

Directions of improving information system of insurance company

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Abstract. The article presents a study of the information technologies impact on the insurance industry development. At present, any business, especially business in the field of financial intermediation, can count on maintaining its positions only as a technology company. For the insurance business it is now especially important. Other segments of the financial market - the stock and credit market - are actively developing and applying IT-technologies. The insurance business at present is getting opportunities for a technological breakthrough. There is a growing demand for traditional insurance products - property insurance, motor insurance, health insurance. There is a rapidly growing demand for life insurance and insurance against cyber risks. To implement insurance protection in new conditions, the insurance company should actively use information systems. The article presents a possible variant of systematization of the insurer's business processes within the information system of the insurance company.

1. Introduction

At the modern financial market, to achieve success in competition is possible only with the use of information systems. Their use allows attracting new customers, reducing the costs of the insurance company, conducting actuarial accounting more accurately.

Most insurance products are characteristic of customer's reduced loyalty. The client often no longer depends on specific insurer's discounts, quality of service or efficiency of the withdrawal of loss. Replacing one insurer by another is primarily related to the price of the insurance product. But at present that insurer wins who is more customer-oriented and meets the customers' needs. The modern world is unthinkable without technological solutions, therefore, those insurance companies that have the opportunity to use information systems more widely will experience the growth.

The work presents the research of the main directions in the use of information technologies in the insurance business. It also states a possible scheme of the interrelation of the insurer's business processes within the information system of the insurance company.

2. Result and Discussion

At present, the whole world is moving towards a digital economy. Russia has developed a program for the development of the digital economy. The development of information technologies is one of the strategic factors of investment activity [1, 2, 3]. Therefore, there is a need to improve continuously the development strategy of any company. This is especially true of financial intermediaries, which



include insurance companies.

The share of uninsured risks in Russia is high. There are types of insurance that are of interest to policy holders. At the same time, there are potential insurers ready to purchase an insurance service if this does not require a personal presence in the insurer's office. Insurance has a huge potential, the development of which will improve the standard of living of the population [4, 5, 6]. Information technologies find the application in the insurance industry (table 1).

Table 1. The main directions of information technologies application in the insurance business

Direction	Who it is targeted at	What it gives
1. Predictive analytics	– insurer	– the possibility to offer the client the right product at the right time; – increase cross-selling; – prevent insurance fraud.
2. Data platforms	– a policy holder; – clients; – partners	– the possibility of a quick data access; – the possibility of forming an integrated information environment; – to improve the quality and speed of customer service.
3. Cloud computing	predominantly at the insurer	– optimization of underwriting; – optimization of the reports preparation; – reduction of costs in a number of positions.
4. Security solutions	– an insurer; – clients; – partners	– data protection of the insurer, trade secrets; – protection of client data.
5. Social network service	– prospective insurer; – clients	– additional communication channel; – increase in sales; – improving the quality of service.
6. Mobile and other technologies	– a prospective policy holder; – clients; – an insurer	– optimization of insurance contract costs; – increase in sales volume; – receipt by the insurer of a large body of information in order to improve the tariff policy and settle losses.
7. Electronic Sales	– prospective insurers; – clients	– wide coverage of the insurance field; – increase in sales volume; – reduction of the insurance contract costs

In general, the information systems in the insurance company are oriented at either the internal or the external user. But they bind together the business processes of the insurer.

Researchers analyze the organization of business processes of the insurer in the framework of information systems. Most of them note that the situation when a separate unit is created that is responsible for sales, underwriting, support and settlement of losses for each separate type of insurance is typical. Employees of each unit, responsible for a specific type of insurance, work in a single information system of the insurance company. There is accumulation of all data. Such organization is understandable, but it has a number of drawbacks, the main one of which is a conflict of interests between the units, which ultimately leads to a decrease in the quality of customer service.

I.B. Trifonov proposes a structure with a number of important points [7]:

– a separate unit (the "operational department") is responsible for putting primary information into the client database, preparing policies;

– the sale of insurance products is not divided by the type of insurance, but by clients – the department dealing with legal entities or individuals. At the same time, within this unit each employee

can implement policies for all types of insurance with a license available in the insurance company;

- a separate department for underwriting and actuarial accounting, serving all types of insurance at the same time;
- the processes of support and settlement of losses are divided into the types of insurance and form separate departments.

Let us consider that at present the basic principle in the formation of the insurance company's information system should be the principle of customer centricity, which implies an increase in customer's loyalty, the identification of the customer profile and the constant analysis of the client base. To realize this principle, it is no longer enough to divide clients into legal entities and individuals.

The authors' proposals for optimizing the interrelation of the business processes of the insurance company within the information system are as follows:

- it is necessary to formulate personalized offers to clients. In fact, the company should put the task of increasing customer's loyalty and customer centricity level of the company as a whole through a whole range of business processes, including client base analysis. This concerns developing a client's profile with his potential needs in insurance services. This is possible by creating an information center that integrates the functions of the operational department proposed by B.I. Trifonov, but supplemented with a call center and analytical center, in which data sets are processed to create this client-personified offer;
- to implement the company's policy of increasing the level of coverage of clients with insurance services is not efficient to divide into types of clients, the division into sales channels would be more logical; however it is not advisable to create subdivisions for each sales channel;
- all the business processes of the insurer must be "hard-wired" with the necessary procedures for identifying clients (in order to fulfill the requirements of financial monitoring in accordance with Federal Law No. 115-FZ of 07.08.2001 (as amended on July 29, 2017) "On Countering the Legalisation (Laundering) of Proceeds from Crime and the Financing of Terrorism";
- management of the insurance risk by segmenting the risks of the insurance portfolio should be carried out not only by the underwriting and actuarial accounting department, but also by the reinsurance department (if necessary) and the security service of the insurance company;
- the organization of the settlement, taking into account all legislative innovations and the convenience of clients using the "all services at one place" method, where the client can apply for all types of insurance.

