

UDC 368.013

DOI: 10.17223/19988648/54/13

Xiaohe Xie

DIGITAL TRANSFORMATION TRENDS OF CHINA'S INSURANCE INDUSTRY AFTER THE COVID-19 PANDEMIC

The development of the digital economy has changed the economic environment, and the digital strategic transformation of insurance companies has become an inevitable choice for their development. I mainly use statistical and qualitative research methods to collect data through online platforms, reports and academic conferences to study the digital transformation of China's insurance industry after the COVID-19 pandemic. With the support of the CSC Fund, I interviewed Chinese corporate managers and adopted their views. I analyzed the motivations, strategy, business construction and reform results of the Chinese insurance industry's digital transformation. I conclude that China's insurance industry can quickly get out of the COVID-19 crisis through digital transformation, maintain sustained growth, improve the competitiveness of enterprises, and support the country's economic recovery. The research provides experience for other countries' insurance industries to carry out digital transformation and respond to the COVID-19 pandemic crisis.

Keywords: digital economy, insurance companies, digitalization, strategic transformation, insurance business, insurance innovation, risk management.

Author:

Xiaohe Xie, Saint Petersburg State University (Saint Petersburg, Russian Federation).

E-mail: xxh1467@yandex.ru

Introduction

The spread of COVID-19 has caused a crisis for human social and economic development, and the pandemic has caused a severe global economic recession, which has also caused serious negative effects on social development. China was the first to be hit by the COVID-19 pandemic. In February 2020, the entire country fell into a closed state, but the virus crisis was overcome within 3 months, and the socioeconomic recovery was positive. In a state of isolation, the digital economy has become a guarantee of the operation of the entire country.

What role did China's insurance industry play in the crisis? How digital insurance protects China's social and economic development is worth pondering. How digital insurance continues to play a protective role when traditional insurance operations are interrupted has aroused my interest. The transformation of traditional insurance to digital insurance is at the heart of my exploration.

To investigate the digital transformation of China's insurance after the COVID-19 pandemic, qualitative research methods are used to analyze and synthesize the research-related views, experiences, and opinions of scholars, enterprises, and research institutions. Information is collected through a combination of various technologies and methods, and key information is obtained through online platform resources.

Reasons for accelerating the digital transformation of China's insurance industry

The major economies in the world all regard the development of the digital economy as a driving force for economic growth [1]. Digital insurance is an important part of the digital economy. At the same time, it has the special economic attributes of insurance to protect long-term economic growth. According to economists' estimates, for every 10% increase in the proportion of the digital economy in the major economies, per capita GDP will increase by 0.5% to 0.62% [2]. Digitalization will provide from 19% to 34% of Russia's GDP growth, and the share of the digital economy itself may amount to 8–10% of GDP, McKinsey estimated [3]. According to economists' forecasts on the development trend of China's economic structure, by 2025 50% of China's economic GDP growth will be due to the development of the digital economy.

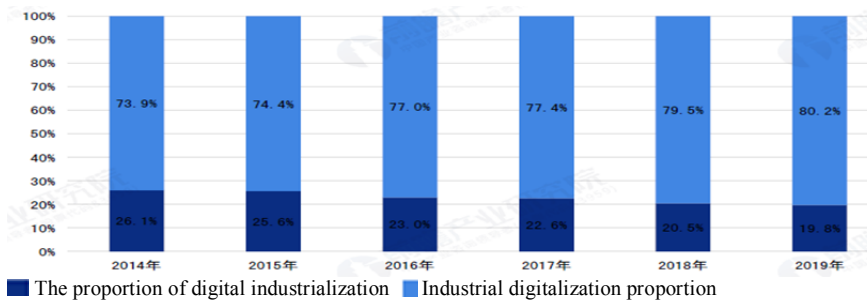


Figure 1. The Internal Structure in China's Digital Economy

Figure 1 shows the changes in the past six years. In terms of the internal structure of the digital economy, the proportion of digital industrialization has declined year by year. In 2019, the proportion of digital industry has dropped to 19.8%, and the proportion of industrial digitalization in the digital economy has risen to 80.2% year by year.

