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MASTER DISSERTATION

on the topic of

"The impact of corporate risk management on the performance of firms"

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ABSTRACT

Problems of financial risk management of the enterprise are caused by a number of factors: incompleteness of information, the presence of opposing trends, elements of chance. In the end, risk is the back side of the freedom of entrepreneurship, risk is the need for independent decision-making under uncertainty, when it is almost impossible to predict the consequences of the decision. The relevance of the chosen topic is due to the fact that in a market economy, the activities of enterprises are at great risk, the unstable economic environment within which enterprises operate includes the need for a systematic analysis of the financial situation. In this case, the main object of research should be the financial risks of the enterprise and possible ways to reduce their impact. The consequences of financial risks affect the financial results of the enterprise, they can lead not only to certain financial losses, but also to the bankruptcy of the enterprise.

Key Words: Corporate Risk, Risk Management, Performance

CONTENTS

1. INTRODUCTION

Actuality of the work. Risk as an integral element of the economic, political and social life of society inevitably accompanies all directions and spheres of activity of any organization operating in market conditions. All this necessitates the allocation in the theory and practice of modern management of a fundamentally new direction that studies the issues of risk management. This direction of scientific management, most researchers designate the term "risk management." Risk management at the current stage of economic development is one of the main tasks for enterprises that position themselves as meeting the requirements of international management system standards.

The relevance of this topic is due to the need to introduce risk management approaches to ensure strategic competitiveness of the business, regardless of the field of activity. Thinking based on risks allows the organization to identify factors that can lead to deviations from the planned results of processes and the organization's quality management system, and use warning controls to minimize negative consequences and maximize the use of emerging opportunities.

Problems of financial risk management of the enterprise are caused by a number of factors: incompleteness of information, the presence of opposing trends, elements of chance. In the end, risk is the back side of the freedom of entrepreneurship, risk is the need for independent decision-making under uncertainty, when it is almost impossible to predict the consequences of the decision.

The relevance of the chosen topic is due to the fact that in a market economy, the activities of enterprises are at great risk, the unstable economic environment within which enterprises operate includes the need for a systematic analysis of the financial situation. In this case, the main object of research should be the financial risks of the enterprise and possible ways to reduce their impact. The consequences of financial risks affect the financial results of the enterprise, they can lead not only to certain financial losses, but also to the bankruptcy of the enterprise.

Object of the study: financial risks of the enterprise.

The subject of the study: management of financial risks of the enterprise and the main directions for increasing its effectiveness.

The purpose of the study is to find ways to improve the efficiency of financial risk management of the enterprise.

According to the purpose, the following tasks are defined:

- consider the concept and content of financial risk management;

- study the principles of financial risk management;

- describe the methods of financial risk management;

- conduct an analysis of financial risk management;

- Identify the problems of financial risk management;

- develop recommendations for improving the efficiency of financial risk management of the enterprise.

Research methods. The methods of the system approach were used in the work; comparative, historical and logical analysis of theoretical and practical material; expert-analytical.

The theoretical basis of the study was the works of such authors as A. P. Agarkov, A. S. Arzyamov, I. A. Bagdanovskaya, A. S. Golovachev, A.V. Gukova, A.I.Ilin, A.I. Nechitailo, B.V.Prykin, G.I.Shepelenko, and others.

The novelty of the study is that it outlines ways to solve problems in the field of financial risk management.

The practical importance of the study is to develop recommendations for improving the efficiency of financial risk management of the enterprise.

2. Background and literature review

2.1. Institutional Background

What is Risk? In a broader sense, any risk, value, value, time, etc. is likely to be lost. Risk is likely to occur when an undesirable event occurs or an anticipated event does not occur. Risk is any action or inactivity that can result in negative consequences. The risk arises when a worker is 100% sure of the outcome of any action.

There are some inherent characteristics of risk:

1. Uncertainty: Risk exists only when there is a possibility of progress in several ways;

2. Loss: Risk is only available if the course of events is likely to cause loss (loss) or other adverse consequences;

3. Analysis Opportunity: Risk is only available if the subjective opinion is generated by the "expectant" of the event, and the events for the future are assessed on quality and quantity;

4. Significance: The risk exists when the expected event is practical (practical) and involves at least one entity's interests. Risk is not available without authorization.

There are many classifications of risks. Risks are divided into 2 groups, depending on possible outcomes:

1. Net Risks - Availability of negative or "0" result;

2. Speculative risks - the possibility of both negative and positive results.

Figure 1 presents a wide range of these risks.

As you can see from the table, there are many types of risks that companies can face at any moment. Any sector of the economy, including trade, service, and manufacturing, is exposed to its own operating mechanism and its environment.

In order to prevent such risks and reduce their negative impact, each company should have a risk assessment and control system. Formation of an effective risk management system in companies is a serious step toward ensuring the effectiveness of its activities by responding to the interests of all stakeholders.

Risk Management is a process of accepting and implementing management decisions aimed at minimizing the likelihood of adverse outcomes and minimizing possible losses when making decisions.

Risk management aims to achieve the following objectives by creating the necessary culture and infrastructure for business:

1. Investigate and reveal the main causes and factors of risk;

2. Risk assessment, analysis and evaluation;

3. Decision-making on the basis of implemented evaluation;

5. Development of risk-based management impacts;

6. Reducing risks to an acceptable level;

7. Organization of implementation of the risk management program;

8. Carry out the planned work execution;

9. Analysis and evaluation of risk decisions results.

Implementation of the risk management system allows the enterprise to maintain stability, improve the validity of decision making in risky situations, and improve the financial position. From this point of view, the risk management system should be integrated into the company's daily management system. (Figure 2)

Therefore, in today's world, many companies are paying special attention to the introduction of the risk management system.

There are many application areas for risk management, some of which include:

1. Strategic, operational and budget planning;

2. Environment and Environmental Protection;

3. Information security;

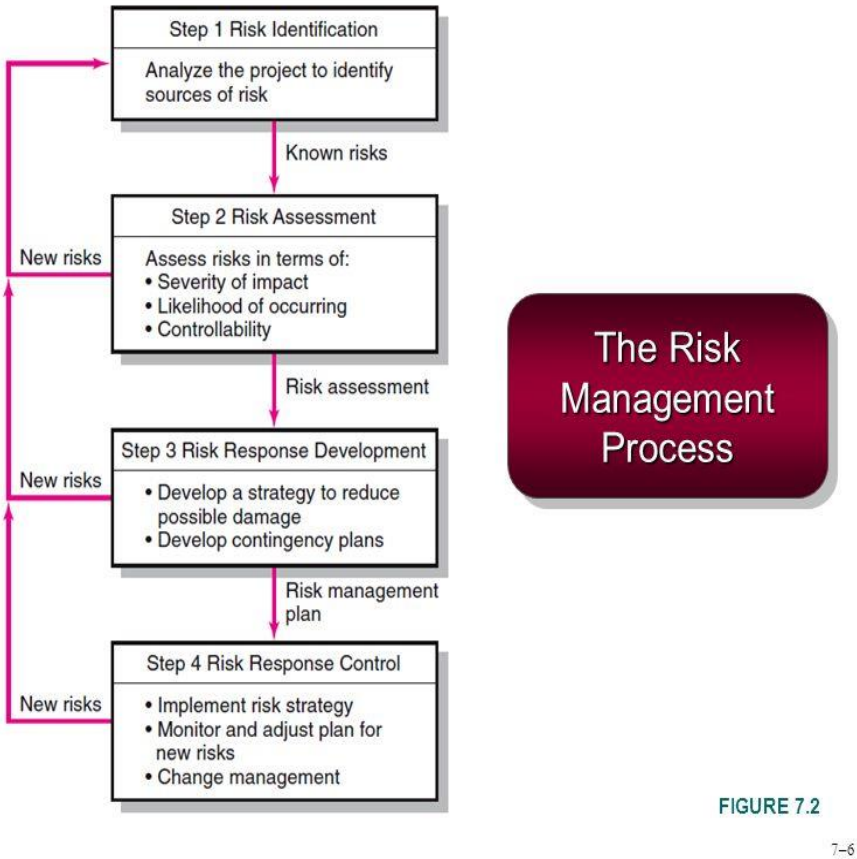
4. Project Management;

5. Corporate Governance and etc.

One of the major risks inherent in the corporate governance system is that it involves both the management function and the control function.

Risk management depends on the effective relationship between risk-management participants. The risk-management process takes place both inside and outside of the company. In order to ensure the perfect risk management, first of all, it is necessary to organize an effective system of interaction within the company.

Figure 2. Risk Management Process



Source: ***http://slideplayer.com/slide/9133819/***

For more information on the location and role of the risk management system in the corporate governance structure, it is recommended that the "Corporate Governance Standards of Azerbaijan" be applied.

In any activity, including the management of processes, it is necessary to make decisions that must lead to the achievement of the best result in the shortest possible time and with minimal costs. The decision-maker faces uncertainty in the selection, which is why the result (even if expected, very good) may be unsatisfactory [1].

Uncertainty management today is a key aspect in the activities of any organization operating in a market economy. This is due to the fact that the risk factor arises in various areas of activity and the timely identification, analysis and adoption of an appropriate decision on how to manage a particular risk, allows the organization to avoid crisis phenomena and thus is both a protective mechanism and a factor in the company's success.

The presence of risk in modern society is undeniable. There is no unambiguous understanding of the essence of risk [2]. The activity of any enterprise is always connected with a lot of risks. Their inevitability is explained by the fact that the source of risks is objectively existing and fundamentally unremovable uncertainty. At the same time, risk association only with adverse consequences is a one-sided approach to its understanding. Enterprises need to learn how to manage risks in order to be able to adequately react to risks in each specific case.

At present, research on the problem of risk management is conducted quite intensively, both in developed market economies and in ours. In the economic literature in recent years, much attention is paid to the problem of risks (methods, techniques, stages and tools for working with them), with discussion in the pages of specialized journals. However, the available developments are mainly devoted to financial risks in banking, insurance and investment activities. The problem of risk management of industrial enterprises is less covered in the literature and there is practically no account of the specific features of the influence of risk factors on the activities of enterprises in various sectors of the economy [3].

However, there is still no single approach to either the definition of risk or the risk management system. At the same time, the use of foreign experience of risk management is complicated by the fact that even though it is based on the principles of market functioning of the economy, its provisions presuppose a conditionally stable state of the external environment. At the same time, the growing instability of the external environment, caused by the economic crisis of the country, constant changes in the regulatory and legal framework, accelerated rates of scientific and technological progress and other factors, increases the degree of risks affecting the activities of enterprises. Due to the lack of common theoretical approaches to the problem of risks and methodological recommendations for the practical application of the risk management process, most enterprises do not pay due attention to risk accounting and management. And ignoring risks in the management process significantly reduces the level of competitiveness of enterprises and the potential for their survival.

