
RISK IDENTIFICATION: ESSENCE AND DETECTION METHODS

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Summary. Identification is the first and one of the main stages of risk analysis, if the existence or properties of risk events and their consequences are unknown, then it is impossible to effectively manage them.

A significant number of scientific works is devoted to questions of determination of the essence of identification of risks and methods of its carrying out. But with a large number of identification methods, the largest share among them is taken by experts, which makes this process subjective and dependent on the experience and level of awareness of managers, therefore, there is a need to develop recommendations for its implementation.

The purpose of the article is to reveal the essence of identifying the risks of enterprises, the definition of their main elements and the sequence of risk analysis in different approaches.

Identification of risks can be carried out both "top-down" and "bottom-up". If the first approach allows to determine the risks from the causes to the consequences with the further definition of risk situations and their characteristics, then the second works in the opposite direction and determines the risks from the risk situation to the consequences and their characteristics. The basic principle of identifying risks is to look at the process altogether. That is, the process should be considered as a black box. Information about the status of activity at the entrance, its research and analysis inside, the register of risks at the exit. From the point of view of identifying risks, this should be seen as: planning difficulties (something is wrong with the input), difficulties in implementation (inside), difficulties in the output (the desired result is not achieved), difficulties in measuring the results (unsuccessful reporting).

The recommendations and proposals presented in this article will contribute to the formation of an organization's risk management culture, help monitor risk events, and build an effective risk management system in an enterprise that brings entrepreneurs closer to international business standards. The procedures and identification procedures that will be considered will best identify all the risks and opportunities that will help build an efficient and responsible business.

Keywords: risk; risk-management; identification of risks; process of risk-management.

INTRODUCTION

The article defines the essence of identifying risks as the first and important component of the process of risk management of the enterprise. The risks to the enterprise include external

and internal threats and opportunities for business. The **purpose** of the article is to reveal the essence of identifying the risks of enterprises with the definition of their main elements and the process of risk management in different approaches. In the process of research, **methods of analysis** and synthesis of scientific information were used. The article deals with the critical analysis of the essence of risk identification in entrepreneurial activity. As a result, the **main elements** of the risk are identified, namely: symptoms, causes, hazards (events), types of influence, consequences, resources, sources, risk information, which will allow to reasonably approach identification of risks. The author proposes the definition of risk identification. It is important systematically made identifying risks within the enterprise with the definition of responsible persons. **Proposals** for identifying in two approaches: "up-down" and "down-up" are developed. The first approach allows to determine the risks from the causes to the consequences with the further definition of risk situations and their characteristics, the second works in the opposite direction and determines the risks from the risk situation to the consequences and their characteristics. The process of identification of risks is developed, which includes not only the identification of negative consequences, but also the possibilities for improvement of the results compared with the planned ones. A critical analysis of risk identification will best identify all the risks and opportunities that will allow further improvement management to help them build an efficient and responsible business.

The aim of the article is to reveal the nature of the identification of the risks of enterprises, the definition of their main elements and the sequence of the analysis of risks in different approaches.

Methodology of the Research is the analysis and synthesis of literary sources and information on existing methods of identification of risks.

UNDERSTANDING THE NATURE OF THE IDENTIFICATION OF RISKS

Identification is the first and one of the main stages of risk analysis, it is considered as the most important process of risk management planning. If the existence or properties of risk events and their consequences are unknown, then it is impossible to manage them effectively. Therefore, the task of identifying all risks is extremely important. In essence, identification is an identifying possible problems. Under the "problem" is understood something (event, object, person, idea, etc.) that can harm organizations to achieve their goals. There are certain problems in identifying, as managers do not always understand its main elements and procedures, with which it can be done quickly and qualitatively.