In the continuous development of the digital economy, its contribution to economic growth is also increasing. Figures 2 and 3 show the changes from 2014 to 2019. In 2019, the digital added value of China's industry reached 28.7524 billion yuan, a year-on-year increase of 15.56%, accounting for 29.0% of GDP, becoming an important force in China's economic growth. In 2019, the scale of China's digital industry reached 7,077.8 billion yuan, a year-on-year increase of 10.54%, accounting for 7.2% of GDP [4].

After the coronavirus pandemic became a global threat to the whole world in early 2020, the activity of e-commerce platforms in the world has increased by more than 50 percent and continues to grow [5]. COVID-19 has accelerated China's upgrade from consumer internet to industrial internet. This requires digital insurance to provide risk management and protection services for the devel-

opment of the digital economy. Insurance institutions use digital technology to accelerate deep integration with other areas of the economy and society to promote industrial transformation and upgrading, which is conducive to the digital transformation of other industries. Digitally transformed insurance companies help Chinese individuals or companies quickly restore normal production and life order, ensure the stable operation of China’s economy, and maintain social stability [6].

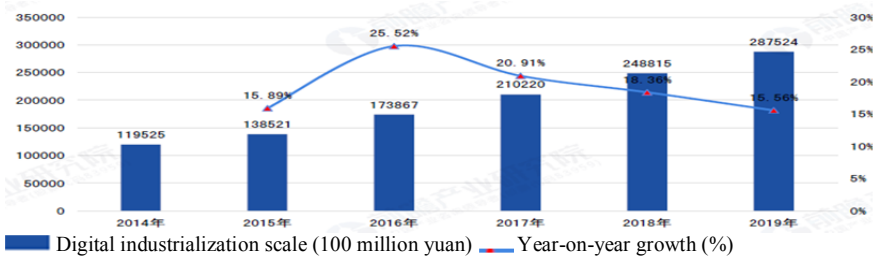


Figure 2. 2014–2019 China’s industrial digitalization scale

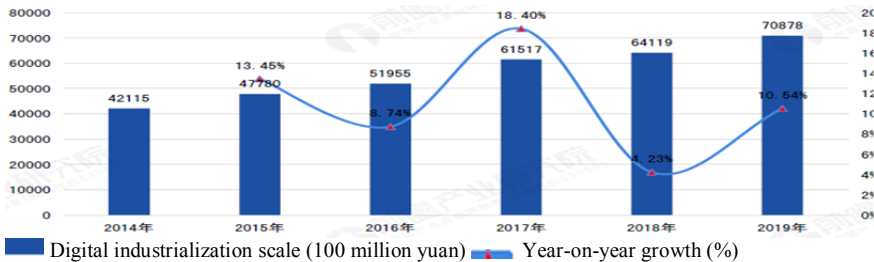


Figure 3. 2014–2019 China’s digital industrialization scale

Strategic direction of insurance company’s digital transformation

With the rapid development of digital technology, the digital economy has become an unstoppable trend of the times [7]. In order to achieve the goal of a comprehensive digitization of Chinese insurance companies, large insurance groups first put forward overall strategic plans and ideas, and implemented specific measures to complement them [8]. In order to achieve the goal of going “fully digital”, China’s insurance industry has borrowed from the digital transformation practices of foreign companies such as Allianz [9].

First, insurance companies will take “customer digital service experience” as their core strategy, focusing on interaction and acquiring digital capabilities for customers [10]. As a service industry, the insurance industry will always pay attention to changes in customer needs and preferences, while digital customer service uses new technologies and auxiliary tools to provide customers with simpler, faster, and more personalized services [11].

Second, usually insurance companies will put the product innovation strategy in the second place; improve user stickiness by designing core products; use digital technologies such as big data and blockchain to develop customer historical data, continuously enrich and improve customer life and work data, and carry out customer portraits; develop personalized investment and wealth management, health, safety, and other insurance products, and provide a collection of products that suit customers' wishes and needs, for customers to choose independently, and achieve the goal of customized services [12].

The third strategic direction is the cost optimization strategy. In the digital economy era, to adapt to the rapidly changing market environment, insurance companies tend to adopt a large platform, small front-end organizational structure, which tends to be flexible, flat, and networked, can respond to changes in the dynamic market environment agilely and achieve low-cost trial and error, as well as rapid innovation, high performance, independent market segmentation and market positioning to achieve digital profitability [13].

