International Journal on Emerging Technologies 10(2a): 150-153(2019)
ISSN No. (Print) : 0975-8364
ISSN No. (Online) : 2249-3255

The Concept of Risk and its Essence, Problems in the Study of the Concept of Risk

Aidar Miralimovich Tufetulov[1] and Dinara Damirovna Kuzmina[2]
[1]Head of Department (Professor), Institute of Management, Economics and Finance/Department of Economic Security and Taxation, Kazan Federal University Russia.
[2]Institute of Management, Economics and Finance/Department of Economic Security and Taxation, Kazan Federal University, Russia.

(Corresponding author : Miralimovich Tufetulov)
(Received 05 May 2019, Revised 16 July 2019 Accepted 25 July 2019)
(Published by Research Trend, Website: www.researchtrend.net)

ABSTRACT: The article deals with the basic theory of risk, a critical review of literature on the definition of "risk". The interrelation and interdependence of concepts of risk and probability, risk and uncertainty are revealed, such features of risk as alternative, accident and inconsistency are reflected, and also approaches of different editions to the concept of risks and opportunities are described. The article formulates the main problems arising in the analysis of the concept of the essence of risk.

Keywords: risk, uncertainty, probability, accident, alternative, inconsistency, opportunities, threats.

I. INTRODUCTION

The concept of "risk" has a long world history, but most actively began to study various aspects of risk in the late XIX - early XX century.
In the West, a lot of attention is paid to the problem of risk studies. In the USSR for a long time dominated the extensive development of the national economy, administrative methods of management. As a result, the analysis of the efficiency of economic activity in the conditions of the planned economy, and technical and economic projects is carried out without risk assessment.
Thus, in Russia for a long time there was no interest in the problem of economic risks, and only with changes in the conditions of activity, the issues of risk consideration became in demand and were further developed [1].

II. METHODS

The problem of risk management is very relevant today. Risk is treated differently in Economics. Speaking about the degree of scientific development of the problem, it can be noted that the concept of risk, as well as the development of risk theories in Economics is associated with the names of authors such as D. S. mill, G. von Mangold, A. Smith., V. Weber, D. Bernoulli, Arthur Ligu, John Maynard Keynes, F. knight, I. Schumpeter, etc.
In world economic science distinguish classical and neoclassical theories of entrepreneurial risk.
(1) His contribution to the development of the classical theory of risk made A. Smith, J. Mille and N. From.Senior. The classical theory connects the concepts of risk and entrepreneurial profit.
The risk here is identified with the mathematical expectation of losses that may occur as a result of the chosen solution.
Risk = damage caused by the implementation of the decision.
(2) The Creation of the neoclassical theory of risk associated with the names of English economists Marshall, pigu, etc.
Neoclassical understanding of risk as the probability of deviation from the planned result. The basis of this theory is that in a market economy, the company operates in conditions of uncertainty, and profit is a random variable, resulting in the company is guided by the size of the expected profit and the magnitude of its possible fluctuations [2].
Business risk = probability of deviation from the plan (planned result).
(3) The development of Modern theories of risk
His contribution to the development of the theory of risk also made F. Knight, J. Keynes, Th. Schumpeter *et al*.
John. Keynes introduces the concept of "risk costs", which are necessary to cover the possible deviation of actual revenue from expected.
Keynes developed the first classification of risks (based on its modern classification), highlighting the three main types of risks: business risk , the risk of “lender”, the risk of changes in the value of the currency.
F. knight was first suggested the idea of risk as a quantitative measure of uncertainty. It was he who suggested the view supported so far by most economists on the difference between uncertainty and risk [3].
For the domestic economy, the problem of risk and its assessment is not new: in the 1920s, a number of legislative acts were adopted that take into account the existence of production and economic risk in Russia.
Administrative methods of management in the USSR led to the fact that the justification of the efficiency of economic activity in the conditions of the planned economy did without risk analysis. By the mid-1930s, the concept of "risk" disappears from encyclopedias and literature, thus leading to the development of methods of assessment, analysis, and risk management and to one-sidedness in the development of economic theory and practice.
The implementation of economic reforms in Russia has led to the fact that there was an interest in the consideration of risk in economic activity, and the theory of risk in the process of formation of market relations not only received its further development, but has become practically in demand.
In a market economy, the consequences of risk fall on the entrepreneur, as the state is not responsible for the obligations of enterprises, so the theory of risk continues to be studied and developed [4].

