DOI 10.31489/2020Ec1/111-120
JEL G22 O30
UDC 368

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Digitalization of the insurance industry of Kazakhstan: problems, digital technologies, development paths

Abstract

Object: The purpose of the study is to justify the objective need to transform the insurance industry of Kazakhstan using new technological digital solutions and to study the problems. According to the results of the study to consider reforming the insurance using digital technologies.

Methods: During the study, the author used methods: observation, generalization, comparison, analysis, systematic approach, systematization of the materials, processing.

Results: The article explores current trends in the insurance industry of Kazakhstan, using digital technologies. The concept of "digital insurance" is substantiated, the main factors of digitalization of the insurance industry are determined. Business processes of insurance activities of the company, which are subject to the use of digital technology, are specified. Digitalization implementation issues in the domestic insurance market are analyzed and priorities are identified.

Conclusion: The author argues that the digital economy is a future economic model based on new productive forces. In this aspect, the issues of integrated digitalization of the financial (insurance) sector of the economy are relevant. The trends in the modern development of financial digitalization will radically change the regulatory functions of the state in the financial sector, the relationship between consumers of financial services and suppliers, creating new competitive opportunities.

Keywords: digitalization, online insurance, internetization, large numbers (BigData), Internet resources, databases, blockchain technology, information and communication interaction.

Introduction

Digitalization of the economy is an inevitable objective process of development of the national economy in the conditions of a new technological structure, which is based on new productive forces that realize a higher level of productivity. In previous technological systems, such forces were the first steam engines, weaving machines, in the next ones — electricity, computers, and in the last technological mode, they are information technologies, which in turn cause new production relations related to digital technologies in the socio-economic life.

The idea of technological transformation has changed not only the approach to carrying out routine household tasks of a person, but also the economic course of development of entire countries. Digitalization of the economy is much wider than just the use of electronic services, the concept covers the entire system of economic relations, which is based on the use of information and communication technologies. The concept of the digital economy appeared in the last decade of the 20th century, it is connected with the name Nicholas Negroponte, who used the hypothesis of the transition from processing physical properties (atoms) to processing numbers (unit of information is bits) (Negroponte, 2013). One of the advantages of digital data over analog is that, signals can be transmitted without distortion, instant global movement (Horowitz and Hill, 1989).

Many experts believe that new information technologies using Internet resources can qualitatively develop the traditional economy, increase labor productivity, achieve competitive advantages, decentralization and simplify the control of analysis of the main processes.

In accordance with world trends, the objective need for digitalization of the national economy, including financial industry, is in demand in Kazakhstan. The development level of the digitalization of insurance market is inextricably linked directly to the state of technologicalization of the digital economy in the country. For a developing country like Kazakhstan, the digital transformation of the country's financial system using new digital technologies allows us to raise economic relations in the financial services sector to high standards of national economic growth, which confirms the relevance of the study of the development of digitalization of the insurance industry in Kazakhstan.

Literature Review

The process of digitalization throughout the world actively penetrates into the socio-economic life of almost all countries in the world that implement national programs of digital development. The digital economy acts as a new type of management based on information processing for management in all cycles of social production and consumption.

Radical changes are taking place in the financial (insurance) industry, and, in general, in the economy. New technological solutions based on digital innovations are being introduced, new terms and concepts, such as Internetization, the digital economy, digitalization, recyclability, Big Data and others are being introduced into the practical and scientific environment. As scientists and experts note, "digital transformation (or digitalization) is a ubiquitous concept in the modern insurance business ecosystem" (Persson et al., 2018).

Digitalization introduces innovations, improvements in the activities of business, insurance companies aimed at changes in the insurance ecosystem, industries, management and competitiveness in the markets. All factors of the insurance environment, both external and internal, are reviewed. As noted in the article named "Digital insurance — customer expectation in a rapidly changing world" by M. Sebulsky, Jörg Gunther and others say, that "internal and external factors are the driving force behind changes in the insurance market. The emphasis in the insurance industry has shifted from managing the insurance sector itself to managing a flexible cross environment" (Cebulsky et al., 2017).

