RISK IDENTIFICATION, ESTIMATION AND MANAGEMENT AS A TOOL TO IMPROVE THE COMPETITIVENESS OF THE ENTERPRISE

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Abstract
The problems of uncertainty and risk as elements of objective reality that directly affect the competitiveness of businesses was considered in the paper. In a market economy, uncertainty and risk constantly accompany the activities of economic entities. The main criteria for determining entrepreneurial risk factors are the source of their occurrence (external and internal factors) and the degree of influence (factors of direct and indirect action), which can change the individual parameters of the enterprise, which will lead to deviation of actual results of performed operations from the projected ones. Particular attention should be given to the mechanism of risk estimation, as the correctness of risk evaluation directly affects the results of the enterprise, the dimension of possible losses or expected profits. Insomuch as the economic system of the enterprise consists of a set of subsystems and interconnections, we have proposed a mechanism for identifying the source and assessing estimation the negative impact. On the base of analyzing the impact of the set of risks an integrated economic risk indicator is formed, consisting of an adequate number of local risks of these subsystems. Analysis of the integrated risk indicator offers an effective risk management system that includes measures to adapt and counteract the negative impact. The main internal measures of the enterprise are: risk limitation, risk diversification, risk minimization and internal risk insurance. Forms of external risk insurance include: non-current assets insurance, cargo insurance during transportation, investment insurance, profit insurance and insurance by a hedging operation. Thus, ensuring the competitiveness of industrial enterprises involves the formation and implementation of an effective risk management system, which should ensure that the negative effects of entrepreneurial risk are minimized.

Keywords: risk, competitiveness, risk estimation, risk management system, limitation, hedging operation.

INTRODUCTION

The activities of enterprises in the market are accompanied by risks and uncertainty. It is impossible to eliminate risks in the activity of economic entities. Therefore, to reach purpose of increase the competitiveness of the company they need to identify and estimation them.

The main difference between risk and uncertainty is the possibility of measurement and evaluation: uncertainty cannot be measured, while the risk can be estimated. It follows that the risk, unlike uncertainty, can be manageable. Thus, uncertainty should be considered as the main condition for the occurrence and development of risk.

RESEARCH RESULTS AND DISCUSSION

In order to determine economic risk, study methods for its identification, evaluation and effective management it is necessary to determine the essence of this category. In the scientific literature, there are many approaches to determining the nature of the risk category, which can be grouped into three main groups [8].

Works of the theory of optimal control, consider the risk as characteristics that inherent in any human activity, carried out in condition with limitations resources and choice of method to achieve the objectives [1]. No one ability or action can eliminate the risk. There are only ways to mitigate its effects. In the scientific literature of this area, the risks characterize the probability of events that lead to a change in equilibrium of socio-economic systems. Particular attention is paid to the study of risk properties such as systematicity, generality and dynamic probability. These risks are estimated using a system of qualitative indicators and quantitative indicators that characterize the situation for the better or worse.

The second area is represented by works, in which risk is meant as adding the regression potential. The research on these scientists is focused on such negative risk characteristics as:

– irreparable loss of material values, various properties and qualities that were useful in the past, but are disappearing in the present;

– appearance of new material values, qualities and properties of which is uncertain in the future;

– increasing environmental threats due to industrial development;

– decrease in security as a result of the creation and spread of new technologies.

A third group of authors investigates risks as a form of result uncertainty associated with a special type of business activity − entrepreneurship.

For the first time, the concept of risk as a functional characteristic of entrepreneurship was put forward in the XVII century by the French economist R. Cantillon, who viewed the entrepreneur as a decision-maker and satisfying his interests in the condition of uncertainty. The development of the concept of risk, above all, was associated with studies of the nature of income entrepreneur [5]. The followers of R. Cantillon held similar views, believing that entrepreneurial income or a portion of it was a risk pay and qualitatively different from profit on advanced capital.

The most significant contribution to the development of the economic aspect of risk theory was made by representatives of the classical, neoclassical and Keynesian School of Economics.