In the authors' opinion, the relationship between the business processes of the insurance company as part of the formation of the enterprise's information system should look like it is shown in Figure 1.

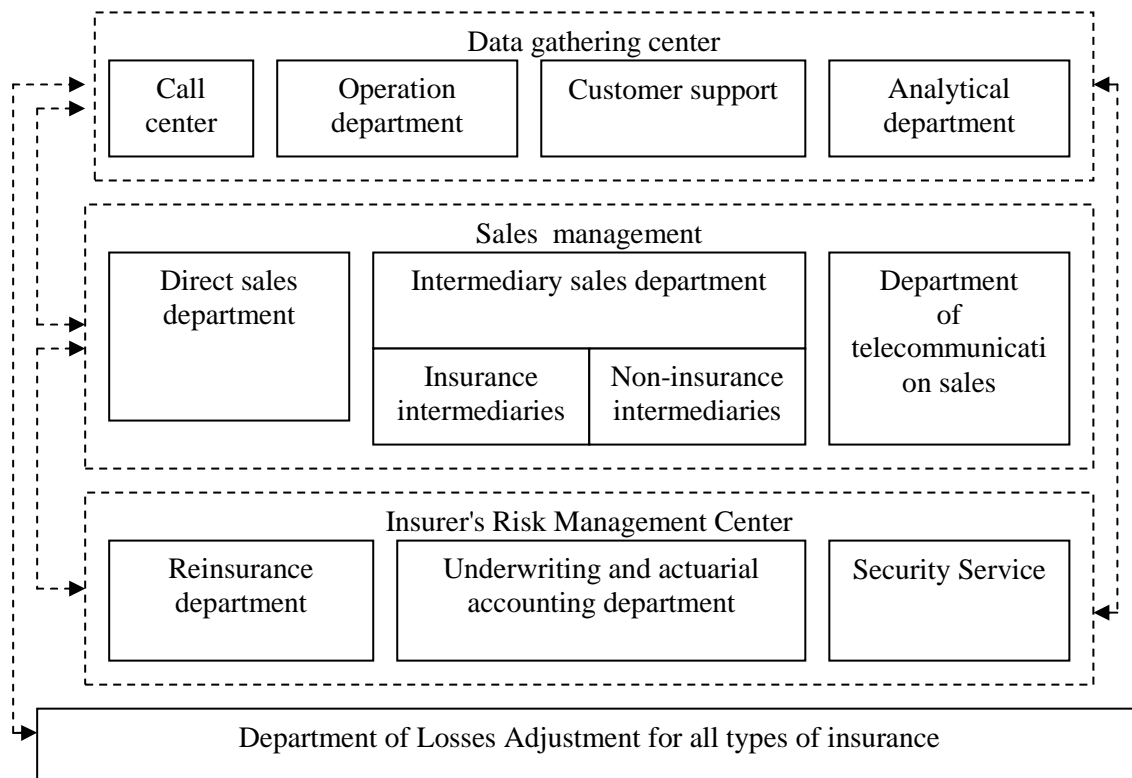


Figure 1. Interrelations of business processes in the information system of the insurance company

Let us consider the fact that the proposed scheme for organizing the relationship between the insurer's business processes in the information system of the insurance company has the following advantages over traditional ones, implemented in most insurance companies in Russia:

- has a high degree of customer centricity;
- allows assessing quantitative the contribution of each sales channel to the sales volume of the insurance company and identifying timely any gaps, especially with regard to the use of telecommunications channels, with the account of their role in the modern high-tech world;
- reduces the level of costs for working with documentation, customer identification, which is especially relevant given the legislative requirements for financial monitoring;
- allows responding immediately to a changing risk situation and take it into account in the tariff policy.

The prevailing current information systems of most insurance companies are "hard", difficult to implement changes dictated by time. Often, new IT solutions are required for a particular business process. Changing the infrastructure within the existing in the company information system is often difficult, expensive and sometimes leads to a loss of efficiency of its work [8]. However, many insurers do not have the available financing to purchase ready-made software (when it is developed), most often they follow the line of developing their own software.

It is more expedient to use the purchase or development of specialized IT-solutions for individual business processes and their integration into a shell. Let us get the design kit. In case the insurance company decides to develop the information system independently, it is advisable to use outstaffing services (personnel leasing).

3. Conclusion

The results of the study allow us to conclude that a wide range of information technologies is used in insurance. The authors have identified the tasks that can be solved with the use of IT-systems. The use of information technologies allows expanding the range of insurance risks, increasing sales of insurance products, raising the cost effectiveness of the insurer.

The basis for building an information system of an insurance company is the relationship of the insurer's business processes. The authors have proposed a model of business processes organization, which allows increasing the level of client-centricity of the company, assessing quantitative the contribution of each sales channel to the sales volume of the insurance company; the model reduces the level of costs for working with documentation and customer identification; it allows responding quickly to a changing risk situation and takes into account this in the tariff policy.

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