

Research on Digital Transformation in the Insurance Industry

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Abstract: In recent years, the global digital economy has flourished, and the industry disruption and opportunities brought by digital technology innovation have made digital transformation a common strategic choice for all countries. If the application of new technologies in the insurance industry in the past mainly focused on the cloudization of the underlying IT infrastructure and the Internetization of the upper layer of insurance sales, the digital transformation of the insurance industry today focuses more on the application of new technologies such as big data, artificial intelligence, and the Internet of Things to promote the innovation of insurance products and the optimization of business processes. Through the analysis of the traditional insurance industry and the different demands brought by different times, this paper intends to explore the way forward for the insurance industry in the era of digital economy, where digital transformation has become an inevitable trend in the development of China's insurance industry.

Keywords: insurance, digital transformation, digital economy.

1. Introduction

In today's digital economy, digital transformation has long been a global corporate consensus. In the "two sessions" in 2021, "digitalization" and "digital economy" have become the key words. In particular, the outline of the 14th Five-Year Plan adopted at the two sessions has made "accelerating digital development and building a digital China" a separate chapter, reflecting that digitalization has been brought to an unprecedented height [1]. At present, the development of the insurance industry is emerging in the following three major trends. Firstly, customers are accelerating to move online, due to the objective situation, the marketing and insurance that need to meet in person in the past, gradually migrate to online. Secondly, the product form is more innovative, and the increase of customers' awareness of insurance is driving the innovation of life insurance and property insurance products. Thirdly, the operation mode tends to be digital from marketing to customer service and to internal management. Digital operation and management have become the "touchstone" for insurance companies to meet the challenges [2]. Starting from the current situation, development trend, and pain points of the insurance industry, this paper introduces the traditional insurance industry and why traditional insurance agents need to undergo digital transformation, and then analyzes the process of transformation of enterprises with different degrees of digitalization and the expected results through a series of digital optimization programs, evaluation models, governance strategies, and other indicators combined with examples. Finally, this paper elaborates on the current situation of this

industry. Such digital transformation research can provide theoretical support for the insurance industry to better face the challenges of the future.

2. Reasons for the Urgent Digital Transformation in the Insurance Industry

During the epidemic, the insurance industry's offline agents' offline business development, daily training, and other activities have been negatively affected. Today's insurance industry is facing a series of problems to overcome such as low agent capacity. As non-traditional channels become the trend, insurance agents should be empowered by technology to help improve the efficiency of the insurance agency chain and create a more robust insurance network.

2.1. Market Development Trend

Firstly, the insurance industry is transforming from a crude scale growth model to a lean and high-quality model. The external environment is becoming more and more complex, and a large number of low-capacity insurance agents cannot cope with today's dilemma, so it is necessary to transform to a high-quality model; secondly, the single ecological chain is gradually moving towards a win-win situation for multiple parties, and all kinds of financial technology companies have emerged, especially after the epidemic. Resource integration, group development, and win-win cooperation are needed. It is also worth noting that the breadth and depth of consumer needs have increased significantly, which has directly led to the diversification of insurance customers, and the transformation of customer groups and the outbreak of the epidemic have also directly accelerated the process of digital transformation [3].

2.2. Summary of Interviews and Pain Points

The first point that emerged from the interviews with insurance practitioners is that insurance companies are not doing well after the epidemic and do not pay much attention to insurance agents. The second point is that the overall threshold of the insurance industry is relatively low and the mobility of the staff is relatively strong. The overall quality of the agents recruited by the current wide net is not high enough, which makes the overall reputation rather mediocre. The third point is that the role of agents in the team is mainly to sell insurance products and recruit new insurance agents, and the product line is not perfect. This is an inherent problem in the insurance industry today. In order to solve these pain points, the insurance industry has to seek a method of change. And the digital economy era brings high-tech can perfectly solve these problems. There are many solutions to these pain points, such as simplifying the enrollment process, optimizing the recruitment process, and the compensation and incentive system.

3. Process of Digital Transformation and Expected Effect

3.1. Assessment Model

The first step in the transformation is to assess how digital the company is, and the insurer needs to assess it in several ways. The first point is the governance capabilities of the top management of the business. From business following to business technology synergy to data-driven business development, management needs to give sufficient attention and support to digitalization. And as digitization increases, there will be more and more personalized and marketable products. The rapid iteration of products and the operation mode will directly determine the performance of market-oriented competition. The second point is the incentive mechanism of the business. Digital transformation means that the business model, workflow, and compensation design of insurance organizations are different from the past [4]. Business indicators are enhanced in the digital model,

and effective incentives are required from idea generation to product marketability. The third point is the technical capability of the enterprise. The core competitiveness of digital transformation, besides capital investment, is the research and development (R&D) capability of the institution. The digital R&D capability of insurance institutions is an important expression of their competitiveness. The fourth point is the human resources and organizational synergy of the enterprise. The proportion of technology personnel of traditional insurance companies becomes an important indicator of their digital capabilities. Compared with technology personnel, digital personnel is also a very important indicator. These personnel are mainly integrated talents with insurance business and fintech capabilities. They are better able to plan and design the development direction with the actual capability of insurance institutions. As for the direction of internal synergy, digital transformation must be cross-business line and cross-business department. The future digital development will have no obvious boundaries, and collaborative development will become the foundation and trend.