Table 1: Definitions of "risk" and their literature.

The definition of "risk"
Risk is: 1. Possibility of danger, failure; 2. Action at random in the hope of a happy outcome [6].
Measure of inconsistency between different possible outcomes of certain strategies [7].
Possible risk of losses arising from the specifics of certain natural phenomena and activities of human society [8].
Probability (threat) of loss by the enterprise of part of its resources, loss of income or additional costs as a result of certain production or financial activities [9].
"Risk" is defined as "the probability of damage or loss", i.e. the risk refers to the possibility of occurrence of any adverse event [10].
The probability of an unexpected impact on the economic process of certain factors, under the influence of which there may be a deviation of the result from the planned value [11].
The probability of an adverse outcome [12].
The uncertainty associated with the value of the investment at the end of the period [13].
Adequate description of the level of uncertainty associated with the possibility of unfavorable situations during the implementation of a business project, as well as unforeseen negative consequences for fulfilling the main goals set for the investor [14].
The possibility of an unfavorable outcome, i.e. non-receipt by the investor of the expected profit [15].

In the existing literature ambiguous interpretations of features, properties and elements of risk, in the understanding of its content, the ratio of objective and subjective sides. The origin of the term "risk" from the Greek word- rock, rock. In the Italian language, danger, threat; to maneuver between the rocks. In French - the threat, to risk - to go around the cliff, rock [5].

Various definitions of this concept can be found in the scientific literature (Table 1).

The concepts of risk differ. The diversity of opinions on the nature of risk is explained by the multidimensional nature of this phenomenon, not elaborated in the existing economic legislation, insufficient use in real economic practice and management activities. Risk is a complex phenomenon with many different and sometimes opposite real grounds. There are many other definitions of risk given by domestic and foreign authors, but they do not change the overall picture:

1. Risk the likelihood of losses, damages, shortfalls of the planned revenues, profits
3. Risk is the uncertainty of our financial performance in the future.
4. Risk is the cost expression of a probability event leading to losses.
5. Risk - defines risk as the degree of uncertainty about future net income.
6. Risk - chance of adverse outcome, danger, threat of loss and damage [16].

III. RESULTS AND DISCUSSION

The above analysis suggests that the risk is based on two factors: uncertainty and probability. Consider in detail these 2 concepts.

(1) Probability is the possibility of obtaining a certain result. The probability of an event is a certain number, which is the greater the event is possible.

There are two types of probabilities, depending on the source of information about the consequences of economic decisions:

- a priori (mathematical) - can be unambiguously measured and accurately quantified, i.e. is the result of an objective assessment of the onset of the result);
- a posteriori (statistical) - is the result of subjective assessments of the onset of a particular result, which was formulated by the American economist F. knight, one of the first to draw attention to the problem of uncertainty in the economy.

The first type of probability is not typical for business, the second type is typical for the business sphere.

(2) the Concept of uncertainty is ambiguous. Therefore, in the scientific literature there are many different approaches to the formulation of this concept.

In the most General form, uncertainty is a lack of information about the conditions under which economic activity will take place, a low degree of predictability, and anticipation of these conditions. Sometimes uncertainty is understood as the possibility of obtaining different results, and not just one desired. Uncertainty is also understood as a set of options for possible outcomes (consequences) of the decision, when none of these options can be attributed to any probability of its occurrence or at least evaluate it.

Thus, the concept of uncertainty is interpreted quite widely from the idea that it is a complete lack of information about the possible outcome in the implementation of the economic decision, to the interpretation that uncertainty is the possibility of obtaining different results of the decisions, the probability of which can be estimated at least approximately.

(3) Risk is the probability of occurrence of any adverse event and result estimated in any way. Possibility to estimate the probability of occurrence of a specific event or a specific result from the whole set of known possible outcomes [17].

Thus, risk is amenable to any assessment of the likelihood, and the uncertainty that such a situation, the occurrence of which is not quantifiable. Therefore, uncertainty and risk are related to the concept of probability and the possibility of its measurement.

Also consider the concept of risks and opportunities in detail. There is no common approach to the interpretation of "risks" and "opportunities" among different specialists, as well as in the ISO 9001: 2015 standard.

So in the ISO 9001:2015 standard, and in the documents accompanying it, the turnover "risks and opportunities" is used, in at least 5 variants that differ in meaning.

