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INSURANCE DEVELOPMENT TRENDS IN THE DIGITAL ECONOMY IN THE REPUBLIC OF UZBEKISTAN

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Abstract

the article discusses the current areas of risk insurance in order to improve information security in the context of the development of the digital economy. Possible mechanisms of insurance protection of information security are outlined.

Keywords: digital economy, information security, insurance market, insurance activity, financial system, insurance, information risks.

The spread and improvement of digital technologies affects the development of industrial relations, the structure of the economy and education, determines new requirements for communications, computing power, information systems and services. In modern conditions, the dynamic development of markets and areas of activity is hardly possible without developed platforms, technologies, institutional and infrastructure environments.

The process of digitalization of the economy has a significant impact on the activities of insurers - business entities engaged in insurance activities, which are the main participants in the insurance market.

Digitalization determines the interest of insurers in basic innovations. In order to simplify insurance processes and mechanisms, they are increasingly using digital technologies. Such technologies include, in particular, automation, chatbots (chatbots), cloud computing (cloud computing), technologies with elements of artificial intelligence (artificial intelligence).

The purpose of the activities of insurance companies should be aimed at meeting the needs of insurers, whose expectations have also changed due to the digitalization of the economy. Consumers want ease of use (one-click shopping), 24/7 access, and fast delivery; clear and understandable information about the product and its properties; innovative personalized services delivered through digital technologies. In the short term, the achievement of such goals provides an opportunity for the insurer to increase its profits. At the same time, the introduction of digital technologies makes it possible to reduce costs when promoting goods in the value chain. Thus, automation of processes can lead to a reduction in the costs associated with the processing of insurance claims by more than 30%.[1].

Benefits in the long run are associated with the introduction of innovative insurance products and protection services. The problem of cybersecurity leads to an increase in the demand of companies, households for products that prevent or protect against data loss and subsequent losses. In addition, most of the products are used in the sharing economy, which is now growing rapidly - for home owners who become owners of the hospitality business when they host a guest through the use of Airbnb, etc.

The new needs of insurers driven by the digitalization of the economy, together with new technologies,

1. [1]Commercial insurance: innovating to expand the scope of insurability. Sigma, Swiss Re Institute, No. 5/2017. - [Electronic resource]. URL:http://media.swissre.com/documents/sigma5_2017_en.pdf (accessed 04/04/2018).

provide significant growth opportunities for insurance companies. However, complex regulation has been and remains a significant obstacle to entry of new insurance companies into the market. The size of companies operating in the insurance market, the reluctance of consumers in the field of property insurance, accident insurance (property and casualty, P&C) and, especially in the field of life insurance, to change insurers, leads to difficulties for new entrants, prevents them from quickly occupying their market share. In addition, incumbent insurance companies have significant capital reserves, unlike start-ups, they are characterized by exceptional insurance skills based on many years of experience and a large amount of market data.[2].

The above explains why the digital “development” of the insurance industry as a whole is “late” compared to other industries. However, today the situation is changing. The funds that are directed to the industry by investors indicate that it is no longer considered as "impenetrable". To date, there has been a significant increase in investment in the activities of Insurtechs - technology companies, the development of which began with the growth of the digital economy. The main goal of their activity is the development of IT solutions for the insurance industry. They got their name by analogy with FinTechs companies - financial technology companies that develop IT solutions for the financial industry, in particular, banks.

In some countries, with the advent of Insurtechs, regulatory barriers to market entry have been lowered. For example, in Australia, Singapore, and the UK, such companies were able to implement innovative business plans in certain market segments without fully complying with regulatory requirements, unlike existing market participants.

