

Digital transformation of Russian insurance companies

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Abstract. Globally, businesses pay much attention to the digital innovations that affect conventional process of rendering services. In this regard, financial companies, insurers included, have special opportunities, i.e. lower transaction costs, higher consumer demand, geographical borders partly eliminated and new services invented.

This article deals with the new insurance business trends, brought by digital economy, both in Russia and around the world. In their research, the authors conclude that there are significant preconditions for the Russian insurance economy to gain momentum. Today, the most technologically advanced product is civil liability insurance policy, viz. OSAGO. Insurtech is becoming the key priority not only for insurers, but also for the government and professional communities.

In order to explore consumers' preferences, the authors interview 110 Russian policyholders and study their relations with insurers, their choice of policy acquisition channels, and the quality of particular digital insurance customized offers. The poll results show the higher demand for conventional insurance rather than digital one. Nevertheless, there has been a growth in digital insurance. The key advantage of the latter is time saving and no pressure from insurer or intermediary, whereas the main threat is loss of data access and leaks. The authors analyze main drivers of online-insurance in Russia. The general problem is lack of trust between consumers and insurers. For Russian companies, the prior challenge is to provide the complete service cycle starting from the pre-sale stage and ending with the settlement of insurance case, as well as to implement an individual approach to each insured. That will become the basis for insurance service customization which is considered to be one of the most promising global trends in this sector.

Keywords: digitalization, insurance, internet, digital service, online business risks, digital prize

1 Intro

Globally, insurance sector is evolving rapidly, with digital economy accelerating the process. By digitalization we mean not only to use digital technologies as a supplement, but to transform business processes and relations with customers, and, as a result, to become more flexible. Digital transformation of insurance is a global trend

forced by advanced technologies, innovative startups and search for competitive solutions. The main directions for development are the following [1].

Transition to a service model. By this we imply changes in a conventional business model. The main idea is provision of comprehensive services with the focus on security, healthy lifestyle and prevention of insured losses. The model is based on new IT platforms [2]. Insurers are changing their approach to clients and assuming the role of consultants and life assistants. This may help to eliminate the problem of trust between the parties.

Service automation. According to McKinsey [3], the best option is to implement the full cycle of processing insured cases, from attempts to prevent them to automatic settlement. The stages are digital prevention, notice of losses incurred, automatic processing of applications, assessing of damage and repairs, automatic settlement of claims, and even partially automated underwriting process [1].

Aggregators development. Application of aggregating platforms may facilitate attracting clients and identifying their needs via analysis of suppliers' offers and consumers' needs. This model is well developed in Europe where almost half of premium for policies bought in the Internet was generated by aggregators. The most prominent examples are MoneySuperMarket, Check24 and Verivox, rendering not only insurance, but also other financial, touristic and energy services [3]. About $\frac{3}{4}$ of their profit comes from insurance.

Formation of ecosystems. Ecosystems allow clients to receive a complex of interrelated services at the same time. Most often, such ecosystems provide services related to tourism, healthcare and real estate, with insurance companies being the driver. One successful example is the Chinese insurance company Ping An, which has expanded its scope of activities and now renders services in areas that are closely related to insurance. Personal One Account in Ping An provides access to services provided by Ping An counterparties. The goal of insurance companies is to respond in a timely manner to the emergence and development of new ecosystems and to clearly define the place that the company will occupy in such a system.

Application of artificial intelligence (AI). The development of AI was also a strong background for revolutionary changes in insurance. AI and the increased amount of data of various types allow building the most accurate portrait of clients and offering them the necessary products, even created from scratch for the personal needs of the individual, at an individual rate. In addition, unmanned devices constructed with the use of AI bring new risks and therefore, a new niche of insurance.

New types of insurance companies. There are already a number of companies that offer exclusively digital insurance, ranging from buying an insurance policy and settling an insurance case using chatbots in mobile applications (Lemonade in the USA, Youse in Latin America and Nexible in Europe) [3]. In this regard, Insurtech-startups that offer new solutions for specific stages and problems of the insurance process are becoming increasingly popular.