In the modern economic dictionary, for example, the risk is defined as the risk of unforeseen losses of expected profits, income or property, cash, due to accidental changes in the conditions of economic activity, adverse circumstances. However, in my opinion, this approach to the definition of risk is one-sided. Moreover, if from an economic point of view, the risk was associated only with negative results, it would be completely inexplicable for entrepreneurs to be ready for it [4].

The definition of "risk" is not established and unambiguous. In known dictionaries and standards, the term "risk" is disclosed as follows:

- "danger, the possibility of loss or damage" (Dictionary of English by N. Webster (1828) [5];

- "possible danger" (Dictionary of the Russian Language S. Ozhegova (1960)) [6];

- "the possibility of an event with negative consequences as a result of certain actions or decisions" (The Big Economic Dictionary (1998) [7];

- "combination of the probability of an event and its consequences" (FERMA Standard) [8];

- "the probability of occurrence of something that will have an impact on the objectives" (Standard AZ / NZS 4360: 2004 "Risk Management") [9];

- "the effect of uncertainty on the target" (ISO 31000: 2009) [10];

- "the impact of uncertainty" (ISO 9000: 2015) [11].

The above definitions clarify and expand the notion of "risk" in the content part and are fairly close to each other. Summarizing the above, we can conclude: Risk - the ratio of the probability of occurrence of situations of uncertainty and their possible consequences. The implementation of risk leads to the deviation of actual performance from planned activities.

You should also give a definition of risk management. Part of the management commitment and an integral part of all organizational processes, including strategic planning and all project management and change management processes, is called risk management. Risk management is a coordinated action to manage an organization that takes risks into account. Risk management can be applied both to the whole organization, and to specific functions, projects and activities [10].

Risk management visually contributes to the achievement of goals and improvement of activities, for example, ensuring human health and safety, protection, compliance with legislative and other mandatory requirements, public recognition, environmental protection, product quality, project management, performance, leadership and reputation.

The risk management theory considers risk both from the standpoint of negative deviations of actual performance from planned and from its possible positive consequences. In the event that a risky event leads to negative consequences, risk management is aimed at a guaranteed reduction in undesirable deviation. If a risky event leads to positive consequences, the risk management tool allows you to manage the potential benefits that arise as a result of the risk situation.

Risk management helps decision-makers make informed choices, prioritize actions and differentiate between alternative actions.

Risk management involves creating the necessary culture and business infrastructure for:

- identify the causes and main factors of risk occurrence;

- identification, analysis and risk assessment;

- making decisions based on the assessment;

- development of anti-risk management actions;

- reducing the risk to an acceptable level;

- organization of implementation of the planned program;

- monitoring the implementation of planned actions;

- analysis and evaluation of the results of the risk solution.

The introduction of a risk management system into practice allows them to ensure the stability of their development, increase the validity of decision-making in risky situations, improve the financial situation through the implementation of all types of activities under controlled conditions [12]. In this paper, the term "risk management", which is similar in its concept, will also be used - risk management. Risk management is the processes associated with identification, risk analysis and decision making, which include maximizing the positive and minimizing the negative consequences of the onset of risk events.

For a successful operation of an enterprise in a competitive environment, it is necessary to move from risk management to an integrated approach in which funds and methods are shared across the enterprise, and there is a well-conceived strategy in the management of the enterprise. An integrated approach is an active position, since it implies foresight, not a passive response to risk, this approach provides more

opportunities and limits the dangers. Thus, we can draw the following main conclusions:

Risk management involves making a decision on risk management in the presence of several alternatives that determine the possibility of using limited resources. Possible failure to achieve the planned result is a consequence of the probabilistic nature of market activity. Risk characterizes the degree of failure to reach the goal and the possible consequences. The objects of risk are: organization, management system, including QMS, processes, projects, activities, products and services, security, etc. Since there are many objects associated with uncertainty, this work will address the risks associated with the management system, including quality.

Arguing about the issues of risk management in the organization, it should be noted that the risk factor is directly related to the organization's QMS. If the QMS functions effectively in the organization, the risk factors have a lesser effect on its operations. If the risk factors to a significant extent affect the activities of the organization and lead to a decrease in the competitiveness and profitability of the organization, a serious correction of the existing QMS in the organization is necessary. Therefore, the most interesting is the study of the problem of risk management in the organization's QMS. But to date, this issue is not sufficiently disclosed.

A key aspect of an effective risk management mechanism in an organization's QMS is to extend the risk management mechanism to all existing QMS subsystems of the organization. This is due to the fact that at the moment there is a tendency to single out the quality of products as an object of risk management of QMS. Of course, product quality is one of the most important objects of the QMS risk management research, but it must also be taken into account that, in accordance with the concept of universal quality management, the quality of the processes in the organization, the quality of personnel, the quality of planning, and other important QMS aspects are also affected by risk factors and need constant improvement [2].

Quality management is a narrow, specific activity, not limited to the organizational framework, but the management of the entire enterprise, all aspects of its life activity in a global sense essential for its viability, with a clear focus on the needs of not only consumers but also other interested parties [13]. Risks in the QMS are mainly related to the external business environment, and they must be taken into account when designing and implementing a common management system. As for the management standards themselves, they can be considered and applied as a basic tool in the context of risk management. With such a tool, it is possible to significantly reduce the number of internal inconsistencies in the management of enterprise processes, thereby increasing productivity.

Each enterprise is very individual, since it is created, exists and functions under certain conditions inherent only to it. Therefore, it is impossible to determine a clear list of risks that should be inherent in any enterprise. There is only a general classification of risks, which can be the basis for identifying specific risks that threaten a particular enterprise.

It should be emphasized that, although the categories of external risk are inherently independent of the enterprise, they nevertheless have a direct connection with the activities of the enterprise itself.

Foreign economic risk. It can arise in the process of interaction with foreign business partners and be caused by the internal causes of the partner: stopping production, a sharp rise or fall in prices due to changes in production costs, etc. The risk of changing the market environment. It has two-way communication. On the one hand, it is - the enterprise's participation in the formation of market prices, and on the other - the relationship of the enterprise with suppliers of equipment, raw materials, semi-finished products, buyers of finished products.

Natural and climatic risk. It becomes internal through production technology (requirements) or production results related to the need for financial compensation for damage to the external environment. Information risk. Appears when improper organization of information flows within the enterprise, incorrect information, both

received by the enterprise, and out-of-staff due to fault. This also includes the disclosure of information of particular importance or threatening the economic security of the company. Scientific and technical risk. Concerning both the innovative activity of the enterprise itself and the acquisition of patents, licenses, new equipment and technologies.

Regulatory and legal risk. It is internal in part of orders, decisions, regulations, orders issued within the organization. As we see, the reasons that cause external economic risks may lie in the internal environment of the enterprise. Thus, none of the external risks are "purely external."

Internal risks are such risks that are associated with the parameters of the quality management system. Internal risk categories are formed by cost centers.

Cost centers are separate units of the enterprise, for which costs can be attributed. Hence, risks can be distinguished: transport, supply, production, the risk of storing finished products, marketing and management.

Internal risk categories are formed by cost centers. Cost centers are separate units of the enterprise, for which costs can be attributed.

From here we can identify the risks: transport, supply, production, the risk of storage of finished products, marketing and management. As for the risks related to the category of external, these types of internal risk can be partially caused by the reasons that lie outside the enterprise.

Transport risk. It is partially external, if the enterprise uses the services of third-party transport organizations.

Supply risk. It becomes external when it occurs due to the fault of suppliers of material resources and equipment in case of failure to fulfill the terms, volumes, assortment, price or quality of supplied resources.

Sales risk. Occurs outside the production company in the event of a buyer's refusal of the products not through the fault of the manufacturer. In this part, it refers

to the category of external risk. Therefore, the main task of the company is to identify the most important risks or group, to exert maximum efforts to reduce them, and to achieve the main tasks in terms of improving the quality of products and meeting the expectations of consumers.

The management system, on the one hand, is a comprehensive solution for mitigating operational risks; on the other hand, it is the basis for building a risk management system, that is, part of the risk management system. Introduction of risk management approaches in management systems, expansion of management systems methodology by risk management elements contribute to more efficient functioning of these systems in organizations due to greater "flexibility" of approaches and focus on business requirements.

The application of risk management approaches allows finding the best balance between actions aimed at making a profit and actions aimed at ensuring security, thus contributing to the necessary and sufficient security of the business. Profit and security are the main factors that interest the owner of any business [15].

Despite the fact that the risks in the QMS are considered to be the most urgent problem today, they can not be considered as a separate institution, but they need to be integrated into the overall management system of the organization. In favor of such integration is the fact that the risk management system is not an end in itself for any organization, but can be considered as an additional tool aimed at the continuous improvement of the existing system and aimed at:

1. Improving the quality of products or works performed, KPI;

2. Increase customer and customer satisfaction;

3. Increasing the effectiveness of the QMS in general.

Thus, the risk management system provides an opportunity to control them at all stages of production.

2.2. Literature review

For all management structures, risk management is an important, integral part of management. This is primarily due to the fact that the successful conduct of business requires not only a clear picture of all sources of risk, but also that the inclusion of risk situations should be accompanied by the development of measures aimed at mitigating their negative impact. From the perspective of I.M. Babuk, the financial risk of an enterprise is the probability of unfavorable financial consequences in the form of loss of income or capital, given the uncertainty of the conditions for carrying out its financial activities [4, p. 158].

A.S.Bulatov under financial understands the risk arising in the implementation of financial business or financial transactions, proceeding from the fact that in the financial business in the role of goods are either securities or money in rubles or in currency [8, p.122]. The risk management process usually involves the following procedures:

1. Risk management planning - selection of approaches and planning of activities for risk management of the project.

2. Identification of risks - identification of risks, capable of influencing the project, and documenting their characteristics.

3. Qualitative risk assessment - a qualitative analysis of the risks and conditions of their occurrence in order to determine their impact on the success of the project.

4. Quantitative assessment - a quantitative analysis of the likelihood of occurrence and impact of the consequences of risks on the project.

5. Planning a risk response - Defining procedures and methods for mitigating the negative consequences of risk events and taking advantage of possible benefits.

6. Risk monitoring and control - monitoring of risks, identification of remaining risks, implementation of the project risk management plan and evaluation

of the effectiveness of risk mitigation actions. All these procedures interact with each other, as well as with other procedures.

The management of the company's financial risks is based on certain principles, the main of which are: awareness of risk taking; manageability of accepted risks; independence of management of individual risks; comparability of the level of accepted risks with the level of profitability of financial transactions; comparability of the level of accepted risks with the financial capabilities of the enterprise; profitability of risk management; accounting for the temporary factor in risk management; accounting for the company's financial strategy in the risk management process; accounting for the possibility of transferring risks [2, p.45].