Also consider in detail the concept of risks and opportunities. There is no single approach to the interpretation of "risks" and "opportunities" among different specialists, as well as in the ISO 9001: 2015 standard.

Thus, ISO 9001:2015 and its accompanying documents use the turnover "risks and opportunities" in at least 5 variants that differ in meaning.

Option 1. The concept of "risks" and "opportunities" is considered as a whole, which can have both positive and negative aspects.

Definition in ISO 9001: 2015: Risk-based thinking allows an organization to identify factors (risks and opportunities) that may cause the results of its processes and quality management system to deviate from the planned ones, develop means and methods of prevention to minimize their negative impact, and make maximum use of emerging opportunities [18].

Option 2."risks" and "opportunities" are separated and have different implementation outcomes.

This is stated in the standard ISO 9001: 2015: Risks entail adverse consequences that must be fought, opportunities are events of positive importance and therefore they should be used as much as possible[18].

The draft technical specification ISO/DTS 9002 States the same: When identifying risks and opportunities, the organization should focus on enhancing the desired effect, creating new opportunities and preventing or reducing undesirable impacts (by reducing risk or "preventive" measures) [19].

Option 3. "Risks" and "opportunities" are considered, while "opportunities" are presented on the positive side, and risks can have both negative and positive aspects.

This is stated in ISO 9001:2015: Risk is the impact of uncertainty, and each such uncertainty can have a positive impact, opportunities can arise as a result of a favorable situation [18].

Definition in ISO 14001:2015: Potential adverse effects (threats) and potential beneficial effects (opportunities). The risks have only a negative connotation, because the risks are equal to the threats and opportunities only positive-tone [20].

The Draft standard ISO/DIS 45001. risks have a negative connotation and opportunities a positive connotation [21].

Option 4. First, a reference is made to risks and opportunities as a whole, and then only risks are mentioned, without mentioning opportunities.

Thus, the ISO 9001:2015 standard States: When considering the risks and opportunities of the organization, risk-based thinking should be used to create, implement, maintain and improve the quality management system and related processes in order to: "decide how the risk (positive or negative) is taken into account when..."; "ensure the functioning and management of the system, which by its nature will take into account the risks "[18]

Option 5. It is all about risks without any hint of possibility.

This international standard requires the organization to understand its context (the conditions under which it operates) and to establish (identify) risks as the basis for planning. And further: Not all processes of the quality management system have the same level of risk, if we talk about the ability of the organization to achieve its goals... the Organization is responsible... for the actions that it carries out as a response to risk [18].

Thus, there is no single approach to the use of the expression "risks" and "opportunities" in the text of ISO 9001:2015, draft technical specification ISO/DTS 9002, ISO 14001:2015, draft standard ISO/DIS 45001.

IV. SUMMARY

Summarizing the concept and essence of risk as a complex phenomenon, we note the following:

1. Risk without uncertainty can not exist, since the risk is the same uncertainty of occurrence of any event, the probability of which is estimated.

2. One element of risk is the probability of deviation (can be both negative and positive) from the selected target.

Thus, there is a close relationship between the concepts of risk, probability, uncertainty.

3. The concept of risk is also inherent features such as accident, alternative, inconsistency.

(a) The risk occurs only when the occurrence of events is accidental. Randomness is an essential characteristic of probability.

(b) Alternative - the need to choose from two or more possible solutions, directions, actions. In the absence of choice, there is no risky situation and therefore no risk.

(c) The inconsistency of risk lies in the fact that, on the one hand, risk accelerates social and technological progress, on the other hand, risk leads to the inhibition of social progress, if the alternative is chosen in terms of risk without due consideration of objective laws of development of the phenomenon.

(d) There is no single approach to the expression of the concept of "risks". In the Standard, related documents and other literature, the concept of risks and opportunities is contradictory and inconsistent.

In our opinion, risk is a probable event that can produce a positive effect (opportunity) or a negative effect (threat) on the achievement of the organization's goals (Fig. 1). Some risks can have both positive and negative effects at the same time.

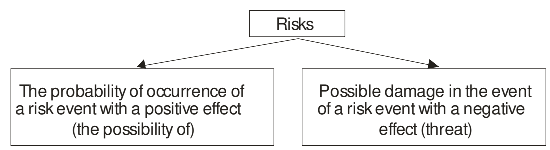

Fig. 1. Risks definition.