Digital transformations are being successfully implemented in many developed countries, such as Singapore, the USA, Japan, Germany, Denmark and others, in which almost all government services and industries have been switched online, smart projects are being implemented, etc. Emerging markets are also starting to solve digitalization problems in order not to lag behind in national development. The relevance of the study of insurance markets becomes apparent, as noted in the materials of the Swiss Forum on Risks and Insurance, which summarizes the main trends in the development of modern insurance and discussion of digitalization and the insurance sector (Albrecher et al., 2019).

Leading experts, in particular, German Gref (the head of Sberbank), Christine Lagarde (IMF) and others, are already talking about this trend at all levels. In the context of digitalization, the infrastructure of the financial systems of countries will change, basic elements will appear on digital platforms, more advanced digital currencies will be used instead of the national money from a single emission center — they will be replaced by national cryptocurrencies, also regulated by the state, but used in a decentralized manner. Business processes in insurance are also undergoing dramatic changes.

According to Russian scientists (A.A. Tsyganov, D.V. Bryzgalov), it is assumed that "digital insurance" is a way to satisfy the traditional or specific (generated by digitalization) need for insurance protection through digital technologies.

In the scientific works of foreign and domestic scientists, experts in the field of insurance, such as A. Kappello, N. Albrecher, A. Bommier, M. Persson, S. Grundstrom, Jorg Gunther, M. Cebulsky, P. Heidkamp, M. Eling, K. Lehmann, O. Krasilnikov, A. Tsyganov (Tsyganov, Bryzgalov, 2018; Bejsembaj, 2019; Akhmetova et al., 2019; Zhartaj et al., 2019) and others, it is noted that the principal factors of digitalization of insurance are: the massive use of digital technologies, such as the Internet (Internetization); processing large arrays of numerical data; satisfaction of individual requests of the insured (individualization).

The so-called concept of "digital insurance" does not mean that a new type of insurance has appeared, but emphasizes the prevailing use of digital technologies in the insurance process. In practice, the term "electronic" insurance is often used. Often, some experts understand "digital insurance" as a narrower concept, such as the emergence of a set of new risks caused by information, digital, and electronic technologies, such as cyber risks, electronic commerce risks, cybercrime insurance, etc.

The main tools of digital insurance are: blockchain, processing of large arrays of numerical data (BigData), artificial intelligence, cloud technology, the Internet of things, with the help of which individual requests of the insured should be satisfied.

Current experience in the development of the Kazakhstani economy shows a complex backwardness in digital technologization, the filling of management and technological processes with digital content is extremely slow, and there is no systematic approach.

It can be assumed that the process of digital technologization was not given due attention by the state due to insoluble problems of an objective nature, although there are "points" of explosive growth in digital processes in some sectors of the economy that are predisposed to this. These serious problems are as follows:

1) unpreparedness of the national economy to introduce an integrated digitalization system due to objective factors of the technological backwardness of the economy;

2) underdevelopment of legislative support and infrastructure for the universal digitalization of technological processes;

3) problems of interactions between departmental databases (DB) and their intersectoral interoperability, lack of effective data storage security and cyber protection.

A new model of financial technologies, based on the transformation of the elements of a traditional economic model, is aimed at the formation of digital technological chains in all spheres of human activity and sectors of the economy. The corresponding specification is of a decentralized network nature, with a targeted focus on specification and individualization of the digital services provided.

In order to issue a digital policy as a final product, insurance as the most important link in the country's financial system cannot develop separately without interacting with information elements of the external digitalization environment. This requires an appropriate digital infrastructure. Digital (online) insurance is one of the links in digitalization. Digital (online) insurance is being implemented in Kazakhstan, as in many countries.