Central to the risk assessment and subsequent risk management are analysis and forecasting of possible losses of resources, decrease in profitability. This is a multi-step process, the purpose of which is to reduce or compensate for damage to the object when unwanted events occur. At the same time, it must be remembered that minimization of damage and risk reduction are inadequate concepts. The second means either reducing the possible damage, or reducing the likelihood of adverse events. The information collected should be sufficient for making adequate decisions at subsequent stages.

The sequence of the analysis is as follows: identification of internal and external factors that increase or decrease the specific type of risk; analysis and evaluation of identified risk factors; evaluation of a specific type of risk from the financial side using two approaches: determining the financial soundness (liquidity) and economic feasibility of the project; definition of acceptable level of risk; analysis of selected transactions at a selected level of risk; development of risk reduction measures. In the process of analysis, not only certain types of risks are identified, but also the probability of their appearance is determined, and their quantitative and qualitative influences are also given. Often the analysis goes in two opposite directions - from evaluation to detection and vice versa. In the first case, there are already (fixed) losses and it is necessary to identify the reasons. In the second case,

based on the system, risks and possible consequences are revealed. Various methods are used to reduce the degree of risk. The most common are: diversification; acquisition of additional information on the choice and results; Limitation; self-insurance; insurance [4, p.32].

Diversification is the process of allocating invested funds among various capital investment objects that are not directly related to each other, in order to reduce the risk and loss of income. Diversification avoids some of the risk in the distribution of capital between diverse activities. Limitation is the establishment of a limit, i.e. limit amounts of costs, sales, credit, etc. Economic entities are used when selling goods on credit, lending, determining the amount of capital investment, etc.

Self-insurance means that an entrepreneur prefers to hedge himself, rather than buying insurance in an insurance company. Thus, it saves on capital outlays on insurance. Self-insurance is logical when the value of insured property is relatively small in comparison with the property and financial parameters of the whole business. Self-insurance also makes sense when the probability of loss is extremely small, when the firm owns a large number of the same type of property.

Summing up, we note that financial risks represent the probability of occurrence of an event related to the loss of capital as a result of entrepreneurial or investment activity. Risk management is the processes associated with identification, risk analysis and decision making, which include maximizing the positive and minimizing the negative consequences of risk events.

Risk management in a broad sense is a special type of activity aimed at reducing or completely eliminating the impact of its adverse effects on the results of ongoing business operations. In practice, this involves seeking a compromise between the benefits of reducing risk and the costs involved, and deciding what actions to be taken (including refraining from doing anything). According to G.I. Shepelenko, financial risk management is based on certain principles, the main ones being the following:

1. Awareness of risk taking. The manager must consciously take risks if he hopes to receive an appropriate income from the implementation of a particular operation. Despite the fact that for some operations it is possible to adopt the tactics of "avoiding the risk," it is not possible to completely exclude it from the activities of the enterprise, since financial risk is an objective phenomenon inherent in most business transactions.

2. Manageability of accepted risks. The portfolio of financial risks should include only those that are amenable to neutralization in the management process, regardless of their objective and subjective nature. Risks uncontrollable, such as force majeure, can either be ignored or transferred to an external insurer or business partners. Despite the obviousness of this principle, enterprise managers often take on "non-core" types of risks, without knowing the knowledge, skills and tools necessary to manage risks [23, p.148].

3. Comparability of the level of accepted risks with the level of profitability of operations. This principle is fundamental in financial management. It consists in the fact that an enterprise should take in the course of its activity only those types of financial risks, the level of which is compensated by an adequate value of the expected profitability, operations whose risks do not correspond to the required level of profitability should be rejected or, accordingly, for risk.

In practice, the value of the required level of profitability will vary even within the framework of one business, being dependent, in particular, on the risk management position. Some managers prefer to take a big risk for the sake of high profits; others, more conservative, set the maximum amount of risk regardless of the level of profitability, but the expected return should at least exceed the cost of capital necessary to cover the risks.

Accordingly, both the final and forecasted results of economic activity or a specific operation should be adjusted taking into account the degree of risk assumed by the firm or the manager to obtain them [23, p.148].

4. Comparability of the level of accepted risks with possible losses of the enterprise. The possible size of financial losses of an enterprise in the process of conducting a particular risky operation should correspond to the share of capital that is reserved for its coverage. Otherwise, the advent of a risky event will entail the loss of a certain part of the assets that provide the operating or investment activities of the enterprise, i.e. will reduce its potential for profit formation and the pace of further development. The amount of risk capital that includes the necessary funds and reserves should be determined in advance and serve as a criterion for accepting those types of financial risks that cannot be transferred to the counterparty or external insurer.

5. Accounting for the time factor in risk management. The longer the period of the operation, the wider the range of financial risks that accompany it, the fewer opportunities to neutralize their negative consequences. If such operations are necessary, the enterprise should include in the required amount of income not only premiums for the respective risks, but also a premium for liquidity [23, p. 149].

6. Accounting for the enterprise strategy in the risk management process. The system of financial risk management should be based on general principles, criteria and approaches, corresponding to their chosen enterprise development strategy. Orientation to the general development strategy allows to concentrate the main efforts on those types of risk that promise the maximum benefit to the enterprise, determine the maximum amount of risks that can be assumed, allocate the necessary resources for managing them. In turn, knowledge of these parameters enables the heads of departments to evaluate their strategies in the "risk-return" coordinates and bring them in line with the overall corporate strategy.

7. Accounting for the possibility of transferring risks. Acceptance of a number of financial risks is incommensurable with the enterprise's ability to neutralize their negative consequences. At the same time, the need to implement a particular risky operation may be dictated by the requirements of the strategy and direction of economic activity. Inclusion of them in the risk portfolio is only permissible if partial

or complete transfer to business partners or an external insurer is possible. The criterion of external insurance of risks should be necessarily taken into account when forming a portfolio of financial risks of the enterprise [23, p. 149].

In conclusion, we note that on the basis of the principles discussed, the company is developing a policy for managing financial risks. This policy is part of the overall strategy of the enterprise, which consists in developing a system of measures to neutralize their possible negative consequences of risks associated with the implementation of various aspects of economic activity.

3. Research Hypothesis

3.1. Hypothesis 1. There is a positive relationship between corporate risk management and company's performance

Organizations have started to need effective business solutions to deal with the uncertainties created by such factors as continuous change, increased competition, economic fluctuations, legal obligations, emerging technology, and globalization. One of these effective solutions is to incorporate corporate risk management into the organization's processes.

The achievement of these benefits is possible only with the establishment of the RM structure and effective RM practices. The benefits of corporate risk management can be gathered on three axes;

- increasing business performance,
- optimizing the cost of risk management,
- competitive advantage. [2]
- Corporate risk management enhances the performance of the organization; [3]
- Develops the readiness for change.

- Reduces operational losses
- Enables compliance with regulations and responds to risks
- Estimates uncertainties about performance targets
- Provides confidence in systematic risk assessment process
- Corporate risk management optimizes cost management cost;
- Eliminates excessive and unnecessary activities
- Combines the answers that are appropriate to the risks
- Regulates the cost of transaction processing
- Determines how much the risk is tolerated

Providing competitive advantage to corporate risk management;

- Adjusts the organization's business plans and risk management; [4]
- Provides reliability of the risk assessment process
- Provides management of all risks in the organization
- Develops capital and resource allocation
- Configure risk acquisition based on their own assessments
- Protects brand image and reputation.

While the practice of Risk Management has a large number of benefits, there are limitations to be addressed. Although the RM is well designed and executed, it may not go beyond reasonable limits on the boundaries of the system. The major constraint on corporate risk management is the risk of work-related risks as a result of the uncertainty environment. As you know, risks arise from the uncertainty of the future and there is no possibility to eliminate this uncertainty. In another aspect of the system, the effectiveness of the previously-defined probability and effectiveness of RMs is limited to people who can make misleading decisions. Decisions can be

made in restricted time, with existing data and under pressure from the workplace. it may be understood that it does not provide targeted results in the future and needs to be corrected. The well-planned RM may also have problems. The institution staff can understand the instructions incorrectly, make mistakes in making decisions, or make mistakes in negligence, carelessness and fatigue. In RM a major constraint is that RM " that they did not provide the necessary support or insufficient.

All non-profit and non-profit organizations operate in an uncertain environment. The uncertainty that institutions face with risks and opportunities is the possibility that future probable potential events and the consequences of these events cannot be determined. Of course, the uncertainty environment can change depending on the strategic choices of the organization.

At global scale, risk management is basically the BASEL II Principles and Australian Risk Management Standards used by the financial sector, primarily the COSO Corporate Risk Management framework. Corporate risk management is a process that is structured throughout the organization and is influenced by the board of directors, management and other employees, which identifies potential events that may affect the achievement of an organization's objectives, manages it within the limits of risk-taking willingness and provides reasonable assurance about the achievement of corporate goals.

The justification for the emergence of the RM is the strategy and objectives of the institution, which is the reason for the emergence of risks. The main objective of the RM can be to achieve the goals of the institution by managing risks. The RM system, which operates efficiently and achieves its goals, is only available if there is an efficient RM-based internal audit system. The effective functioning of the RM is only possible by monitoring the system's performance, detecting and correcting the deficiencies and defective aspects. Of course, this function should also be performed by the internal audit unit, which has the ability to act independently within the organization.

- The key elements of the RM definition can be listed as follows: [5]

- It is a continuous and fluid process. RM is not an event or situation, but a series of actions within the organization's activities.

- Employees at all levels of the organization are affected. The board of directors is one of the most important elements of the RM.

In addition, managers who have approved strategies, operations, and policies also have more activities on RM.

- Applies at all levels of the organization. RM deals with agency activities. These activities can be corporate hill management activities, strategic planning and resource allocation, and can be department-based activities, marketing, and human resources.

- There is no need to completely rationalize the risks. Risks are managed within the risk-taking limits. The desire to take risks simply refers to qualitative - high, middle and low classification - or quantitative - growth targets - may be considered.

- RM provides reasonable assurances about the achievement of corporate goals. It is based on the fact that reasonable assurance cannot be predicted because of reasonable assurance, future uncertainty, and risks associated with the future. There is also a set of limitations for how well the RM system can be installed for reasons such as incorrect risk assessment and risk-taking decisions that may result from human nature.

- No institution can operate in a risk-free environment, and no institution in the CRA can provide such an environment. The basic benefits of RM, the more effective implementation of activities in a competitive environment with risks, are as follows: [6]

- Due to its willingness to take risks, it creates risk strategies and thereby facilitates resource allocation to risky areas.

- Strengthens the relationship between risk and return. Corporations accept risks for the purpose of creating values or maintaining their existing values and expecting a return. RM strengthens the relationship between risk and return on its activities.

- Provides appropriate methods and techniques for organizational management to make decisions on risk behaviors. In this way, the top management of the organization decides less uncertainty under more precision conditions. Moreover, supporting the decisions taken with appropriate data gives the senior management the opportunity to defend their performance.

- Increases the likelihood that the institution is facing less surprises and achieving its goals, thereby reducing potential costs and losses.

