

Advantages of using New Information Technologies in Insurance Activities

Rafiyeva Zarina

*Samarkand Institute of Economics and Service, Assistant of the Department of “Investment and
Innovations”*

Shavkatova Sabina

Student of the Samarkand Institute of Economics and Service

Abstract: This article analyzes the advantages of using modern information technologies in insurance activities. In particular, it covers aspects such as automation of insurance services through digital transformation processes, artificial intelligence, blockchain, cloud technologies and mobile applications, improving the quality of customer service, expanding the possibilities of risk analysis and control. Also, using the example of the insurance market of Uzbekistan, practical examples are shown to show how the introduction of information technologies affects efficiency. The article provides conclusions and recommendations on the role of technological innovations in the development of the insurance system and promising directions.

Keywords: insurance activities, information technologies, digital transformation, artificial intelligence, blockchain, cloud technologies, mobile applications, risk analysis, insurance innovation, insurance market of Uzbekistan.

Introduction

In recent years, the rapid development of the digital economy worldwide has necessitated the widespread introduction of innovative approaches in various fields, including the insurance system. In particular, new information and communication technologies (ICT) allow insurance companies to modernize their operational activities, simplify and automate service processes, and establish interactive relationships with customers. This, in turn, creates the basis for increasing the quality and efficiency of services, increasing user trust and satisfaction.

The use of information technologies in modern insurance activities is not limited to providing services quickly and conveniently, but also provides a number of advantages, such as analytical capabilities, identifying and assessing risks, early detection of insurance fraud, and providing personalized offers to customers. In particular, innovative solutions such as artificial intelligence, Big Data technology, blockchain, mobile applications, and cloud computing are radically improving the efficiency of the insurance system.

By introducing digital technologies, insurance companies are able not only to optimize internal business processes, but also to implement modern approaches such as creating new products and services, providing fast and transparent customer service, real-time data exchange, automatic payments and processing of claims.

The insurance market of Uzbekistan is not left out of this trend. As part of the transition to a digital economy, a number of reforms are being implemented in the country to digitize the insurance sector. In particular, practices such as electronic policies, online insurance platforms,

and providing services through mobile applications are being introduced. At the same time, one of the urgent tasks in this regard is to study international experience, advanced technological solutions and innovative approaches and adapt them to national conditions.

This article will comprehensively cover the main areas of using new information technologies in insurance activities, their advantages, practical applications, and the importance of digital transformation within the insurance market of Uzbekistan. It also analyzes the new opportunities arising from the introduction of technologies and the problems arising in this process.

Literature review

The use of information technologies in insurance activities has been the focus of scientific research by many foreign and domestic researchers in recent years. In particular, approaches aimed at digital transformation, the introduction of innovative technologies, meeting customer needs, and increasing efficiency are widely studied in this area.

Reports from the World Bank, the International Finance Corporation (IFC), and other international organizations provide information on the positive results achieved through the integration of digital technologies, in particular, mobile applications, artificial intelligence (AI), cloud technologies, and blockchain technologies into insurance services. Consulting companies such as McKinsey & Company and Deloitte, in their analytical reports, analyze the role of technologies in the insurance sector and emphasize their importance in simplifying business processes.

For example, P. Cummins and M. Weiss (2018) show in their research that insurance companies have the opportunity to establish effective relationships with customers, accurately analyze risks, and optimize insurance premiums through the use of digital tools. Also, E. Brynjolfsson and A. McAfee (2014) highlight the impact of technological innovations on economic efficiency, noting that new business models are emerging in the insurance sector through information technologies.

Uzbek researchers, including Sh. Tokhtayev, Kh. Mamatkulov, D. Nuriddinova and others, have conducted research on the application of information technologies in the insurance sector in the national context, the state of the existing infrastructure, changes in legislation and the introduction of digital platforms. Their scientific articles and analyses cover in detail the possibilities and limitations of using ICT in national insurance companies.

