



Increasing the Efficiency of Electronic Commerce Insurance Services by Reducing Financial Losses

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ANNOTATION.

This article discusses insurance services that can be scaled up with e-commerce elements. The introduction of e-commerce into the insurance sector, the emergence of technologies using the Internet have led to significant changes in the structure of increasing the efficiency of e-commerce in insurance services. Targeted research is being carried out around the world to find scientific solutions to the problems of e-commerce development and to increase its effectiveness. Research is focused on the development of electronic forms of doing business, the transition to a digital economy, the components of e-commerce and their interconnection, the security of information and payment systems. The article analyzes complex measures for the active development of the digital economy and the widespread introduction of modern information and communication technologies in all sectors and industries.

Key words: e-commerce, e-insurance, insurance policies, e-insurance ecosystem.

Introduction.

The advent of e-commerce has had an impact on society, and it is because of this that it is easier than ever for people to buy and sell products and services without having to be physically present and do it in a certain place. And, as with anything new, inventing new ways to buy goods and services often carries some technical risks that may not have existed before the invention. Sellers using e-commerce elements can reach a global audience and are not geographically constrained, as was the case with conventional retail, but the ability to expand the industry more than ever before also increases the responsibility of those behind this expansion. E-commerce is a unique industry, so it should come as no surprise that the risk profile in this industry is just as unique and diverse. The e-commerce industry is growing at an incredibly fast pace, which has become the reason for the emergence of new technological services. Insurance companies' strategy dictates the degree to which they are prepared for the many risks that can arise from such rapid industry growth. According to the latest research, e-commerce retail sales grew to \$ 4.058 trillion in 2020 and accounted for more than 14% of total global spending [1]. E-marketplaces enable sellers to efficiently communicate relevant product information to potential buyers, thereby lowering their search costs. Moreover, firms can use digital technology to increase product differentiation and mitigate price competition; differ from competitors by superior interfaces and create switching costs [8].

Literature review. Development of insurance services in e-commerce, theoretical aspects of insurance services in e-commerce, their practical analysis in the work of scientists in our country have not been sufficiently conducted. The e-commerce infrastructure is limited to the analysis of the legal form and the analysis of the country. One of the main reasons the industry is growing so rapidly is that it is incredibly easy for any business to become a part of e-commerce. Analyzing the definition of insurance, we can distinguish two main aspects of it: insurance is a contract and a guarantee to cover the costs that are possible in the event of an extraordinary event. An agreement or contract consists of an insurance policy that specifies the terms of insurance coverage. In this case, the indemnity guarantee will largely depend on a number of conditions specified in the insurance contract or the insurance rules attached to it.

In foreign literature, insurance is sometimes understood as a mechanism that provides a guarantee of partial or full financial compensation for losses in the event of a situation that does not depend on the activities of the insured party. In this case, insurance manifests itself as an economic category, the essence of which is the redistribution of risk. This approach presents insurance as a special social mechanism for reducing the level of risk by transferring it from individuals to the insurer. Research methods. The study used methods of comparison, analysis and synthesis, a historical and logical approach, a graphical method for the analysis and comparison of statistical and analytical data. To formulate theoretical knowledge and conclusions, an abstract-logical and observational method was used, as well as modern software products were used. Analysis and results. The international insurance market is actively developing. In 2017, global insurance premiums exceeded \$ 4.9 trillion (Businesswire, 2020). Life insurance premiums increased by 2.2% in 2019, faster than 1.5% in 2009–2018, adjusted for inflation [3]. Traditional prices will be discounted by those insurance companies that use the new cost structure for the Internet, although many are reluctant to fully embrace the Internet because they worry about the impact on their agency strength. [7]