The main economic content of insurance remains unchanged, but the formation of new elements in insurance, the introduction of new innovative technological elements is in progress. Over its history, insurance has undergone several fundamental technological innovations, in particular, the introduction of actuarial calculations, which has become the basis of modern insurance business; the use of labor by insurance agents, which laid the foundation for mass insurance; the use of computers that have simplified the implementation of many business processes in insurance, etc.

Methods

To study the economic processes of the topic, the following forms and methods of scientific knowledge were used:

1) observation of the processes taking place in the context of the formation of new economic relations in insurance, in which there is a replacement of traditional elements with new digital business solutions based on technological tools;

2) generalization, comparison and systematization of the obtained materials, their processing through analysis methods and a systematic approach.

3) analysis in parts of the specific processes of the investigated object, to generalize and draw conclusions on the topic under study. Thus, the authors provided a systematic approach (integrated) to the complex multifactorial phenomena of the economic relations of digital insurance. Using a systematic approach, functional relationships, both direct and inverse, between variable factors were investigated.

4) elaboration of specific patterns of digital insurance new economic relations development, determination of trends and risks.

5) based on systematization of the data presented, proposals for development of digital insurance in the country are presented.

Results

At the heart of digitalization of the insurance market of Kazakhstan (early 2017–2018), as in many countries, business processes of an insurance company use Internet possibilities to the maximum. Digitalization of the insurance industry is a much broader concept than digital insurance or online insurance. In legislation practice in Kazakhstan, the term “online insurance” is adopted, which has a narrower meaning and involves the sale of insurance services via the Internet. Currently, the regulator and the market are discussing only the issues of creating and implementing an electronic policy of compulsory liability insurance of car owners (Compulsory insurance of ligal liability of vehicles owners — CILLVO), because of its mass character, social significance and obligatoriness.

One of the main infrastructural components of digitalization in Kazakhstan insurance is the interaction of information and communication links of the insurance industry with other information systems, such as databases of the Ministry of Internal Affairs, the Ministry of Finance, the State Revenue Committee, the judicial system, the Electronic Government Corporation public services, etc.

In the insurance market, the basis for information interaction is the Unified Database (UIDB — Unified Insurance Database) of insurance companies in Kazakhstan for collecting insurance information, created in the mid-2000s, using which bonus-malus discount systems are calculated using correction factors.

In the context of digitalization, the external and internal environment of digital insurance is changing, new conceptual changes in the management system and other issues are appearing, which is noted by many scientists (Cebulsky et al., 2017).

The external environment is a combination of factors and conditions affecting the competitiveness of the insurer in the market. External factors include the country's economic situation, market conditions, scientific and technological progress, government regulation (legislative support and the formation of the industry's digitalization infrastructure) and competitive insurance companies. To consider the possibilities of positive implementation of industrial digitalization, the level of state regulation, the state of technical equipment of an innovative nature, with favorable other environmental factors, are extremely important.

Internal factors affecting the effective operation of a company are administrative management, marketing, insurance product, profit, financial stability and solvency, pricing. Of the internal factors, decisive are qualified management personnel and the availability of innovative approaches to work.

Supplementing the contents of traditional insurance with new digital approaches makes it possible to significantly improve insurance conditions, reduce costs and tariffs, and flexibility in meeting customer requests.

In our opinion, digitalization of the insurance industry is a new level of economic relations regarding the purchase and sale of the insurance product (service) between the insurer and the insured using information and digital technological solutions, while maintaining the economic content of the concept of "insurance". The new concept of "digital insurance" emphasizes the predominant use of digital technology in insurance.

In practice, the Internetization of insurance activities is implemented in insurance companies in the country in the following areas:

– Internet sales of insurance services;

– settlement of insurance claims via the Internet;

– collection of information about policyholders via the Internet.