2 Insurance market in Russia today

According to the Bank of Russia [4], key indicators of the insurance market showed maximum values in 2018 since 2012. The market growth was formidable 15.7%. In 2018, total assets of insurance companies increased by 20%, while insurance premiums reached 1.43% of GDP. The average annual growth rate of insurance premiums for 2014-2018 was 7.8%.

In comparison with other countries, the insurance premium in Russia is relatively low, namely about 4.5 times less than the global average. In 2016, insurance services accounted for 6.6% of global GDP. In developed countries, average premium to GDP ratio exceeds 8%, and in developing countries it is about 3% [5].

In 2018, insurers' profit increased 1.5 times and amounted to 204.1 billion Rubles (at the average annual exchange rate of 62.691 USD/RUB, it is equal to 3.24 billion USD). Return on equity (ROE) for the last 2 and a half years was 31.2%. The largest contribution was made by CTP insurance (compulsory third party motor liability insurance) premiums, car insurance, accident and disease insurance and life insurance.

Table 1. Increase of e-insurance over the period 1st quarter, 2018 – 1st quarter, 2019

Insurance premium under contracts concluded via the Internet, including:	15.4%
Insurance premiums for CTP contracts concluded via the Internet	12.5%
Share of insurance premiums under contracts concluded via the Internet in the total amount of insurance premiums	0.5%

The peculiarity of the Russian insurance market is traditionally high share of premiums received with the participation of intermediaries and a relatively low level of penetration. Nevertheless, according to the results of 2018, there are changes in the channels of purchasing insurance products. The growth of sales through the Internet became noticeable, which indicates development of digital services, both for insurance companies and credit institutions (see Table 1).

Today, the most digitalized segment of the insurance market in Russia are CTP policies, which accounted for 92.7% of premiums collected through the Internet in 2018. The process is supported by the Russian Union of motor insurers, which is the operator of a single database of vehicles insured under CTP, as well as the developer of a multifunctional application for accelerated registration of accidents.

The actions taken by the regulator, Bank of Russia, and the improvement of laws are an important factor for the development of the insurance business. The basis for the stable growth of the insurance market is the development of a concept for the supervision and regulation of the insurance market in Russia, which includes a risk-oriented approach based on the principles of SolvencyII. These concepts are set out in two documents "the Concept of proportional regulation and risk-oriented supervision of non-credit financial institutions" [6] and "The Concept of introducing a risk-oriented approach to the regulation of the insurance sector in Russia" [7].

In order to maintain the stability of the insurance market, Bank of Russia created the "Russian national reinsurance company" [8] and started the transition process to

an electronic insurance reporting system. In addition, the Central Bank requires on-line availability of information on e-CTP, which was not required for public financial services.

The Central Bank is also working on the development of the "Marketplace" system, which will unite aggregators of financial services [9]. With the help of "Marketplace", it is expected to reduce costs and barriers to entry into the market, as well as to increase competition and elasticity of demand for the services of financial institutions. This platform might gradually turn into a national ecosystem of financial services, as seen in the example of foreign projects. For instance, FinTech Association in cooperation with Accenture launched the project Insurtech-3[10] to attract developers of digital projects for the insurance industry and to further implement them in Russian insurance companies.

According to recent estimates by KPMG, the promising niche of InsurTech startups in Russia is still in its infancy. They receive insufficient investment support compared to other countries and are generally implemented by insurance organizations that are members of Bank holdings since such insurers have access to the developments of their parent companies.

3 Key issues of digitization of the insurance market in Russia

The process of digital transformation of Russian insurance companies has already begun, and it is becoming a promising direction of development. Russian insurance companies are still at the initial stages of digitalization. Digitalization has led to the arrival of new participants in the insurance market, especially in the sphere of online sales. These are aggregators that help customers choose the best insurance options. Payment services also turn into aggregators. Strong competitors in the field are Telecoms and banks, as well as BigTech companies (Facebook, Amazon, Google and Apple, Alibaba Group, Tencent, Yandex, etc.) looking for gaps to fill in all branches. They have great potential due to their large customer base and developed IT infrastructure. Thus, the growth of sales of CTP policies through banks confirms this trend. The only advantage of insurance companies is that they not only sell, but also compensate for losses.