- Provides an understanding of the potential impact of the domino effect on risks at the corporate level and the risks involved.

- Ensures monitoring of risks and impact on corporate activities.

- Helps to determine the rational capital requirement. As the quality of information provided to management is rising, the management makes the capital requirement assessment more effective.

- The risk assessment function is of great importance in determining the rational capital requirement. The optimal estimate of the rational capital requirement, the optimization of the net working capital to be maintained, and the avoidance of excessive capital from the institution. [7]

- Ensures reasonable assurance about the safety of the risk management system in order to achieve its corporate goals.

- Finally, RM contributes to the transition from reactive management to proactive management.

It also prepares the necessary infrastructure for risk-based monitoring of employee performance. Another important benefit of the RM system is that it helps

the internal auditor focus on the risks that can prevent the institution from reaching its goals by altering risk perception.

Thus, the value added function of the internal auditor is on the forefront. This also affects planning and testing stages in internal audits. As a result, these processes also lead to an increase in business intensity.

The RM system's ability to provide the expected benefits relates to whether the system is operating effectively. If the internal audit unit assumes the role of assurance in the RM process, the internal auditors play an important role in evaluating the effectiveness of the RM system, recommending the corrective action measures to be taken and the subsequent process.

Our world of sensations is a kind of early warning system that helps us survive in an environment of constant risk. Those who adjust their feelings to the perception of the world, have a better chance of success. Those who do not succeed in this can simply not survive. The same thing happens in the business world: companies that adopt a strategic approach to risk management are armed with the knowledge that allows them to make effective and informed decisions, anticipate and reduce risks, take advantage of opportunities, and generally achieve higher performance.

The past year has become an irrefutable proof that threats and uncertainties prevail in the modern global business environment. At the same time, technologies continue to dictate the need for drastic changes due to the proliferation of innovations such as cloud technologies and the Internet of Things, as well as increased cybercrime and computer terrorism. Business risks both internal and external are interconnected and present everywhere, continuously grow and change. PwC surveyed 1229 top managers and board members this year, and 73% of the respondents agreed that the number of risks that threaten their companies is growing.

Current managers often have to respond quickly to changes in the world, even as they need to provide more and more information to regulators and potential business partners, strive to better understand the risks of global supply chains,

protect their firms from instability in the market, and protect intellectual property and client data from increasingly complex and large-scale cyberthreats.

- However, as our study shows, most companies are slow to respond to the situation by increasing the effectiveness of their risk management programs. And although our survey clearly showed that the desire to combat business risks increases the effectiveness of management, prevents miscalculations that can be very ruinous for business, and also contributes to increased efficiency and profitability, only a small "elite" group of companies (12% of the total number interrogated) has implemented processes and structures that allow them to be leaders in the field of risk management. [18]

These leaders in risk management understand the nature of the internal relationships that exist among the diversity of today's risks. Their sustainable risk management strategies enable businesses to develop faster in the digital age. Their risk management programs are aligned with business units. They clearly define their "risk appetite" and their willingness to accept risk throughout the business. Such companies can better monitor and track potential vulnerabilities arising from the fault of third parties. They can go to higher business risks through carefully thought-out, informed decisions, which allows them to avoid possible threats, as well as to determine the strategic opportunities for further development in the face of uncertainty.

Leading companies focus not on slowing growth, but on risk management, which helps them achieve more confident financial results. They are able to consider business risks in the context of the company's main strategic goals and over the past three years have shown a much higher growth rate and reached an annual level of profitability above 10%. These advanced companies have learned to sensitively capture the emerging changes, which allowed them to achieve higher commercial results. Within the framework of the study, we received other statistics that speak for themselves: the most dynamically developing companies almost twice as often report the growth in the scope, scope and scope of their risk management programs

compared to companies whose business is declining or remaining on unchanged level.

In today's world, which is characterized by speed of decision-making, technological equipment of enterprises and interdependence of functions, the advantage of an integrated approach to working with various types of risks is obvious. This concerns risks in the area of regulatory compliance, technology, operations, corporate culture, finance, trademarks and product portfolios. At the same time, our analysis shows that the vast majority of companies have not yet started developing a risk management strategy that allows linking ERP to the strategic priorities of the company.

- The following examples show this: [1]

- Only 38% of respondents have developed a formal system for determining the risk-appetite of a company, information about which has been communicated to the staff and which clearly defines the level of risk that the organization is prepared to accept within the general permissible risk level. An even smaller number of respondents (36%) effectively track the risk appetite and the sustainability of their organization to risk, using key risk indicators and other monitoring tools.

- Less than a third of respondents (31%) have a fully integrated risk management strategy that links risk management processes to the strategic planning process.

- Only 14% of survey respondents say that risk management and strategic management processes in their companies are fully aligned.

- Being guided in today's business environment without an integrated risk management program is like managing a ship without a map. You simply will not know where the shoals, reefs and other hazards of navigation are. At the same time, the strategy of identifying, tracking and managing risks helps companies not only avoid pitfalls: with its help, management can identify the prospects that companies should take advantage of.

In our study, among all leading risk management companies, two-thirds (67%) of respondents reported that their companies are more likely to resort to an analysis of possible risks in the decision-making process, even if it is necessary to promptly adopt a strategic solutions. For comparison: among the companies that are not leaders in this direction, only 43% of respondents use risk analysis in decision-making. Active involvement of risk management specialists not only does not slow down the process, but in the aggregate it saves time for making business decisions, ultimately reducing the financial and time costs associated with previously unidentified risks.

Dean Simone, PwC's partner and head of risk analysis and risk management practice, is sure: "Integrating the risk management process into the life cycle of your company allows you to achieve two things. First, you can understand the consequences of the onset of risk at the decision-making stage, rather than after its onset. Secondly, you can act more quickly and confidently, because you know that you have envisaged possible risks, and therefore less likely to make a mistake that can slow down your growth".

Leading companies prove that the strategic application of risk management principles allows the business to achieve high results. Although each company chooses its own way to develop the risk management process, it always has the same factor: the management's decision to use modern tools and risk management methods to improve the efficiency, effectiveness and profitability of the business.

3.2. Hypothesis 2. A corporate risk management tool fosters corporate governance in the company

If considering the history of the development of corporate governance practices in the CIS countries, it becomes clear: for a long time the idea of corporate governance of the management of many companies was limited to creating a board of directors and, at best, an audit committee, as well as reforming the corporate

ownership structure. This was rather a forced measure - as an answer to corporate scandals that shocked the US and the European community at the beginning of the century.

Legislative acts have been adopted to protect investors: the Sarbanes-Oxley Act in the United States, the EU's 8th Directive, as well as the country codes of corporate conduct, of which a number of provisions have been borrowed and included in the requirements for listing major trading floors. At the same time, often in private companies, the boards of directors consisted of top managers of these organizations, and sometimes they were also business owners. In fact, there was no question of any division of powers. Yes, and the arguments that sounded at that time seemed to the majority to be very strong: who better than the owner can observe the interests of business? who, if not the owner (who is also the manager), will bear the risks associated with the adoption of key decisions for this business?

The second wave, which prompted the organization to review corporate governance practices, triggered a booming IPO. There was a direct link between the company's investment attractiveness, the level of its corporate maturity and the quality of management. Thus, according to the EY research conducted in 2007, for 69 percent of the interviewed investors, transparency of business was the highest priority in making investment decisions. 82 percent of investors were willing to pay a premium for the company's shares with successful practice in the field of risk management. At the same time, 61 percent of respondents expressed their readiness to abandon investment in general - only because of insufficiently effective risk management system.

Despite the fact that many Russian IPOs have been very successful, the overall heat of the boom of international markets has made itself felt. A number of companies prepared for the initial placement of their shares in a big hurry, often even for 6 months, and by the time they entered the foreign capital markets they simply did not reach the required level of readiness, which led to negative dynamics of the prices for shares of these organizations. It should be noted that such actions caused

damage not only to the interests of shareholders of these companies, but also had a serious impact on the stock market ratings.

In the opinion of individual investors and analysts, several factors served as the reasons for the failures of IPOs of individual Russian enterprises. First of all, this is the lack of clear goals of placement and overestimation of the value of its shares. Secondly, insufficiently transparent reporting and deficiencies in the level of corporate governance. Nevertheless, for many companies, life after the IPO has changed - they were on the verge of becoming a new corporate governance practice: instead of formal assurances of the commitment of this concept, finally, understanding of its practical value came.

In managing risks, administrators should be able to choose between accepting, preventing, or reducing a particular risk, or avoiding complete risk aversion. For example, when deciding on managing the risk of unauthorized access to electronic files, administrators should consider the following possibilities:

- Acceptance of Risk - Do Not Implement Control Activities: Management may accept the risk of unauthorized access because the results of such access are not too large. For example, the data contained in the files may not contain sensitive information. Management may also take the risk of accepting the risk if the cost of related control activities is greater than the amount of damage that may result from the occurrence of the adverse event.

- Risk Avoidance or Reduce - Implementing Control Activities: Management may not accept the current level of unauthorized access risk due to the fact that the files contain confidential or valuable information. For this reason, management controls activities to prevent or minimize the risk of unauthorized access to at least an acceptable level. However, the risk will only be reduced as long as control activities are planned as planned.

- Avoidance of Risk - Do Not Reassess This Function: Management evaluates whether files cannot tolerate unauthorized access or cannot adequately

control access. For example: A file may contain very sensitive data or access control may not be applicable. In this case, management may evaluate whether the effects of access to this file can be very risky or that access control activities are very costly. Therefore, the management may decide not to execute this function (ie, it may decide not to include the data).

- When risking or minimizing risk, the risk assessment information should be used to help identify the most effective and efficient control activities to manage management risk. Specifically, the management should take into consideration the following factors in risk assessment: [12]

- What is the cause of risk? Management should take into consideration the actual cause of the risk to help identify any possible control activities that will reduce or prevent the risk of management.

- Comparison with Control Costs: Comparison of the cost of the unforeseen situation: The cost of the controlling costs and the negative effects of the adverse event should be selected and choose the least cost option.

- What is the Priority of This Risk? Management should use the priority risk list to help determine how resources should be shared among various control activities that are used to reduce risks. According to the priority level, the source size for the control activity should be planned. It plays a key role in selecting appropriate control activities to assess and manage risk.

Control activities are policies and procedures developed by management and board. Control activities are implemented for each function and level of organization, i.e. control activities are at all levels within the organization.

Control activities are an integral part of the organization's plan, program and accountability. To be able to speak of the effectiveness of control activities, it should be appropriate, planned, comprehensive, and reasonable. Control activities should be arranged and implemented in such a way as to monitor the risks identified in the

risk assessment component. The control activities arranged and applied in this way mediate the elimination of risks.

- Many different control activities can be used to combat the risks that threaten the success of an organization. However, most control activities can be divided into two types, preventive and detective control activities: [14]

- Preventive Controls: Controls that prevent problems from occurring before problems occur. Preventive controls are designed to prevent the formation of an unwanted event. The development of these controls involves the prediction of potential problems before the occurrence and the application of preventive methods.

