



ISSN 2278 – 0211 (Online)

Digitalization of Insurance in a Transforming Economy Based on the Experience of the Republic of Uzbekistan

Azimov Rustam Sadykovich

General Director, JSC EIIC Uzbekinvest, Uzbekistan

Mirsadikov Miradil Abdullayevich

Director, School of Insurance, JSC EIIC Uzbekinvest, Uzbekistan

Dr. Shamsuddinov Bakhodir Rakhimovich

Senior Manager, Department of Actuarial Calculations and Insurance Reserves Formation, JSC EIIC Uzbekinvest, Uzbekistan

Abstract:

This article considers the current state of implementation of digital technologies in the insurance industry of Uzbekistan. The authors propose ways to develop an insurance business based on the use of modern information technologies and data analysis. The paper considers the main problems faced by insurance companies in Uzbekistan, such as the low level of public reliance on insurance, lack of qualified personnel and shortcomings in management. Emphasis is placed on the prospects for the development of digital insurance in Uzbekistan and its impact on the economic development of the country. The authors emphasize that digitalization has the potential to significantly improve the efficiency of insurance companies and the quality of customer service. In conclusion, the authors note that digitalization is a necessary condition for the development of Uzbekistan's insurance market in the context of a transforming economy. It is expected that the results of the study will be useful for managers of insurance companies, students, researchers, and all interested parties involved in the development of Uzbekistan's insurance market.

Keywords: Insurance, digitalization, transforming economy, information technologies, data analytics, artificial intelligence

1. Introduction

A significant part of the research devoted to the theoretical problems of the transition economy concentrates on two main points: a description of the various forms and reasons for the inefficiency of a centrally planned economy and the justification of the need for a number of reforms that should lead to the construction of an effective market economy.

We do not set ourselves such a task; the purpose of this study is to examine the features of digitalization of insurance in the conditions of a transforming economy (based on the experience of Uzbekistan). Before moving on to the analysis of the features of the processes of digitalization of insurance in a transforming economy, which distinguishes them from the processes of digitalization of insurance in a market economy, it is necessary to determine what a transforming economy is.

In the framework of this study, we will understand the transformation of the economy as the transition from one state of the economic system to another. Economic transformation is a large-scale, deep, time-long change of a systemic nature when one system is replaced by another. According to Forrester's First Law, if one parameter is improved in a highly complex system, then all the others will deteriorate. Therefore, economic transformation must be systemic in nature.

The difficulty of analyzing the transformation processes of the economy of post-Soviet states lies in their uniqueness, which requires an individual approach to study. However, for all their differences, transition economies have common features, which include:

- Destruction of the institutions of the Soviet economic system and the creation of institutions of a new socio-economic system;
- Alternative, multi-variant development of economic transformation;
- The inaction of the economic system, the impossibility of an instant transition to a market economy.

Economic transformation processes determine the need for transformation in the insurance sector. In the conditions of the Soviet economy, insurance was one of the methods of forming a centralized insurance fund to compensate, through insurance premiums, losses in the national economy from natural disasters and accidents, as well as

to pay appropriate amounts in connection with the occurrence of certain events related to the life and working capacity of the insured.¹

In the new edition of the Law of the Republic of Uzbekistan dated November 23, 2021, No. 3RU-730, insurance is defined as relations to protect the interests of individuals and legal entities related to covering damage caused, organizing and using targeted funds for paying compensation and other payments upon the occurrence of a certain event (cases)².

What is common in the above definitions is that in both cases, insurance is aimed at compensating for losses, i.e. the principles and characteristics of insurance in command-administrative and market systems do not contain significant contradictions, which allows the insurance institution to find a place in both economic systems. However, the fundamental difference in approaches to the insurance institution is that the source of compensation for losses incurred in the first case is a centralized insurance fund, and in the second - target funds formed from paid insurance premiums, as well as from other funds of insurers. A feature of insurance in the Soviet period was that the state was both the owner and the guarantor of compensation for losses in the event of unfavorable events. In turn, in a market economy, the basis of which is a variety of forms of ownership, the roles of the owner and the guarantor are differentiated.

The insurance markets of post-Soviet states have a common past and features, but each of them follows its own development model. It primarily depends on state policy.

The history of insurance markets in the Central Asian countries began as usual for the CIS - everywhere, the insurance industry originates from the Soviet State Insurance, on the basis of whose divisions the largest national insurers were formed. Later, private insurers, including those with foreign investment, became an alternative to state-owned companies.

Being a post-Soviet country, Uzbekistan has been pursuing a consistent policy for more than three decades aimed at building a full-fledged market economy and a democratic society.

In Uzbekistan, at the beginning of 2023, the insurance sector is represented by 42 insurance companies, of which 8 are life insurance companies.

