

RISK MANAGEMENT IN THE MANAGEMENT SYSTEM OF AN AGRICULTURAL ENTERPRISE

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During the last decades the structure of trade have changed essentially by increasing the part of high-quality ready food products in the world`s export-import. The social role of agrofood sector as a carrier of public benefits, guarantor of food, social and economic and ecologic safety, carrier of maintenance and development of national culture has also secured. In these conditions it becomes obvious that to ensure permanent development of any country the necessary component of the management systems of economic agents shall be risk management as a risk management system that includes management strategy and tactics aimed at achievement of the indicated development. After all, the risks of all levels make the constraints for efficient development of all the economic relations participants. It is especially concerns the development of agricultural enterprises that are initial in the food products supply chains, and the food safety of the country, social and economic development of rural territories and ecological state of the lands use depend on them.

Agricultural activity is one of the most risky in the economy as aside from the influence of the economic laws inherent to all economic entities; it is influenced by such factors as: climate, weather conditions, epidemics, ecologic problems, etc. At the same time agricultural goods producers feel the consistent need for capital-intensive upgrading, they shall constantly diversify their products in the conditions of advancing demands of the market to its quality. That`s why the achievement of efficient utilization of available resources (financial, natural, labor, informational and other) is a complicated task for agricultural enterprises management.

The problems of enterprises management, in particular risk-management, are studied in different economic fields, especially in commercial, banking, manufacturing industry, etc. The problem got widespread after the World War II; and appears to be relevant today, as the modern economic space features changeability, uncertainty, complexity, vagueness, and ambiguity.

The founding father of risk management is deemed to be Wayne Snider who described the profession of “risk-manager” for the first time in 1956 [19]. The first learning guide on risk management was published in 1963 by Robert Irwin Mehr and Bob Atkinson Hedges named Risk Management in the Business Enterprise [8, 20]. The studies of risk management have been added by the developments of general concepts, principles and terms. Practical application of scientific thought progress is expressed in risk management standards and concepts adopted by international and national organizations and companies. In the meantime national standards of risk management are developed in the most of the world`s major economies [18, 23].

In Ukraine the issue of risk management is materially considered in the works of N. Birchenko [1], T. Barisova [2], V. Vitlinskyi, G. Velykoivanenko [3], L. Donets [11], V.T. Tsvigun [16] and many others.

Taking into account that the mankind hasn`t leant to fully influence the unfavorable weather conditions, the most efficient mechanism for consequences avoidance is application of agricultural insurance mechanism as a constituent of risk management mechanism. Thus, the issue of agricultural insurance is studied by such scientists as: A. Gordiychuk [4], V. Goryovyy [5], I. Zhmurko [6],

R. Kolibaba [7], Yu. Lupenko, A. Sholoiko [9, 17], S. Navrotskyi [10], O. Ostapenko [12], V. Pantelev, O. Kipreieva [13], T. Solomatina [15], V. Onegina, N.Vnukova [21, 22], et al.

V. Onegina`s and N.Vnukova`s articles are devoted to the consideration and generalization of tendencies of development of agricultural insurance, private and public insurance programs, the role of the public policy in the provision of agricultural insurance in the European Union, USA, and Canada [21, 22].

Regardless of the scientific work, all economic agents (notwithstanding the form of ownership, size, scope of activities) in the modern economic conditions are influenced by many negative factors resulting in expenses and being the risk because of internal and external circumstances. Agricultural enterprises make no exception.

According to T. V. Tsvigun, management by the risk or risk-management is a special type of management activity directed at efficient enterprise protection from unacceptable orderly or unexpected circumstances (events, threats) that may eventually influence negatively the work of the enterprise, namely by either enterprise profitability decrease or income deficiency [16].

For T. Borisova risk management is a specific management area providing for application of different approaches, processes, measures aimed at provision of maximally wide scope of possible enterprise risk coverage, their estimate, as well as formation, realization and control of measures to optimize the risk level in order to achieve the enterprise goals [2, p. 116].