Information technologies allow to create new types of insurance products. Driverless car insurance, IoT, "smart insurance", mutual insurance (share insurance), which can be implemented through a block chain and other advanced designs.

It is expected that the process of digital transformation will follow the example of the banking sector that successfully applies digital technologies. The Russian Union of Insurers forecasts an increase in premiums received via the Internet by 10% in 2021 and the development of other types of online insurance, besides CTP [5]. Table 2 shows the target indicators for the development of the insurance industry until 2021, calculated by the Russian Union of Insurers. The largest increase in insurance premiums is expected to be due to the expansion of online sales channels by almost seven times.

Table 2. Target indicators for insurance by 2021

Target indicator	2017	2021
Target volume of insurance premium, billion rubles	1280	2000
Target dynamics of insurance premium to GDP ratio in Russia, %	1.4	1.7
Target share of insurance other than life insurance in premium, %	74	60
Target volume of premium on life insurance, billion rubles	333	810
Target share of life insurance premiums for more than 10 years, %	10	20
Target volume of reserves under life insurance contracts, billion rubles	550	1770
Target insurance premium per capita, thousand rubles	8.7	14
Target share of insurance premium received via the Internet, %	2.5	18

Along with the benefits associated with the development of insurance and automation, digital transformation brings new types of risks (cyber risks). These are the risk of data leakage, the risk of interruption of activities, etc. Increasingly, banks are turning to insurance companies in order to protect their capital from operational risks, including cyber attacks and employee fraud. According to insurance agencies, they will be able to help creditors in the form of an additional level of expertise on their part. Insurance against cyber risks is expected to become mandatory in Russia by 2022.

The Russian Union of Insurers highlights the following main directions of digitalization of the market for 2020:

- Application of telematics and monitoring using embedded and wearable devices ranging from auto insurance to life insurance.
- Expanding the use of smart contracts and big data analytics technologies.
- Automation of standard operations.
- Distribution of comprehensive personal insurance services covering various private and corporate risks, including the use of information about consumers from all possible sources of information.
- Development of communication channels and tools. Omnichannel.

Business expectations of digital transformation are the same for all industries and imply improvement of the customer experience (Experience Management). It is the implementation of new business models, the development of smart digital products, the use of Customer Experience, Employer-Experience, Product-Experience and Brand-Experience. The Clients is the focus. To implement the model, it is necessary to analyze the needs of the client, develop individual proposals and ensure the preservation of personal data. Customer service quality is another important factor. Clients seek fast and high-quality customer satisfaction and as convenient channels of interaction, as well as rapid assistance in the event of an insured event and creation of systems for the prevention of damage.

4 Customer needs analysis

In insurance, as in any business, it is necessary to know the needs of clients, their attitude to the services offered. To this end, a study was conducted to assess the need for digital insurance among Russian users. We launched a questionnaire of 4 blocks on the Google Docs platform. The first block is a portrait of the Respondent. The second block comprises questions that assess the Respondent's established relationship with insurers. The third block contains questions relating to the respondents' expectations from the opportunities of digital insurance. In the fourth section, we study how the risk assessment of digital and traditional insurance can affect the choice of the client. Besides, we test which of the channels of insurance services is the most convenient.

We received and analyzed the responses by 70 women and 40 men. The distribution of respondents by age was normal. The average age of respondents is 37 years, the minimum age is 18 years and the maximum age is 75. In accordance with their field of activity, respondents should have a good knowledge of the Internet (see Table 3). It follows that we can expect a loyal attitude of this part of the population to digital insurance. The level of Internet penetration in Russia is quite high, namely 75.4% of adult population (90 million people). Therefore, it is expected that the efforts of insurance companies in the direction of digitalization are relevant and can bring profit.

Table 3. Top-5 occupation spheres

State and municipal service	18.4 %
IT and communications	17.5 %
Economy, commerce	14.6 %
Science, education, culture	9.7 %
Finance, accounting	4.9 %

Our study allowed us to test the hypothesis of preference in choosing insurance channels depending on age and gender. All responses were divided according to the generational theory: Generation X (33-56), Generation Y (16-32), and Boomers (>56). Figure 1 shows the frequency distribution of insurance channels depending on age. On average, according to the survey, 28% of policies were purchased on the company's website and mobile app, 26% through intermediaries, and 46% in the office. For comparison, in 2014, 50% of policies in the UK were bought online.