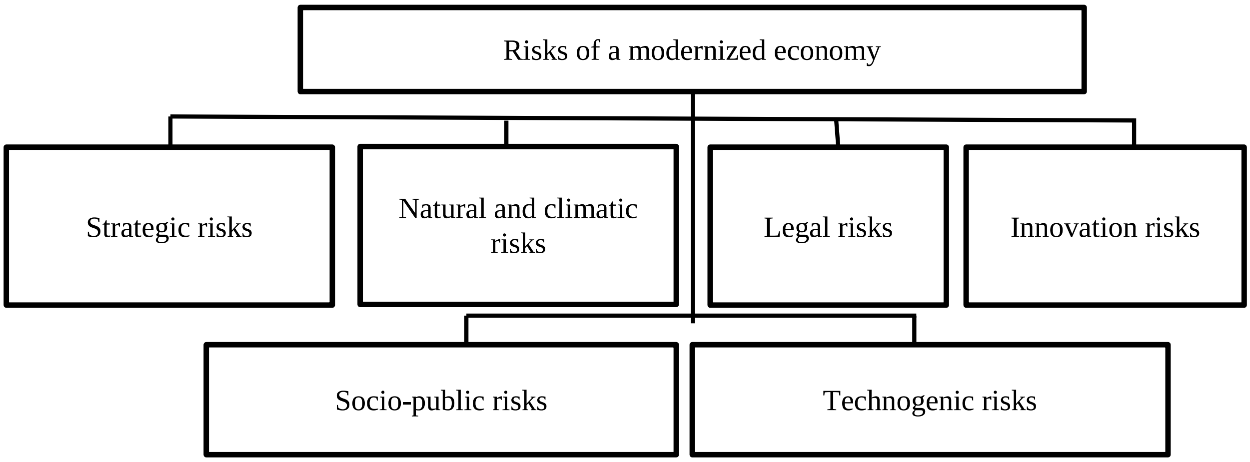
At the same time, the most successful venture projects of Insurtechs were reoriented from financing risky projects at an early stage (seed and venture-capital) to financing advanced research (advanced funding). The average volume of investments per one such company increased 5 times, from $5 million in 2011 to $22 million in 2015.

Although the US was the first market for Insurtechs, only 46% of these companies are located in the region, according to McKinsey. Another 40% are located in Europe, the Middle East and Africa. After the US, the second and third places in terms of the number of registered Insurtechs are occupied by the UK and Germany. The countries of the Asia-Pacific region account for about 14% of registered Insurtechs, however, a significant increase in their number in this region is expected.

Simultaneously with the large-scale modernization of the economy and the formation of an efficient market economy, the risk environment of individuals and legal entities is changing, it is becoming more complex, new risks appear, as a result of the interaction of which with existing risks, the severity of the consequences of risk realization increases.

The risks of a modernized economy are extremely diverse, ranging from strategic risks to technogenic risks (Fig. 1).

[2]Catlin T., Lorenz JT Digital disruption in insurance: Cutting through the noise. - McKinsey, 2017. - 59 p.



Rice. 1. Map of the main risks of the modernized economy[3]

In the context of economic modernization, approaches to the organization of risk management for individuals and legal entities are radically changing.

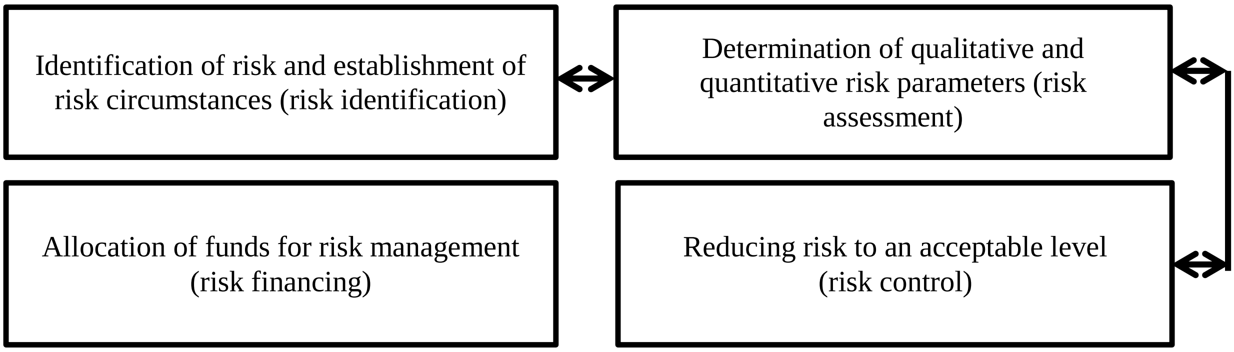
At the same time, we accept as a working hypothesis that the effectiveness of the risk management system for individuals and legal entities in the conditions of a modernized economy is largely determined by the quality and completeness of the stage of risk identification and analysis, and a more preferable method of managing the risks of individuals and legal entities, where this the stage of risk management for individuals and legal entities is carried out at a professional level by trained people according to established methods.

