



Application of Engineering and Reengineering in the Implementation of Business Processes of Insurance Organizations

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Annotation: Improvement of the insurance system implementation mechanism is of urgent importance during the formation of the system of quality indicators based on increasing the efficiency of the insurance system and its implementation mechanism based on the requirements of the times. Rapid continuation of reforms in the banking and financial system, widespread introduction of modern market mechanisms into the sector is defined as one of the priority tasks. In order to ensure the fulfillment of these tasks, it is necessary to form a system of quality indicators based on increasing the efficiency of investment activities of insurance organizations based on the requirements of the time and to increase the efficiency of the deployment of financial resources of insurance organizations.

Keywords: Insurance, efficiency, customer service, management system, insurance organizations, corporate system, information support, financial performance, work processes, insurance products, insurance types, different directions.

An important component of the success of any insurance organization is the existence of a corporate information system that ensures efficient business processes and the high degree of automation of the work of each department of the insurance organization. The company's flexibility, quality of customer service, process practices, cost level and its future development potential will depend on it. Over time, customer needs are changing, information technologies continue to develop, and new approaches to the business management system are emerging. Therefore, the organization's business processes, like a complex mechanism, need continuous improvement.

The scheme of business processes of insurance organizations was formed at the beginning of 1994-2000, during the first stages of the development of market relations and the emergence of the modern insurance market. In recent years, some of them have undergone partial changes in business processes, mainly aimed at eliminating duplicate functions. At the same time, some of the insurers implemented a complete restructuring of the main processes, mainly aimed at improving the efficiency of working with customers and reducing costs. During this period, the development of IT systems in insurers was carried out in different ways. Some organizations have developed their own systems based on the growth of the insurance portfolio and the emergence of new tasks. Others, on the contrary, bought ready-made systems and adapted them to the needs of the company.

In some cases, the purchased systems did not justify themselves, and again the issue of choosing a corporate system had to be resolved. Nevertheless, it is safe to say that many insurers have a corporate information system that fully automates manual work and meets all the needs of departments for all types of insurance. The purpose of this study is to ensure the sustainable development of the insurance organization and to determine the basic requirements for business

processes and the corporate information system of the insurer that meets the requirements of the modern market. It focuses on regulating the three main business processes of an insurance organization - sales, underwriting and claims.

In the literature, the information system and financial indicators of the insurance company are not always paid attention to the business processes. This is because, first of all, each of these issues represents separate tasks (creating an IT strategy, improving business processes and company structure); secondly, it is difficult to quantify this effect. At the same time, the information system and business processes are considered important factors that determine the financial performance of the insurer (Table 1).

Coordination of individual insurance conditions is an intermediate process between sales departments and underwriting employees. The result of these processes is the conclusion of a contract or the refusal to accept the insurance risk. Then the contract is directed to administrative approval (conclusion of additional agreements, information support for the client), and then the process of settlement of damages is carried out.

Table 1. Impact of information system on business processes

Indicators	Information system impact	impact of business processes
Amount of collected insurance premiums	<ul style="list-style-type: none"> - level of service for customers (availability of an electronic personal cabinet, the ability of the contact center to quickly access complete information about customers); - possibility of online trading; - automation of the work place of sellers; - the possibility of using multi-factor models for calculating tariffs 	<ul style="list-style-type: none"> - speed of setting "unusual" insurance conditions; - lack of competition between different sales departments of the company; - creation of the "one-stop shop" principle for customers
Gross loss rate	<ul style="list-style-type: none"> - prohibiting the entry of insurance contracts concluded on the basis of non-agreed conditions into the unified information system; - tariffs, financial indicators, completeness of data for accurate calculation of damages; - availability of automated verification of claimed damages; - the ability of the client to quickly analyze all types of insurance 	<ul style="list-style-type: none"> - creation of independent contract conditions; - creation of an effective motivation system for each structure.
personal expenses of the insured	<ul style="list-style-type: none"> - reduction of the number of workers due to the automation of manual labor 	<ul style="list-style-type: none"> - increase the efficiency of employees by preventing duplication of functional tasks

In each of these processes, the information system plays a very important role. In addition to the tasks of collecting, processing and presenting information, it improves the work of sales department employees and administrative approval. The information system automates the processes of creating sales offers, filling out an insurance contract, developing additional contracts, etc. The analytical capacity of the system mainly determines the underwriting process. It depends on making quick decisions in the process of dealing with damages.

