THE METHODOLOGY OF THE BUSINESS PROCESSES MANAGEMENT IN THE AGRICULTURAL INSURANCE MARKET

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Formation of a favorable investment environment in the market of agricultural insurance is possible with the organization and use of the business processes by insurance companies to provide insurance protection for farmers. The problem of research is the need to increase the motivation of insurers and policyholders to the implementation of the existing interests of their insurance through the mechanism of activation of business processes in the market of agricultural insurance. The objective of research is to justify modern methods of business process management of the insurer for the rational allocation of risks and responsibilities among all the participants of the insurance process. Methodology of research is based on generally accepted methods and techniques of organization and management, interrelated business processes of the insurer from its design till implementation, based on equivalent financial and economic interests of participants of the insurance market. The research results confirm the need for differentiation of concepts "value" and "utility" in the system of insurance relations, as well as the adaptation of the proposed simulation model for managing business processes for all agricultural insurance entities.

Keywords: agricultural risk; business processes management; insurance; insurance market.
JEL Codes: G15, G22, Q13, Q14.

1. Introduction

The modern global trend of security policy in the production and processing of agricultural products is agricultural insurance. Tendencies of the agricultural insurance global market development demonstrate that the volume of gross insurance premiums accumulated by insurers for 2005–2014 increased almost fourfold from 8 billion $ to 31 billion $ (Byzhdov, 2015). World leaders of the agricultural insurance are countries such as the USA, Canada, China, India, Spain, Turkey and others. According to the German reinsurance group Hannover Re in 2014 the volume of insured agricultural area in the USA was 88%, China – 45%, India – 15% of the acreage (Graber, 2015). Statistical data of the World Bank indicate that agricultural insurance programs have been implemented in 104 countries (Maxul, 2010).

The formation and operation of the agricultural insurance market is a civilized response of insurance community to risks (climatic, financial, economic, environmental, etc.) which occur in the process of the production and processing of agricultural products.

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Activation of the demand for insurance protection encourages the development and implementation of innovative management solutions aimed at the expansion of insurance coverage risks in agriculture. In this study the need for disclosure of the methodology of the business processes management, which provides the basis for the implementation of mutually beneficial relations between the parties of the agricultural insurance, raises.

The modern theory and methodology of the business processes management is based on the works of such scientists as: M. Porter (1985); A. Scheer (1999); I. Mazur (2000); R. Yuldashev (2000); N. Nikulina (2010). August-Wilhelm Scheer defines the business processes as a linked set of repetitive actions (functions) that convert incoming material and/or information in the final product (service) in accordance with pre-established rules (Scheer, 1999). An important contribution to the theory of the business processes formation is made by M. Porter and W. Millar, who offer to consider business processes as a "value creation chain" and thus indicate that they are a set of activities defined as points "input" and "output" and use organizational resources to create value of goods services for consumers (Porter, 1985).

Business processes are discussed in the scientific literature as objectively existing set of interrelated targeted units of management activities (depending on the scale of analysis – complex of work, tasks, work), which has a clear entry and exit and proceeds within information communication, fixed by the existing organizational structure (Mazur, 2000). During the process of the organization and functioning of the insurance market, business processes are considered as "a set of interrelated successive activities of management, which implements the specific purpose of an insurance company" (Nikulina, 2010). There is a view that considers the business process as the conclusion of insurance contracts and the fulfillment of the terms of the insurance contract (Yuldashev, 2000). Modern understanding of the organization and implementation of business processes in the activity of the insurer are based on the unity of material, financial, economic, intellectual, labor and other resources needed to meet the property interests of the insurance process participants.

Modern business processes form the basis for the implementation of insurance relations in agriculture. The process of agricultural production is in the area of high risk, which causes the necessity of its localization and neutralization with the help of the mechanisms of business processes functioning in the agricultural insurance market. The interest of the insurer in generating modern business processes is caused by the need for implementation of their professional activity, while the insurant needs the protection of property interests connected with the production and processing of agricultural products.