The fourth is the business reshaping strategy. With the widespread application of digital technology, data will run through all aspects of insurance companies' internal operations, analyze and make decisions based on internal operational big data, optimize processes, reduce links, and improve operational efficiency. The optimization of the operating cost structure brought about by the application of digital technology will provide insurance companies with greater room for product pricing and will also bring new competitive advantages.

The fifth is the brand strategy, which is changing the way of advertising; paying more attention to the application of online platforms, mobile terminals, and new media platforms; and improving customer loyalty and brand awareness through a digitally immersive experience.

Since each insurance company has its own resources, market variance on the combination and selection of digital strategic direction has a different tendency. At the same time, strategic changes will be largely restricted by the business capabilities of insurance enterprises. Insurance enterprises strategy is also its digital strategy and business capability extension. Insurance companies usually choose the strategic direction of digital transformation based on their business priorities at different development stages.

Business construction for digital transformation

Digital customer service capabilities. Digitalization leads to large-scale changes in business and society, which are becoming permanent. Markets are gradually being filled with digital products and services, necessitating a change in traditional business models [14]. Insurance companies rely on the past to provide products and services to improve customer experience throughout the life cycle, historical data, using digital technology to focus on understanding customer goals, and provide customers and their families with suitable insurance products or services [15]. After the new coronavirus disease, several regional epidemic property co-insurance bodies emerged in China.

Building of a digital marketing network. Insurance companies must have sufficiently developed marketing channels to provide differentiated, personalized and customized products and services to their customers [16]. After the outbreak of the coronavirus disease in 2019, social activities have been restricted to the greatest extent in the short term, traditional channels have almost lost their functions, and the advantages of online platforms have become prominent.

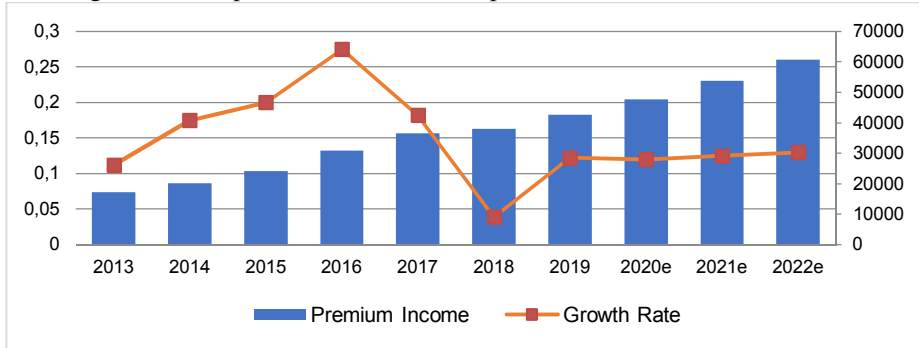


Figure 4. Changes in premium income of Chinese insurance companies

The digital marketing strategy of insurance companies has been successful. Big data customer profile and precise marketing campaign management can intelligently match customers and products, digital marketing content, and provide customers with a good customer experience. The construction of a digital marketing network realizes differentiated marketing, rapid market configuration, intelligent marketing management, and real-time marketing service strategy adjustment at a very low cost [17].

Digital product innovation for insurance companies. Digital insurance products in the COVID-19 pandemic can accurately capture market gaps and fill in product gaps in time. By setting up a digital product research and development center, insurance companies not only design digital insurance products, but also digitally transform the value chain of insurance marketing and claims settlement. At the same time, they apply big data for actuarial pricing, rapid iteration and rapid trial and error. Support diversified configurations such as product responsibility splitting, product model expansion, product rule configuration, and model-driven interface automatic generation to improve product launch speed.

Digitalization of financial management and asset management of insurance companies. After the COVID-19 pandemic, Chinese insurance companies, in order to achieve unified management goals for the financial and business departments, have a shared center for basic business processing, and specialized financial services are outsourced to accounting firms. Extensive application of intelligent financial systems and digital business systems to concentrate resources on the business analysis side. Through the digital financial system to predict and plan business operations, comprehensive decision-making is achieved, and dynamic and proactive real-time business management of business operations.