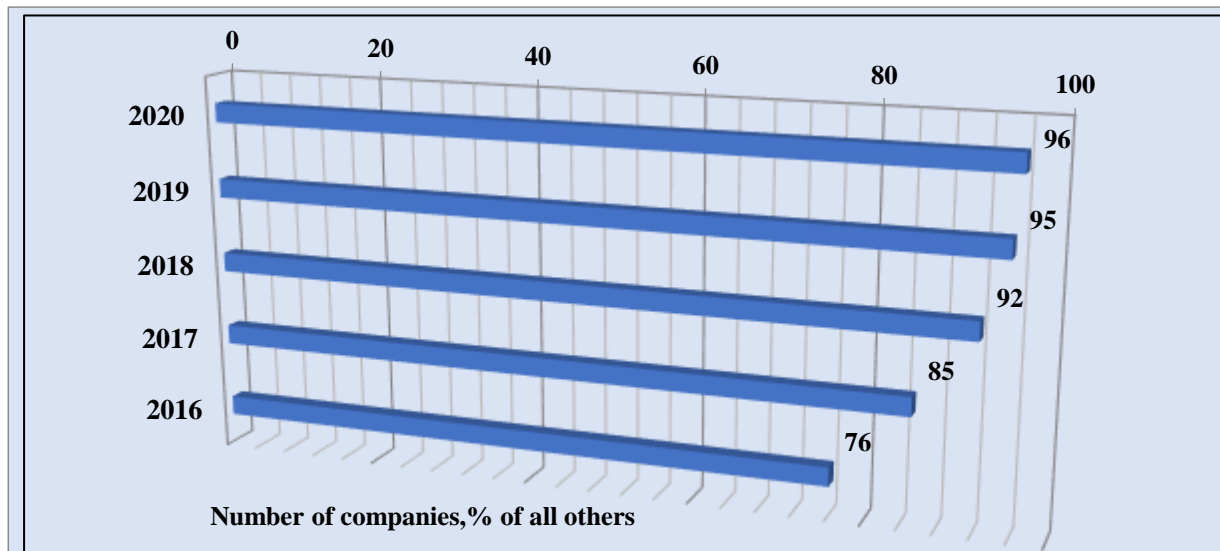


Figure 2-The share of companies in the US using IT solutions related to the use of the Internet [2].

Figure 2 shows the percentage of insurance companies using the Internet to provide remote services in the sale of their insurance products. Thus, it can be concluded that almost 96% of insurance companies use elements of e-commerce [5]. In 2018, for the first time, they exceeded the mark in 5 trillion US dollars, equivalent to over 6% of the world's gross domestic product. Overall growth was mainly driven by robust growth in the insurance sector, apart from this life insurance (Forinsurer, 2019). World insurance premiums rose 2.9%, and in 2019 adjusted for inflation, they reached the level of 6.3 trillion. US dollars. Risk insurance premiums rose 3.5% on an inflation-adjusted basis, slightly exceeding the growth rate from 2009 to 2018.