- The volume of collected insurance premiums at the end of 2022 amounted to in equivalent – 503 million dollars.
- The annual increase in insurance volumes in the Republic is 50%.
- The volume of insurance premiums per capita is equivalent to – 14 USD.

The insurance market of Uzbekistan today is characterized by the following positive trends:

- The rapid growth of total insurance premium volumes - at least 50% annually;
- Developed branch network - more than 1,451 branches of insurers and more than 9,150 insurance agents;
- The market share of 2 state insurance companies is constantly decreasing and currently stands at 22%;
- A developing legislative framework that promotes the development of professional insurance market participants;
- Availability of tax incentives - incentive regime for insurance companies.

In modern conditions, the introduction of innovative insurance technologies will lead to increased protection of the rights of consumers of insurance services and will undoubtedly contribute to deeper penetration of insurance into various segments of the population, which in turn will have a positive effect on reducing the operational and financial risks of users of insurance services. This circumstance presupposes further and careful consideration of existing problems in the field of improving the provision of insurance services to both legal entities and individuals in order to increase their level of accessibility and convenience, and in particular, to improve the quality of provision of insurance services to the population in the context of digital transformation.

In general, the digitalization of business processes for insurance companies in Uzbekistan is a new process that has been significantly accelerated by the recent pandemic. As recently as 2018-2019, most of the processes related to insurance policy registration and claims processing were carried out manually.

Guided by the trends of active implementation of digitalization in all spheres of state and public life in the country, being a systemically important insurer and technological leader of the insurance market, Uzbekinvest company launched digital online insurance platforms. Company became a pioneer in Uzbekistan in introducing the digital technology of biometric identification of clients Face ID into all information systems and mobile applications. As a result, more than 88 thousand customers in 2022 were able to experience the convenience of instantly processing and purchasing insurance services using Face ID technology.

The introduction to the market of new, relevant, digital insurance products and innovative solutions for individuals has become a flagship in ensuring high growth in the collection of insurance premiums. In the first 11 months of this year, the company's digital platforms allowed the realization of more than 670 thousand online policies, with an increase of 2.3 times compared to last year's figures.

Also, to increase the efficiency of insurance activity and the correct calculation of tariff rates and the number of liabilities, starting from January 2024, 87% of the company's clients will be checked through the scoring system implemented on the basis of artificial intelligence. According to our calculations, the reduction of 10% of clients will increase profits more than 2.5 times.

¹ Lichtenstein P. A New-Institutional Story about the Transformation of Former Socialistic Economies: A Recounting and an Assessment. — Journal of Economic Issues, 1996, vol. XXX, No. 1, March, p. 243-265.

² Koshin F.V. State insurance in the USSR. Gos-finizdat. 1949, p. 10.

³ Law of the Republic of Uzbekistan "On Insurance Activities" dated November 23, 2021, no. ZRU-730, <https://www.lex.uz/ru/docs/5739120>

The company's existing technological potential has attracted the attention of the public and individuals. Thus, in November, Uzbekinvest was the first insurance company in Uzbekistan to conduct an IPO of 5% of its shares. The shares were sold out within 7 days, while their value in the first days of trading increased by 49%.

Special attention should also be paid to the project being implemented called "Data Warehouse", on the basis of which the business analytics system will be developed, which will ensure management decision-making on the basis of the most correct, strategically verified and operative information formed in real-time.

It should also be noted the high economic efficiency of digitalization of insurers' business processes. If primary and secondary registration of clients manually takes, on average, approximately 7-8 minutes, the secondary registration through the "Face ID" system takes only 5 seconds. Sales through insurance agents deprive the insurer of 15% to 25% of income, while in the case of direct sales, mainly online, there are no such expenses.

Subsequently, with the further development of digitalization in the insurance industry of the Republic, we highlight the following attributes of a fully digital company:

- A sharp reduction (for lack of need) of regional and agency networks and, accordingly, the costs of their maintenance;
- Fully automated review of applications for all insurance services;
- The possibility to choose for individuals and legal entities to independently form insurance products with the functions they require and choose the amount of liability on them;
- Automatic calculation of damage based on provided photo and video materials;
- Full online tracking of the progress of the processing of insurance claims;
- Further development of mobile platforms, with the introduction of telematics and online consultations, including the use of robots.

It should be noted that the digitalization of business processes is considered by insurers as part of an anti-corruption policy, as there is transparency in all processes and the absence of middlemen in obtaining insurance services and indemnities.

It is important to realize that with the introduction of digital technologies, there are new risks, the main ones being the following:

- Property damage, which can be caused by cyber-attacks;
- Fraud resulting from the misuse of data;
- Liability of any kind in connection with the use, storage and transmission of data;
- Inadequate assurance of the availability, integrity and confidentiality of electronically stored information, regardless of whether it relates to individuals, companies or government departments.