Using digital solutions in insurance, the increased use of the Internet by households, enterprises and the state leads to the emergence of new segments of the insurance market, such as cyber risks insurance, insurance of Internet of things, etc. Moreover, the implementation by insurance companies of only insurance activities using digital technologies is defined as the digitalization of the insurance market, which, in our opinion, isn't completely correct.

In the context of digitalization, the insurance market begins to actively use fundamentally new digital digitalization tools, such as blockchain technology, large numbers of data (BigData), artificial intelligence, cloud technology, the Internet of things, by which the satisfaction of individual requests of the insured is solved. In the world, the scope of digital technology is expanding in every way, e.g.:

1. In world practice, the most relevant 5 business projects using blockchain technology in the insurance industry are currently known: Etherisc. Medishares PAL Network. Teambrella VouchForMe (Novikova, 2019).

2. The use of Big Data technologies by insurers in the areas of insurance activities, such as risk assessment, prevention and combating insurance fraud, automation of routine operations in insurance, to individualize insurance needs, is based on an analysis of all parameters of human life (big data about client behavior) Machine Learning Models for insurance risk assessment (Novikova, 2019; Vichugova, 2019; Eling, Lehmann,2018). In addition, the experience of Latvian insurers in studying the impact of digitalization on the development strategy of Latvian insurance companies and the perception of customer values and preferences in the digital transformation era is also interesting (Voronova et al., 2018).

3. AIG conducted a study on the experience of large companies that implement the "Internet of things" technology (IoT). Thus, an annual 20 % growth of the Internet of Things market is forecasted, meaning that by 2020, the contribution of IoT-technologies to the world economy will amount to US $15 trillion. By this time, 50 billion devices will be connected to the Internet (Sean Dubrawak, 2016).

The study predicts that in the future, risk assessment through the introduction of the Internet of Things will become better. The introduction of the Internet of Things technology in insurance will contribute to the development of new innovative insurance products, services and working methods.

4. A leading insurance company American International Group, Inc (AIG), one of the world leaders in the field of personal and property insurance has the practical use of "cloud" technology. The company implemented virtualization technology using the Global Infrastructure Unity (GIU) project to transfer all applications and databases of branches, AIG offices, to a corporate "cloud" data center. In Europe alone, over the past six months, within the framework of the GIU project, more than 800 insurance programs and databases from the countries where the company operates have been transferred to the field of "cloud" technologies (Lagutenkov, 2018).

5. The insurance sector is heavily dependent on large amounts of data processing and diversity, and data processing underlies intelligent information technology. Many insurance companies channel funds to expand digital capabilities in the field of artificial intelligence. According to Novarica, approximately 20 % of the IT budgets of insurers for 2019 are intended to improve analytical tools and accounting systems (Shepelin, 2014).

Insurtech companies, which develop many innovative solutions and insurance services, begin to play an important role in world insurance practice. Insurtech, in its technological innovations, forms the basis for individualization and customer focus using data and digital platforms.

The main trends of 2019 in the developed insurance markets of the world, reflecting the general direction of digitalization of the insurance industry according to the Hannover Re report, are as follows (Allinsurance.kz, 2019):

1) insurtech startups are actively developing and offering their solutions, and the leading insurers in the world acquire and implement them, competing for customers.

2) InsurTech will build infrastructure for new insurance services in China. According to a joint report by ZhongAn Research Institute ZhongAn FinTech and professional service firm KPMG China, the significant growth in Internet technology and the development of InsurTech in China prepared the key infrastructure for creating a "new insurance" that is driven by emerging technologies such as big data, cloud computing, AI, the Internet things and blockchain (Allinsurance.kz, 2019).

3) the largest insurance company Manulife (Canada) is collaborating with Insurtech Blink on the development of parametric travel insurance against crash during travel to its customers.

4) a Japanese general insurance company has partnered with Singapore's Insurtech Plug and Play program to enable Tokyo Marine to gain access to the Plug and Play network and work with startups from the Asia-Pacific region to test and implement products in all of its offices in Southeast Asia..