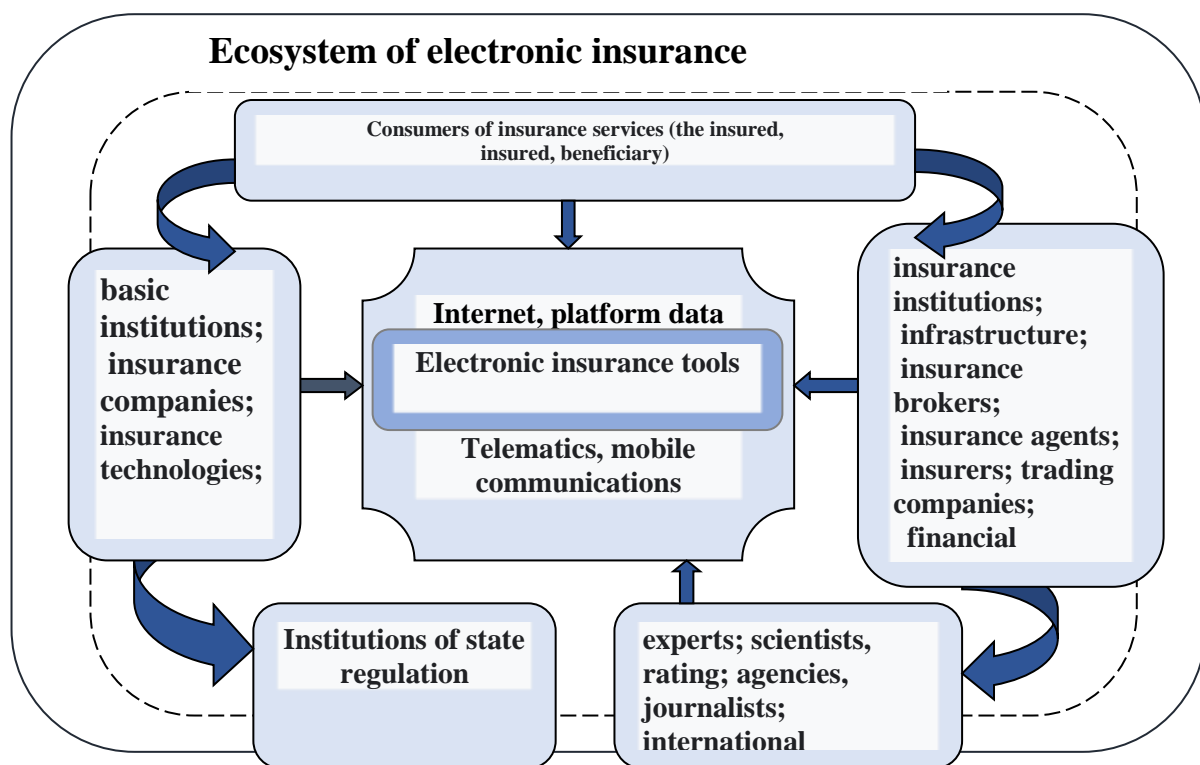


Figure 1.-Ecosystem of electronic insurance (developed by the authors)

Figure 1 shows the ecosystem of modern electronic insurance. Given that the e-insurance ecosystem is a kind of financial ecosystem, it would be logical to assume that it also has features such as: adaptability, decentralization, customer focus, inclusiveness, stability, etc. It is clear that the use of e-insurance tools facilitates interactions between insurance companies and customers, insurance infrastructure institutions, insurance consumers and regulators. At the same time, this requires an increase in the transparency of activities, the establishment of effective communications and an increase in the social responsibility of all participants in the insurance market. In the aftermath of the 2005 hurricanes, the National Insurance Bureau of Crime (NICB) in the United States created a database that stores vehicle identification numbers (VIN) and hull identification numbers (HIN) of submerged vehicles and boats.

The data is shared with law enforcement, government anti-fraud bureaus, insurers and government departments of motor vehicles, the database (VINcheck) is online and accessible to everyone. This is one of the ways to solve the problem with the unfair use of insurance policies [3].

Another attempt to address the issue of title laundering is the United States National Vehicle Rights Information System (NMVTIS), a database that requires warehouse and insurance operators to submit monthly reports of vehicles reported stolen. The program is operated by the United States Department of Justice and administered by the American Motor Vehicle Administrators Association.

By November 2019, 96 percent of the U.S. vehicle fleet was submitted to the system (based on FDA 2019 data), and 46 states had submitted data to the system. While digital technology opens the door to fraud, at the same time, it is digital technology that helps counter fraud. One of the most effective ways to prevent fraud and any kind of abuse and manipulation of data can be a way of full access to information and transparency of its use.

In practice, a social media analyst working alone or even in a large group will not be able to view the vast amount of information that is published daily on social media platforms.

Insurance companies, as part of the study "The state of technology of insurance companies and the calculation of financial losses", recognized that they need to solve a number of issues related to technologies to combat financial losses. In 2022, budgets for technology to combat financial losses from insurance using e-commerce elements will increase.