Most insurance companies are universal and offer different types of insurance to their customers. As a result, it is necessary to create a separate sales process, technical support, as well as separate modules in the information system for each type of insurance. Figure 3.1 shows a sample business process. Its head is responsible for this type of insurance within the company. At the same time, all employees of the department work in the same information system, where all information on this type of insurance is collected. This organization of work processes is the easiest and most convenient for employees and company management. Such processes created in 1995-2005 were characteristic

of many Uzbek insurance companies.

In addition, the head of this department has to solve two conflicting tasks in order to fulfill the sales plan and reduce the level of losses. Practice shows that one manager cannot solve these two tasks at the same time.

Based on the above, the main business process of the insurance company should be approached differently. In order to improve the efficiency of the insurance company, the necessary requirements for business processes are as follows:

- the process of selling insurance products should be in a separate structure. Taking into account the different approaches to selling insurance products for individuals and legal entities, the department should be divided into two - one for individuals and the other for legal entities. In addition, each employee has the opportunity to sell types of insurance. Within each department, management plans, departments, groups are created, a separate plan is created for each of them.

These requirements allow to implement the "one-stop shop" principle and reduce conflicts between sales departments.;

- underwriting and sales processes should be in different departments. This requirement makes it possible to divide the tasks of executing the trading plan and reducing the loss level among different people. However, insurance types, customer support and insurance claims processing for any insurance type can be in one unit.

Table 1 represents one of the options for organizing the main business processes in dealing with legal entities. The sales department is responsible for dealing with legal entities. The underwriting process is divided into a separate department that coordinates insurance conditions. Signing the insurance contract and entering it into the corporate information system is carried out only after checking by the department staff. For each type of insurance, the customer support and claims settlement process is divided into separate sections. With this organization of business processes, one employee of the sales department works with one customer per type.

A universal insurance calculator integrated into the corporate system, as well as an automatic document generation module, are used to create a commercial offer. Reduces the time it takes to process customer requests. The underwriting department is fully responsible for risk management and controls the non-loss of the insurance portfolio. The quality of customer service is improved due to the absence of conflicts between departments and the personal responsibility of the heads of departments responsible for compensation and payment for each type of insurance. The proposed scheme of business processes has several drawbacks. First, the underwriting department will have a contract review function, which requires a lot of work. Second, a conflict of interest occurs when employees of different departments within a sales department present multiple commercial proposals for the same customer. These problems can be partially solved if the corporate information system automates the process of checking insurance contracts and reduces the possibility of guaranteeing customers for a specific division of the sales department.

There are various proven methodologies and standards for solving business process modeling tasks in the insurance system. Such standards include methodologies in the IDEF family. With their help, it is possible to reflect and analyze the activity model of large-scale complex systems in different ways and in different directions. In this case, the developer himself determines the width and depth of checking the processes in the system, which allows not to overload the model by placing excess information.

Currently, the following standards can be included in the IDEF family:

IDEF0 is a functional modeling methodology. The system learned using IDEF0 is presented to developers and analysts in the form of a set of interrelated functions (in terms of IDEF0 - functional blocks). Modeling with IDEF0 tools is usually the first step in learning any system; IDEF0 methodology can be considered the next step in the development of SADT (Structured Analysis and Design Technique), a popular graphic language for describing functional systems. Historically,

IDEF0 was developed as a standard in 1981 as part of a broad industrial automation program called ICAM (Integrated Computer Aided Manufacturing) and proposed by the US Department of the Air Force. In fact, the IDEF family of standards took its name from this program (IDEF=ICAM DEFinition). In the process of implementation, the participants of the ICAM program faced the need to develop new methods of analysis of interaction and interaction processes in industrial systems. In addition to an improved set of functions for describing business processes, one of the requirements for the new standard was a methodology for effective interaction and interaction within the "expert analyst" framework. In other words, the new method should ensure group work on building the model with the direct participation of all analysts and specialists employed within the project.