The issue of risk and risk management has attracted many scholars, in particular, such as F. Knight¹; T. Coleman and B. Letterman², Nobel Prize-winner in economics in 2002. D. Kaneman³, I. Blank⁴, V. Vitlinskiy, P. Verchenko, A. Sigal, J. Nakonechny⁵; A. Carol⁶; K. Alsander and E. Shedi⁷; A. Damodaran⁸, D. Iverson⁹; T. Merna, F. Al-Chney¹⁰; M. Miller¹¹; T. DeMarko, T. Lister¹²; B. Dzhilad¹³; I. Derun¹⁴ (Derun I., 2016), O. Smetanko¹⁵.

A significant number of scientific works is devoted to questions of determination of the essence of identification risks and methods of its carrying out. But with a large number of identification methods, the largest share among them is taken by experts, which makes this process subjective and dependent on the experience and level of awareness of managers, therefore, there is a need to develop recommendations for its implementation.

In accordance with the Standard of risk management COSO (Committee of Sponsoring Organizations of the Treadway Commission) identification applies to identifying and investigating events that are considered as a case or situation arising from internal or external factors affecting the implementation of a strategy or achievement goals of the organization. The effect of events is considered here as positive, negative or mixed¹⁶. According to the FERMA (Federation of European Risk Management Association) standard, risk identification is a process for identifying uncertainties in the organization, which implies the availability of complete information about the organization, market, legislation, social, cultural and political

¹ Knight F. Risk, uncertainty and profit. Moskow: Delo (in Russ.), 2003.

² Coleman T. & Litterman B. (2012) Quantitative Risk Management A Practical Guide to Financial Risk Wiley. Retrieved from: <http://www.twirpx.com/file/1419806/>

³ Kaneman D. Think slowly ... decide quickly. Moskow: ACT (in Russ.), 2014.

⁴ Blank, I. A. Financial Risk Management. Kiyv: Nika-Centr (in Russ.), 2005.

⁵ Vitlinskiy V.V., Verchenko P.I., Sigal A.V., Nakonechniy Ya.S. Economic Risk: Gaming Models. Kiyv.:KNEU (in Ukr.), 2002.

⁶ Carol A. Value-at-Risk Models. John Wiley & Sons, 2008.

⁷ Alexander C. & Sheedy E. (eds.) The Professional Risk Managers' Handbook. A Comprehensive Guide to Current Theory and Best Practices. Prmia Publications. 2005.

⁸ Damodaran A. Strategic Risk Taking: A Framework for Risk Management. Wharton School Publishing, 2007.

⁹ Iverson D. Strategic Risk Management: A Practical Guide to Portfolio Risk Management. Wiley, 2014.

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¹² DeMarko T., Lister T. Waltzing with the Bears. Risk management in software development projects. Company p.m.Office (in Russ.), 2005.

¹³ Dzhilad B. Competitive intelligence. How to recognize external risks. St. Petersburg: Piter (in Russ.), 2010.

¹⁴ Derun I. Identification of risks in the enterprise accounting system Ekonomichnij Casopis-XXI (Economic Annals-XXI), 159(5-6), 97-100 (in Ukr.), 2016.

¹⁵ Smetanko, O. Improving the Process of Identification and Response by the Internal Audit Service. Ekonomichnij Casopis-XXI (Economic Annals-XXI), 11-12, 135-139 (in Ukr.), 2014.

¹⁶ Enterprise Risk Management – Integrated Framework. Committee of Sponsoring Organizations of the Treadway Commission (COSO) (2004), New York, September 2004. Retrieved from: <http://www.coso.org>.

environment of the organization, as well as its development strategies and operational activities, including information on threats and opportunities to achieve their goals¹⁷.

In accordance with ISO 31000:2009, identification is the process of finding, recognizing and describing risk¹⁸.

Makarova N.¹⁹ is considering identification and analysis of risks as a detention of risks, their specifics, due to nature and other characteristic features of risks, the peculiarities of their implementation, the determination of the size of economic losses, as well as the change in the risk in time, the degree of interconnection between them and the study of factors affecting them.

In the scientific literature, identification is treated as a qualitative assessment of risks, and this can not be accepted. Lototska M.R. and Kondur O.S.²⁰ are considered a qualitative risk analysis as identifying all possible risks, identifying their factors, identifying potential areas of risk, identifying activities and steps at risk, and then identifying the risk.