Also, the resolutions and decrees of the President and Government of the Republic of Uzbekistan on the development of the digital economy and financial system in 2020–2024 serve as the main regulatory and legal source in this direction. For example, within the framework of the “Digital Uzbekistan – 2030” strategy, a wide range of measures has been set for the digitalization of financial and insurance services.

The analysis of the above literature shows that the use of information technologies in insurance activities is a relevant scientific and practical direction, and research in this area is deepening at new stages of technological development. This article, based on the analysis of existing scientific sources, aims to highlight the possibilities and prospects for the implementation of these technologies in the insurance market of Uzbekistan.

Methodology

The rapid development of modern information and communication technologies is fundamentally changing the form and content of insurance activities worldwide. Digital transformation processes in the insurance sector are helping to improve the quality of services, automate processes, provide convenient and fast services to customers, as well as reduce costs and increase efficiency. In particular, innovative solutions such as artificial intelligence, blockchain, Big Data technology, cloud technologies, mobile applications are taking the operational activities of insurance companies to a new level. Today, many types of insurance services are offered through online platforms. Customers can issue insurance policies, make payments, register losses online in the event of an insured event, and receive a quick response

through mobile applications. This not only creates convenience for customers, but also simplifies the company's operations and reduces errors due to the human factor. At the same time, artificial intelligence also has the ability to predict customers' insurance needs in advance, assess the level of risk, and offer suitable products, which leads to the personalization of insurance services.

The world's experience is a vivid example of the activities of leading companies that have successfully implemented digital technologies in the insurance system. For example, insurance companies in countries such as the USA, Germany, Japan, South Korea, and China have implemented mechanisms such as ensuring the transparency of insurance contracts, reducing fraud, and automatically reviewing claims through blockchain technology. Big Data technologies, on the other hand, allow for an individual approach and accurate assessment of risks by analyzing large amounts of customer data.

Certain work is also being carried out in Uzbekistan on digitalization in the insurance sector. In particular, within the framework of the "Digital Uzbekistan - 2030" strategy, a legal framework is being created for the digitalization of the financial sector, in particular, insurance services. Most insurance companies are launching online services through their official websites or mobile applications. Services such as electronic policies, online consultations, and confirmation of contracts by electronic signature are practical manifestations of digital transformation. The Central Bank also makes recommendations aimed at the widespread introduction of information technologies in this direction.

However, the unpreparedness of the existing infrastructure for fully digital services, insufficient human resources, and problems with cyber threats and information security are slowing down this process. However, global experience shows that companies that have switched to digital technologies are developing faster than companies based on traditional business models and are able to attract more customers. The rapid introduction of innovative technologies is also important to ensure the competitiveness of the Uzbek insurance market.

In conclusion, the use of information technologies provides a number of advantages in insurance activities: the speed and quality of service provision increases, costs are reduced, customer relations are strengthened, risks are accurately assessed, and transparency and reliability are ensured. To fully utilize these opportunities, it is necessary to improve the technological infrastructure, provide industry personnel with modern knowledge and skills, strengthen information security, and adapt international experiences to national conditions. Digital technologies are opening up great opportunities for the insurance industry, and their correct and effective direction is one of the most urgent tasks today.

Analysis and results

Studies and practical observations have shown that the use of new information technologies in the insurance sector leads to a number of positive results. In particular, the analysis shows that companies that have implemented digital technologies have increased the speed and quality of service compared to traditional operators, reduced their costs, and achieved a steady increase in the number of customers.

1. Automation of service processes - with the help of technology, key processes such as issuing an insurance policy, processing claims, and making payments are performed online, quickly, and less dependent on the human factor. This has increased the company's efficiency.
2. Identification of customer needs and provision of personalized services - based on artificial intelligence and Big Data, customer habits and requirements are analyzed and suitable service packages are offered for them. This increases customer loyalty.
3. The ability to accurately assess and manage risks - technologies, in particular, allow for the prediction of risks in advance through automatic data collection and analysis. As a result, insurance companies are managing their risk portfolios more effectively.

4. Fraud detection – using blockchain technology and smart contracts, transparency in the insurance system is increasing, and false claims are being prevented.