N. Birchenko`s research established that the risks represent any uncertainties of circumstances for the pursuit of production and commercial activity, that can be evaluated in monetary form through non-receipt of expected financial results. The author has also proved that the existing methodic instruments for quantitative estimation of the efficiency of agricultural enterprises risk management should be added up with holding of quality analysis through scenario method account. The meaning enables to increase the quality of management decisions as to risk management strategies at agricultural enterprises [1].

Risk management mechanism, in T. Tsvigun`s opinion, is a conjunction of management principles, methods and key factors, different components of maintenance subsystem, interaction and consistency of which shall ensure efficient decision-making in the field of enterprise risk management [16].

It should be pointed out that the information support of risk management mechanism is a source of data for analysis of threats and determination of quantity extent, mainly in monetary form, of enterprise risks with the purpose of their prevention, reduction or evasion. For processing the received information at the enterprise, its qualitative analysis, the necessary component of analytic support is modern software and appropriately trained and skilled personnel. Surely, the analysis of the obtained information shall provide solution of such tasks as determination of risk causes with the purpose of its prevention in future and establishment of the dependence level between the risk probability and the size of expenses.

Aside from the information support the necessary element of agricultural enterprises risk-management is financial support of operation expenses coverage. The possible expenses for formation and realization of the indicated mechanism at the enterprise are as follows:

- mechanism development, review and improvement;
- legal support (drafting job descriptions, regulations);
- information support;
- payment to employees performing duties in the field of risk-management;
- financing the indicated influence measures at the risk level by prevention, reduction, evasion, etc.

All the stated expenses shall be constantly analyzed and systemized as in the future their value shall be compared to the risk “cost” prevented, reduced or evaded. At the same time, to provide predicted harmonious development of the enterprise and its achievement of goals in the modern condition of permanent uncertainty, the enterprise management shall increase expenses on the risk-management system. But the key factor to increase such expenses is that the size of expenses for risk-management operation shall not overcome the “cost” of potential risks, namely the amount of forgone earning of the economic agent.

According to many scientists, the most efficient instrument of risk management in agriculture is agricultural insurance. Thus, the insurance is the appropriate way of protection against risks arising within the framework of agricultural producers' activity, as it operates through the loss reimbursement mechanism [6].

S. Navrotskyi also states that one of the elements to ensure the financial state stabilization for the agricultural enterprises in the market condition is insurance providing continuity of agricultural production development, agricultural market operation and can be a source of investment into the agriculture [10, p. 149-155].

The information about hedging can also be found in the scientific literature. According to T. Solomatina's conclusions, hedging of financial capacity loss risk for the agricultural enterprises make economic relations connected with minimizing the probability of deviation from the movement pattern on the way to the set goals of formation and utilization of financial resources, financial state indicators and the cost of economic subjects under the influence of adverse development of internal and external realities, including climate and environment conditions [15].

The precondition for efficient insurance coverage of agricultural enterprises is clarification of the risk notion in insurance, detection of its main types and determination of possibility to provide insurance coverage in the process of agricultural production.

The majority of domestic financial experts-underwriters determine the risk as a threat or possibility of deviation from actual performance results or taken decisions from the planned ones [2, 6].

Economically speaking, the risk of the agricultural economic agent is interpreted as a threat of income deficiency, deficit or resource consumption being the result of certain types of manufacturing, sales or financial activity [11].

The presence of a certain totality of different risks in the field of agriculture stipulates the necessity of modern financial instruments application in order to minimize them [5, p. 56]. As it was noted before, agricultural production is one of the most risky types of entrepreneurial activity as its development depends both on external realities, in particular, world's financial and economic situation, on social and economic development of the economy, on corresponding legal framework, on weather and climate conditions that become more unpredictable year after year, and on internal environment of the enterprises – product manufacturers.

Insurance of the agricultural manufacture is a system of measures to protect the property interests of citizens, organizations and establishments related to agricultural products manufacture, organized by special insurance state and non-state protection agencies in case of certain events funded with special purpose monetary resources [13, p. 28].