Martsinkovsky D.A., Vladimirtsev A.V. and Martsinkovsky O.A.²¹ are justified identification as a definition of where, when, why, and how risky situations can hinder, weaken, delay, or contribute to the achievement of planned results (goals).

Kulikova E.A.²² insists that risk analysis is a decomposition of the object's structure into elements, establishing interrelationships between them in order to identify sources, factors and causes of various types of risks, and to compare possible losses and benefits.

Stupakov V.S. and Tokayenko G.S.²³ determine the process of identification as one, where, first of all, the belonging of the risk factors to the type of activity (operation) is manifested, as well as the ability to manage them.

Thus, the identification and analysis of risks is the process of processing information about the subject in order to identify, find, recognize, define and describe the study of risk factors (events, situations, causes); understanding their specificity, due to their nature; Identification of potential areas of risk and directions or types of risk activities; analysis of the

¹⁷ Standards of risk management - Federation of European Risk Managers Associations AIRMIC, ALARM, IRM (2003) translation copyright FERMA. Retrieved from: <http://www.ferma.eu/app/uploads/2011/11/a-risk-management-standard-russian-version.pdf> (Russ.).

¹⁸ ISO 31000:2009 Risk Management - Principles and guidelines (2009). Retrieved from: [http://www.pqm-online.com/assets/files/standards/iso_31000-2009\(r\).pdf](http://www.pqm-online.com/assets/files/standards/iso_31000-2009(r).pdf) (Russ.).

¹⁹ Makarova N.N. (2009) Risk management (methodology of risk management in the organization) Tomsk: Izd-vo Tomskogo politekhnicheskogo universiteta. (Russ.), 2009.

²⁰ Lotots'ka M.R. & Kondur O.C. Analysis, modeling and risk management. Ivano-Frankiv's'k (Ukr.), 2012.

²¹ Martsynkovskiy D. A., Vladimirtsev A. V., Martsynkovskiy O. A. Guide to Risk Management. St. Petersburg: Beresta. (Russ.), 2007.

²² Kulikova E.A. Risk Management. Ekaterinburg : Izd-vo UrGUPS. (Russ.), 2014.

²³ Stupakov V.S., Tokaenko G.S. Risk Management: Moscow: Finansy i statistika. (Russ.), 2005.

peculiarities of the realization of risk situations, including the study of the size of the economic loss, the change in the risk in time, the likelihood of their implementation, the degree of interconnection between them; taking into account the possibility of obstructing, weakening, delaying or contributing to the achievement of the intended results (goals) and risk management. Without this research it is impossible to effectively and purposefully implement the risk management process.

METHODOLOGY FOR IDENTIFYING RISKS

By analyzing the risk identification, it is possible to identify all the elements that accompany this risks, so the main risk elements are:

1. Symptoms that identify the obvious aspects of the problem that attract attention to it, they do not explain the problem, it is only its manifestation, identifies a situation that causes concern and can lead to unwanted events.

2. Causes leading to a hazard, the incentives through which something happens and which can be checked with any indicators. These indicators should be pre-identified as risk criteria.

3. Danger (event), which has a negative impact on the object, the possibility of circumstances in which a particular event can thus affect the organization, which will result in deterioration or inability to operate and develop. An event may have one or more manifestations, may have one or several causes. An event can be manifested in the fact that some phenomenon does not occur.

4. Types of influence that may lead to changes in the state of the object both in terms of its improvement and deterioration. The size of the impact is determined by the severity of the situation, if it worsens the state of the object, or effectiveness, if it improves the state of the object.

5. Consequences that represent the results of events that affect the achievement of objectives, as a result of the impact may result in losses or additional profits that are subject to assessment by the entity. An event can lead to a number of consequences.

6. The resources that the risk may affect, as well as those required to obtain identification information that the organization owns and can use to implement risk management tools.

7. Risk factors (sources of risk), among which the search for symptoms, events and dangers, and which affect the likelihood of risk implementation and the severity of the consequences, may be internal and external.