The development and use of business processes in the agricultural insurance market is a complex multifaceted activity of the insurance company, which requires appropriate structuring and systematizing of actions to ensure maximum coherence of insurance interests of the insurance process participants. In this context, the aim of the study is to substantiate the methodology of the business processes management in agricultural insurance market. The object of the research is theoretical and methodological approaches to the development and application of modern business processes aimed at harmonizing financial and economic interests of the insurance process participants.
In the process of scientific knowledge the fundamental management theory is used (scientists’ best practices) regarding the formation and the use of business processes to enhance business activity in the insurance market; the method of scientific analysis and synthesis and scientific intuition is used to systematize related business processes in the agricultural insurance market; the method of logic simulation and design is used to separate the categorical concepts of values and utility in the process-oriented management of the insurance company activity. The model of business process management in the agricultural insurance market is designed on the basis of the method of simulation modeling. The use of abstract logic, graphics, and monographic methods serves to justify the theoretical and methodological aspects of research, conclusions and further studies. The significance of the presented scientific article is the need for theoretical and practical bases and formulation of practical recommendations for the development and use of modern business processes to increase business activities and investment attractiveness of the agricultural insurance market.

2. Methodology

The research methodology is based on a synergistic approach to the business processes management in the agricultural insurance market. The use of modern methods, techniques and tools for the business processes management enables a new quality of relations between entities of insurance (insurers, insurants and insurance agents). Ukrainian agricultural insurance market is in the process of the transformational change and the search for optimal models of the further development, which requires the active involvement of innovative approaches to the business processes management focused on balancing the financial and economic interests of insurance entities.

Insurance companies play a leading role in the organization of the interaction system of institutions of the agricultural insurance market. To implement the basic functions of insurance (risk, saving, distribution, security, stabilizing, etc.) insurance companies require considerable concentration of logistical, organizational, financial and economic resources aimed at building an effective system of insurance protection for farmers. The variety of insurance interests of the agricultural insurance market participants causes a need for the development and implementation of modern business processes of the insurer focused on the insurance business development in rural areas.

As on 31.12.2013 in Ukraine 325 insurance companies gave services of property insurance and only 16 of them had a license to carry out agricultural insurance. High probability of agricultural risks manifestation, the low level of solvency demand for insurance services among farmers, absence of public-private partnership on a regular basis hinder the potential development of agricultural insurance. Analysis of many insurance companies in Ukraine demonstrates the need to develop and widespread the use of the relevant business processes aimed at balancing insurance relations in agriculture in the management of the insurer. The research period covers the last decade.
3. Results of research

Mobility and efficiency of insurer’s being in the agricultural insurance market is largely recognized by quality of formed and applicable business processes in order to establish mutually beneficial and long relationships with potential insurants (farmers) to conclude contracts of agricultural insurance. Business processes of the insurer cover almost all areas of their activities including the creation of a legal entity (the insurer) to provide insurance services and the assessment of the results of the financial and economic activities of the insurance company for a certain period of time. Key business processes formed and implemented in the agricultural insurance market are shown in Fig. 1.

Fig. 1. Consistency implementation of related business processes of the insurer in the agricultural insurance market
Current priorities for development of the agricultural insurance focused on providing process-oriented activities of the insurance company, i.e. the formation and the use of essential business processes of the insurer, which implementation best satisfies the property interests of the insurance process participants. In the scientific literature, the process-oriented organization is considered as the organization with a control system of cross-functional typology and which provides resources management in the process (Scheer, 1999). Fundamentals of the process approach were formulated by E. Demynh in the conception of the continuous improvement of quality. This approach in the corporate management is called "cross-functional interaction" (Demynh, 2007). In his works, the American scientist presented the basic management cycle PDCA ("P" – plan; "D" – do; "C" – check; "A" – action) which can be adapted for different management methods (Ryhyn, 2012).

The transformation from the structural and functional to process-oriented management model of the insurance company is caused by the need for the organization of business processes that will generate the maximum value and usefulness of all agricultural insurance market entities. In the scientific literature the concepts of value and utility are widely used. The value is viewed as the significance of economic benefits that are available to people, "the result of a unique relationship between object and subject" (Bazylevych, 2005). In turn, the term "utility" means the ability to meet the specific needs of the individual (Chukhrai, 2013).