5) Australia has expanded industry collaboration last year, with a 53 % increase in the number of InsurTechs operating between insurance companies and InsurTech companies.

6) Chinese insurer ZhongAn Online P & C Insurance is working with Digital Insurance Agenda (DIA) to promote the development of InsurTech worldwide, Shanghai Daily reports. Zhong An is the first digital insurer in China, DIA is a major InsurTech conference headquartered in Barcelona.

7) Insurtech insurance premiums will exceed US$400 billion by 2023, according to a new study from Juniper Research U.K, compared with about US$187 billion expected in 2018 (Allinsurance.kz, 2019).

Current trends in the implementation of digital technologies in insurance (InsurTech) are considered in the studies of many foreign scientists and experts. In particular, the analysis of digital technologies on the competitiveness of insurance markets pays special attention to the competitive opportunities of InsurTech implementation for existing insurers in the book by A. Cappello (Cappiello, 2018; Albrecher et al., 2019).

Discussion

According to the author, digitalization of the insurance market is a completely new level of industrial relations in the insurance process, because digitalization of business processes of insurance activity is taking place. The regulator represented by the National Bank has established a number of requirements for building and shaping IT systems of insurance organizations. This led to the fact that market participants began to make decisions on digitalization of business processes, introduced new systems. In modern Kazakhstani reality, the business processes of insurance activities of an insurance company through Internet technology are as follows:

1. Organization of information and communication interaction with potential clients — insurers (informing, polls, consultations, etc.).

2. Issuance of electronic policies, related procedures for identification and authentication;

3. Automation of a damage calculation, preliminary risk underwriting, implementation of insurance claims. Visualization and inspection of an insurance event, assessment and calculation of damage, insurance event, digitization of the relevant documents of an insurance event;

4. Maintaining a database of insurance statistics. Formation and interaction with the UIDB database;

5. Automation of the calculation of the insurance rate using large numbers of insurance statistics;

6. Organization of methods for protecting the company's Internet resource, information confidentiality;

7. Organization of information exchange with other information databases (Ministry of Internal Affairs, Ministry of Finance, etc.). Maintaining confidentiality of data exchange rules;

8. Maintaining and updating information on an insurance company website.

To purchase an insurance policy on the website of an insurance company, a policyholder can carry out the following procedures:

1. Choose a specific insurance product, familiarize yourself with the terms of the insurance rules;
2. Fill out an application for insurance, fill out a questionnaire and other necessary documents for applying for an insurance policy (scanned copy of the vehicle data sheet, identity card of the insured and others);
3. Get a calculation of the insurance services cost and pay the insurance premium (or part thereof);
4. Get an insurance policy (insurance contract), through electronic digital printing (EDS) or in a traditional way;
5. In the course of the contract, make changes through the Internet;
6. Submit claims about the insurance event;
7. Receive the amount of insurance payment.

According to Kazakhstani legislation, the insurance contract is subject to conclusion using the electronic digital signature (EDS) of the insured, taking into account the requirements established by the Law of the Republic of Kazakhstan dated January 7, 2003 "On electronic document and electronic digital signature" (Zakon Respubliki Kazahstan "Ob jelektronnom dokumente i jelektronnoj cifrovoj podpisi", 2003). Also, the relevant notification of the UIDB on the conclusion of the insurance contract to the insured in the form of an SMS message, an electronic message to the specified email address (if any) upon receipt of information on the conclusion of the insurance contract in electronic form.

In current conditions of transition to active digitalization of most insurance operations, the positive factors are:

1) an increase in the number of Internet users in insurance;
2) the formation of legislative acts introduced into the current insurance legislation governing the interaction of the insurer and the policyholder through the Internet;
3) lower costs for insurance transactions, higher profitability of online sales of insurance services;
4) opportunities to settle insurance claims via Internet;
5) individualization of the needs of the insured to meet them, due to more innovative technologies of large numbers of data (Big Data);
6) new opportunities for remote settlement of damages and, consequently, losses.