The application of digital financial technology in the field of asset management presents two trends: for large insurance companies to realize digital platform and business network information sharing, mutual assistance in functions, and to meet customers' personalized investment; the other trend is to help small and medium insurance companies and the Internet Insurance companies develop standardized investment products and provide investors with simpler products to achieve cost control and market expansion.

Digital operation management and risk control. After the outbreak, insurance companies carried out digital operation and construction around business process automation, enterprise function platformization and intelligent customer service, and used this to promote business system optimization and improve operational efficiency. Life insurance companies are mainly optimizing the agent team, enhancing agent capabilities and building digital channels. The number of property insurance companies is more inclined to make effective use of digital technology to realize the automation and intelligence of some processes, reduce the labor cost of operations, and increase the profit margin of insurance companies.

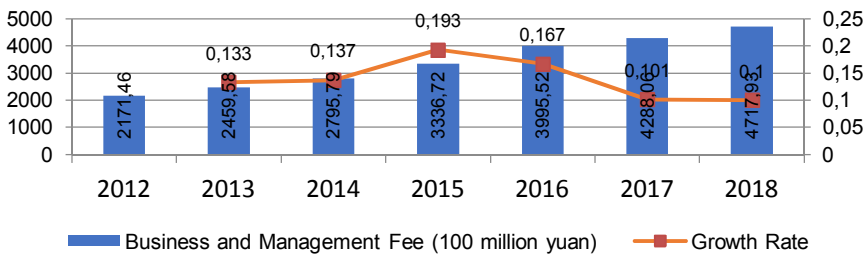


Figure 5. Management costs and growth changes of China's insurance business

With the help of big data analysis and modeling and machine learning technology, the insurance industry has optimized the risk model in the business and realized risk control throughout the digital process. It quickly updates the data and risk assessment models of service objects through digital technology, and provides support for the risk assessment and prior control of insurance companies. At the business application layer, based on risk data, artificial intelligence and blockchain and other financial technologies are used to build risk warning or interception models such as blacklist, anti-money laundering, smart contracts, fraud identification, and fraud identification, and apply them to all business links [18].

Digital office and employee management. After insurance companies digitally transform their office systems during digital transformation, they have achieved contactless, online and cloud-based business processing. This data-based service capability has become a key indicator for measuring whether insurance companies can respond to emergencies and challenges. [19]

Fig. 5 shows the growth of insurance practitioners before the COVID-19 epidemic in 2019. After the digital transformation, insurance companies have integrated internal business processes and external support systems. Product development, operation management, document operations and information technology

gy support have realized the cloud collaboration model, and the number of employees has experienced negative growth.

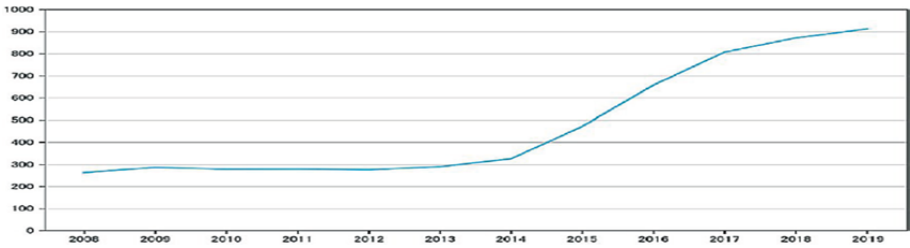


Figure 6. Manpower scale of China’s insurance sales staff from 2008 to 2019 (unit: 10,000 people)

While training the employees’ digital application capabilities, insurance companies also conduct digital management of employees, conduct modular assessments of employees’ work abilities, and manage work paths as a platform to optimize management confidence and improve employee efficiency through digital platforms. The platforms provide resource allocation and business support for employee customer service, optimize employees’ business capabilities, and achieve coordinated development that increases employee income and company benefits [20].

Achievements of intelligent transformation of China’s insurance industry

After the COVID-19 epidemic in 2019, the insurance industry formulated a data asset management system, established an organizational system for data asset management, and integrated digital assets. Insurance companies cooperate with research institutions to transform digital technologies, implement data models, data security, data standards, metadata, master data, and data quality management, and pay attention to the development of data asset service applications. They begin to comprehensively evaluate the value of data assets, focusing on the full sharing and circulation of data assets among various platforms [21].