The development of insurance as an element of the risk management system for legal entities and individuals is determined by the characteristics of the main processes occurring in risk management (Fig. 2). At the same time, these processes follow one from the other, they do not have a clear hierarchical order and differentiation, they are characterized by strong mutual influence.

The main goal of identifying and analyzing risks is to form a complete picture of risks that threaten business, property interests of individuals and legal entities, obligations arising in the process of relationships in the implementation of business processes, third-party rights, human life and health, etc. The most professional and qualified process of identifying and analyzing risks is implemented with such a risk management method as insurance, since the effectiveness of the insurance business depends on this.

All of the above makes it necessary to improve the quality of underwriting - professional implementation of the processes of identification and analysis of risks offered in insurance in order to determine the possibility and conditions of their insurance. At the stage of modernization of the economy, the main functions of underwriting in insurance are the determination of profitable areas of the insurance business and the consideration of new risks or risk groups in order to determine the possibility of insuring them on individual terms.

[3]Developed by the author



Rice. 2. Basic risk management processes[4]

The first function of underwriting is implemented through the development of basic insurance products in the main areas of the insurer's activities and training of the insurer's personnel involved in the conclusion and execution of basic insurance contracts, with constant risk control.

The second function of underwriting is the professional insurance expertise of new risks in order to determine the fundamental possibility of their insurance and the optimal terms of the insurance contract.

To use insurance as an effective method of risk management for individuals and legal entities at the stage of modernization of the country's economy, an appropriate quality of risk management of the insurer itself is required, namely, solvency and compliance risk management. The main function of managing compliance risks in insurance is regulatory, i.e. ensuring that the insurance company and its employees comply with the established norms and current legislation. The purpose of compliance risk management in insurance is to prevent possible risks and losses for the insurance company due to violations of certain rules and regulations.

At the same time, solvency risks can be managed directly by the insurer, and compliance risks are determined by the state and prospects for the development of the system of state regulation of insurance activities as an element of the risk management system for legal entities and individuals.

Analysis of the current state of the system of state regulation of insurance activities as an element of the risk management system for legal entities and individuals through the legislative establishment of rules, norms and standards binding on its participants, licensing of insurance activities, establishing standards for the financial stability and solvency of insurers made it possible to formulate the basic norms of civil, administrative, state, financial and international law in the field of insurance business and determine the sources of compliance risks (regulatory risks) for domestic insurers.

As a working hypothesis, our study adopted the thesis that the domestic insurance market as an industry market for the country's financial market is a set of professional participants in insurance activities interacting in the technological, informational, economic and managerial spheres. At the same time, it is assumed that the insurance market is in the process of endogenous evolutionary development, the driving factor of which is its inherent internal problems, processes and contradictions, and should be studied as a system that is in the process of dynamic development. Promoting economic growth and development, the insurance market, its state, structure, scale and variety of functions, in turn, are a reflection of the development of the country's economy, the quality of its institutions, and the business climate.

Historical analysis of the development of insurance in Uzbekistan made it possible to identify the following periods:

- the first period - the early Middle Ages, was characterized mainly by mutual non-commercial insurance of trade operations;
- the second period - the period of Amir Timur's rule - the beginnings of state property and personal insurance were created;

[4]Developed by the author

● the third period - the period of early capitalism, before the revolution of 1917 - on the territory of modern Uzbekistan, commercial insurance is carried out by foreign insurers, the insurance needs of the main segments of the population were satisfied through non-commercial mutual insurance;

●Fourth period - the Soviet period of existence of Uzbekistan - the monopoly position of the State Insurance, insurance of property interests of individuals and cooperatives. State property was not insured;

●The fifth period is the period of development of the insurance market of independent Uzbekistan, which includes five stages of reforming the domestic insurance market.