Technical funds to combat financial losses in insurance via the Internet will be spent on predictive modeling; social networking software; intellectual analysis of text data; and link analysis, which is a technique used to assess relationships or links between policyholders and claims.

The independent consulting firm Javelin Strategy and Research recently released a report on the role that applicant behavior should play in identity verification. Their conclusion is that "validation of static identity elements is currently largely useless for fraud prevention." The answer is to replace the usual identity verification with identity identification, which will provide "the assurance that not only the identity itself is valid, but also belongs to the applicant" [3].

Linking the identification of a person at the time of online presence with accurate data about this person is the biggest problem when checking the opening of online policies. Behavioral Identity Verification addresses this issue by focusing on how users enter information into an app to distinguish scammers from genuine applicants.

Identity verification examines specific activity in an online application in order to prevent the risk of fraudulent use of an insurance policy. Today the electronic insurance market in our country is at the initial stage of formation and development. New technologies are spreading in the Republic of Uzbekistan, paving the way for fundamental changes in the programs offered by insurers. To increase their competitive advantages in the insurance market, professional participants are required to search for new approaches to scaling and searching for new sales markets.

In order to reduce costs, due to the changed technical conditions, with the emergence of opportunities for implementation in the market of insurance companies in Uzbekistan, a new type of service has appeared - the service of selling insurance policies via the Internet using information technologies. Leading companies are investing heavily in technology and customers are actively taking advantage of new benefits. Insurance companies understand that they need to improve the technology of selling insurance services and expand the number of offered products in order to meet the needs of discerning customers. There have been no major changes in the demand for insurance services in society, but the market itself continues to evolve in response to the changes in the new century. Uzbekistan is entering a new era in the field of insurance, using a unique type of service - "Technologies of the Future" - insurance on the Internet. Online insurance is a simple model for purchasing insurance policy and serving customers online and on the insurance company's website. However, the level of computer literacy of the population is quite low, and in some cases employees of insurance companies are no exception. This leads to a misunderstanding of the capabilities, benefits and usability of Internet technologies.

All this can be done even if the client and the insurance company are located in other parts of the world. So why are there still no insurance offers on the Internet? One of the reasons for this is the high likelihood of fraud on the part of the customer. Therefore, proponents of e-commerce ideas may change the popular adage: "If you are afraid of scammers, do not enter the Internet."

In addition, there are dozens of online stores that successfully operate in different countries, on different continents. In the insurance business, the process is a little more complicated, because usually the amount of the insurance premium is several times the amount paid by the insurance client. To ensure the smooth operation of insurance companies and reduce the cost of financial coverage in the event of an insured event, different methodologies are developed and different levels of control are applied. While expanding their customer base through e-commerce methods, insurance companies faced the challenge of registering customers.

As a result of the use of different fonts and other technical errors, it was found that one customer can register with different insurance companies and receive insurance coverage multiple times for the same insured event. In many cases, insurance companies do not realize that the financial coverage of the insured event exceeds the value of the insured object. This situation arises due to the possibility of multiple insurance of the insurance object in different insurance companies.