According to T. Solomatina's research, the most demanded insurance products by the agricultural enterprises in crop farming are as follows: total loss and spring frost – 40 % of insurance contracts, 42 % of insured spaces, 51 % of affected spaces, 54 % of insurance proceeds; multirisk insurance of future harvest – almost 46 % in insurance sums, 58 % – in insurance premiums. In livestock production: 99.8 % insured on individuals risk complex by the number of contracts, and 51 % – by the ratio of insurance premiums collected, 100 % – by the share of injured animals and insurance benefits. Nominal risks – 67 % top the ratings by the part of insured animals, risk package (fire, third party offence, natural disasters, incident, diseases, including infectious ones, forced killing related to epidemic control measures) has the highest ratio in all insurance sums – almost 61 % [15].

The law “On Peculiarities of State-Aided Agricultural Products Insurance” is in force in Ukraine [14], in accordance therewith the agriculture insurance risk is the risk of insured crop (bedding) failure (loss, damage), insured harvest failure (shortfall, shortage), death (loss, forced killing, forced destruction, traumatic injury or disease) of insured livestock, poultry, rabbits, fur bearers, colonies of bees, aquatic biological resources and animal products beneficially or otherwise owned by agricultural producer as a result of insured event provided for by the insurance contract. Moreover, as of the beginning of 2020 the license for holding insurance activity in the form of voluntary insurance of agricultural products is held by 64 insurance companies or 27.3 % of their total count [15].

Furthermore, in accordance with the law of Ukraine, state support in the form of monetary resources is provided to the agricultural producers from the state budget in the form of subsidies for a part of insurance payment (insurance premium) accrued under the insurance contract.

Therefore, state-aided agricultural products insurance means economic relations as to insurance protection of property interests of agricultural producers in case of certain events (accident insured) funded by monetary funds raised by the insurance agent by payment of insurance payments (premiums) by the subscriber, the part of which is reimbursed at the expense of state subsidies and income from investment of the fund's resources and is determined by the presence and peculiarities of risks, the carriers of which are plants and animals [14].

Essentially, risk is a combination of events (threats) probability and consequences of adverse conditions (monetary value of the extent of forgone financial results). In accordance with the corresponding legislation all the totality of risks in the agriculture is divided into the following groups [5, p. 48]:

1. Operational risks arising of ambiguity of natural conditions of plant and animal products manufacture. Unfavorable weather conditions, animal diseases and presence of pests are, as a rule, the reasons that can negatively influence the quantity and quality of the agricultural products manufactured;

2. Market risks noticeable because of price uncertainty for agricultural products. Incomplete exploitation of opportunities of market pricing mechanisms such as formation of a product shareholder's value, conclusion of futures contracts, significantly restrict the financial opportunities of the manufacturers when planning their balance of income and expenditures;

3. Credit risks related to commercial credits that cannot be always returned in time by the agricultural producers. Raising of credit means that the producer shall save a certain part of its income to pay the debt in future;

4. Institutional risks. Related to the changes of economic, social, food, ecologic policy of the state, the actions of which indirectly result in agricultural products price changes and cause certain administrative restrictions in agricultural production;

5. Personal risks. The nature of these risks is related to individual peculiarities of the employees. Accidents, diseases and incapacitation, including the household heads and specialists, influence negatively the economic activity of the enterprise, their financial result;

6. Financial risks related to capital stacking and business financing. The risk in this case is stipulated primarily by the changes in the interest rate under the loan capital;

7. Ecological risks jeopardizing natural and manmade threats resulting in soil erosion, cultivated lands contamination, humus soil exhaustion and plant nutrient deficiency, soil acidification.

It is worth mentioning that agricultural insurance shall develop in the following directions: first, Ukrainian legislation improvement regulating insurance services on the market, and providing the agricultural producers with state support on their risks insurance; second, institutional and infrastructure development aimed at growth of the state's ability and rapidity to perform its functions in this system; third, encouragement and promotion of insurance sector aimed at the increase of its ability to provide quality services in the field of agriculture.