The insurance industry generally implements the “flexible configuration of data storage inspection” strategy. Supervision and internal control departments supervise insurance companies’ data standards, quality and safety. Data asset management is included in the risk control system.

Insurance companies pay more attention to cultivating digital talents in the industry, setting up professional digital organizations and dedicated digital budgets and digital innovation funds to encourage employees to innovate and conduct digital project research. The insurance industry has transformed the management of digital talent teams in terms of talent mechanism, salary management, and performance appraisal, and the talent management model has changed to technology companies.

With emphasis on the construction of digital culture, through presentations, training and corresponding assessment mechanisms, the company’s management

has cultivated the strategic awareness and execution speed of data-driven decision-making, accelerating the formation of digital enterprise culture and promoting the digital transformation of enterprises in an agile and flexible way. This guarantees the continued growth of the insurance industry during the crisis, as shown in Fig. 7 below.

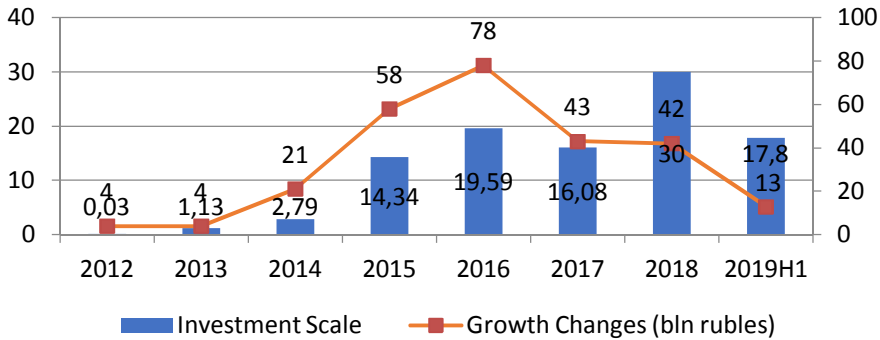


Figure 7. 2012–2019 H1 China's insurance technology investment scale and growth changes

Discussion

Although China's insurance industry has achieved short-term results of data transformation, it still has to solve many problems. The pyramidal organizational structure of traditional insurance companies has many levels and low decision-making response efficiency. Zhang Xin's research proves that most traditional insurance companies are currently simply and rigidly moving offline products, sales channels, underwriting, and claims services online through online malls and loss-checking apps, without truly innovating channels and models [22].

This simple supplementary form is difficult to achieve customer increment and business benefits of digital insurance companies, and achieve differentiated product customization for different consumer groups and consumption scenarios. In the short-term, small-value, single-risk standardized product market, for domestic insurance products of the same type, Hong Kong insurance products have certain advantages in terms of coverage, insurance costs, and expected income [23]. Compared with Japanese and Korean insurance companies, Chinese ones also lack competitive advantages, and their scientific and technological information foundation is relatively weak.

BCG believes that the core of digital transformation is the digitization of customers' and employees' behavior. It is impossible to achieve the success of the entire digital transformation by intensively developing projects in a short period of time. Instead, it takes 3 to 5 years to make a systematic transformation. Digital transformation needs to return to the fundamentals of insurance operations: revenue growth, cost savings, and customer experience improvement. The most difficult aspect of digital transformation is organization and culture, the integration of thinking between new and old personnel, and the learning of skills. To

break down departmental barriers, break down organizational levels, and quickly iterate and innovate, we should start with “grasping” people, establishing a talent organization system and mechanism, and guaranteeing corporate culture.

After the epidemic is over, the digital transformation of insurance institutions will be further deepened. The design and creation of a full-process, full-field insurance online platform based on the insurance ecosystem, thereby building an insurance digital community and digital ecosystem, will become the core of competition for insurance institutions [24]. The use of Internet thinking to reconstruct the organizational form of enterprises and realize the digital reshaping of the entire insurance value chain can quickly form business expansion and scale effects. Traditional insurance companies will use platforms to reduce costs and obtain economic profits, thereby maintaining a competitive advantage [25].