- Detective Controls: Ensures that these issues can be addressed after problems occur. Detection controls are designed to identify actual unwanted events and to inform the management of the event. These controls make it possible for the management to perform corrective action quickly.

Preventive controls are more dense than detecting controls. Both preventive and detection controls are made to reach the same control objective. However, feedback from the preventive control is faster than detection controls. The feedback of detecting controls should be more immediate or delayed. For example, if the controlling activities are to be applied for the control of cash payments (without any unauthorized expenditure and no unnecessary resource expenditure), the management may specifically perform the following types of checks:

- Preventive; applying authorization limits so that employees do not spend on a certain amount of money,

- Instant feedback detector; creating an alarm alert on the computer of the employee who spends over a certain amount of time,

- Delayed feedback detector; periodically reporting, for example, spending on a monthly, certain amount.

Preventive controls; distinctions, authorizations, approvals and verifications of the duties, the limitation of access to resources and records. Detection controls are; including the creation of coherence between records, and the creation and performance of performance indicators. None of these control activities alone can solve all risk management problems. In some cases, a combination of various control activities should be used, and in some cases a control activity can be replaced by one another.

An integral part of corporate governance is precisely the process of risk management, the improvement of the mechanisms of which should focus the attention of the owners and management of the company, t. the lack of an effective risk management system in Russian companies is one of the main problems in the field of corporate governance, and the risk management itself is one of the main aspects of it that must be subject to priority changes.

Based on the results of numerous studies analyzing the practice of risk management in the world's leading consulting companies, one can say with certainty that the development and implementation of effective corporate risk management systems is one of the priority strategic goals of each successful company. In particular, the significance of this issue is growing now, when Russia joined the WTO. The competitiveness and successful development of Russian companies will depend on the degree of efficiency of the corporate governance system and the risk management system in particular.

- The activity of any organization is always associated with risks, but if an enterprise introduces a risk management system into the business planning and performance evaluation process, strategic and operational goals are achieved much faster. International companies-leaders understand the need for this process for the organization and apply the following experience: [9]

- the organization has approved a method for determining the acceptable level of risk;

- stress testing is used to confirm risk tolerance;
- the organization's management has implemented an effective risk management program;
- cycles of business planning and preparation of risk reporting are coordinated, which allows to take timely into account information about risks in business planning.

For effective risk management, first of all, it is necessary for the company's management to have an understandable strategy in this area, as well as in the sphere of corporate governance. In this connection, special supervision of these areas and the structure of reporting are of particular importance. Executive management should play a key role in risk assessment and management. A well-developed corporate governance structure, provision of reports and information on risk management to the board of directors ensure the growth of the value of the risk management system within the organization, improving accountability and increasing transparency. In addition, effective risk management reporting and oversight ultimately lead to improved decision-making.

The development of a risk management strategy allows organizations to predict the occurrence of risk with greater accuracy. Along with this, even with the most reliable preventive risk management strategy, there may be unfavorable events affecting the efficiency of the activity. Thus, despite the need to develop a risk management strategy that allows to reduce their level before the event occurred, it is equally important to develop a strategy for responding to risk in the event of its occurrence.

Based on international practice, leading companies apply the following experience in the field of risk management:

- an open dialogue on risks with external stakeholders is conducted;

- timely exchange of transparent information with interested parties, as well as providing them with meaningful information about the decisions and corporate values of the organization;

- the board of directors or the board plays a leading role in determining the objectives of the risk management system;

- a single risk management system for the whole organization was developed and implemented.

- For successful operation, leading companies build a risk management system in accordance with international standards. One of the international standards in the field of risk management is ISO 31000: 2009. In order for risk management to be effective, the organization must correspond at all levels below the following principles: [13]

- Risk management creates and protects valuations.

Risk management contributes to the obvious achievement of goals and improving indicators, for example, human health and safety, protection, compliance with legislation and regulations, public recognition, environmental protection, product quality, project management, performance, leadership and reputation.

- Risk management is an integral part of all organizational processes.

Risk management is not an autonomous activity, it is separated from the main activities and processes of the organization. Risk management is part of the responsibility of management and an integral part of all organizational processes, including strategic planning and management of project and change processes.

- Risk management is part of decision making.

Risk management helps decision makers make the right choice, prioritize and identify alternative courses of action.

- Risk management clearly expresses uncertainty.

Risk management takes into account the uncertainty, the nature of this uncertainty and how they can be expressed.

- Risk Management is systematized, structured and time-coordinated.

A systematic, structured and time-coordinated approach to risk management contributes to efficiency, as well as consistent, commensurate, reliable results.

- Risk management is based on the best available information.

The input to the risk management process is based on information resources, such as historical data, experience, stakeholder feedback, observations, forecasts and expert statements. However, decision-makers should be aware of and take into account any data limitations or the use of modeling, as well as the possibility of divergence of opinions of experts.

- Risk Management is special for each organization.

Risk management is focused on the external and internal context of the organization and the risk structure.

- Risk management takes into account human and cultural factors.

Risk management recognizes the potential, perception and intentions of external and internal stakeholders that can contribute to or hinder the achievement of the organization's goals.

- Risk management is transparent and inclusive.

Appropriate and time-appropriate involvement of stakeholders, in particular, individuals who must make decisions at all levels of the organization, ensures that the risk management remains relevant and up-to-date. Involvement also allows stakeholders to be represented appropriately and to realize that their views are taken into account when determining risk criteria.

- Risk management is a dynamic, repetitive and process-capable process.

As internal and external events occur, context and knowledge change, monitoring and analysis take place, new risks arise, so something changes, and the other disappears. Therefore, the risk management responds to changes.

- Risk management contributes to the continuous improvement of the organization.

- Organizations must develop and implement strategies to improve the development of their risk management along with other aspects of the organization. [14]

In order to introduce international risk management standards in companies, which are effectively used by the world's leading companies, it is necessary to assess and analyze the existing risk management practices, especially strategic ones, to identify possible problems and the reasons for which they may arise.

To effectively manage risks, it is necessary to improve the corporate governance system of the company as a whole, that is, to implement an integrated approach to improving the risk management system in accordance with international practice, namely:

- an effective risk management system can be implemented by introducing into the corporate governance system the OECD international principles that ensure: protection of shareholders' rights, equal treatment of shareholders, recognition of statutory rights of stakeholders, timely and accurate disclosure of information on all significant issues related to the organization, effective control over the administration by the board (supervisory board), as well as the accountability of the board to shareholders;

- the management of the organization should form an understandable strategy in the field of risk management, as well as in the field of corporate governance. In this regard, the supervision of these areas by the board of directors and the management board and providing them with reporting is of particular importance. An important factor is the allocation of responsibility for managing individual risks

between structural divisions. Executive management should play a key role in risk assessment and management;

- it is necessary to integrate risk management systems into business processes. Organizations that implement their management system in the process of business planning and performance evaluation tend to achieve strategic and operational goals faster. Carrying out a risk assessment throughout the enterprise will help to identify priorities and identify opportunities for improvement;

- it is necessary to optimize risk management functions by coordinating risk management activities in all units dealing with these issues, as well as ensuring compliance with legislative requirements. As a result, organizations can reduce the burden associated with risk management (eliminating duplication of functions and performing redundant activities), reducing costs, increasing coverage and increasing efficiency.

The application of a comprehensive corporate governance and risk management system in the company is the key to increasing the company's competitiveness and successful development.

4. Research methodology. Model building - regress

Econometric models have been created to test the effectiveness of RM on firm performance. Econometric studies are widely used in the field of finance. Moreover, due to the intensive use of econometric studies in the field of finance, a study area has been created under the name of financial econometrics.

Parallel to the rapid development of financial instruments and financial markets, financial econometrics have been steadily and consistently improved over the last 30 years. Financial econometrics is a practical area where economics, finance, probability, statistics and mathematics are used together.

Models with multiple descriptive variables are referred to as multiple regression models. In multiple regression models, dependent (described) variable is expressed by two (or more) independent variables. Multiple regression analysis allows the interpretation of the total variance described in dependent variables by the independent variables, the statistical significance of the variance, the statistical significance of independent variables and the interpretation of the relationship between independent variables and dependent variables.

- The main objectives of regression analysis are: [17]

- Estimating the average values of the dependent variable with the values of the independent variables,

- Investigate whether independent variables have a significant effect on dependent variables,

- To predict the values of the independent variables and to estimate the mean value of the dependent variable or to estimate the value it will have in the future.

In the linear regression models, the least squares (EKK) method is used to describe the relationship between dependent and independent variables. The ECA method is intensely chosen by the researchers as it is easier to use than other estimation methods.

- The linear regression model, with more than two independent variables, [19]

$$\boldsymbol{Y_i = \beta^1 + \beta_2 X i_2 + \beta_3 X_{i3} + \ldots + \beta_k X_{ik} + \mu_i}$$

In the model, βs are parameters. β1 is a fixed parameter, and the value that Y receives when all arguments are "0". The parameters B2, β3, ..., βk are the slope parameters. It is an econometrically indicative of how a unit increase or decrease in each of the corresponding X variables will change the dependent variable Y.

If the ECC method assumptions are not met, the estimates are biased and thus meaningfulness tests are void. Multiple linear regression analysis assumes the

validity of the multiple linear regression assumptions, primarily by multipoint linearity, variance, autocorrelation and normal distribution tests.

- Autocorrelation is defined for the residuals of the regression model (error terms) and refers to the residuals not associated with past or previous values. The presence of autocorrelation is a deviation from the important assumptions of the linear regression model, i.e., the connection between the error terms. While autocorrelation is more common in time series, autocorrelation can be seen in horizontal cross-sectional data. [21]

The absence of fixed variance status is expressed in the form of variance. Variable variance is usually seen in horizontal cross-sectional data. The constant variance is that the variance of the error terms of each observation is the same. That is, the variance of the error term is the same for all values of the argument.

A strong relationship between independent variables is called a link or multiple linear linkage and points to an undesirable condition in regression analysis. In the case of multiple linear connections, regression coefficients are ambiguous, R2 is high, all or fewer independent variables are significantly different than t test. Multiple linear linking occurs in more time series data.

Logistic regression method was used to detect FRY and RM markers. Logistic regression is a technique for creating a model for dependent variable in discrete data that can be expressed in two or more classes. Logistic or probit regression methods are used if dependent variable is discontinued.

Logistic regression method is a highly advanced regression method that has been used frequently in social science fields, although it has previously been a method used in studies in medicine. The purpose of logistic regression is to describe the relationship between one or more independent variables and dependent variables, such as in other regression methods.

Logistic regression analysis takes the name of the logit conversion applied to the dependent variable. Logistic regression analysis is divided into three types

depending on the type of scale in which the dependent variable is measured and the number of dependent variables. If the dependent variable is a categorical variable of two, Binary Logistic Regression Analysis is called Regular Logistic Regression Analysis, if the dependent variable is derived from two variable categorical Multiple Namespace Logistic Regression Analysis and dependent variable sorting scale.