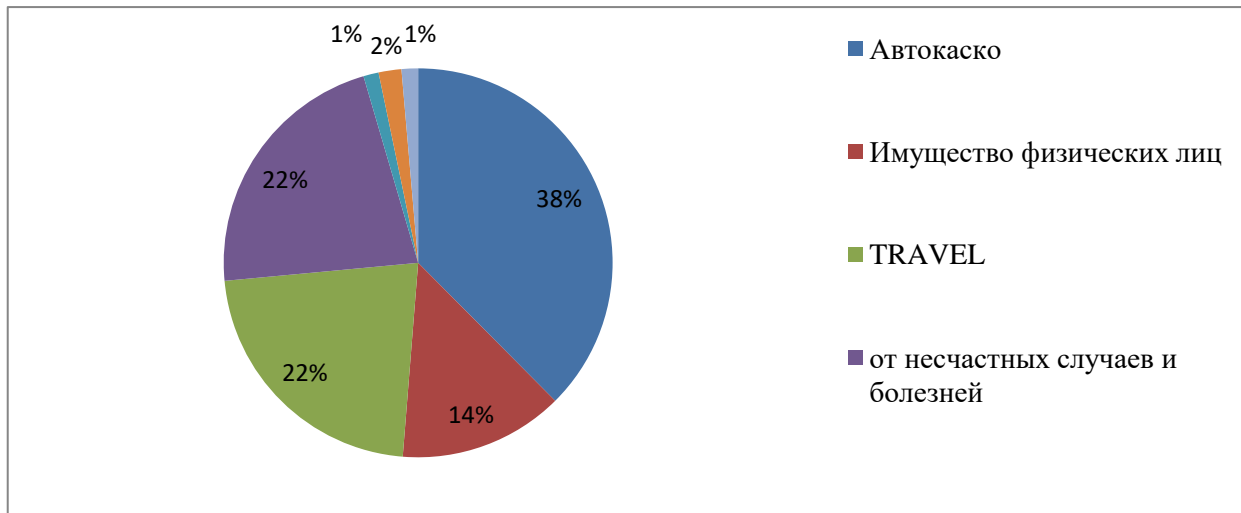


Figure 3. The structure of e-insurance premiums (excluding OSAGO) for 2019 [5]

Further, in Figure 3, we can analyze the online contracts and their structure for 2019. The structure of online contracts concluded for 2020 can be seen in Figure 3.

After analyzing the data in the figures, we can conclude that if we take all the premiums of insurance companies received from the sale of policies via the Internet for 100%, then most of the sales of auto hull insurance, from accidents and diseases, and in 2019, until there was a pandemic and massive diseases - travel insurance sales. Property insurance is somewhat inferior, and in last place is voluntary medical insurance and other types of insurance.

All this creates the basis for the activities of unscrupulous clients, and to date, no cases of fraud after payment of insurance premiums have been identified, which indicates a violation of the legislation on insurance activities. However, the increase in the flow of clients involved in the insurance company, and the prospects for this type of activity have become a strong impetus for the development of methods to control the client base.

By the Resolution of the Cabinet of Ministers No. 780 of December 14, 2020

"On additional measures to improve the procedure for the provision of electronic insurance services" from March 1, 2021, insurance policies for MTPPL in electronic format have been introduced. E-policies are equated to a paper insurance contract (policy) [5]. An interesting fact is that insurance policies in paper form also do not lose their validity and remain valid. It is important to note that the volume of Internet insurance is growing every year and the internal structure of policy sales via the Internet remotely changes.