8. Information on the status of the entity, the specifics of the direction or types of activity, characteristics, features of the implementation of risks.

In this research, summarizing the statements of domestic and foreign scientists, the identification of risk is considered as a process of systematically identifying, studying, listing and describing risk elements that are specific to a particular type of activity and can have a positive and negative impact on the achievement of the goals of the organization. It allows to determine what risks exist or are expected, their characteristics, remoteness, duration and possible outcomes from the point of view of how they can affect the activities of the organization or project. The words "systematic detection" and "risk assessment" are keys, they emphasize the need for continuous and integrated work in this direction

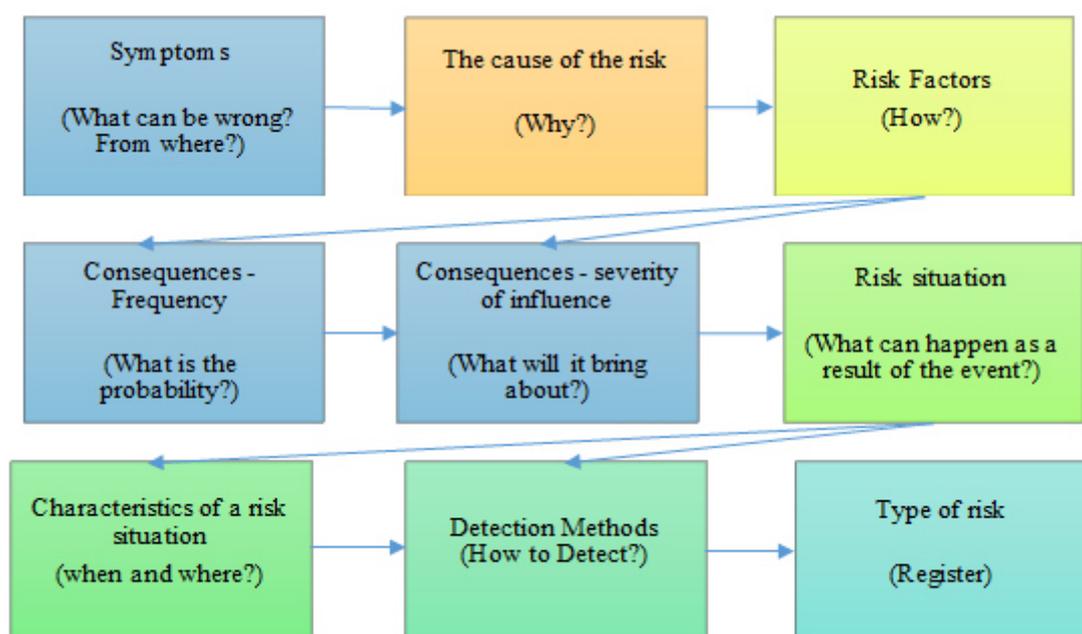


Figure 1. Interconnections and the sequence of risk identification "top-down". Source: Created by author Source: Compiled by the author

Identification of risk does not imply the fixation of the fact of occurrence of a risk event, it is the discovery of the hypothetical possibility of such an event, which has negative and positive effects. Thus, risk identification is carried out in advance in order to be able to take measures to contain risks.

In process of identification and risk analysis, the manager must answer a number of issues, among which the main ones can be identified, for example:

- What sources of uncertainty and risk, who defines them, how often and where is it fixed?

- What situations and negative consequences will be encountered as a result of risk implementation?
- what information should be obtained, from which sources and how to structure it?
- How can a risk assessment be quantified?
- How do different risks affect each other?

Identification of risks can be carried out both "top-down" (fig. 1) and "bottom-up" (fig.2) If the first approach allows to determine the risks from the causes to the consequences with the further definition of risk situations and their characteristics, then the second works in the opposite direction and determines the risks from the risk situation to the consequences and their characteristics. In any case, the risk register should be constructed as a result.