Cumulativity is peculiar of the majority of agricultural risks causing their influence on the general social and economic state of the country. Taking into account undercapitalization of Ukrainian insurance companies and immaturity of financial market, Yu.O. Lupenko and A. S. Sholoiko determined the objective necessity in establishment of new means of financing agricultural catastrophic risks, as the use of alternative reinsurance is complicated according to the authors [9]. The executive study of the mentioned authors emphasizes the prospects of application of business platforms in the field of agricultural catastrophic risks reinsurance, data exchange, sale of insurance policies as well as financing of expenses from natural and manmade disasters by means of crowd funding platforms in conditions of high-level uncovered catastrophic expenses in the world. The authors also substantiated the expediency of creation of a state reinsurance company for decreasing the scope of external reinsurance of agricultural catastrophic risks, and as a result – decrease in outflow of capital abroad [9, p. 48].

Z. Varnaliy, S. Onyschenko and O. Masliy substantiated the necessity of implementation and realization of organizational and economic mechanism for prevention of threats to economic safety of the national economy by contextual response to the arising threats. The author's approach lies in development of anticipatory (preventive) management using the methods of scenario modelling. The above-mentioned enables to choose the optimal and the most efficient decision among the alternative

variants by forecasting the possible outcome, including the financial one as a result of their realization. Implementation of strategic monitoring, contextual modelling and forecasting at development of priority directions of economic policy within the framework of the entire procedure for substantiation and adoption of strategic decisions will enable to generate fundamental principles of economic safety assurance both for the country and each economic agent alone [24].

Thus, the research held on the risk-management mechanism in the risk management system enables to provide recommendations to agrofood sector enterprises, in particular, agricultural ones, for implementation of such a mechanism, as its application allows them not only to survive in dynamic ambiguous environment but to have sustainable development that is a condition and a guarantee of food and ecologic safety and social and economic development of the country as a whole.

For the purposes of the foregoing, the development of agricultural production insurance is a viable mechanism for obtainment of positive economic and social results of the economic management in rural regions. If the agricultural producer is aware that in case of partial or full crop damage, animals and animal products destruction (loss), it can count on proper reimbursement, it will surely continue carrying out of agricultural activity even in conditions of significant uncertainty. For this purpose it is necessary to use such instrument as agricultural products insurance with the state support. The abovementioned is a more efficient form of manufacturer income stabilization than the financial support of the state.

It is expedient to realize the risk-management mechanism for agricultural enterprises according to the following action plan:

- 1) Setting of a goal and tasks for the risk-management mechanism;
- 2) Development, documentation of risk-management algorithm, determination of persons involved and assignment of labor activity to them (productive, creative, educational and cultural, public, etc.);
- 3) Complex and system analysis of threats (internal and external) as potential events that can result in reduction or failure to receive the amount of the enterprise expected results;
- 4) Quantity estimate of threats constituting the “cost” of risks (amount of forgone expectations of financial results of the economic agent);
- 5) Choice of optimal, up-to-date, viable methods of risk management (evasion from risk, its reduction and risk assignment);
- 6) Implementation of the chosen management methods;
- 7) Control of the main stages of risk management mechanism;
- 8) Analysis and managerial decision-making on the efficiency of mechanism, including the corrective actions on its improvement.

Implementation of risk-management mechanism in agricultural enterprises risk management will allow them to prevent threat, reduce risks and minimize negative influence on their financial and economic activity.

For the agricultural enterprises insurance shall become the efficient financial and economic instrument for producers' property interest protection during the manufacture and processing of agricultural products. Further development of agricultural insurance shall be aimed at creation of favorable and safe conditions for conducting business by all the participants of agrofood chain stipulating the division of risks among the agricultural producers, processing enterprises of food industry, representatives of trade, banks, insurance companies and the state. Such formulation of the issue will enable the domestic producers to integrate into European and global economic space.

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