to avoid them in an effective way, and to reduce risks based on differential pricing and

personalization. Product recommendations can be combined with the customer's risk preference, as well as product consumption demand preferences or a profile of the customer, using big data technology and artificial intelligence technology to provide customers with a variety of life insurance defence reference, guiding them to purchase the proper type of product, not only to understand the customer more clearly, but also to get a positive response, so that product sales efficiency is further enhanced. Claims handling measures are the application of big data technology to intelligently develop claims input, processing and also early warning, so that an effective control mechanism can be formed to complete the risk of financial management system, so that all consumer rights and interests are protected. In terms of risk warning, the application of big data technology is currently the main fraud prevention technology mean in insurance industry. The intelligent system derived from big data can dynamically carry out risk monitoring, and the specific system model is highly adaptive and learning, and can be intelligently upgraded and optimized according to changes in the risk of insurance fraud (Liu wei,2021).^[1]

3. Product management in life insurance business with big data technology

At present, the domestic life insurance market as a whole has been transformed from assets to liabilities, with the target of designing a product that is qualified to customers' needs and various personalized services, thus laying a good foundation for the future development of the life insurance market. The capability to design the life insurance products that customers want will be a key concern for companies in the future, both in terms of competition and development. Because traditional life insurance products always run a long period to develop, while by incorporating big data technology, these drawbacks can be solved and more in line with customer requirements, putting into the market exactly the life insurance products that the people need most. For product pricing, big data technology can give insurance companies accurate pricing design, life insurance companies can base on big data to classify customer groups, including their age, occupation, input, consumption level and various habits and insurance investment experience and a series of information collection, more convenient for later steps as processing and analysis, deep excavation of these customers potential requirements, targeted product placement which is followed by the creation of a portfolio that allows each customer to be priced at a specific level.

4. Big data technology in the life insurance business of sales management

For life insurance companies, sales is the core of their operation and development, and sales performance also affects the operational efficiency of life insurance companies to a large extent. Sales are fundamental to the survival and operation of an insurance company, and product sales performance also directly affects an insurance company's source of funding and operational effectiveness. The main application of big data technology in the field of sales management is to help users evaluate and select insurance products and make accurate sales by analyzing information such as users' geographical location, gender and age. Data mining and correlation analysis based on dynamic user information collection, dividing user groups and positioning customer activities; building customer portraits based on big data information statistics, constructing three-dimensional models in both directions and launching personalized products for specific users, which is conducive to secondary sales and increasing customer stickiness. Big data technology can create an intelligent platform from the sales management channels, collecting customer information to scientifically identify their location, gender and age, and then helping them to select the most suitable life insurance products, ultimately achieving increased sales. After collecting customer information, the dynamic control and division of their groups can effectively help companies to implement sales activities. Big data information technology can send messages to customers to establish three-dimensional sales models and launch certain targeted products, thus lay a good foundation for future secondary sales and attract more new and existing customers. For some high quality customers combined with external big data to identify, and then start a full range of tracking, with the help of big data technology, through artificial intelligence to start marketing, the purpose is to push out the product, so that more customers will choose to purchase our products, then from the business model and process and other aspects of the difference analysis, but most of the benefits outweigh the drawbacks. In this way it will be possible to form an objective comparison of all potential customers' willingness to buy life insurance products promote the rationalization of sales(Qiu Yue,2021).^[2]

5. Big data technology in life insurance operations

The application of big data technology to life insurance operations is usually in the key areas of underwriting and claims handling. With the help of big data analysis and the setting of rules, malicious insurance can be avoided at the roof of underwriting and risks can be reduced from the initial stage. Big data technology is built into the information system to automatically handle the underwriting process, enabling 24/7 automated underwriting, screening and selection of customers with a high risk background, and improving the effectiveness of the business. Big data technology can also save time in underwriting if it is not classified as the targeted group customers, simplify the selection of conditions and the setting of processes, and to some extent analyze and mark

up a large amount of data, applying intelligent model settings in network to build an underwriting model system to ensure the accessibility and accuracy.

5.1 Risk management of big data technology in life insurance business

Big data can be of high value to life insurance companies in risk management, especially in improving the sense of risk avoidance. Life insurance companies can collect data for comprehensive analysis both internally and externally, scientifically and objectively and accurately assess risk related issues, and can achieve multi-directional pre-detection and timely warning. If the customer is proposing underwriting, insurance and claims-related business, artificial intelligence can carry out a comprehensive risk assessment and strict audit to form a reasonable evaluation and feedback to each part, so that all kinds of risks can be identified without human intervention, and the efficiency of work will be enhanced, allowing life insurance companies to use various customer resources more safely and effectively.

5.2 Development trends of big data technology in life insurance business

The application of big data is an inevitable trend in the future development of life insurance companies in China, as it is always transitioning towards efficiency, convenience and automation. The analysis of the development trend of life insurance business, in which a variety of products show flexibility and diversification, more life insurance companies obtain the capability to provide flexible product types according to the needs of their customers and meet the satisfaction of almost every customer. At the same time the promotion and explanation of products is more logical and comprehensive, making it more acceptable for customers to understand. Product design is more intelligent and personalized. Nowadays, the life insurance business is very competitive in the market and only if life insurance companies are closer to the market and customer groups and use advanced modern technology, who can gain an advantageous position in the market and achieve sustainable development (Zhang Xiaoyu,2021).^[3]

6. Conclusion

In summary, the value of the use of big data technology in the various businesses of life insurance companies is becoming increasingly evident, as it can be used to develop targeted life insurance solutions for customer groups, attracting customers to products and increasing their satisfaction. It has also been shown that big data technology is an integral part of life insurance business development and it is hoped that the numbers presented in this article will be useful to practitioners.

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