As a result of the search for appropriate solutions, the IDEF0 functional modeling methodology appeared. Since 1981, the IDEF0 standard has undergone several minor changes, mostly of a restrictive nature, and its last revision was issued in December 1993 by the US National Institute of Standards and Technology (NIST).

The following conclusion can be drawn from this: it is absolutely not necessary to always come up with solutions yourself to solve standard tasks. Whenever you need to analyze a functional system (from a spacecraft design system to the process of preparing a communal dinner), use tried and tested methods. One such method is IDEF0, which allows you to solve complex life tasks with its simple and easy-to-understand tools..

Business process reengineering is carried out by modeling business processes using modern methods and software. The most effective systematic analysis methodology is SADT (Structured Analysis and Design Technique). The essence of this model is that first the overall system is modeled, then it is divided into sections. The IDEF0 business process standard was first adopted in the USA, and later it was widely used in other countries, for example, this model is used to organize IMF business processes. This model includes standards, and each standard allows you to consider specific aspects of the insurance organization. IDEF0 standard includes business process modeling, DFD models information processing and document flow. It is recommended to use modern business process tools in insurance organizations.

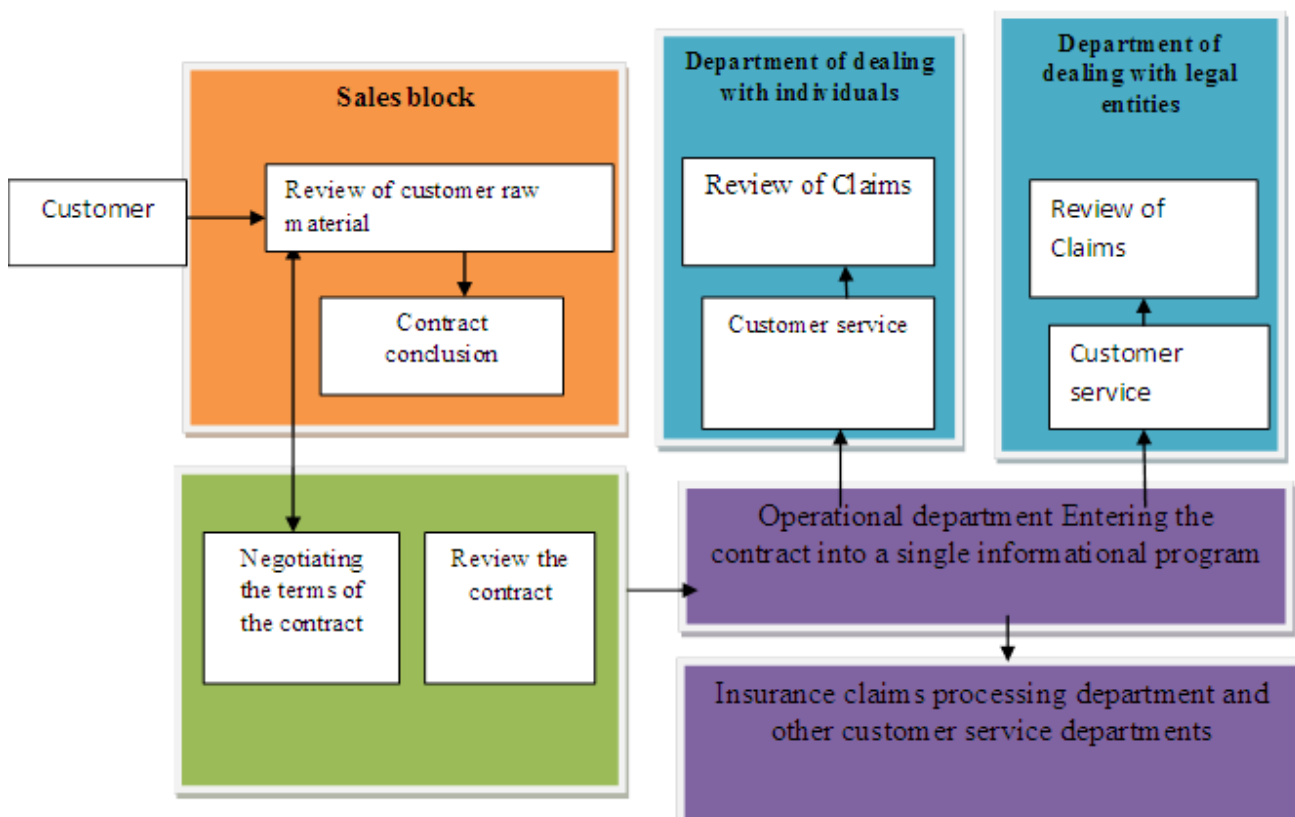


Figure 1. Scheme of organization of business processes (in the practice of dealing with legal entities)

The diagram of business processes for dealing with legal entities is presented in the picture. The sales process is handled by the legal entities department, the underwriting process is carried out in a separate department, the inclusion of the insurance organization in the unified information system and the signing of the contract are carried out after the underwriting process. Customer service and insurance claims handling are also done in a separate department.

In this way of organizing the business process, one employee can provide all types of insurance to the client. When an insurance service is offered to a client, a universal calculator connected to the corporate system is used and an automated model of documentation is used, as a result of which a reduction in the time of the client's inquiry is achieved. The underwriting department is responsible for risk management and the level of damage of the insurance portfolio, which leads to an increase in the quality of customer service and an end to conflicts between employees and departments.

Thus, the activity of the insurance organization can be described in schemes.

Applying the above business process model allows the insurance organization to achieve the following:

1. Determining the main areas of activity of the insurance organization.
2. Improving the business structure of the insurance organization and ensuring its transparency.
3. It allows to change the economic results at intermediate stages, in which there is an opportunity to ensure the implementation of the strategic plans set by the organization..
4. The costs of conducting insurance business by the insurance organization will be reduced.
5. Reducing opportunistic costs, these costs can occur at every stage of the business process and have a negative effect on the implementation of the intended business processes.

The analysis shows that the improvement of business processes is an urgent task for many Uzbek insurance companies. After the establishment of many companies, customer requirements regarding insurance services have changed. Now, the most successful one-stop-shop companies do not have conflicts of interest between different departments, and have an independent insurance system for accepting insurance risks. In this case, the corporate information system plays a major role. The degree of automation of manual work, the level of customer service, the quality of data for accurate calculation of insurance rates and the damage caused will depend on it. Managers of insurance companies should pay attention to these issues. The business process must be changed according to modern requirements, because the company faces the risk of losing customers and deteriorating financial performance..

The proposed scheme of business processes is one of the options that ensure the effective operation of the insurance company. In any case, this scheme can be improved based on the existing characteristics of the company's business processes and the amount of the insurance portfolio.

Conclusion We can say that the main purpose of describing the business processes of insurance organizations is to describe the general structure of the company in the form of a logical scheme. Analysis of business processes primarily aims to reduce costs.

The methodology of business processes of insurance organizations performs the following tasks:

- to provide strategic planning of activities necessary to define prospective directions for the development of the insurance company;
- it is possible to create an organizational structure that allows coordinating the activities of the insurance company and its constituent units;
- to have operational management at all stages of the insurance company's activities.

The purpose of reengineering is determined by issues such as simplification of the organizational structure of the insurance organization, redistribution and minimization of various resources, and improvement of service quality at a time when the national economy is rapidly changing.

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