Conclusion

The deep recession of the global economy will become the new normal. The biggest risk is the intensification of political and economic conflicts between major powers, the most typical of which is the rapid change in Sino-US relations. The modern functioning of the participants in insurance relations and the development of the insurance business are carried out in conditions of geopolitical tension, globalization and increased competition. Despite the difficulties associated with the introduction of sanctions, there is a dynamic development of the insurance market [26].

The rapid recovery of China’s insurance industry from the COVID-19 crisis has benefited from the success of the digital strategy. Traditional insurance companies, Internet companies, insurance technology companies, and regulatory agencies have jointly participated to accelerate the transformation of digital strategies and change the landscape of the insurance industry. At the same time, insurance companies have adopted digital thinking and technological innovation to change product forms, service methods, and business models, and cultivate new growth points for insurance companies.

Through its own digital transformation, China’s insurance industry has improved its capabilities in risk identification, pricing, evaluation, and management. It turned previously uninsurable risks into insurable risks, and transformed the traditional form of post-event economic compensation into strengthening pre-prevention risks and disaster prevention and loss reduction methods expand the scope of insurance coverage risks and enhance the function of insurance management risks.

References

1. Belozyorov, S., Sokolovska, O. & Kim, Y. (2020) Fintech as a Precondition of Transformations in Global Financial Markets. *Foresight and STI Governance*. 2. 23–35. DOI: 10.17323/2500-2597.2020.2.23.35
2. CAICT. (2020) *White Paper on China’s Digital Economy Development*. [Online] Available from: http://www.gov.cn/xinwen/2020-07/13/content_5526196.htm.

3. McKinsey. (2017) *McKinsey: Digitalization of the economy can increase Russia's GDP by 8.9 trillion rubles by 2025*. [Online] Available from: <https://www.banki.ru/news/lenta/?id=9850852>. (In Russian).
4. Forward. (2020) *The 2020 China Digital Economy Development Report*. [Online] Available from: <https://v1.cecdn.yun300.cn/site>.
5. İbrahimova, Kh. (2020) The Digital Economy and the Impact of Its Formation on Economic Development. *Academic Journal of Economic Studies*. 3. pp. 105–108. [Online] Available from: <http://creativecommons.org/licenses/by-nc-nd/4.0/>.
6. Jinlong, G. & Jingjing, Zh. (2020) *The role of insurance in the epidemic prevention and control system*. [Online] Available from: https://ie.cnki.net/kcms/detail/detail.aspx?filename=ZGJR202005016&dbcode=XHDN_XNYJ&dbname=XNYTLKCJFDLAST2020&v=.
7. Lianzeng, Zh. & Xiaojing, Q. (2020) Research on Digital Transformation of Insurance Companies. *Information System Engineering*. 6. [Online] Available from: <http://www.cnki.com.cn/Article/CJFDTotal-XXXT201806112.htm>.
8. Xinjiang, W. (2020) Discussing the Digital Transformation of Insurance Companies from a Strategic Perspective. *Financial Review*. 5. pp. 20–23. [Online] Available from: <http://www.cqvip.com/qk/87699x/202005/7102262618.html>.
9. PricewaterhouseCoopers. (2020) *Research Report on Digital Transformation of Insurance Industry*. [Online] Available from: <https://www.51paper.net/jjxx/jrtz/2020-11-22/9500.html>.
10. Dayong, H. (2019) Responding to Change, Transformation and Upgrading, Start Now — Digital Transformation of Insurance Industry, *Shanghai Insurance*. 36. pp. 36–41. [Online] Available from: <http://www.cnki.com.cn/Article/CJFDTotal-SHBX201901011.htm>.
11. Zhao, B. & Feng, Y. (2020) Mapping the development of China's data protection law: Major actors, core values, and shifting power relations. *Computer Law & Security Review*. DOI: 10.1016/j.clsr.2020.105498
12. Zhong An Institute of Science and Technology. (2018) *The New Insurance Era: Fintech Redefines the New Future of Insurance*. Beijing: Machinery Press.
13. Zhihui, Zh. (2019) Research on digital transformation of insurance companies. *China Insurance*. 3. pp. 18–23.
14. Karine, A.B. & Elvir, M.A. (2020) Problems of bussiness processes transformation the context of bulding digital economy. *Entrepreneurship and Sustainability Issue*. 1. pp. 10–24. DOI: 10.9770/jesi.2020.8.1(1)
15. Junsheng, Zh. (2017) Digital Transformation of Technology and Insurance Industry. *China Insurance*. 11. [Online] Available from: <https://www.piffle365.com/html/pinglun/zhuanjiaashidian/201801/87064.html>.
16. Li, M. (2019) Research on the Digital Strategic Transformation Path of Insurance Companies. *Insurance Studies*. 4. pp. 57–65. DOI:10.13497/j.cnki.is.2019.04.005
17. Jincheng, T. & Meihua, L. (2020) Research on Major Epidemics, Economic and Financial Crisis and Insurance Industry Response. *Southwest Finance*. 12. pp. 55–66. [Online] Available from: <https://kns.cnki.net/kcms/detail/51.1587.F.20201109.1436.002.html>.
18. Yi, Zh. et al. (2018) Blockchain technology drives innovation in the insurance industry model. *China Insurance*. 8. pp. 29–35.
19. Dong, F. (2019) Online, Digital, and Intelligent “Three Modernizations” Empower Earth Insurance. *China Financialyst*. 7. pp. 76–77. DOI: 10.19294/j.cnki.cn11-4799/f.2019.07.024
20. Jie, R. (2020) Overview of the Digital Transformation of Traditional Large Insurance Companies. *Times Finance*. 6. pp. 75–78. [Online] Available from: <https://www.cnki.com.cn/Article/CJFDTotal-YNJR202006038.htm>.
21. Min, Y. & Bo, Y. (2020) Influence and Countermeasures new crown pneumonia epidemic on SMEs. *Finance and Accounting*. 12. pp. 128–134. DOI: 10.19641/j.cnki.42-1290/f.2020.12.019