The need for differentiation of categorical concepts of values and utility in the system of coordinates of agricultural insurance is caused by the necessity of a clear reflection of the role and place of the insurer and the insurant in the distribution of agricultural risks in space and time. Awareness of these categories in the context of insurance relations formation in agriculture will contribute to mutual understanding, trust and increase of motivation to participate in the insurance process. The main features of values and utility, which are formed under the influence of insurance relations in agriculture, are shown in Fig. 2.

The implementation of the concept "value" in the insurance relations between entities of the agricultural insurance market is to provide the highest possible insurance coverage for the insured and an increase in sales of insurance products, expanding the coverage of agricultural risks for the insurer. The participation utility in the insurance process has the following results: a) farmers get insurance compensation in case of the insured event; b) insurer’s profits formation and profitability of insurance operations of agricultural insurance. The crucial condition for achieving parity of insurance relationships is to develop the methodology for the business processes management in the agricultural insurance market.
For methodological ordering of relations between entities of the agricultural insurance market there is a need to form aggregate of business processes which will provide favorable conditions for the development of insurance protection in agriculture due to their synergetic ability. The system of business processes of an insurance company includes the following interrelated elements. The entire set of business processes, which are generated by the insurance market participants, is shown in the simulation model (Fig. 3).
The peculiarity of the presented business processes is that their aggregate forms the basis of the insurance company. The key objective of the insurer while implementing this model is to balance the existing business processes in order to improve the efficiency of insurance business and provide competitive advantages not only in the short term but in the long term period. According to its functional purpose business processes accumulate financial, economic, technological and information resources of the market entities for equivalent allocation of risk and responsibility for all members of the insurance process.

The peculiarity of agriculture production is related to the phenomenon known as risk. The probability of the negative impact of risks on the production and processing of agricultural products is extremely high. Primarily it is connected with various climatic phenomena, and farmers are faced with risks such as price fluctuations, changes in yielding capacity, inconsistent public policy, etc.

For the purpose of well-timed identification, objective assessment and effective management of insurance risk a concept "underwriting risks" is used in theory and practice of insurance. In the scientific literature underwriting is considered to be a "complex work that is performed by the insurer for underwriting of a risk policy, including their evaluation, determination of the possibility of insurance, choice of optimal coverage, verification of compliance risk, client goals and objectives of the company in terms of financial stability" (Tkachenko, 2009). The use of underwriting activities by the insurer is caused by the timely selection of the optimal cover model of potential agricultural insurance risks. The insurance service is the instrument of
implementation of property and personal interests of the agricultural insurance market participants. According to the identified risks and assessment of the probability of their negative impact on agricultural production, and taken into consideration priorities for insurance protection, the insurer offers the insurant a range of insurance products under the agreed conditions (amount of insurance coverage, insurance rates, term insurance, etc.).

The priority objective of insurance companies in the formation of business processes is to ensure diversification of insurance services on the basis of a range of insurance interests and needs of farmers in insurance protection. Diversification processes development in the agricultural insurance market is caused by the need for balancing supply and demand, compliance with the principles of alternative and variance of ensuring proper quality of insurance services. The main idea of insurance services diversification is to create opportunities for insurer to respond to existing and potential risks that occur in the rural areas. Diversified range of insurance services of the insurer gives them the potential opportunities for conclusion of an agreement and renegotiation on agricultural insurance, according to the demands of farmers for insurance protection. The reasons for conclusion of insurance contracts are agreeing parametric features of an insurance contract (the insured amount, the insurance rate, the franchise, the system of insurance indemnity, etc.), which provides insurance balance of insurance interests between key entities of the insurance market. Taking out an insurance contract, first of all the insurant reckons on reliable insurance coverage in the case of the insured event, and the insurer expects to reserve a certain amount of financial resources required for the implementation of insurance claims on insurance contracts, and to ensure an acceptable level of profitability of the insurance activity.

One of the innovative approaches in providing business activity of the insurer in the insurance market is considered to be outsourcing. In general, the activity of outsourcing companies is focused on strengthening of the insurer’s market position in the insurance environment, particularly: improving the quality of insurance services; increasing competitiveness; optimizing business processes; reducing costs; concentrating on core business; investment attractiveness. Formation of outsourcing services in the agricultural insurance has a number of its features, as it is necessary to use the tools of the insurance policy (microinsurance, insurance and reinsurance), counteract possible manifestations of agricultural risks promptly and effectively and create the required conditions for insurers to provide insurants (farmers) with insurance coverage, and certainly boost their solvency, financial guarantees and safety in the delivery of agricultural insurance services.