The main problems of digitalization of the insurance market of Uzbekistan at the stage of digitalization include the following:

2. Poor Infrastructure and Lack of Computer Literacy

According to the agencies "We Are Social" and "Kepios", which annually issue global reports on the use and state of the digital sphere in countries, it turned out that Internet penetration among the population of Uzbekistan in January 2023 amounted to 76.6%, as well as the average age of individuals those who use the Internet are 22-27 years old.³

However, it should be noted that the average age of the target client audience of insurance companies is 35-45 years. Thus, the presence of low information and computer literacy of the older generation, lack of experience, the presence of fear of purchasing via the Internet, and the formed habit of touch when purchasing paper insurance policies are additional barriers to the penetration of new digital insurance technologies among the population.

3. Necessity of Reorganization of Management System of Insurers and Substantial Financial Expenses for Implementation of New Systems

It should be noted that there are other factors hindering the penetration of digital technologies into the business processes of insurance companies themselves, and in Uzbekistan, not all insurance companies are yet ready to invest in the development of new digital technologies, their own online platforms for selling policies, and are often limited to selling only mandatory types insurance through the regulator's unified database (www.e-osgo.uz).

The key reasons for the insufficient penetration of digital technologies into the activities of insurance companies include the high cost of programming services for the introduction of new digital technologies, the lack of qualified personnel in the development of new digital technologies, and also, due to the low insurance culture, the lack of formed demand among the population for digitized insurance programs, which ultimately affects the return on investment.

The lack of demand for digitized insurance programs may be due not only to the low level of insurance penetration into the economy of our country but also to the low level of digitalization of economic sectors as a whole, which increases, we can expect a growth in demand for digitized insurance programs.

4. Lack of Qualified Personnel in the Insurance Labor Market

Due to the digitalization of the insurance market, the inevitable release of jobs is expected in which back and front office workers perform functional duties, which, due to the introduction of innovative technological solutions, will lose their significance.

³ According to the agencies "We Are Social" and "Kepios"<https://datareportal.com/reports/digital-2023-uzbekistan>

On the other hand, there is an unmet demand for qualified specialists with skills and competencies related to solving high-tech problems (IT specialists, programmers), specialists with skills in using modern gadgets and computer equipment, and employees of insurance companies with appropriate qualifications, ready to work in modern conditions and digital environment.

Considering that the main shortage of personnel in regional and district divisions is associated with a shortage of sales specialists - this group of personnel makes up 63% of all in-demand specialists, and the average age of insurance company employees varies between 38 and 45 years, the problem of professional retraining in the future digitalization of the insurance business of insurance company employees is becoming very relevant.⁴

The introduction of technological innovations, automation of insurance sales processes, a smooth transition to direct sales and a phased departure from the agent sales channel in the retail segment, a reduction in personalized actions and personal customer service will lead to a reduction and retraining of primary care workers, which in turn will entail financial expenses.

Against the background of these trends, transformations will also be observed in the organizational forms of insurance companies. An important aspect of increasing the efficiency of training and retraining personnel is the active introduction of distance learning methods. Today, the Uzbekinvest Company operates a "School of Insurance," which offers, through its digital information platform moodle.uzbekinvest.uz, training and advanced training for employees and insurance agents.

5. Necessity of Further Development of the Legislative Framework

Another significant problem for insurance business entities is the adoption of new legal directives and the observed changes in regulations. For example, the requirements of articles of the Law of the Republic of Uzbekistan "On Personal Data" limit the processing and transfer of data about policyholders to third parties⁵, Resolution of the Cabinet of Ministers of the Republic of Uzbekistan dated December 5, 2022 No. 694 "On approval of the regulations on the procedure for the implementation of electronic types of insurance services" prohibits the payment of commissions to insurance agents, which in turn hinders the development of a digital agent sales channel in the form of insurance aggregators, mobile applications, telegram bots and online stores.⁶

In connection with the above, we consider the following proposals appropriate:

- Development and implementation of a state program for the development of the insurance culture of the population,
- Providing an active advertising and marketing campaign among the population,
- An accessible and systematic explanation of the prospects,
- Advantages and benefits of the population in insuring property, life and health,
- Development of a set of measures to highlight the advantages and benefits of insurance among representatives of small and medium-sized businesses,
- Increasing insurance literacy of the younger generation,
- Attracting students at universities to the insurance system,
- Ensuring openness of information about the development of the insurance market and the activities of insurance companies.
- Development of individual digital insurance products and
- Adaptation of the products to the individual needs of the policyholder.
- This has been made possible by advances in technology, especially in the areas of big data analytics, risk assessment and decision-making systems, artificial intelligence technology and machine learning.
- For example, "pay-per-use" insurance plans are a type of insurance that charges customers based on their actual use of the insurance service. The most common form is pay-per-drive auto insurance, which charges customers based on the number of miles they drive, or pay-per-go travel insurance, which charges customers based on the number of days they spend abroad. Developing and using mechanisms to encourage customers to change their driving habits to reduce the risk of insurance claims will increase the attractiveness of the product.
- Today in Uzbekistan, there are more than 30 types of imputed insurance, the purchase and availability of which is necessary to gain access to certain types of activities, for example, mandatory insurance of appraisers, accountants, auditors, notaries, pharmacists, etc.
- The development by insurance companies of various affiliate programs of imputed insurance for this segment, their digitalization, the development of various loyalty programs and the provision of bonuses will follow the expansion of sales channels and will increase the level of sales themselves, which will also be the first step towards the introduction of "embedded insurance".
- The practice of foreign insurance companies has shown that when developing digital types of insurance for individuals and corporate businesses, these companies create eco-systems around their digital products.