Today, much attention of risk research and its role in domestic practice is being considered. It is the works of recent years that have a complex and comprehensive approach of limitations of risks. Their study allows us to identify the components and properties of risk as a main phenomenon of economic activity that must be used to determine risk.

An analysis of the various economic literature of risk theory has allowed us to identify the following approaches to defining this category.

1. Risk as the probability of negative result.

2. Risk as uncertainty of future state, internal situation and external environment.

3. Risk as the probability of a mistake or the success of a particular choice in a multi-alternative situation.

4. Risk as a loss, possible losses.

The analysis of numerous definitions of the risk concept allows to determinate the main features that are characteristic of the risk situation: the presence of uncertainty, the availability of alternative solutions, the ability to determine the probability of finals and expected results, the probability of losses or additional profit [5].

Determining the essence of the risk and identifying it to improve the competitiveness of the enterprise can be facilitated by a detailed examination of risk classifications.

In the economic literature, there are many different approaches to the classification of business risks, but even nowadays the authors in this area don't have a single point of view of what the classification of the risk system should be.

Most Western economists identify operational, market, and credit risks. Often, these main types are added to liquidity, business and legal risks, and regulatory risks.

The specificity of the Western risk classification is that in these countries there is a stable banking system, as well as developed markets: currency and securities. Thus, most of the work on risk issues is linked to these institutions and their governing.

Risk is the probability of loss of assets as a result of a planned activity. Financial loss is a common ultimate costing manifestation of the negative effects of economic risk.

As the economic system of the enterprise consists of a set of subsystems, the integrated economic risk consists of an adequate amount of local risks of these subsystems. It is proposed to identify the following main types of economic risks (Figure 1).

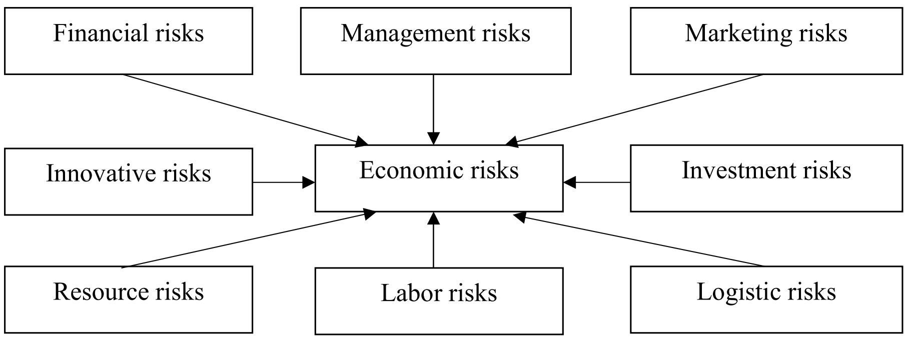

Figure 1. Classification of economic risks

The classification offered above is not complete, since the classification principle is determined by the specific task, the characteristic of the entity that make the task, and the specific situation in which the subject is located. For each case, the risk classification may have an independent decision, since the nature of the risk that accompanies a certain type of activity has its own specificity, which determines the possibility of the presence in the classification system of certain characteristics.

In the analysis of risks, the question of the nature of their manifestation is debatable: there are three basic points of view in the literature that recognize either the subjective, objective, or subjective-objective nature of risks.

The greatest contribution to the development of subjective theory was made by V.A. Oyzengit assuming that risk is always subjective because it acts as estimation of human's activity, as a conscious choice given the alternatives. Since, from the point of view of this concept, risk is always associated with the will and awareness of the person, then risk is first of all a choice of behaviors, taking into account the threat, regarding the possible adverse effects [9].

Proponents of the objective nature of the origin of risk are based on the fact that the concept of risk reflects real-world phenomena and processes, and the risk exists regardless of whether they are aware of its presence or absence, take it into account or ignore. The objectivity of risk is reflected in the fact that this economic category reflects the real uncertainty and conflict in economic activity.

The degree of risk also depends on the attitude of the subject of decision-making to uncertainty and conflict: predisposition, indifference. Therefore, all factors of uncertainty, conflict and risk are divided into subjective and objective. Risk arises when decisions are made in condition of uncertainty, conflict, and the decision-maker is interested in this process. All this makes the risk a dialectical unity of subjective and objective.