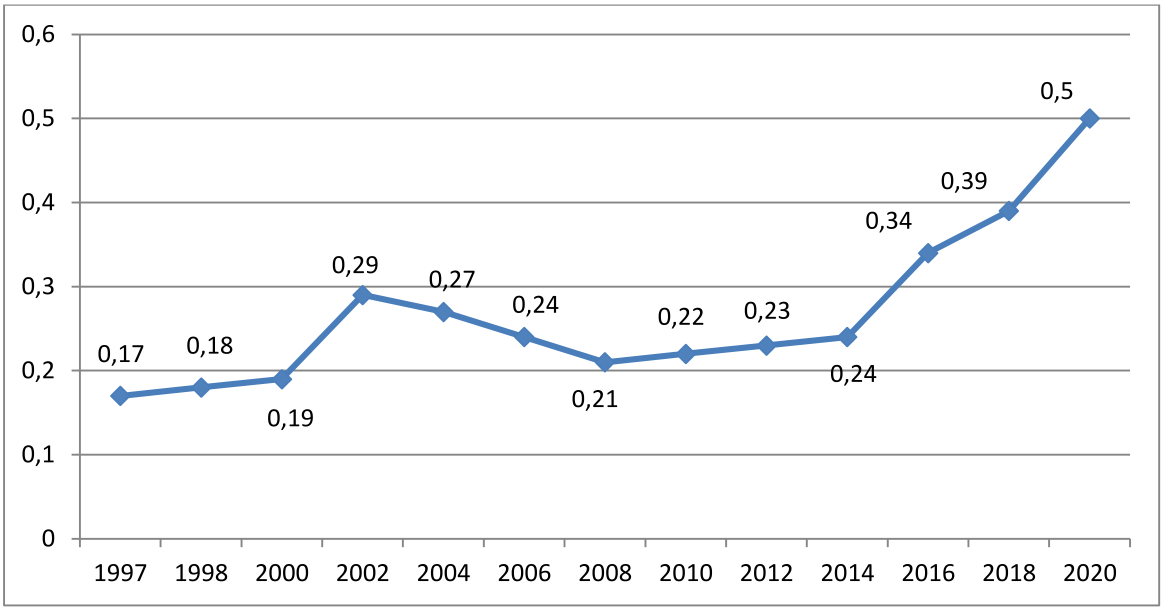
At the first stage of reforming the insurance market of Uzbekistan, the state chose a course towards the creation of insurance companies with state participation or wholly owned by the state while maintaining the positions of Gosstrakh; activity, first of all licensing of insurance activity of insurers and insurance brokers. The fourth stage of reforming the insurance market of Uzbekistan is associated with the implementation of measures provided for by the decree "On measures to reform and ensure the accelerated development of the insurance market of the Republic of Uzbekistan"5. The fifth stage of reforming the insurance market of Uzbekistan began in February 2022 with the entry into force of a new version of the Law of the Republic of Uzbekistan "On Insurance Activities" and continues to this day.

Western commercial insurance appeared on the territory of modern Uzbekistan simultaneously with its colonization by Tsarist Russia. The needs for insurance protection of the local population were met through a local form of non-commercial mutual insurance on the basis of complicity (hashara). During the Soviet period of the country's development, obligatory types of insurance and accumulative insurance were mainly developed, due to the presence of a significant unsatisfied demand. Also in the Soviet period of the country's development, mutual assistance of the population on the basis of complicity was widely practiced.

As a result of the research, it was found that the state of insurance in the periods immediately preceding the independent development of the country did not contribute to the development of an insurance culture, did not take into account local characteristics and did not lead to the creation of a national insurance model.

The most important macroeconomic indicator of the significance of insurance as an element of the risk management system for legal entities and individuals is the ratio of total insurance premiums to gross domestic product (insurance penetration indicator). The highest value of this parameter is observed in countries with a developed economic system USA (insurance premiums amount to 14.0% of GDP), Great Britain (13.8%), France (11.5%), Germany (9.5%), Japan (7 .6%). In emerging economies it is from 5.4% to 1.7% of GDP, for example, in Malaysia 5.4%, China 4.3%, India 3.8%, Turkey 1.7%. In Latin America, it ranges from 4.0% to 1.4%, these are Chile (4.0%), Colombia (3.1%), Mexico (2.6%), Guatemala (1.4%). In the post-Soviet countries, the indicator ranges from 5.8% to 0.5%, in Slovenia 5.8%, the Czech Republic 2.9%, Poland 2.7%, Hungary 2.5%, Russia 1.5%,for several years was in the range from 0.32 to 0.5% (Fig. 3).