⁴ "Economics and Finance" 2023/2 Azimov R.S., Mirsadykov M.A., Shamsuddinov B.R. "The current state of insurance education in the Republic of Uzbekistan" /Downloads/sovremennoe-sostoyanie-i-problemy-strahovogo-obrazovaniya-v-respublike-uzbekistan%20(1).pdf

⁵Law of the Republic of Uzbekistan, dated July 2, 2019 No. ZRU-547 "On personal data" <https://lex.uz/docs/4396428>

⁶Resolution of the Cabinet of Ministers of the Republic of Uzbekistan, dated December 5, 2022, No. 694 "On approval of the regulations on the procedure for the implementation of electronic types of insurance services"

- Applying experience and current modern trends, insurance companies need to start creating eco-systems for each product line on their own or on partner digital platforms, for example, banking eco-systems, telemedicine, smart home systems, e-commerce marketplaces and payment systems.
- On the basis of the Association of Professional Participants of the Insurance Market of the Republic of Uzbekistan, a program is developed, and short-term training and retraining courses are conducted for insurance industry specialists. This includes a combination of traditional forms of training and training using electronic information technologies, taking into account real market demands based on an analysis of what knowledge and skills insurance companies expect from specialists.
- It is proposed that it would be advisable to include certain disciplines in the curricula of universities that train specialists for the insurance market to determine a new structure of insurance courses in accordance with the requirements of the developing insurance market, taking into account the trend towards integration of education and business activities. Teaching insurance in educational institutions must be closely linked to the practice of insurance companies using real products.
- It is also proposed that insurance companies develop their own structured plans for professional training and retraining of their employees, including providing training in educational institutions and in the workplace, educational programs for advanced training and training abroad.
- Development and implementation of digital solutions by insurance companies for collecting documents, a phased transition to electronic document management, and the definition by insurance companies of specific, clear regulations for the implementation of insurance obligations and the application of strict penalties for their violation, providing the unconditional implementation of the obligations of insurance companies are based on strict regulations.

By changing the way they collect data and integrating databases with relevant ministries and departments, insurance companies can make the process of obtaining payments and processing claims more efficient, which will ultimately lead to increased customer satisfaction.

Despite the fact that insurance in Uzbekistan has certain specifics, its direction of development is in line with global trends. Turning the insurance industry into a strategic sector of the national economy and creating a more efficient insurance protection system requires cooperative work and synergy of insurance companies, regulators, and other interested agencies.

In many ways, the success and speed of the processes of digitalization of the insurance business in Uzbekistan as an infrastructure institution will be determined by the pace of digitalization of the economy, while the development of the insurance culture of the country's citizens and the effectiveness of the use of insurance mechanisms in corporate risk and financial management systems will have a significant impact.

6. References

- i. President of the Republic of Uzbekistan. (2021, October 23). *Resolution No. PP-5265 on additional measures for digitalization of the insurance market and development of the life insurance sector*. Retrieved from: <https://lex.uz/uz/docs/5692523>
- ii. Republic of Uzbekistan. (2019, July 2). *Law No. ZRU-547 on personal data*. Retrieved from: <https://lex.uz/docs/4396428>
- iii. Cabinet of Ministers of the Republic of Uzbekistan. (2022, December 5). *Resolution No. 694 on approval of the regulations on the procedure for the implementation of electronic types of insurance services*.
- iv. Azimov, R. (2021). *Insurance in Uzbekistan: history, current state, challenges in the development process, insurance of foreign economic activity*. TURON-IQBOL.
- v. Azimov, R. S. (2022). *Insurance in the digital economy: science, practice, education*. Collective monograph. Moscow: Publishing house "Infra-M".
- vi. Azimov, R. S., Mirsadykov, M. A., & Shamsuddinov, B. R. (2023). *The current state of insurance education in the Republic of Uzbekistan. Economics and Finance, 2023(2)*, 257. Retrieved from: [/Downloads/sovremennoe-sostoyanie-i-problemy-strahovogo-obrazovaniya-v-respublike-uzbekistan%20\(1\).pdf](#).