22. Xin, Zh. (2018) Thoughts on the transformation of traditional insurance companies in the era of technology empowered insurance. *China International Business*. 8. pp. 208–209. DOI: 10.19516/j.cnki.10-1438/f.2018.08.161

23. Peng, W. (2020) Application of Technology in the Greater Bay Area Insurance Cross-border Service Platform in the Digital Age. *Fintech Era*. 7. pp. 19–22. [Online] Available from: <http://www.cqvip.com/qk/82325b/202007/7102197540.html>.

24. Xiaofeng, G. (2020) The insurance crisis into an opportunity to accelerate the digital transformation. *Electronic Finance*. [Online] Available from: <https://zhuanlan.zhihu.com/p/133713313>.

25. Zhihui, Zh. (2019) Research on Digital Transformation of Insurance Companies. *China Insurance*. 3. pp. 18–23.

26. Akhvyediany, Yu.T. (2018) *Insurance business as an element of national economy development*. (In Russian). DOI: 10.21686/2413-2829-2018-3-92-98

ТЕНДЕНЦИИ ЦИФРОВОЙ ТРАНСФОРМАЦИИ СТРАХОВОЙ ОТРАСЛИ КИТАЯ ПОСЛЕ ПАНДЕМИИ COVID-19

Се Сяохэ

Аннотация. Развитие цифровой экономики изменило экономическую среду, и цифровая стратегическая трансформация страховых компаний стала неизбежным выбором для их развития. В основном мы используем статистические и качественные методы исследования для сбора данных через онлайн-платформы, отчеты и научные конференции для изучения цифровой трансформации страховой отрасли Китая после пандемии COVID-19. При поддержке CSC Fund мы взяли интервью у китайских корпоративных менеджеров и приняли их взгляды. Проанализированы мотивы, стратегия, построение бизнеса и результаты реформирования цифровой трансформации страховой отрасли Китая. Сделан вывод о том, что страховая отрасль Китая может быстро выйти из кризиса COVID-19 посредством цифровой трансформации, поддержать устойчивый рост, повысить конкурентоспособность предприятий и поддержать восстановление экономики страны. Исследование предоставляет страховой отрасли других стран опыт проведения цифровой трансформации и реагирования на кризис пандемии COVID-19.

Ключевые слова: цифровая экономика, страховые компании, цифровизация, стратегическая трансформация, страховой бизнес, инновации в страховании, управление рисками