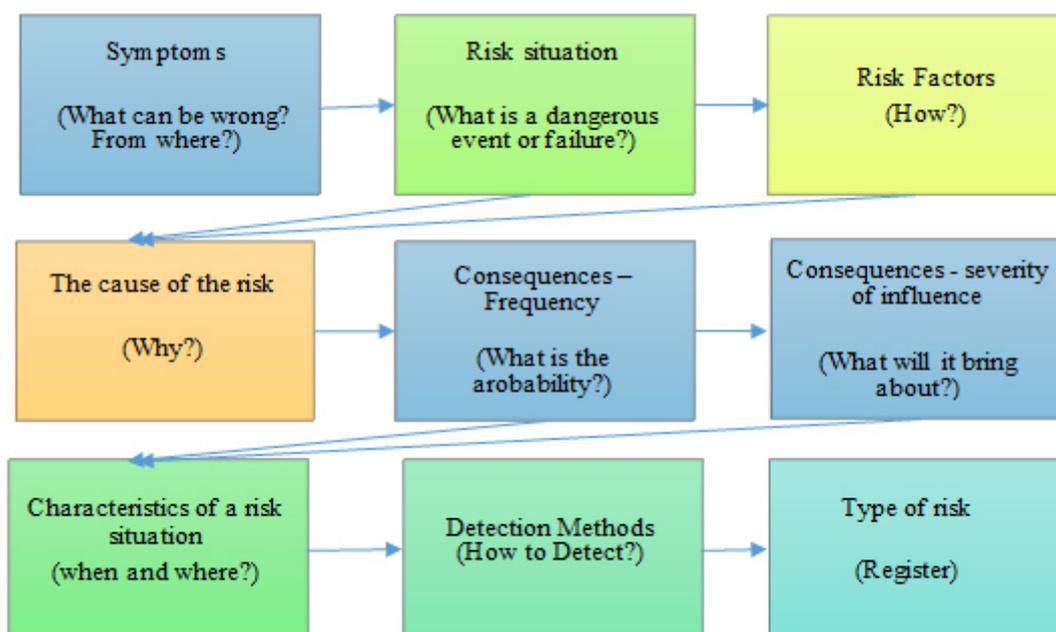


Figure 2. Interconnections and the sequence of bottom-up risk identification. Source: Created by author Source: Compiled by the author

It is necessary to try not to list all types of risks, but to create a certain basic scheme, which would allow not to miss any of them. The process of identifying risks in Fig. 3 will allow to carry out this activity qualitatively. It is also important that the International Standard ISO 31000, Risk Management - Principles and Guidelines (2009), addresses the risks not only in terms of negative consequences, but also in terms of improving the results compared to the planned ones. In this context, risk is seen not only as a threat or danger, but also as an opportunity for an organization to improve its performance. This is natural if we are talking

about business risks, so if a person refuses a risk situation, then she limits their ability to obtain the benefit that may occur if the situation happens and there is no risk.

In each situation associated with risk, you must take into account important characteristics. The first is that although the result of the situation is uncertain (which makes it risky), there is such an option that we want to get. This motivates us to participate in a risk situation, that is to take a risk. There is also a negative for us variant of the result, which we would not want to get. This is the result of the onset of which means for us the implementation of risk and the implementation of undesirable consequences.

No one will ever be willing to participate in a situation where only negative consequences are possible for him. The risk always involves the presence of an attractive side - a favorable, desired result. This determines the dual nature of risk, and mistakenly perceive it only as a synonym for threats and dangers. Business risk exists when there is uncertainty about the outcome, and in this uncertainty there is a hope of "victory", but the fear of "defeat" is also hidden. A competent businessman is trying to compare their likelihood, and use a risky situation in their favor if there is a better chance of "victory" and it is wise to refuse to participate in a situation where there is a high chance of "defeat".