3.2. Optimization Solutions

3.2.1. Local Optimization

Based on business requirements, local optimization of existing functions, processes, user experience, and systems can be made to achieve business improvement. This strategy has less investment cost, a relatively short construction cycle, less risk of digital transformation, and is relatively easy to see results. This program is suitable for large insurance institutions that have complete information technology construction and an overall digital construction strategy. Besides, these large insurance institutions should clearly know the direction of subsequent construction and development, and their existing insurance system should be able to meet most of the business needs [5]. Secondly, small and medium-sized insurance institutions with limited investment in information technology construction and not very large business volume can realize digital transformation and improve business capability through optimization of the existing business model and system construction.

3.2.2. Module Enhancement

The whole optimization and enhancement are not limited to specific business functions, processes, and user experience, but rather the optimization and transformation of business modules or system function modules to achieve more effective empowerment of business. This strategy has moderate cost investment and a controllable construction period. It can be effective in a short period of time and has moderate risk. It is suitable for insurance institutions that have a certain digital foundation and focus on digital transformation.

3.2.3. Complete Transformation

The selection of this strategy implies that insurance institutions are facing a major information problem at this stage, and the existing information system is insufficient in meeting the rapid development of business and responding to market changes, which has affected the development speed and market competitiveness of enterprises. This strategy can be considered if the existing information system is still unable to adapt to the business development through short-term local optimization or major functional module renovation. This plan is applicable to insurance companies whose information technology system has been built for more than 10 years without in-depth optimization, and which can no longer support the existing business and future business development well. This strategy has a large investment in information technology construction and a long construction period. It is difficult to see results in a short term and the transformation risk is large.

3.3. Expected Effects

First of all, the improvement of digital capability can increase premium income. For example, accurate marketing can improve the customer conversion rate and thus increase premium income. The quantifiable predictors are customer effective tags, customer marketing conversion rate, and premium unit price per customer. Second, the improvement of digital capability can improve operational efficiency by defining specific objectives of digital transformation, such as operational process optimization, channel convergence, and the use of digital tools, for example, intelligent voice recognition, to evaluate analysis and predict the effect. Quantifiable predictors are the length of operation time. And quantitative analysis through user interface optimization, system performance optimization, and operation coherence optimization to understand user operation habits and preferences can also significantly improve user experience [6]. The quantifiable predictors are the length of time online, the number of key clicks, and customer ratings. In addition, it can also help insurance companies to reduce costs and risks. Digital tools can be introduced to reduce labor costs, as well as the risk of underwriting and claims. Examples include smart bots to reduce labor costs and anti-fraud models to reduce claims risk. Quantifiable predictors include the integrated cost rate, cost of sales, and risk identification rate.

4. Transformation Strategy and Practice of China Tai Bao Group

It is helpful to look at the transformation strategy of the insurance headquarters group. Led by the Group's transformation strategy, China Pacific Insurance has fully integrated "digitalization" into all areas of business management, investment management, and general management. Among the highlights is the promotion of five innovative applications of artificial intelligence and big data in the insurance sector.

The first application is digital marketing represented by "Alpha Insurance", which is based on the big data of 134 million customers of China Pacific Insurance and assesses the risk defense capability of families from five dimensions, including family assets, family liabilities, family responsibilities, income sources, and social insurance, through machine algorithms and other high technologies. In addition to assessing as well as spreading insurance knowledge, it provides marketers with an effective tool to promote their business and acquire customers.

The second application is the digital channel innovation represented by the "O2O platform." The "O2O platform" is an Internet insurance sales model where business opportunities are acquired online and handed over to offline salespeople for transactions. In specific cases, technology empowers marketers to have more Internet business opportunities, obtain customer portraits and needs in real time, and sell products through intelligent assistants to improve conversion rates, forming a closed-loop O2O business across C, B and E terminals and creating an industry-leading online and offline Internet insurance closed-loop sales system.

The third application is digital operation represented by the "Rhino" series of intelligent robots, with AI technologies such as visual recognition, language interaction, and knowledge mapping as the core support to realize the improvement of customer service process.

The fourth application is the digital risk control represented by "Tai Rui Bao". "Tai Rui Bao" general insurance intelligent loss-reduction product uses biotechnology, image recognition, artificial intelligence, big data, and other technologies to intelligently capture the unsafe driving behavior of drivers and empower group car customers to improve. It can help customers improve safety management and reduce the accident rate and major case rate. Currently, more than 16,000 devices have been installed in group car customers, the insurance rate of installed vehicles has been reduced by 39%, and the mortality rate of personal injuries caused by vehicle accidents has been reduced by 89%.