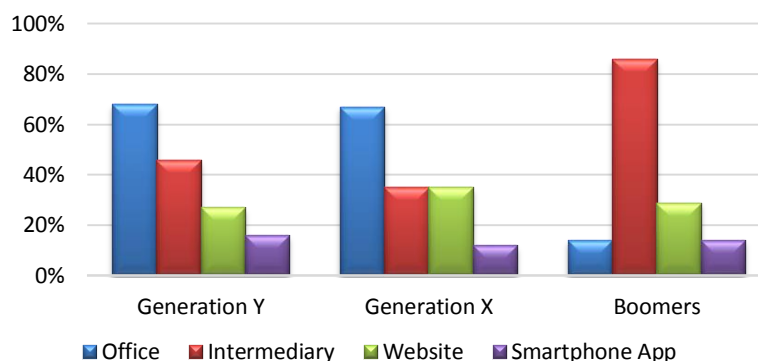


Fig. 1. Choice of acquisition channel by generation

To test the hypothesis that there is a dependence in the choice of insurance channels on age (generation), we used conjugacy tables. The test χ^2 (Chi-square) did not give any significant differences. Testing this hypothesis for different types of insurance revealed the dependence of the choice of insurance channel only for auto insurance. The hypothesis about the joint influence of gender and generation on the choice of channels for purchasing insurance policies was not confirmed.

Comparing insurance channels. According to the survey, the most popular types of policies are car insurance and insurance for traveling abroad. The latter is mandatory for obtaining a visa. Conventional insurance, as expected, remains more popular among respondents than digital insurance. However, in the case of car insurance and health insurance for traveling abroad, a considerable share is occupied by policies purchased on the website of the insurance company (see Table 4).

Table 4. Consumers' preferences when choosing the channel to buy specific insurance policy

	Car insurance	Property insurance	Insurance for those traveling abroad	Mortgage insurance	Health insurance
Total	58%	28%	48%	32%	15%
Office	30%	17%	14%	20%	8%
Intermediary	15%	9%	11%	8%	5%
Website	11%	2%	17%	3%	2%
Smartphone App	3%	1%	6%	1%	0%

Office and website are most preferred. Moreover, the former is more convenient in terms of establishing contact with the company in the event of an insured event and its further settlement, as well as alteration of documents and the absence of errors. Purchasing a policy on the company's website proved to be more effective for respondents in terms of convenience and speed of policy execution, application of personal discounts. Many respondents also noted a low probability of making errors on the site. As for the services of intermediaries and the use of the mobile application,

they are the least preferred on almost all points. The most effective digital insurance was in the application of personal discounts and offers, which proves the prospects of individualization in the digital economy

What features of digital services are used by respondents. Only about 20% of respondents used such digital services as information about the company's products, services in the personal account, online payment. The settlement of the insurance case is used only by 10%. Respondents rate the quality of services positively. However, the company's digital services are not used enough, the list of services in the personal account is limited to the most basic.

What do respondents want from digital insurance? The results showed that consumers consider the user-friendly interface of the insurance company's website the most necessary when providing insurance services on the Internet. This also indicates that Russian insurers are not yet active consumers of digital insurance and do not show demand on specific opportunities, such as a variety of ways to prevent losses. Consumers are more interested in discounts and cashback features that they are already familiar with from banking and other products (see Fig. 2).