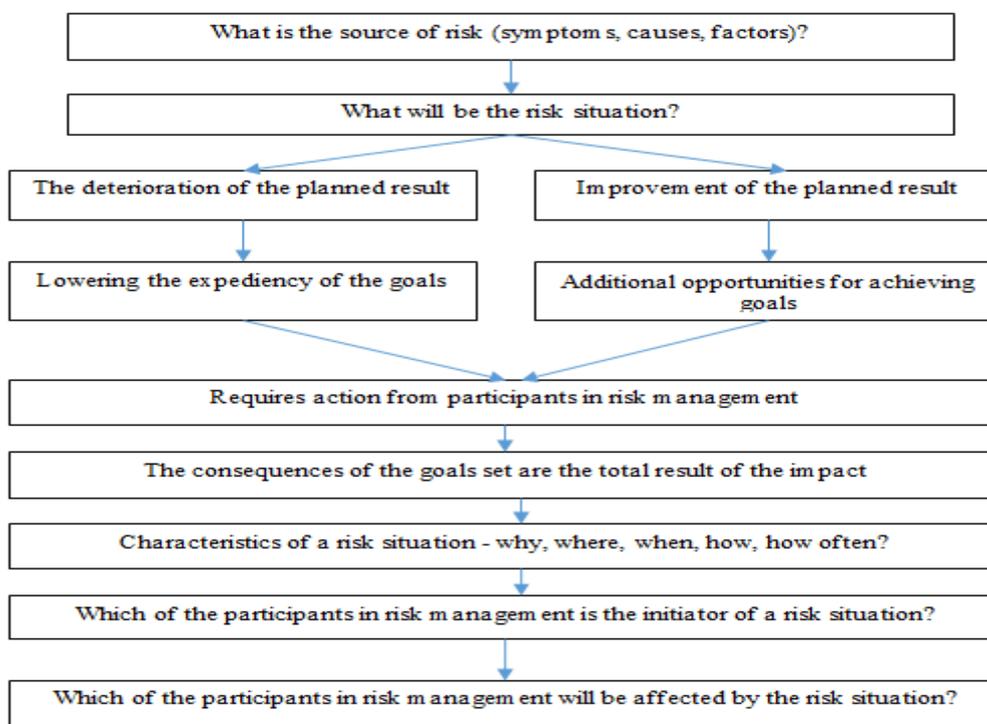


Figure 3. The process of identifying risks. Source: Created by author Source: Compiled by the author

Thus, it is important to understand that risk is a natural component of every economic situation. Therefore, it is necessary to make the correct perception of risk, taking into account the subjective relation to it.

The information needed to identify risks is divided into internal and external factors. Enterprise environment factors are open source information, including commercial databases, research, benchmarking, industry analytics, marketers' report on a new product, analysis of Porter's competitive forces, and business environments. Information about the internal environment of an organization is an analysis based on management reporting, organizational structure of the project or organization, business process maps, description of the project content or activities and other visual representations. Output data for identification should be consistent with the risk criteria established in determining the range of risk tolerance.

Choosing the methods to provide a complete and optimal risk register is an important component of risk identification. The most correct at work with risks is the use of not one, but several methods, which should create a set of methods that take into account all the specifics and features of specific risks, to solve the problem. Each method is not an absolute truth, any of them must be modified and adapted to the specific development needs.

The basic principle of identifying risks is to look at the process altogether. That is, the process should be considered as a black box. Information about the status of activity at the entrance, its research and analysis inside, the register of risks at the exit. From the point of view of identifying risks, this should be seen as: planning difficulties (something is wrong with the input), difficulties in implementation (inside), difficulties in the output (the desired result is not achieved), difficulties in measuring the results (unsuccessful reporting).

INTERNAL AND EXTERNAL CONTEXT OF RISKS FOR UKRAINIAN ENTERPRISES

Distinguish the external and internal context of risks, that is, the external and internal environment and the conditions in which the organization seeks to achieve its goals.

External risks include risks that are not directly related to the activity of the enterprise or its contact audience. Many factors are affected by their level: aspects of the cultural, social, political, legal, normative, financial, technological, economic environment at the international, national, regional, local or local levels; the main driving forces and trends affecting the organization's goals; relationships with external stakeholders, their perceptions and values;

falling demand for products, changing needs, inflation, government policy, competition, development of science and technology, financial condition of debtors.