- In this study, Dual Logistic Regression Analysis was performed because the dependent variable was a categorical variable of two choices (1 and 0). Logistic regression is different from other regression methods because of the following assumptions: [23]

- In regression analysis, multiple variables have been shown to be independent variables and, in particular, the need for continuing dependent variables, these conditions are not sought in logistic regression.

- Multiple connection problem between logistic regression independent arguments it does not exist.

- There is no requirement for equation of variance-covariance matrices in logistic regression analysis.

In the logistic regression, methods such as Pearson chi-square test, Omnibus and Wald statistics used for testing the significance of parameters, Hosmer-Lemeshow Test, correct classification ratios are used to evaluate the model's adaptability.

- Logistic regression does not have the coefficient of coefficient (R2) in linear regression analysis. However, the statistics used for this purpose in the literature; McFaden R2, Cox-Snell, and Nagelkerke R2 statistics. [20]

Considering theoretically the problem of developing and implementing methodological approaches to modeling corporate risk management systems, it is not difficult to see the following. Despite the fact that the issues of analysis and synthesis of organizational management systems were paid much attention in the

scientific and methodological literature, such a management system as risk management (risk management), in this regard, was beyond the scope of consideration. Practically there are no publications where it would be possible to find a technique for step-by-step modeling of such a system from the position of the system approach. This is explained, apparently, by the fact that risk management until recently was more likely to be regarded as a tool for solving a certain set of particular tasks related to risks, rather than as a fully-fledged management system that functions on an ongoing basis in enterprises, for example, as a quality management system or a development management system. Only with the introduction of the concept and methodology of integrated (corporate) risk management at enterprises, the questions of analysis and modeling of such a system, naturally, were updated. In this paper, one of the possible methodological approaches to this task is proposed.

Preliminary stage: analysis of the supersystem. In accordance with the principles of the system approach, the analysis and synthesis of any control system should begin with an analysis of the management system of a higher level (supersystem). In our case, this will be a system of general and strategic management of the enterprise. Such an analysis is recommended for the following areas:

- features of the organizational structure of management; evaluation of its quality;
- features of management communications, organization of information flows;
- features of existing strategies, policies and programs, changes in strategic priorities in recent years;
- features of methods and technologies of development and decision-making; the most important strategic decisions in recent years and their consequences;
- review of the most important internal regulations and methodological documents;

- Analysis of the main documents of financial reporting;
- analysis of performance indicators and economic efficiency of activities.

Based on the results of the analysis, conclusions are drawn about the effectiveness of the company's general and strategic management system, primarily from the point of view of the presence of stability and development factors on the one hand, and, on the other hand, risks and destabilization factors.

- *Analysis of the existing model of the enterprise risk management system*. At this stage, the problems of the enterprise's risk management model are identified, their criticality is established and a fundamental conclusion is made about the feasibility of developing a new model of the system. The analysis consists in the sequential solution of the following tasks: [3]

1) classification of enterprise risks (if such a classification already exists, then its validity and correctness are checked);

2) identification of the risk management system at the enterprise; definition of goals, functions and tasks of the system as a whole;

3) analysis of the organizational structure of risk management; distribution of functions, tasks and responsibilities for risks, delegation of authority to make decisions on risks;

4) research of information characteristics of the system, namely:

- the nature and quality of information used to solve the tasks of risk management;

- the structure of information flows;

- methods of obtaining and storing information on risks and risk management processes;

5) analysis of existing documentation on

risk management: regulations, methodical

manuals, instructions;

6) definition of key quantitative metrics - statistical and economic indicators used in the risk management system.

Based on the results of the analysis, a conclusion is made about the degree of compliance of the existing risk management system with the features of the company's risk spectrum. Complete compliance in practice is impossible to achieve, because any range of risks and their characteristics are continuously changing, as is the economic environment in which a particular enterprise operates. Consequently, any risk management system needs periodic adjustments in order to improve it. To determine the directions and forms of improvement, the management of the enterprise must have some method of assessing the level of development of the internal risk management system.

To assess the level of development of the risk management system in the enterprise, you can use the "maturity scale". Below we propose one of the possible variants of the scale, which can be applied to the assessment of the enterprise risk management system.

Level 0: "None"

The management does not have a risk management concept and there is no risk management system in the enterprise.

Level 1: Anarchy

The management of the enterprise is aware of the existence of problems in risk management, but there is no clear conception or strategy in this area. Consequently, there is no risk management infrastructure, functions, responsibilities and powers for risk management are not allocated. Risk decisions are made on a case-by-case basis by individual employees whose duties require monitoring of various risks accompanying the implementation of their core functions. And since the management does not undertake the mission of organizing risk management at

the enterprise, the corresponding processes are inconsistent and arise only when absolutely necessary.

Level 2: Standards

The elements of risk management at the enterprise are focused on satisfying external regulatory requirements and compliance with industry standards of production safety. The use of market-based instruments for risk management - insurance and hedging - can also take place, but the corresponding measures are carried out in a limited and unplanned manner. The described approach stipulates that there is no need to create an internal organizational infrastructure for risk management, as the inspectors of regulating bodies are engaged in risk assessment, as well as in compliance audits.

Level 3: Insurance

In the enterprise risk management strategy, preference is given to a proven and sufficiently understandable tool, such as insurance. The enterprise implements a systematic insurance of its risks and the established share of the insured assets becomes an indicator of reliability. Besides insurance, hedging is also used, although it is limited. There is no internal risk management infrastructure at the enterprise, since all non-insurance risks are handled by the security service, and the financial service is engaged in financial risks (their hedging). Thus, there is no holistic risk management system, instead there is a set of separate functions that are performed within certain departments and services.

Level 4: "Integration: corporate system"

The management of the enterprise takes upon itself the mission of organizing risk management. There is a corporate concept of risk management. Management is fully responsible for strategic risks, and responsibility for operational risks is placed on the risk management department. A corporate risk management strategy was developed. Obligations and powers are distributed on zones of a responsibility for

risks. Enterprise risk management is tightly controlled by the board through a well-established feedback system and documenting all key management procedures.

The arsenal of the risk management system is expanded by incorporating internal corporate mechanisms and management tools. An information and technology platform has been created to support the risk management system.

Level 5: "Optimized"

The company's management makes systematic efforts to optimize the parameters of the existing corporate risk management system. It understands risk management as a special concept and philosophy of managing the sustainability of enterprise development. The theoretical basis and strategies for optimizing the management system both in terms of quantitative metrics, as well as in the structure, documentation and composition and quality of the tools used are developed.

At an optimized level, the risk management system is already difficult to consider and develop without relation to other areas of management, since system optimization also implies interdisciplinary integration, in the process of which methods, mechanisms and tools inherent in different disciplines of management, spheres management activities, are combined and synthesized. The Risk Management Department becomes the center of corporate knowledge of risk and the mechanism of inter functional integration.

The corporate risk management system is periodically evaluated for compliance with the company's performance criteria.

So, after the level at which the enterprise's risk management system is located, in other words, when its current status is determined, the concept of transition to a higher level is formed, i.e. A new, improved risk management system is being modeled.

Modeling of the risk management system. This stage should include the development of a conceptual model and the synthesis of a risk management system

that allows eliminating the identified problems and bottlenecks in the existing risk management system in the enterprise.

The new management system should help to create mechanisms for sustainable business development, increase competitiveness by reducing the impact of risks and destabilizing factors on the enterprise's operations. Ultimately, this should find its confirmation in improving financial results.

When creating a conceptual model, the new risk management system, as a rule, is repelled from the old model that already exists in the enterprise. This model is positioned at the appropriate level of the "maturity scale" and, thus, the improvement of this management system is to create conditions for movement on the "maturity scale" to the higher level. At the same time, a certain model of risk management is used as a model (reference model), used in the practice of other enterprises and recognized as more effective.

The process of modeling a new risk management system consists of the following stages:

1) Construction of a new (refined and detailed) risk classification of the enterprise.

2) Construction of a summary table of enterprise risks.

- The summary table of risks is a set of risks associated with the activity of the enterprise, grouped according to categories (types) and ranked according to their priorities in accordance with their preliminary estimates. [12]

In order to build a table of risks, it is necessary to determine the criteria for assigning this or that risk to a particular priority. Such criteria, as a rule, are:

- probability;

- consequences (expected damage);

- controllability (controllability);

- cost of withholding / transfer;

- correlability with other risks.

Each risk is evaluated for each criterion with an assessment on a three-point scale (for example, probability: 1 low, 2 medium, 3 high), after which a final rating is given to the risk, based on a general assessment of its influence on the company's anti-crisis sustainability. A goal-shaped set of at least 4 levels of priorities, for example:

I - highly critical (trigger of crisis development);

II - critical (potential threat of the development of the crisis);

III - a factor of significant destabilization;

IV - the factor of insignificant destabilization.

3) Formulation of the overall concept and objectives of the new risk management system.

4) Synthesis of the structure of the risk management system.

If it is concluded that there is a need to introduce a new position in the risk management system of the new department, then a corresponding job description and position on the subdivision are designed. Also, when a risk management department is introduced, the scheme of its interaction with other structural subdivisions should be described.

5) Definition of functions and tasks of the new risk management system (for each organizational unit and position).

At this stage:

- centralization or decentralization of functions and tasks of risk management in general, or in separate links of management or at separate levels of subordination;

- distribution of functions and tasks of risk management between structural divisions;

- introduction of new functions and tasks of risk management for existing structural subdivisions;

- introduction of new functions and tasks of risk management for new structural divisions.

6) Development of a new (or adjustment of available) methodological support for risk management (Manual or internal regulation on risk management).

A typical structure of the "Risk Management Manual" may include the following sections:

1) Introduction: objectives and objectives of risk management in the enterprise.

2) Definitions and classifications.

3) Elements of the risk management system.

4) Description of the risk management process in the enterprise.

5) Supporting infrastructure (personnel, technical, financial resources).

6) Methodology for assessing the effectiveness of the risk management system.

7) Development and optimization of new quantitative parameters (economic and mathematical indicators) in the risk management system.

After the conceptual model of the new risk management system has been created, a project for its implementation is being developed, which implies the definition project participants, resource requirements, and deadlines for implementation.

Evaluation of the economic effect. In this case, the method of evaluation is selected and given, the calculation of the indicators characterizing the effect obtained from the introduction of the new model of the risk management system is made, and the results obtained are analyzed.

When assessing the economic effect, one should bear in mind:

1) the effect should be expressed in increasing the net profit, since it is assumed that the losses and costs arising from poor risk management (and covered by net profit) will decrease after the project is implemented;

2) the project will have its payback period, and the expected revenue or savings are usually not unified, but distributed at some time interval, so a disassociation operation is required, i.e. calculation of current cost - switchgear;

3) for the implementation of the project will require funding, which can be a one-time or distributed in time; in the second case the expenditure should be discounted for the period during which they will be implemented.