[5] Decree of the President of the Republic of Uzbekistan dated August 2, 2019 No. PP-4412 "On measures to reform and ensure the accelerated development of the insurance market of the Republic of Uzbekistan" https://lex.uz/docs/4459812



Rice. 3. Share of GNP in GDP (%)[6]

The conducted studies made it possible to establish that the state of the insurance market of Uzbekistan today is characterized by the following positive trends:

- high rates of growth in the volume of the total insurance premium (an average of 43% annually for 2017-2021) (Fig. 4);

- the presence on the market of 40 insurance companies in the general insurance industry, including three of them with state participation, which have been operating in the domestic insurance market for more than 20 years and are actually national brands - the joint-stock companies "Uzagrosugurta", "Kafolat" and the company export -import insurance "Uzbekinvest", as well as 8 companies in the life insurance industry;

- a sufficiently high degree of presence of insurers through branches, representative offices and a network of insurance agents in all regions of the country;

- the presence of a large number of insurance agents (more than 7 thousand).

The state of insurance as an element of the risk management system makes it possible to attribute the insurance market of Uzbekistan to the so-called "soft" insurance markets, which are characterized by a relatively large number of participants and low insurance premium rates. The structure of the insurance market for 2019-2020 is shown in Table 1.

[6]Built by the author based on the data of the site www.mf.uz

Rice. 4. Dynamics of the main indicators of the insurance market of Uzbekistan (the level of 1997 is conditionally taken equal to 1)[7]

The history of the development of scientific and applied approaches to the problem of solvency and financial stability of insurance companies is widely covered in the works of a number of economists.[8], in the documents of such international organizations as the International Association of Insurance Supervisors[9], International Actuarial Association[10], European Insurance and Occupational Pensions Authority[11], International Monetary Fund[12]and etc.

Table 1.

Structure of the insurance market of the Republic of Uzbekistan for 1998-2020[13]

Of the year	**Number of insurance companies**	**including life insurance**	**Aggregate authorized capital of insurance organizations (in million US dollars)**	**Number of insurance brokers**	**Number of certified actuaries**	**Number of insurance agents**	**Number of insurance surveyors and adjusters**	**Number of assistant service**
1998	27	-	89.2	-	-	3265	-	1

[7]Built by the author based on the data of the site www.mf.uz

[8]Sandström Arne, Handbook of Solvency for Actuaries and Risk Managers: Theory and Practice - 2010; Orlanyuk-Malitskaya L.A. Solvency of the insurance company. M.: Publishing # center "ANKIL", 1994. - 151 p.; Malinovsky V. Some questions of the study of the solvency of insurance companies // Insurance business. 1995. - No. 6. - p. 46-52; Lelchuk, A.L. A modern approach to assessing the solvency of an insurance company / A.L. Lelchuk // Finance. – 2013. – No. 6. – P. 45 – 46. – ISSN 0869-446X

[9]On Solvency, Solvency Assessments and Actuarial Issues. IAIS Sub-Committee on Solvency and Actuarial Issues Paper. Final Version-15 March 2000

[10]A Global Framework for Insurer Solvency Assessment. 2004. International Actuarial Association, Ontario

[11]EIOPA, “Technical Provisions – Article 86 (d) - Calculation of the Risk Margin”, October 2009,

[12]Insurance and Issues in Financial Soundness. IMF working party. https://www.imf.org/~wp03138.pdf

[13]Built by the author according to the site www.mf.uz

2000	27	-	71.3	-	-	4167	-	1
2002	28	-	65.1	1	-	4508	4	2
2004	21	2	71.1	1	1	4650	4	2
2006	25	2	80.9	2	1	4700	4	2
2008	31	2	96.5	3	1	4280	4	4
2010	34		125.6	3	2	6753	4	4
2012	33		145.8	3	2	7100	12	4
2014	31	3	149.0	3	2	5800	15	6
2016	29	3	137.1	3	4	5800	12	6
2018	30	6	125.1	4	4	8700	18	6
2020	40	8	137.4	5	5	8870	18	6

In the current solvency system of the EU countries, much attention is paid to the capital requirements of Solvency II insurers, the main goal of which is to form a unified system for regulating capital adequacy and ensuring compliance with risk management standards[14].

Digital technologies open up new pricing models. New financial products (eg insurance ecosystems) and new technologies (eg insurtech) are entering the market. The insurance industry is diversifying, with e-commerce, bank insurance, retailers and other non-traditional players offering innovative new business models and products.

In the context of economic modernization, the national model of insurance protection of property interests of individuals and legal entities

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