The Ernst & Young rating determines next major risks in 2015: increased competition and price pressures; increase in production costs and drop in profitability; market risks; economic decline (or slow and unstable growth) of the economy; shortage of highly skilled specialists; increase of state influence on entrepreneurship; requirements of the legislation and their observance; public debt (consequences of the regime of austerity and the sovereign debt crisis in different economies); new technology; political instability.

Aon's 2017 Global Risk Management survey has revealed a host of daunting challenges driven by today's divisive and yet interdependent environment. The report focuses on the selected Top 10 risks for detailed discussion, one of the perennial highlights: 1. Damage to reputation/brand 2. Economic slowdown/slow recovery 3. Increasing competition 4. Regulatory/legislative changes 5. Cyber crime/hacking/viruses/malicious codes 6. Failure to innovate/meet customer needs 7. Failure to attract or retain top talent 8. Business interruption 9. Political risk/uncertainties 10. Third party liability²⁴.

According to a survey conducted by KPMG among executives of Ukrainian companies, there are three main factors inhibiting business growth: a staff deficit (50.91%), new technologies (46.34%) and regulatory risks (46.0%)²⁵. According to a study published on KPMG website, 59% of respondents noted that data protection is a key business risk today²⁶.

In 2017, the World Economic Forum²⁷ identified the most significant long-term risks around the world, based on expert opinions and global decisions. The survey was attended by 12411 executives in 136 countries of the world. The risks were grouped into 5 main categories: economic, geopolitical, environmental, social and technological. The results of the survey on identifying the five biggest risks to doing business in the respective countries of the world have shown the greatest dangers in the global business environment.

²⁴ Global Risk Management survey. Retrieved from: http://www.aon.com/2017-global-risk-management-survey/data-visualization/index.html?utm_source=aoncom&utm_medium=ceros-link&utm_campaign=grms2017.

²⁵ Cymbal A. What prevents Ukrainian companies from developing rapidly and efficiently. Retrieved from: <https://home.kpmg.com/ua/uk/home/media/press-releases/2018/07/scho-zavajae-ukrainskim-companiyam-shvidko-i-effectivno-rozvivatusya.html>

²⁶ Business owners have identified key risks for their companies. Retrieved from: <https://www.ukrinform.ru/rubric-economy/2492705-vladelcy-biznesa-nazvali-klucevye-riski-dla-svoih-companies.html>

²⁷ World Economic Forum, 2017, Global Risks of the Highest Concern for Doing Business. Retrieved from: <http://reports.weforum.org/global-risks-2017/global-risks-of-highest-concern-for-doing-business-2017>.

Over the past 10 years, there have been serious changes in the most global business risks. The analysis of the top 5 top-notch global risks shows that risks are not related more to the economic system, but to environmental security, migration processes in society, terrorism and the impact of humanity on climate change. In 2017, the risk of fraud or data theft is classified as an important risk²⁸.

Table 1. The largest global risks for conducting business in Ukraine in the context of certain areas of activity in 2017