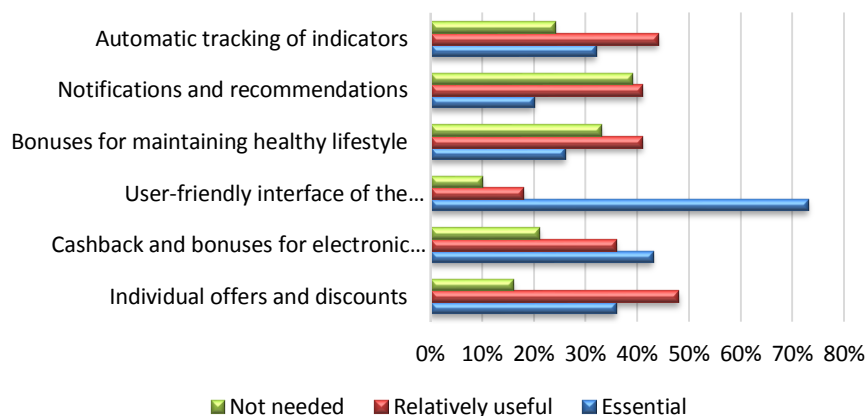


Fig. 2. The respondents' needs for some of the functions of digital insurance

Analysis of respondents' requirements for insurance services on the Internet shows that consumers seek information in a convenient format, application forms for personal data and instant payment services. Thus, the assumption that digital insurance in Russia does not yet involve a full cycle of services is confirmed. In the absence of a full cycle, the opportunity to build long-term relationships between the insurer and the policyholder, to collect information about the latter and to customize insurance services with high accuracy in accordance with the preferences and needs of the consumer is lost. At the same time, customization and individualization of services is one of the most promising opportunities offered by the digital economy (see Fig. 3).

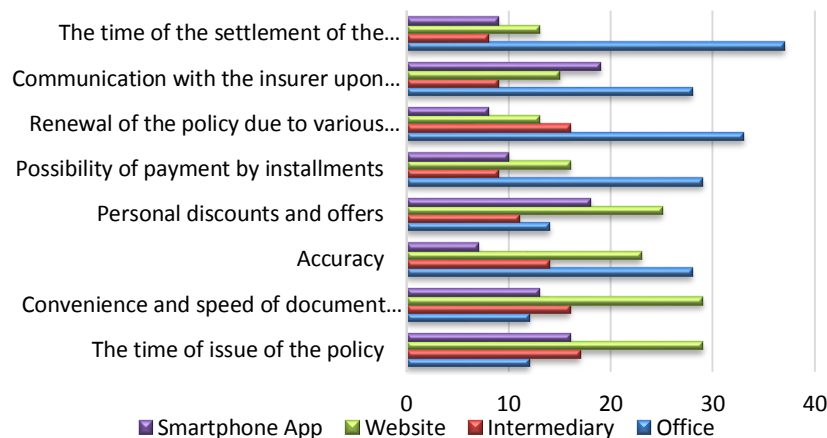


Fig. 3. Preferred channel at each stage of purchasing insurance services

One of the obstacles to the development of this direction is the low level of trust between policyholders and insurers and weak popularity of insurance services. The evidence can be seen in the relatively low rate of recognition of insurance companies. Only 8 companies of the 15 insurance market leaders are known to half of the respondents, 3 of which are subsidiaries of popular banks.

Attitude to risk. We analyzed the attitude of respondents to the risks they face in the process of purchasing insurance services to identify the strong and weak points of digital insurance. The results show that the main advantage of insurance on the Internet compared to traditional insurance was time savings and no pressure from the insurer or intermediary. The main fear of consumers is the risk of loss of access to data, as well as leakage. This confirms the need for special attention on the part of insurers to cyber risks associated with information leakage.

5 Summary

The process of digital transformation of Russian insurance companies has already begun and is becoming a promising direction of development. The reason for this is high level of Internet penetration in Russia. By 2021, the share of insurance premiums received via the Internet is projected to grow by 10%. The main directions of digitalization of the insurance market in Russia are the development of channels and communication tools, omnichannel, distribution of complex personal insurance services that cover various private and corporate risks, automating standard operations, expanding the use of smart contracts and data analysis technologies.

The survey results show that today traditional insurance remains more popular than digital insurance. The share of digital insurance policies is 28%. The most popular are car insurance and health insurance policies for traveling abroad purchased on the website of insurance companies. The main advantage of insurance on the Internet

compared to traditional insurance is saving time and no pressure from the insurer or intermediary. The main fear of consumers is the risk of loss of access to data, as well as their leakage.

As for the prospects, one of the main tasks of insurance companies for successful digitalization is to establish a full cycle of digital insurance and use the principles of individual approach in relations with policyholders. This can be achieved with the help of artificial intelligence and smart big data. This will be the basis for the development of customization of insurance services, which is one of the most promising trends in the development of insurance in the world.

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