Currently, in our opinion, there are the following problems in defining the concept of the essence of risk.

(1) Today there are many theoretical and methodological problems in the study of the concept of the essence of risk. The study of the wording of the concept of risk, presented in the works of various authors, shows that there are many different approaches to the definition of risk.

(2) Both in foreign and domestic literature there is no generally accepted understanding of risk, generally recognized theoretical provisions on business risk, as well as a General interpretation of the concept of risk.

(3) In foreign and domestic literature, risk is investigated as an accident and is not considered as a natural phenomenon.

(4) Application of Western experience of risk research in Russian conditions is difficult due to the specifics of risk research in the transition economy (due to the instability of the current situation, the problem of risk research is complicated).

(5) In the world of science is not formed a holistic theory of risk and risk management theory. The concept of risk should be considered not only through the study of a single term, but also through a holistic, detailed theory with its principles, concepts, laws.

V. CONCLUSIONS

The above analysis of the economic literature on the concept of risk leads to the conclusion that there is no clear understanding of the nature of risk, among researchers there is no consensus on the definition of entrepreneurial risk. The diversity of opinions on the nature of risk is explained by the multidimensional nature of this phenomenon, the lack of elaboration in the Russian legislation, as well as in management activities. Risk is a complex phenomenon that is very multidimensional, ambiguous, and has specific features.

ACKNOWLEDGEMENTS

The work is performed according to the Russian Government Program of Competitive Growth of Kazan Federal University.

REFERENCES

[1]. The Concept of risks in economic activity. (Electronic resource). Mode of access: https://vuzlit.ru/2036348/vvedenie
[2]. The Theory of risk in the economy. (Electronic resource). Mode of access: http://megalib.com.ua/content/7272_131_Teorii_riska_v_ekonomike.html
[3]. F. knight. (2003). Risk, uncertainty and profit. – M.: Business, 360 p.
[4]. Risk Theory and its development. (Electronic resource). Mode of access: https://studme.org/34736/finansy/teoriya_riska_razvitie
[5]. The Concept of risk, its main elements and features. (Electronic resource). Mode of access: https://vuzlit.ru/1937917/ponyatie_riska_osnovnye_elementy_cherty
[6]. S.I. Ozhegov. (2018). Explanatory dictionary– M.:Onyx.
[7]. L.I. Lopatnikov. (1987). Economic-mathematical dictionary. M.: Science.
[8]. Balabanov I.T. (1996). Risk Menedzhment. M.: *Finance and statistics*.
[9]. P. G. Grabow, S. N. Petrova et. (1994). Risks in modern business. M.: Alan.
[10]. Webster's Encyclopedic dictionary without abbreviations.
[11]. V.N. Shenaev, B.S. Erniyazov. (1996). Project loan. Foreign experience and possibilities of its use in Russia. M.: Konsaltbankir. (*Ser. International banking business*).
[12]. Van Horn, George. (1997). Fundamentals of financial management: TRANS. from English. under the editorship of I. I. Eliseeva. M.: Finance and statistics.
[13]. W. F. Sharp, G.J. Alexander, J. Bailey's. (1997). Investments: translated from English. M.: INFRA-M.
[14]. Tsarev V.V., Kantarovich A. A. (2007). The valuation of the business: theory and methodology. M.: Unity 2007,
15]. E. S. Stoyanova. (2002). Financial management: theory and practice: text book, 5th ed., pererab. I DOP. M.: Perspective.
[16]. Definition of risk, probability and uncertainty. (Electronic resource). Mode of access:https://vuzlit.ru/2036349/opredelenie_ponyatiy_riska_veroyatnosti_neopredelennosti
[17]. Economic choice under uncertainty and risk: [Electronic resource]. Access mode. https://studme.org/83735/ekonomika/neopredelennost
[18]. Quality management systems. (2015) Requirements / ISO 9001: (E).
[19]. Draft terms of reference (2015) ISO/DTS 9002 "quality management systems-guidelines for the application of ISO 9001:2015"/ ISO 9001.
[20]. Environmental management systems. Requirements with guidance on the application of (2015) ISO 14001:2015/ ISO 14001: (E).
[21] Occupational health and safety management systems - requirements with instructions for use of ISO / DIS 45001 (E). Occupational health and safety management systems. Requirements with guidance for use.