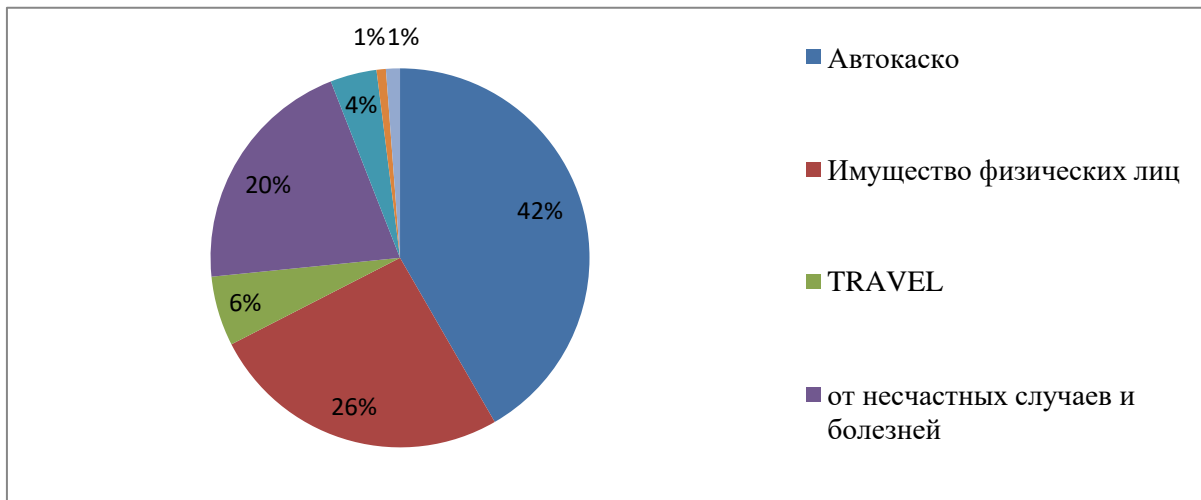


Fig. 4-The structure of premiums for electronic insurance (excluding OSAGO) for 2020 [6]

Figure 4 shows how online sales have changed in 2020. In particular, sales of travel policies dropped sharply due to a sharp decline in travel volumes. The COVID-19 pandemic has affected various sectors of the economy, including insurance, and has become a challenge and a clear catalyst for innovation. The pandemic has highlighted some of the flaws in the traditional model of interaction between insurers and their customers, so that insurance companies have focused on efforts to innovate and invest in the digital future.

COVID-19 has had a different impact on the insurance market: the number of life and health insurance has increased sharply, but there is a significant decline in travel and car insurance. Nevertheless, in all insurance companies there have been changes in the system of interaction with customers. 90% of insurance market participants can do business remotely, they felt the impact of COVID-19 in attracting new and retaining old customers.

The insurance market in Uzbekistan has witnessed growth in recent years and significant growth can be predicted in the coming years. Today there are about 41 insurance companies in Uzbekistan. In the period of digitalization of society, in order to overcome the difficulties with fraud, which was mentioned above, it would be ideal to create a global system in which each potential client would have his own status. This kind of information should be stored in a database and made available to all insurance companies. The problem that insurance agents face at the time of registration of potential clients is the lack of mechanisms to exclude the possibility of mistakes at the time of personal identification. An insurance agent at the time of an online insurance policy must be extremely attentive and accurate. Today, in one insurance company, when registering an insurance policy online, it is possible to register one client several times, in different branches, by different insurance agents. The parallel use of two alphabets - Cyrillic and Latin, technical errors in data entry have led to the fact that the insurance object can be insured several times. Often this does not happen intentionally, due to technical circumstances. This circumstance has become a method of manipulation not by bona fide customers, but in some cases by fraud. Ultimately, at the time of the insured event, the premium may exceed the value of the object itself. According to Article 937 of Chapter 52 of the Civil Code of the Republic of Uzbekistan, the amount of insurance coverage cannot exceed the amount of the cost of the object itself, the object can be insured only once. In the case of insurance two or more times, the amount of the insurance premium cannot exceed the cost of the object itself [5].

In order to avoid fraud and to overcome difficulties with personal identification, it is necessary to use the Personal Identification Number of an individual - fourteen decimal digits, which completely exclude the possibility of entering data for the same client several times. When entering customer data, in the first place is the column with the PINFL number, and then - the name, surname, etc. If the client has already had an insurance policy before then his data is automatically displayed and identified. In practice, the use of this method in the "Capital-Sugurta" company led to the fact that the customer base was automatically put in order, customers were identified once and there is no risk of errors and technical repetitions. Using this method will further reduce the risk of fraudulent electronic registration of customers remotely. In the future, the creation of a customer database, where information about customers will be completely digitalized, including information about reliability, the presence of debts or their absence before the tax authorities and heredity for health, etc. As a result, each potential client is assigned a rating of a 10-point system for the reliability of an individual as a potential client of an insurance company. Based on the rating, a decrease in insurance premiums is possible. This whole system is in the near future of insurance companies. Using PINFL as a key point in the registration of insurance policies is the first step towards the implementation of such projects.