For a more complete concept of the nature of "risk", we will reveal its object and subject, the functions it performs and the factors of its occurrence.

The object of risk is the economic system itself, the efficiency and operating conditions of which are unknown. The subject of risk is an individual or a group of individuals who are interested in the results of managing the object of risk and have the right to make decisions about the object of risk [4; 5].

But in the question of the functions of risk, the views of scientists are diverse. L.N. Tepman and A.P. Slobidsky distinguish stimulating and protective functions of risk [6; 8], L.I. Donets adds innovative and analytical features to these functions [2]. But the most complete and detailed list of functions is allocated by S.M. Klimenko and O.S Dub [3].

1. The regulatory function has two aspects − constructive and destructive. A constructive aspect is that risk can play the role of catalyst in the conduct of business operations, as it facilitates the search for innovative ideas and encourages business. However, in the context of incomplete information and without proper consideration of the patterns of events, the risk can act destructively.

2. The protective function also has two aspects − historical-genetic and social-legal. The content of the first is that people are always spontaneously looking for forms and remedies for possible unwanted consequences. In practice, this can be manifested in business risk insurance or the creation of reserve funds. The essence of the other is the objective necessity of legislatively fixing the notion of "legitimacy of risk".

3. The innovative function stimulates the search for solutions to the problems facing the business entity. Risky decisions lead to more efficient production, which benefits both entrepreneurs, consumers, and society. The value of the innovative

function is also to provide additional impetus to the development of promising areas of research and business.

4. The analytical function is manifested in the fact that risk analysis necessitates the choice of the most profitable option with the least degree of risk in the analysis of alternatives.

Obviously, all the considered risk functions directly or indirectly contribute to improving the level of competitiveness of the enterprise.

The main criteria for determining entrepreneurial risk factors are the source of origin (external and internal factors) and the degree of influence (direct and indirect factors) [9]. Direct action factors directly affect business results and risk levels. Indirect factors don't directly affect these processes, but may cause them to change. The parameters that characterize the internal activity of the enterprise are internal; External factors are parameters that characterize the external environment of the business entity.

The external factors of direct influence include:

1. Legislative policy of the state on regulation of economic activity and unforeseen actions of state authorities and local self-government.

2. The tax system. Economic practice shows that withdrawing from the taxpayer up to 30% of its income is the point at which the process of reducing investment in the economy begins.

3. Relations with partners. In this case, the break of contractual obligations, on the one hand, by suppliers and, on the other, by buyers, may increase the risk level.

4. Competition. Exactly the risk involves the entrepreneur in the system of relations of natural selection through fierce competition. Competition belongs to the main factors affecting the level of business risk. Success in competition is only conducive to those who will identify new needs, release new products and introduce new technologies.

The external risk factors for indirect influence are the following [2, 3]:

1. The environment.
2. Scientific and technological progress.
3. Market conditions.
4. The economic situation in the country and the individual industry.
5. The political situation.

Internal risk factors include:

– availability of resources and efficiency of their use;
– costs of production;
– staff and motivation of their activity;
– quality and competitiveness of products;
– the level of organization of the production process;
– production capacity and volume of sales;
– development strategy, tactical and operational planning;
– the state of the technological base of production and the nature of innovative processes.

Therefore, risk is a financial category, so the extent and quantity of risk can be influenced through a financial mechanism.

Risk management is a system of risk assessment, risk management and economic relationships that emerged in the process of this management, and includes the strategy and tactics of management actions (Figure 2).

Such a management system consists of two subsystems: the controlled subsystem − the object of control and the control subsystem − the subject of control. The object of management is risky capital investment and economic relations between economic entities in the process of risk realization. These economic relations include relations between the insured and the insurer, lender and borrower, between businesses, competitors etc. Subject − a group of managers (financial manager, a specialist in insurance etc.), which means of various variants of its actions carries out purposeful functioning of the object of management. This process can be carried out only if the necessary information is exchanged between the subject and the object [7].