- All costs for the implementation of the project to create and deploy a risk management system in the enterprise can be divided into the following articles: [23]

- Costs for preliminary risk studies.

- External consultations (if required).

- Trainings and training seminars for personnel involved in the risk management system.

- Development of a risk management infrastructure (information systems, methodological support; etc.).

- Salary of new employees of the Risk Management Department.

- Expenses for each new employee of the risk management department.

The total gain from the implementation of the risk management system implementation project should naturally cover all the funds invested in this project, which should be achieved after the set payback period (1 to 3 years).

In the final analysis, the economic effect of the project under consideration for the enterprise should be expressed in optimizing a number of key performance /

efficiency indicators selected for assessing the economic performance of the enterprise as a whole.

When forecasting changes in key indicators, an approach can be used where the growth / decrease of the resultant indicators is determined by unused reserves or losses, as revealed in the financial and economic analysis. Thus, if the analysis showed that a particular problem is associated with poor risk management and led to an increase in transaction costs for a certain amount for the period under review, as a result of the implementation of the risk management system, this problem must be eliminated and costs reduced accordingly.

The results of calculations of the projected changes in key indicators are summarized in the table. The following table contains an approximate set of such indicators. The list of indicators listed in the table is indicative, it is adjusted in accordance with the specifics of the specific enterprise and the specific design of the development and implementation of the risk management system.

Table 1

Forecast of changes in performance / efficiency indicators after the introduction of a risk management system in the enterprise

	Index	**Fact**	**Forecast**	**Change**
	Proceeds (net) from sales of products			
	Cost of production			
	Operating expenses: - Including expenses for insurance of assets			
	Net profit			
	Net profit per employee			

	Productivity of labor			
	Profitability of sales			
	Profitability of production			
	Return On Investment			
	Profitability of equity capital			
	Economic Value Added (EVA)			

Risk manager of the enterprise and its role in the project of organizational changes. First of all, in accordance with the nature of the problems and risks inherent in the enterprise, as well as the characteristics of its structure and operations (size, number of transactions, etc.), it is recommended that before the start of the project of organizational changes, the risk manager position be established, , authority and responsibility in the job description. The introduction of the position of the risk manager before initiating a project to establish a risk management system at the enterprise will allow him to immediately enter the project and contribute, thanks to the availability of professional competencies in this area, to better implement it. The risk manager will act as a coordinator and monitor the status of the project, as well as be responsible for identifying and assessing risks at the earliest stage of the new project. These are the most significant arguments in favor of taking a decision on the introduction of a new professional position dealing with the whole range of issues related to the risks of the enterprise.

The assessment of the economic feasibility of introducing a risk management post at the enterprise will consist in influencing the key economic indicators of efficiency and effectiveness. So, the salary costs for an employee of this specialization can amount to approximately 0.5 million rubles per year at the initial stage. But, even taking into account the additional costs for maintaining this employee (workplace, technical equipment, additional training), ensuring the growth

of profit from the main activity can be achieved by reducing operating expenses, including insurance costs (since most risks will be controlled by own system of enterprise risk management with less cost), the release of a number of employees from responsibilities related to risk analysis, as well as through better management of risks associated with business processes.

It should be noted that the most natural will be the scheme of subordination of the risk manager to the general director. To improve the effectiveness of risk-based decision-making, it is possible to recommend the creation of a special inter-functional committee, which may include the heads of departments responsible for the most critical risks for the enterprise.

5. Data analysis and results

Risk management is one of the key tools aimed at increasing the efficiency of managers' programs that they can use to reduce the cost of the product life cycle and to mitigate or avoid potential problems that could hamper the success of the company's operations.

Achieving the objectives of the enterprise requires specific representations about the main type of activity, production technologies, and the study of the main types of risks. Preventing risks and reducing losses from exposure leads to sustainable development of the enterprise. The process by which a company's activities are directed and coordinated in terms of the effectiveness of risk management and represents risk management. Risk management is a process of identifying the losses that an organization faces in the process of the main activity and the degree of their impact, and choosing the most appropriate method for managing each particular type of risk.

In another view, risk management is a systematic process in which risks are evaluated, evaluated and analyzed to reduce or eliminate their consequences, as well as to achieve goals.

Based on the foregoing, it can be concluded that risk management to ensure the viability and efficiency of the enterprise is a cyclical and continuous process that coordinates and directs the main activities. It is expedient to implement this by identifying, controlling and reducing the impact of all types of risks, including monitoring, contacts and consultations aimed at meeting the needs of the population, without compromising the ability of future generations to meet their own needs. Risk assessment leads to the stability of the enterprise, contributing to its sustainable development. Risk management - a contribution to sustainable development, is an essential factor in maintaining and enhancing the stable operation of the enterprise. Active risk management is crucial for the management process, in the direction of confirming that the risks are handled at the appropriate level [3].

Planning and implementation of risk management includes the following stages:

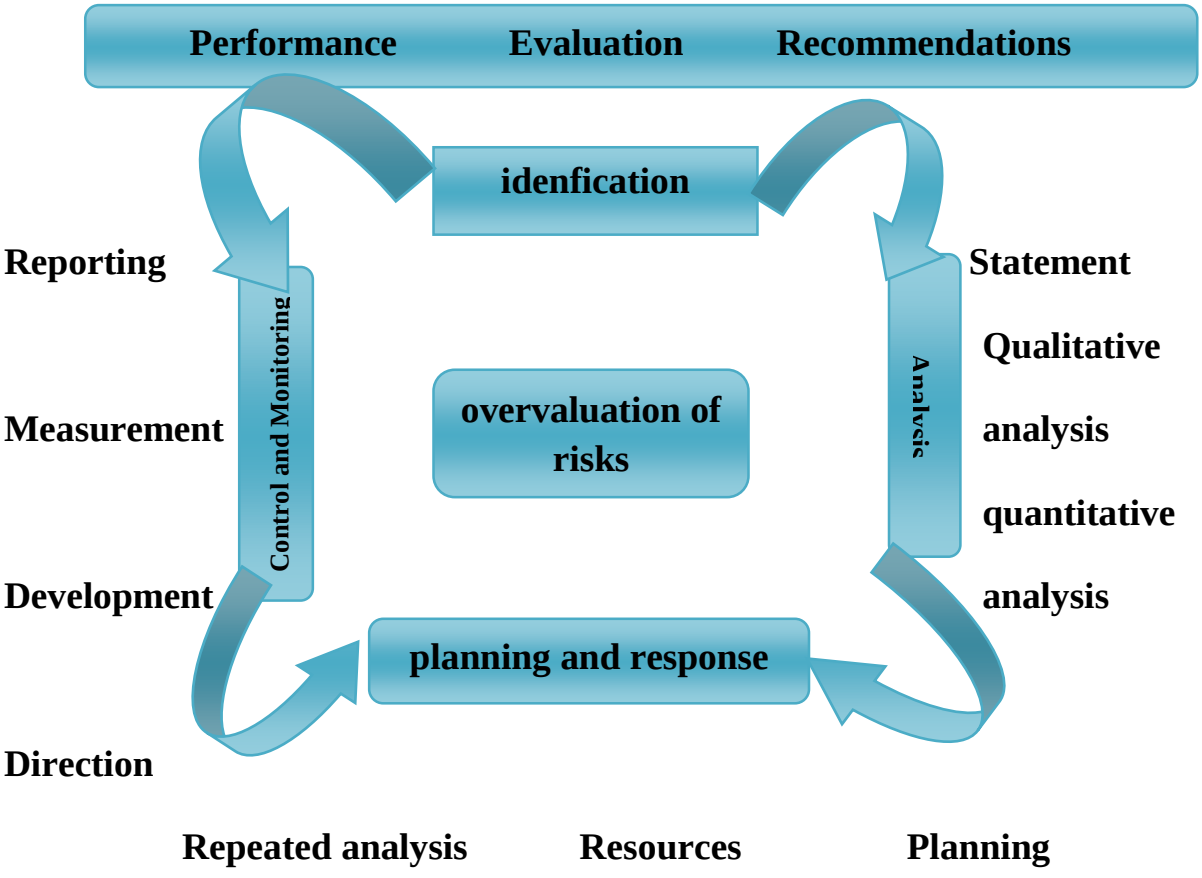
- Management of risks;
- Identification of risks and their impact on business processes;
- application of qualitative and quantitative risk analysis;
- development and implementation of plans for responding to risks and their implementation;
- monitoring of risks and management processes;
- the relationship between risk management and performance;
- assessment of the overall process of risk management.

In order to facilitate risk management activities, the enterprise needs to develop a methodology (program) for continuous risk management (MNUR). The MNUR is a theoretically significant program aimed at developing project management mechanisms with best practice of enterprise risk management processes, methods and tools. It provides the conditions for active decision-making, continuous risk assessment, determining the significance and level of risk impact on

management decisions, and implementing a strategy to combat them. In addition, progress can also be made in the scope of the project, the budget of the enterprise, the timing of its implementation, etc. Figure 1 illustrates the methodology of an ongoing process of risk management.

Figure 1.

Continuous process of risk management



The process of managing indicators acts as an auxiliary tool for obtaining information necessary for the developed risk management mechanism. Adverse trends should be analyzed and their impact on this mechanism assessed. The corresponding actions of the management mechanism should be adopted for those areas of activity that are defined as basic in the business processes of the enterprise. Corrective actions may include the redistribution of resources (funds, personnel and change in the production schedule) or activation of a planned mitigation strategy. Severe cases, adverse trends and key indicators can also be taken into account when using this mechanism.

It is important that this mechanism emphasizes the need to reassess the identified risks that systematically affect the activities of the enterprise. Because the system goes through the development life cycle, in this case, most of the information will be available to assess the degree of risk. If the magnitude of the risk varies significantly, the approaches to its handling should be adjusted.

In general, such a progressive approach to risk management is crucial for a comprehensive management process and ensures that risk indicators are handled efficiently and at an appropriate level.

Consider the risk management policy that should be applied in the enterprise. The developed mechanism (program) should be aimed at effective and continuous risk management. Thus, early, accurate and continuous identification and risk assessment are encouraged, and the creation of information transparent risk reporting, planning measures to reduce and prevent changes in external and internal conditions will have a positive impact on the program.

This mechanism, including the relationship with counterparties and contractors, should perform the functions of identifying risks and monitoring them. To implement it, you need a plan in the form of a set of guidance documents developed for specific areas of activity. This plan establishes guidelines for the implementation of the MNUR in a given time interval. It does not affect the implementation of other activities of the whole enterprise, but rather can provide leadership leadership in risk management.