Among strategic business processes in the agricultural insurance market the important place is occupied by the issues of budgeting of operating and financial performance of the insurer. The budget process involves the formation of the following types of budgets: the authorized fund; receipts of premiums; compensation fees (acquisition budget); insurance payments; reinsurance; insurance reserves; administrative costs; marketing and advertising; staff training and development; financial responsibility centers (centers of revenues, expenses, investment, income, etc.). The formation and the use of these budgets are carried out for the purpose of structuring and organizing cash flows of the insurer. Priority objectives of budget process of the
insurance companies are institutional allocation of priorities cash flows (the authorized fund of the insurer, the proceeds from the sale of insurance products, the formation of insurance reserves, financial functioning of the insurance company, etc.) in space and time, in accordance with the current legislation of Ukraine, formation logic and the use of financial and economic resources of the insurer.

The formation of business processes in the insurance company assumes the need for target management of its revenues, expenses and profitability, and to guarantee the insurer liquidity and solvency. Financial and economic resources management of the insurance company determines the need for generating revenues that exceed insurable (payment of insurance premiums and insurance claims under agreements of agricultural insurance and reinsurance, payments to insurance reserve funds and technical reserves, except the reserve for unearned premiums, service of processes of insurance and reinsurance) and non-insurable (administrative costs to enter the insurance business) expenses of the insurer.

The insurer’s activity in the agricultural insurance market is inextricably linked to preventing losses and ensuring the profitability of insurance operations. Assessing the services profitability level of agricultural insurance as the ratio of profits earned by the appropriate type of insurance, to the total amount of bonuses for a certain type of insurance, it is necessary to state that the efficiency of insurance operations is possible on condition of: a significant increase in the ratio of insured to acreage, the amount increase of accumulated insurance premiums for agricultural insurance contracts, diversification of insurance services into property and personal insurance types, and optimization of the management structure of the insurer’s transaction costs.

Generally in the scientific literature the insurer’s transaction costs is considered as a combination of the costs associated with the implementation of obligations (insurance claims) and maintenance costs of administrative and managerial personnel, management costs and general running costs (Izhevskiy, 2011). Nature of transaction costs in the agricultural insurance market is connected with an act of economic interaction between the entities of the insurance process. Transaction costs in the agricultural insurance appear in the course of underwriting actions as to the insurance coverage of crop production and livestock farming; design and implementation of insurance products in the market with appropriate marketing support; preparation, conclusion and implementation of agricultural insurance contracts and support service for insurants; implementation of institutional, infrastructure, information and communication contacts. Payment of insurance claims is certainly the largest share of transaction costs in the structure of total expenses insurer, its share is 60%. The specificity of this group of the insurer’s costs is that they depend on the nature and manifestations of agricultural risks.

The process of management of revenues and expenditures requires the formation of the insurer’s insurance portfolio. A risk-sharing between the entities of insurance takes place at the conclusion of agricultural insurance agreements. Taking farmers’ risks for insurance, the insurer must have sufficient economic and financial power from its own coverage sources (formed authorized capital, technical reserves of the insurer, etc.) and an effective system of reinsurance of agricultural risks. Trans-
ferring insurance risk to the insurer, farmers (insurants) are interested in the presence of guarantees from the insurer to obtain an adequate level of insurance coverage in case of the insured event.

The decisive criterion for the efficient formation of the insurance portfolio is achievement of an optimal balance between risk and income for the insurer. Implementation of insurance policy management involves the use of aggressive, conservative or diversified management models of the insurance portfolio. The aggressive model is designed for the insurer, who consciously runs the venture in order to increase profitability and capitalization of income; this model has a low level of financial stability, which causes the necessity to transfer a significant extent of liability of the insurer to the reinsurer. As opposed to the aggressive model the conservative model is characterized by low level of risk and profitableness. The advantages of this model are a high level of financial stability of the insurer, which is an extremely important condition for insurance activity in the formation of potential competition in the insurance market. The diversified model combines elements of aggressive and conservative management models insurance portfolio, that is the insurer’s abidance by the middle range of risk and profitability to gradually increase the share of its market presence is expected.