Negative factors hindering the development of digital insurance are:

1) weakness of the current legislative regulation of Internet trade in insurance services in Kazakhstan;
2) lack of infrastructure component for online commerce;
3) a low existing level of insurance culture and a small share of the prevalence of the conclusion of insurance via the Internet;
4) insurance fraud issues in the country;
5) insufficiency of efforts of insurance companies and the regulator to intensify the Internet sales of mass types of compulsory insurance, like public liability of vehicle owners;
6) solving problems of high loss ratio on liability insurance, due to elimination of commission fees of intermediary services in this type of insurance;
7) low level of public confidence in the insurance mechanism.

The issues of introducing a digital insurance policy today encounter a number of serious difficulties that are being worked on by both the national regulator, insurance companies, and other participants in the national insurance market:

1. Problems of data security, identification and authentication of the policyholder, confidentiality and data protection;
2. Ensuring the reliability of the UIDB data, with which all intermediary agents could previously work, not observing the requirements of reliability;
3. The existing UIDB database must undergo drastic changes in order to meet the requirements of the digitalization of the insurance industry, as an infrastructure component in the information integration of government agencies, within the framework of Digital Kazakhstan;
4. An important aspect is the creation of a unified database of accounting for insured events to suppress the facts of insurance fraud;
5. To effectively digitalize the industry, one should start using blockchain technology to record insurance contracts and insured events;
6. Using BigData to analyze insurance statistics and digitized customer stories will allow insurance organizations to create personalized offers, thereby increasing loyalty to their insurance brands.

Such measures as creation of the aforementioned databases with distributed records of blockchain technology, the use of large numbers of data (BigData) allow to raise the level of national insurance to a qualitative level, increase competitiveness and confidence in the industry, reduce the number of fraud cases.

Conclusion

As a result of the study, the following conclusions were drawn and proposed for implementation of the priority tasks of digitalization in the field of insurance and insurance activities of the national insurance market:

1. Automation of routine business processes of insurance companies insurance activities. Insurance companies are actively starting to use the latest innovative developments using information and digital technologies. First of all, the most routine insurance processes are automated in the insurance market. The opportunities of digital technologies are used to implement productive communication with potential customers. We propose customer communication projects (non-contact cold sales, reminders, polls), including the implementation of insurance products in popular mobile applications, insurers' websites.

2. Automation of the processes of preliminary underwriting of risks when concluding an insurance contract, conditions of insurance compensation, organization of insurance document management, assessment and examination of damages and the process of compensation for losses. Optimization of processes will lead to a reduction in the cost of insurance services, and, this is a reduction in insurance rates.

In general, focused work is being formed to meet the needs of the client, improving the quality of the service, i.e. satisfaction of individual customer requests (individualization).

3. In addition to organizing insurance compensation processes, automation of customer service issues (new types of services of the insurer) is required, including finding convenient car services and car repairs after an accident, auto-expert services and creating a car service history. The process of damages for motor insurance, as the most developed and mass, will allow insurers to show the level of competitiveness and optimize costs.

4. Marketing research of the insurance process in the new conditions of digitalization of the market is undergoing dramatic changes. New marketing actions arise when the insurance company will need to quickly, than other competitors, find a client through an online resource.

In particular, as noted in the article “regarding marketing automation for visitors who have not left personal data on the site; service for psychological segmentation of the client base in order to reduce the loss of the insurance portfolio and increase the response to the advertising proposal; neuromarketing research; application for measuring and increasing customer loyalty using artificial intelligence; a system for analyzing the psychographic portrait of users of social networks for personalized communication, assessing credit and insurance risks” (Allinsurance.kz, 2019).

The world experience of different countries shows that in the insurance market various directions of insurance projects of Insurtech company aimed at improving the efficiency of insurance are beginning to actively develop. The Kazakhstan insurance market should form a digital infrastructure, attract digital startups, new technological solutions using digital tools.