The use of PINFL by each client when registering online with an insurance company has shown high efficiency. This helps to eliminate double registration of one client. The use of TIN is also effective for legal entities, since several clients cannot register more than once. When analyzing the main indicators of the insurance market of Uzbekistan, the issues of increasing the entrepreneurial activity of individuals in this segment of the financial services market, the growth of insurance payments, an increase in the level of capitalization of insurance companies and state control over their activities were considered. Despite this, there are a number of problems that will make it possible to intensify the development of the national insurance market. In the modern world, insurance plays an important role in the economy of our country, the importance of insurance and coverage of various aspects of our life with insurance is constantly growing. This is a positive trend, since it indicates an increase in the general financial culture of the population, as well as an increase in the level of conscious participation of the population in insurance activities. Today, in our country, insurance companies offer new life insurance products that meet the new needs of the population of the republic. These companies carry out special events to increase the level of financial literacy of the population. Of course, the population is aware of life insurance, but not many people know that such insurance can also bring profit. Investment life insurance is one such product. Blockchain digital technology is considered a strategically important tool for the insurance market participants. The new technology could help the majority of industry participants overcome competitive threats such as low customer interest in insurance products, limited growth in developed markets, and a general trend towards digitalization. Below is a general description of its types, which bring the most profit when used in insurance activities. They can be categorized into three categories: growth, efficiency, and cost reduction (by automating core processes). There are at least three ways to use blockchain that open up new growth opportunities for insurance companies: increasing customer interest, offering new cost-effective products for emerging markets, and developing insurance products related to the "Internet of Services." The key to success is to create a reliable, widespread platform based on new technology, through which clients can directly work with their personal data, collective insurance policies.

Conclusions and offers.

In increasing customer interest, an important leverage that can increase customer interest in a company's services is the use of blockchain tools to work with their personal data. Customer dissatisfaction with the possibility of losing control over personal information in the process of concluding a contract with a company and the need for regular answers to the same questions can be eliminated with the help of blockchain, which allows them to directly manage and verify personal information. At the same time, there is no need to store personal information on the blockchain. It remains in the user's documents. The registry only contains confirmation of its authenticity, for example, it stores a doctor's opinion or other related operations (medical examination with a date). In such cases, the scale of the system allows you to get the most out of the blockchain chain, since the new technology allows a large number of participants to access the data at any time they want. When checking a customer's profile, there is no need to go through the entire verification process, he can use this tool to send verified identification information to other companies to sign new contracts. This speeds up the process of acquiring new customers and increases efficiency. Another way to attract customers is to increase transparency, as well as provide consumer-understandable tariff-setting schemes and mechanisms for making insurance payments. For example, the startup InsureETH has demonstrated a

blockchain-based scheme for air passenger insurance using smart contracts. In insurance contracts, in the event of flight cancellations or delays, insurance payments automatically begin. Flight information comes from trusted sources and is processed using data from external sources using a tool called an oracle, which adapts it for later use on the blockchain.

As the President of our country Sh.Mirziyoyev noted at a meeting on the development of the insurance market on July 10, 2019 with the heads of insurance organizations: "Insurance services are one of the tools to protect the economy from various financial risks. However, the role of these services in the financial market of our country is still insignificant. The share of this industry in the GDP of our country is only 0.4%. For comparison: in South Korea this figure is 11%, in Germany - 6%, in Russia - 1.5%. One of the problems in this industry is that insurance services are not attractive enough. Over the past six months, 887 billion soums of insurance premiums were collected, and the volume of paid insurance compensation amounted to only 11% of the premium. In the world, this indicator averages 50-60%"[6].

With this in mind, the time has come to completely reform the insurance market, which is difficult to accomplish without the transition to digital insurance services, without the use of new information platforms and the introduction of innovative insurance products in the insurance market of Uzbekistan.

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