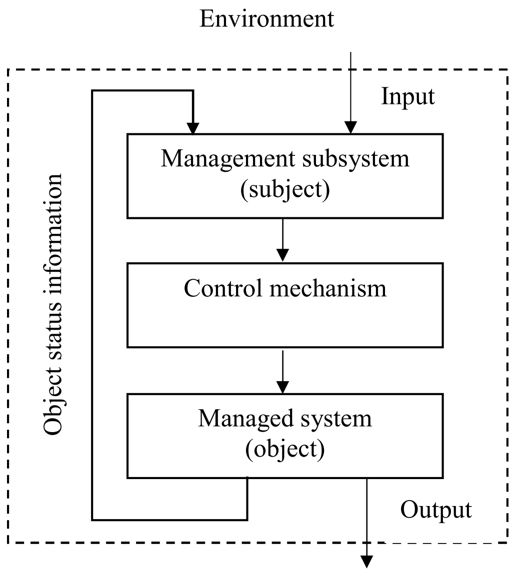

Figure 2. The risk management system

The essence of the mechanism in management is to neutralize the possibility of lack in the planned profit in the process of economic activity of industrial enterprises. It is advisable to distinguish three levels of such neutralization.

1. To avoid the possibility of risks − involves the refusal of actions that may be accompanied by risk and cause loss of profit.

2. Adaptation to the possibility of risk − of adaptation measures and eliminating the negative impact of risks on the activities of enterprises.

3. Reducing the level of negative impact of risks − identifying internal and external means of reducing the level of risk.

Internal risk limitation measures include: risk mitigation, risk diversification, risk minimization and internal risk insurance.

Forms of external risk insurance are: insurance of non-current assets, cargo insurance during transportation, investment insurance. profit insurance and hedge insurance.

Thus, a risk management strategy is the art of managing risk in an uncertain economic situation, based on the prediction of risk and the methods of reducing it.

Accounting for uncertainty done in three ways:

1) check the sustainability of the project;

2) adjustment of project parameters and economic standards;

3) by formalized description of the uncertainty.

One of the most important indicators of sustainability testing is the break-even point (sales volume at which the sales revenue coincides with production costs). Break-even point is determined by the formula:

$$P_b = C_f / (P - C_v),$$

where

C_f − fixed costs;

C_v − variable costs;

P − price.

To confirm the efficiency of the project needs to break-even point was less that nominal value output: as the farther from their break-even point that stability project is.

Indicators used to compare different projects (or project variants) and select the best one is indicators of the expected integral effect – E_e (economic − at the national economy level, commercial − at the level of the individual enterprise). These indicators are also used to justify the rational size and forms of reservation and insurance. If the probability of various conditions of the project are known precisely, the expected effect of the integral calculated as a mathematical expectation:

$$E_e = E_i * P_i, \qquad i = 1, n.$$

Currently, the most common methods of risk analysis are [4]:

– statistical;
– expert assessments;
– analytical;
– evaluation of financial stability and solvency;
– estimation of expediency of expenses;
– analysis of the consequences of risk accumulation;
– method of using analogs;
– combined method.

The statistical method studies the statistics of losses and profits that took place at a given or similar enterprise, in order to determine the probability of an event, to determine the quantity of risk.

Method of expert assessments. This method differs from the statistical one only by collecting information to construct a risk curve. This method involves the collection and study of estimates made by various specialists regarding the probability of different levels of loss.

Analytical method. The analytical way of constructing the risk curve is the most difficult, since it is based on elements of game theory. It consists of the following steps: selection of a key indicator against which sensitivity is assessed (internal rate of return, net present income, etc.); choice of factors (inflation rate, state of the economy, etc.); calculation of the values of the key indicator at different stages of the project implementation (purchase of raw materials, production, implementation, transportation, capital construction, etc.).

Certain types of factors are integral, and a clear awareness of their appearance to determine their possible impact on the projected production results is very important for timely and effective management of the enterprise, ensuring its competitiveness in the market.

CONCLUSION

A direct study of the specificity of the risk itself and the specificity of decision-making in risky situations can determine the ways of its transformation into an active lever to manage the economic development of the enterprise and increase its level of competitiveness.

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