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Қазақстанның сақтандыру саласын цифрландыру: мәселелері, цифрлық технологиялар, даму жолдары

Аңдатпа

Мақсаты: зерттеудің мақсаты жаңа технологиялық цифрлық шешімдерді қолдану және мәселелерді зерттей отырып, Қазақстанның сақтандыру саласын түрлендірудің объективті қажеттілігін негіздеуден тұрады. Зерттеудің нәтижелері бойынша цифрлық технологиялардың көмегімен сақтандыруды реформалауды қарастыру.

Әдісі: зерттеу барысында келесідей әдістер қолданылды: бақылау, жалпылау, салыстыру, талдау, жүйелік тәсілдеме, ақпараттарды жүйелеу, өңдеу.

Қорытынды: мақалада цифрлық технологияларды колданумен Қазақстанның сақтандыру саласының заманауи үрдістері зерттелген. Сақтандыру саласын цифрландырудың негізгі факторлары анықталып, “цифрлық сақтандыру” ұғымы негізделген. Сақтандыру компаниясындағы цифрлық технологияларды қолдануға жататын сақтандыру қызметінің бизнес-процестері нақтыланған. Отандық сақтандыру нарығында цифрландыруды енгізу мәселелері талданып, бірінші кезекті міндеттер анықталған.

Тұжырымдама: автормен цифрлық экономика — бұл жаңа өндіргіш күштерге сүйенетін болашақ экономикалық модель екені туралы дәлелдер келтірген. Осы аспектіде экономиканың қаржы (сақтандыру) секторын кешенді цифрландыру сұрақтары өзекті болып табылады. Қаржылық цифрландырудың заманауи даму үрдістері жаңа бәсекелестік мүмкіндіктерді қалыптастыра отырып, мемлекеттің қаржы саласындағы реттеуші қызметтерін, қаржылық қызметтерді тұтынушылар мен жеткізушілер арасындағы қатынастарын түбегейлі өзгертетін болады.

Кілт сөздер*:* цифрландыру, онлайн-сақтандыру, интернетизация, үлкен сандар (Big Data), интернет-ресурстар, дерекқор, блокчейн технологиясы, ақпараттық-коммуникациялық өзара әрекеттестік.

А.К. Сембеков

Цифровизация страховой отрасли Казахстана: проблемы, цифровые технологии, пути развития

Аннотация

Цель: цель исследования состоит в обосновании объективной необходимости трансформации страховой отрасли Казахстана с применением новых технологических цифровых решений и исследования проблем. По результатам исследования рассмотреть реформирование страхования с помощью цифровых технологий.

Методы: в ходе исследования использованы методы: наблюдение, обобщение, сравнение, анализ, системный подход, систематизация материалов, обработка.

Результаты: в статье исследуются современные тенденции страховой отрасли Казахстана, с применением цифровых технологий. Обосновано понятие "цифровое страхование", определены основные факторы цифровизации страховой отрасли. Конкретизированы бизнес-процессы страховой деятельности компании подлежащих к использованию цифровых технологий. Проанализированы проблемы внедрения цифровизации отечественного рынка страхования и определены первоочередные задачи.

Выводы: автором приведены аргументы о том, что цифровая экономика — это будущая экономическая модель, опирающаяся на новые производительные силы. В этом аспекте актуальными являются вопросы комплексной цифровизации финансового (страхового) сектора экономики. Тенденции современного развития финансовой цифровизации кардинально будут менять регулятивные функции государства в финансовом секторе, отношения между потребителями финансовых услуг и поставщиками, формируя новые конкурентные возможности.

Ключевые слова: цифровизация, онлайн-страхование, интернетизация, большие числа (BigData), интернет-ресурсы, базы данных, технология блокчейн, информационно-коммуникационное взаимодействие.

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