№	Risks	Ukraine	Agriculture	Industry: recycling	Industry: production	Services
1	Unemployment or part-time employment	25,0	12,5	25	18,5	29,2
2	Energy price shocks	48,9	50,0	75	51,9	41,7
3	Fiscal crisis	43,2	25,0	50	51,9	45,8
4	Failure of national management	42,0	87,5	62,5	44,4	45,8
5	Deep social instability	54,5	37,5	62,5	51,9	62,5
6	Failure of the financial mechanism or institution	19,3	0	12,5	25,9	33,3
7	Terrorist attacks	9,1	0	12,5	11,1	4,2
8	Failure of critical infrastructure	11,4	0	12,5	11,1	16,7
9	Asset bubble	1,1	0	0	0	4,2
10	Interstate conflict	34,1	62,5	12,5	37	33,3
11	Unfinished inflation	64,8	75,0	75	51,9	62,5
12	Cyberattacks	3,4	12,5	0	3,7	4,2
13	Illegal trade	6,8	-	-	-	-
14	Fraud or data theft	4,5	12,5	0	0	12,5
15	State collapse or crisis	19,3	25,0	12,5	18,5	29,2
16	Large-scale involuntary migration	12,5	12,5	37,5	11,1	16,7
17	Water crisis	3,4	0	0	3,7	4,2
18	The failure of urban planning	11,4	12,5	0	14,8	12,5
19	Extreme weather events	5,7	25,0	12,5	3,7	0
20	Natural disasters	10,2	12,5	0	22,1	8,3
21	The impossibility of mitigating and adapting climate change	1,1	0	0	3,7	0
22	Wrong use of technology	6,8	0	0	11,1	4,2
23	Deflation	2,3	0	12,5	0	
24	Technogenic ecological catastrophes	18,2	0	0	18,5	12,5
25	Destruction of critical information infrastructure	6,8	12,5	0	7,4	0
26	The loss of biodiversity and ecosystem collapse	4,5	0	0	3,7	4,2
27	Food crises	5,7	0	0	0	0
28	Distribution of infectious diseases	11,4	25,0	0	7,4	4,2
29	Weapons of mass destruction	10,2	0	0	11,1	8,3

Source: (World Economic Forum 2017)

²⁸World Economic Forum, 2017, Global Risks of the Highest Concern for Doing Business. Retrieved from: <http://reports.weforum.org/global-risks-2017/global-risks-of-highest-concern-for-doing-business-2017>.

The EOS's findings, which give the opinion of managers on the impact of global risks on their business, complement the results of the Global Risks Perception Survey (GRPS). The global business risk is based on the opinion of business executives that is covered by the Executive Summary of the World Economic Forum on the risks that cause the greatest concern for doing business. These risks are most relevant to different stakeholders in different regions and countries.

According to a survey published by the World Economic Forum, the unemployment rate, fiscal crises, and the inability of the national government to ensure stability are the most important risks faced by businesses around the world, there has recently been a tendency to increase the risk of cyberattacks²⁹.

According to the EOS, the risks that cause the greatest concern for doing business are significantly different for each country. In developed countries, economic risks, such as asset bubbles and fiscal crises, are important for business. Technological risks, such as cyberattacks and data theft, occupy an important place. In these economies, it is increasingly evident that communication plays a leading role in production processes, services, and in everyday life. In transition and developing countries, the main risks are unemployment and low employment, as well as potential energy shocks.

The most dangerous risks for Ukraine according to the results of the poll are the following: uncontrolled inflation, deep social instability, shocking energy prices, fiscal crisis, mistakes in governance at the national level and interstate conflict. For all spheres of activity in Ukraine, the most dangerous risks are risks of uncontrolled inflation, mistakes in governance at the state level, deep social instability and shocking energy prices. For the agriculture of Ukraine, the most dangerous, except those listed, are the risks of collapse or crisis of the state, extreme weather conditions and the spread of infectious diseases. For industry, hazardous risks also reveal the risks of unemployment or underemployment, failures in the financial mechanism or institutions and natural disasters. For the service, the most dangerous risks are the risks of inflation and deep social instability.

The key role in the system of national risks in Ukraine is economic and financial, they differ from other risks of complexity of prediction, greater probability, simultaneity and frequency of occurrence, difficulties of overcoming. The emergence and elimination of any economic risks associated with financial opportunities and interests. Economic risks in modern

²⁹ Ibid.

conditions can not be considered in isolation from institutional risks and add-on risks, which have a decisive impact on the financial and economic block of national risks.

CONCLUSIONS

The recommendations and suggestions presented in this article will contribute to the formation of an organization's risk management culture, will help monitor risk events and build an effective risk management system in the enterprise that brings Ukrainian entrepreneurs closer to international business standards. The effectiveness of the developed development strategy depends on how fully the description of all possible risks and opportunities of entrepreneurship will be made. The procedures and identification procedures that will be considered will best identify all the risks and opportunities that will allow them to further propose management measures to help them build an efficient and responsible business.

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