The fifth application is Agricultural Insurance, which integrates the latest cutting-edge technologies such as spatial remote sensing, geographic information, artificial intelligence, and the Internet of Things to solve two major pain points in agricultural insurance operations, namely, accurate mark inspection and survey and customer information collection. At the same time, it optimizes and reconstructs business processes, significantly improves the efficiency and quality of bid inspection and survey, and ensures the authenticity and integrity of information; at the same time, it provides a platform for the prevention and control of natural risks and fraud risks [7].

5. Recommendations for Digital Transformation

5.1. Digital Analytics to Assess Potential Agents

Agent recruitment is currently conducted primarily by agents who wish to form their own teams, and success depends largely on that agent's ability to find suitable candidates, who are then developed into qualified agents through a series of face-to-face assessments, workshops, and initial training. When dividing their time between recruiting and sales, agents typically favor the latter because of the potential for sales to translate into commission income. In contrast, recruiting activities are less frequent and are usually not launched with much fanfare until the end of the year when recruiting goals need to be met. By analyzing data related to the characteristics and performance of successful agents, it is possible to draw conclusions about the skills and characteristics that high-potential agents may possess themselves [8]. For example, the analysis may show that some qualities are common to successful agents. Insurers can therefore design a questionnaire to assess whether candidates possess these success factors and thus predict their conversion and retention rates. This can help insurers quickly circle high-potential candidates and match them with existing agent teams with similar behavioral traits.

5.2. A Shortcut to Digitizing Traditional Agents

The role of an insurance agent today is more like that of a sales consultant who is responsible for finding clients and selling different types of insurance to different clients, with the agent following the process from client acquisition to closing the deal almost from start to finish. As a result, the role of the insurance agent needs to change. As life and business become more complex, customers expect agents to understand their needs. As a result, digital business has created a shift for insurance agents. They can spend more time on business development to retain, cross-sell, and up-sell customers. Besides, they can provide policyholders with more self-service capabilities and room for self-selection, including mobile apps and portals that perform simple tasks. Additionally, they can also focus more on commercial lines policies in addition to individual policies, which can further enhance the overall customer service experience. Insurers mine data and information from various social media initial contacts to understand customer characteristics. The information is then assigned to the right agent for offline follow-up based on the customer's needs and contact preferences. Agents also need to keep up with the times and learn how to use digital tools to create sales opportunities. In addition to providing agents with hands-on opportunities for social media marketing, insurers can help agents with account registration, content distribution, and customer analytics. It is important for insurers to revisit and redesign the process of developing customers, digitizing all aspects, and integrating them seamlessly with automated back-office processes [9]. Across all aspects of the business, such as product design, sales, underwriting, and after-sales. Insurance companies can develop their own APP financial platform where all business process data can be done through the web platform itself. From customer information screening, matching, and pricing to transactions, going online platform, insurance agents do not need to explain to customers one-on-one, but only need to use digital tools, such as video and data analysis model unified to customers to show the

initial understanding. In this way, insurance companies greatly streamline the amount of demand for agents, which, in essence, improves the quality of the agent's customer service team and reduces the cost of intermediaries.

5.3. Making Good Use of Digital Software

Some relevant digital insurance software like COMARCH is modular, which can ensure a certain degree of flexibility in use [10]. Insurers and agents can choose the specific elements of the insurance software that suit their needs. Digital insurance software in general can often be used as configuration and pricing and quoting solutions for quick premium calculation, as well as tools for distributors to improve work and performance management. It can also be used as customer-centric direct insurance sales channels and customer portals, group policy portals for end-to-end management of insurance contracts, and omnichannel solutions to improve service quality. Moreover, digital insurance software can often help enable and bring benefits such as omnichannel service for customers, seamless transitions between customer channels, one solution for all sales and service activities, and time savings for agents. An insurance front office software can provide users with access to smartphones, tablets, and desktops, while responsive web design that supports multiple devices takes sales and service to the next level for smooth customer service and efficient working of digital paperless processes.

6. Conclusion

In the digital economy, both the enhancement of high technology and changes in market demand are reminding companies of the need to make changes. And the emergence of the epidemic has undoubtedly driven the process of digital transformation. The traditional insurance industry has clearly failed to keep up with the requirements of the times in many aspects such as process, customer acquisition and data, and if changes are not made, there is a risk of being eliminated from the market within 5 to 10 years. For this digital wave, many head insurance companies in the world have actually given us the answer, but it is still a long way to go to achieve an industry-wide change. Thus, the digital transformation of the insurance industry is imperative in this wave of digital economy. Additionally, the research in this paper still has certain shortcomings. Digitalization is still at the stage of basic support, and it is not known whether small and medium-sized insurance companies can keep up with this differentiated competition. At the same time, imperfect digitalization mechanism, the transformation direction with no one to lead, unformed digitalization culture, and limited investment from insurers are all problems to be faced in the future, and these can be the direction for future research.

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