5. Improving the quality of customer interaction – through mobile applications and web interfaces, customers can communicate with the company 24/7, which increases their satisfaction level and strengthens the reliability of services.

An analysis of the activities of insurance companies in Uzbekistan shows that their digital transformation processes are being carried out gradually. Most companies have introduced policy ordering, online payment and consulting services through official websites and applications. However, digital insurance services are not fully automated, many processes are carried out semi-automatically. This indicates that the potential is not being fully utilized.

As a result, the following main conclusions were formed:

- Information technologies are an important factor in increasing the competitiveness of the insurance industry;
- Digital services reduce costs, increase the number of customers, and improve the quality of service;
- It is necessary to strengthen the infrastructure and knowledge capacity in this area in Uzbekistan;
- Solving the problems of security, legislation, and technological adaptation will ensure the widespread implementation of the digital insurance system.

Thus, the use of modern information technologies not only increases the efficiency of insurance companies, but also serves to create more reliable and convenient services for customers.

Conclusion and suggestions

The results of the study showed that the use of new information technologies in the insurance sector is an important factor not only in improving the quality of service, but also in ensuring the effective functioning of the entire system. Digital technologies allow insurance companies to automate their services, adapt to customer needs, reduce operating costs, and accurately assess risks. World practice shows that companies that have implemented digital solutions have an advantage in the market and are able to ensure high trust and customer loyalty.

Although the process of digitizing the insurance market in Uzbekistan is ongoing, there are still untapped opportunities and problems that need to be resolved. The incomplete formation of the infrastructure, the lack of IT personnel, and risks associated with information security are hindering the full digital transformation of this industry. At the same time, the existing legislative framework also requires improvement in some aspects.

Based on the above, the following proposals can be put forward:

1. Development of the digital infrastructure of the insurance sector - companies should modernize their IT systems, introduce high-tech tools to provide fast and secure services.
2. Increasing the capacity of specialists - increased attention should be paid to training IT specialists and actuaries who have a deep understanding of information technologies and can put them into practice.
3. Strengthening information security - mechanisms for protecting client data in digital services should be strengthened. In this regard, it is important to introduce cybersecurity protocols.
4. Improving mobile applications and online platforms - convenient platforms should be developed where all insurance services (policy issuance, payment, claims processing) are carried out through a single electronic system.

5. Studying international experience and adapting them to national conditions - it is necessary to analyze the experience of developed countries and put them into practice in the conditions of Uzbekistan.
6. Improving the legislative framework for digital services - it is necessary to legally strengthen processes such as electronic policies, smart contracts, remote authentication. In conclusion, the digital transformation of the insurance system will serve to increase the overall competitiveness of the Uzbek financial market. If reforms in this area are consistently continued, not only insurance companies, but also the population will have increased confidence in insurance, and financial stability will be ensured.

References

1. Resolution of the President of the Republic of Uzbekistan Sh.M.Mirziyoyev “New Uzbekistan Development Strategy for 2022–2026”, 2022.
2. Reports of the Insurance Market Development Agency under the Ministry of Finance of the Republic of Uzbekistan, 2022–2024. – www.sugurtaagency.uz
3. Deloitte (2023). 2023 Insurance Industry Outlook: Unlocking growth in the digital era. – www2.deloitte.com
4. PwC (2023). Top Insurance Industry Trends 2023: Technology-driven transformation. – PricewaterhouseCoopers Global Insights.
5. McKinsey & Company (2023). The future of insurance: Driving growth through digital innovation.
6. Capgemini & Efma (2023). World Insurance Report 2023. – www.capgemini.com
7. International Association of Insurance Supervisors (IAIS) (2023). Report on FinTech developments in insurance markets.
8. OECD (2022). Technology and Innovation in Insurance: Policy developments and challenges.
9. Accenture (2023). Insurance Technology Vision 2023: Reinventing insurance through data and AI. – www.accenture.com
10. Jumaev, Sh. (2023). “Digital Transformation in the Insurance Market: Experience and Prospects of Uzbekistan”. *Economic Research and Innovation*, No. 2, 45–52.