If there is insufficient capitalization of the insurer’s financial resources to perform their obligations under the agricultural insurance agreements they transmit a certain amount of risk to reinsurance in order to guarantee insurance indemnity instalment to the insurants in the case of the insured event. The financial stability of the insurance company is ensured due to reinsurance because it makes possible to distribute risk among many insurers in both domestic and foreign markets. The major international companies that provide reinsurance services of agricultural risks in Ukraine are: Munich Re (Germany), Partner Re (Switzerland), Swiss Re (Switzerland), SCOR (France / Switzerland) Hannover Re (Germany) and others (Shinkarenko, 2013).

The determinative conditions for the insurer’s success in the insurance market are ensuring of their liquidity and solvency. The lack of the insurer’s liquidity causes unexpected payment deficit, which is covered by the costs increase and results into a decrease in profitability. In the worst case, inadequate liquidity causes insolvency of the insurance company. However, excess liquidity, which is the result of inefficient insurance management, has a negative impact on the activities of the insurer and demonstrates their inability to manage free resources effectively. This leads to loss of insurance company profitability and sometimes even causes damage (Tkachenko, 2009). Thus, a priority objective for the insurance company is to develop a level of liquidity and solvency, which would give an opportunity to transform existing assets to pay benefits for insured events at any time.

Ensuring the property interests of the insurance process participants is possible through the mechanism of property claims adjustment. The main principles of claims adjustment process are: the legitimacy of claims to cover losses; adequate and timely compensation; operative execution of financial estimates; timely payment of insurance compensation. In case of the insured event the insurant files to the insurer. The insurer carries out the following activities within the deadline: the validity of the con-
tract is checked; the examined fields are identified, the area of each field is checked; data on insured event and the insured value of the loss are authenticated; the relation of damages and lost plants to influence of insured risks. After confirmation of the insured event and determination of the amount of damage the insurer repair losses within the actual damages, but not exceeding the sum insured.

The novelty of the present study is to reflect methodological consistency of the business processes management in the agricultural insurance market. The necessity of implementing a set of interrelated business processes of the insurer as a basis for equivalence of financial and economic interests of the insurance process participants is studied. The simulation model of business process management, which opposed to existing organizes key stages of the insurer's activities regarding the formation of insurance coverage policy of farmers and ensuring conditions to guarantee the solvency and liquidity of the insurance company, especially in the context of increased probability of risk occurrence of agricultural production, is developed.

4. Conclusions

1. The basis for the formation of balanced insurance relations in the agricultural insurance market are business processes. Methodology of management decisions is based on a distinct hierarchy of business processes that generate institutional, organizational, communication, financial, economic, cultural and ethical relationships between insurance entities. Presented totality of business processes is based on modern theory and methodology of insurance relations in the agrarian sector.

2. Consistency of implementing business processes in agricultural insurance market is connected with the need for structuring the management decisions of the insurance company aimed to achieve tactical and strategic objectives of the insurer. The necessity of transformation from the structural and functional into process-oriented management model of the insurance company is explained by the need to ensure the business processes optimization aimed at forming competitive advantages in the insurance market (improving the quality of insurance services, increasing the number of potential customers, revenue generation and cost reduction, etc.). The logic of management decision-making process in the field of agricultural insurance is formed according to the common interests of the entities of the insurance process distributed in time and space.

3. The differentiation between concepts of value and utility is done with a view to structuring the key priorities from the standpoint of the insurer and the instant, who are connected by contract commitments. The simulation model of business process management in the agricultural insurance market is developed to ensure the methodological order of operating and financial activities of insurance companies. Presented simulation model is designed for practical use by insurance companies in the development and provision of insurance services in rural areas.
References


VERSLO PROCESŲ VALDYMO ŽEMĖS ŪKIO DRAUDIMO RINKOJE METODOLOGIJA

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Santrauka


Raktiniai žodžiai: žemės ūkio rizikos, draudimas, draudimo rinka, verslo procesų valdymas.
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