The process of risk management must meet a number of requirements: it must be flexible, proactive, and should also work towards ensuring conditions for effective decision-making. Risk management will affect risks by:

- encouraging the identification of risks;
- decriminalization;
- identifying active risks (a constant assessment of what can go wrong);

- identify opportunities (constantly assessing the likelihood of favorable or timely cases);
- assess the likelihood of occurrence and severity of the impact of each identified risk;
- determining appropriate actions to reduce the possible significant impact of risks on the enterprise;
- developing action plans or steps to neutralize the impact of any risk that requires mitigation;
- Continuous monitoring of the occurrence of risks with a minor degree of influence at present, which may change over time;
- production and dissemination of reliable and timely information;
- facilitating the interaction between all stakeholders of the program.

The process of risk management will be carried out on a flexible basis, taking into account the circumstances of each risk occurrence. The main risk management strategy is to identify the most important areas of risk events, both technical and non-technical, and take the necessary measures in advance to deal with them before they have a significant impact on the enterprise, causing serious costs, reducing product quality or productivity.

Let's consider in more detail the functional elements that are components of the risk management process: identification (identification), analysis, planning and response, and monitoring and management. Each functional element is discussed below.

1. Identification

- Data review (i.e. volume mastered, critical path analysis, compilation of integrated schedule, Monte Carlo analysis, budgeting, defective analysis and trend analysis, etc.);

- Consideration of the submitted forms of risk identification;
- Carrying out and risk assessment using brainstorming, individual or group peer review;
- Conducting an independent assessment of identified risks;
- Enter the risk in the risk register.

2. Risk identification / analysis of tools and methods to be used include:

- Interview methods for risk assessment;
- Analysis of failure tree;
- Historical data;
- Lessons learned;
- Risk Accounting – Checklist;
- Individual or group judgment of experts;
- Detailed analysis of the structure of the decomposition of works, study of resources and drawing up a schedule.

3. Analysis

- Conducting a probability assessment - each risk will be assigned a high, medium or low probability of occurrence;
- Creation of risk categories - identified risks should be associated with one or more of the following risk categories (for example, costs, timing, technical, program, process, etc.);
- Assess the impact of risks - assess the impact of each risk, depending on the identified risk category;
- The definition of the severity of the risk is to assign probabilities and effects on the rating in each of the risk categories;

- Determine the timing when a risk event is likely to occur.

4. Planning and Response

- Risk Priorities;
- Risk Analysis;
- Appoint a responsible person for the occurrence of a risk;
- Define an appropriate risk management strategy;
- Develop an appropriate risk response plan;
- Establish an overview of priorities and determine its level in reporting.

5. Supervision and management

- Define report formats;
- Determine the form of the review and the frequency of occurrence for all risk classes;
- Risk report based on triggers and categories;
- Conducting a risk assessment;
- Presentation of monthly risk reports.

For effective risk management at the enterprise, we consider it expedient to establish a risk management department. The main responsibilities of this unit, including for staff and other users (including employees, consultants and contractors), in order to successfully implement the risk management strategy and processes, are shown in Table 3.

Table 3

Risk Management Division roles and responsibilities

Roles	Duties incurred

Program Director (DP)	• oversight of the risks of management activities. • Monitoring of risks and plans for responding to risks. • approval of the decision on financing of risk response plans. • monitoring of management decisions. • recommendations for monitoring decisions.
Project Manager	• assistance in controlling the risk of management activities • Assist in creating organizational authority for all risk management activities. • timely response to the risk of financing.
Employee	• Facilitate the implementation of risk management (the employee is not responsible for determining the risks, or the success of individual risk response plans). • The need to encourage an active decision-making position in determining appropriate risk response measures for risk "owners" and department managers. • administration and maintenance of commitment of stakeholders, risk management process • ensuring regular coordination and exchange of risk information among all stakeholders, • Risk management in the registered risk register (database). • recommendations (curriculum) of risk management. • development of knowledge of personnel and contractors in the field of risk management activities.
Secretary	• The function of the secretary is performed by the employee of the risk department or they alternate between all employees. Functions include: • Planning and coordination of meetings;

	• preparation of the meeting agenda, risk assessment packages, and minutes of meetings. • obtaining and monitoring the status of the proposed types of risk. • Perform an initial assessment of the proposed risk types to determine the most important. • an expert in the risk analysis subject area at the request of the chairman of the board. • facilitating analysis by the members of the Board of Directors, who will decide whether risk reduction is necessary. • regular coordination and communication of the risk of information exchange with all stakeholders
Director of department	• appointment of risk owners in their area of responsibility and / or competence. • active encouragement of employees • Tracking the integration of the efforts of responsible persons in risk management in their areas of responsibility. • selection and approval of a strategy for responding to risks. This includes approving resources (eg, owner risk) for further risk analysis and / or developing a more detailed risk response plan if necessary. Assertion of all tasks. • Assigning resources for the risk response response contained in the detailed plan.
Individual member of the Office of Management program	• risk identification. • access to risk management data • identification of possible data risks using a standard form of identification, if necessary • drawing up and implementing a risk response plan

	• determination of the time and all costs associated with the implementation of the risk response plan
Risk Owner / Person in charge	• attendance at meetings of the risk management department. • Review and / or provide relevant data, for example, critical path analysis, project / data management support tools, defect analysis, audit, and opportunities for adverse trends • recommendation of a strategy for responding to risks • Participation in the development of response plans • a report on the status of risks and the effectiveness of risk response plans • work to identify means of responding to risks by any additional or residual risk.
Integrated Brigade (KB)	• Identification and provision of information on the risks that may arise as a result of the activities of the Design Bureau. • participate in the planning of any risk in accordance with this program. Such planning requires coordination with the risk management department, which, acting as a guide, can facilitate the acquisition of resources for responding to risks. • a report on the progress and results of a response to risks.
Quality control	• monitoring and review of the RCM when updating or amending the plan • the obligation to maintain the quality of documentation and risk management processes

The risk management functions consist in the organization of interaction with existing subdivisions of the organizational structure. CPIs are formed for functional areas that are critical to the successful implementation of the tasks assigned. All functional departments or business processes are not covered by the CB, evaluated and treated PD, PM, and serves to ensure appropriate behavior in relation to the

appearance of risk. Risk identification is the process of determining which events may affect the activity of the company, and documenting their characteristics [5]. It is important to note that the identification of risk is a recurring process. The first iteration is a preliminary assessment and verification of the Risk team, as necessary, with the risk of ID. The second iteration includes presentation, viewing and discussion. The process of risk management includes three separate stages in characterization of risks: identification, assessment and adjustment, and confirmation**.**

As a result of its implementation, a set of measures can be developed to assess the operational risks of the enterprise, the integrated risk, the quantitative assessment of which is based on a comprehensive analysis of financial and accounting reporting, and an integral risk assessment based on all levels of the enterprise's responsibility.

Risk management in chemical enterprises should be carried out within the framework of system and process approaches, taking into account the specifics of the industry using modern effective management methods and production organizations, as well as using risk management tools. The system of risk management of the activities of a chemical enterprise must necessarily take into account the safety requirements established by public authorities and ensure the safety and health of personnel associated with a hazardous process facility. With a view to effective risk management of the enterprise, an integrated risk management system is needed, which consists in an integrated approach to assessing the maximum number of risk factors for an enterprise operating in a dynamic economic environment.

The enterprise risk management program should determine how the work is carried out to manage risks in preventive activities and after the fact, when an undesirable event has already occurred, that is, special situational crisis management programs should work. The risk management program should reflect various aspects of risk management:

- types of risk factors, including the most relevant ones;

- the degree of risk; - expected losses or benefits;

- measures for risk management;

- budgets;

- sources of financing;

- terms of implementation;

- Responsible;

- a note on implementation.

Stages of developing a risk management program.

Stage 1st. Based on the theoretical generalized risk spectrum of entrepreneurship, industry-specific features, a risk classification is developed, an assessment of risk factors is carried out, a choice of methods for managing risk factors is made, and a risk profile of the enterprise is developed.

Stage 2nd. Highlighted the current risk factors, which have already led to losses and the appearance of lost profits.

Stage 3rd. Calculation of the results of the risks included in the program and their quantification. Summing up the results by types of risks, building the overall risk profile of the organization, calculating the average tension of the set of risks. This aspect is useful for assessing the situation as a whole. To calculate the averaged indicators of the intensity of risks for the enterprise as a whole, you can use the method of peer review or other methods.

Stage 4th. Calculations of possible losses or benefits are made.

Stage 5th. An action plan for a specific risk factor is being developed. These plans should include activities for all significant risk factors, for others - on the principle of the necessary sufficiency, based on the fact that, on the one hand, the resources of the enterprise are limited, on the other, it is required to provide a sufficiently reliable risk management system. With a lack of financial resources, this

part of the program can be adjusted, excluding secondary activities. If necessary, files with these sometimes rather voluminous materials are connected to the model on hyperlinks.

Stage 6th. Budgets are being developed to implement the activities in accordance with the developed plan. Full budget files are connected to the model on hyperlinks. Stage

Stage 7th. A consolidated budget is formed by summing up specific budgets for individual activities.

Stage 8th. A consolidated plan of measures for risk management is drawn up. At the same time, one should take into account the possibility of combining similar activities for different divisions into single events and companies for the whole enterprise. After this stage, all the necessary data will be collected for the design of the financing scheme for the consolidated plan of measures.

Stage 9th. The funding possibilities of each risk factor are assessed, and sources of financing are identified. They are the same as any other business project. Risks can be financed from own, extra invested funds of owners, from borrowed sources, through the sale of financial instruments, share capital, from retained earnings and from the potential savings that effective risk management will bring as a profit center.

Stage 10th. Analyzed the possibilities of financing, compared with the developed plan and budget. If financing considerably exceeds the available one, then the risk management approach adopted at the moment should be radically revised. The lower boundary of the list of risk factors that need to be left in the program are relevant, relevant, resulting in losses and lost profits. Too much cost, necessary for their implementation, can be a symptom of the unrealistic management strategy. If the financial resources prove to be substantially less than the intuitive ones, the situation should be analyzed: either an error in the assessment of risk factors, or there

is a chance to rapidly reduce risks in comparison with the additional expenses for risk management.

Stage 11th. The possibilities of forming an integral (universal for the whole set of risks) systems of protection against the risks assumed for the considered period are analyzed. This stage again returns the risk manager to the analysis of the relationship of risks to each other, to the ranking of risks, to the analysis of nonlinear dependence of the results of risk management taking into account the different stages of the enterprise's life.

Stage 12th. The funding program for the possibility of implementing measures and the need for expenditures are being adjusted. After the next attempt will lead to an acceptable configuration of the risk management program, you can proceed to the following steps.

Stage 13th. Declarations, contracts, loan agreements, schedules, orders and other organizational, administrative, promotional, agitational, visual, instructive documents and other materials are prepared, which should ensure the implementation of the developed risk management program. At this stage, the terms of implementation, responsible, forms and terms of control are determined. This is the organizational part of the adopted risk management program.

Stage 14th. It monitors and monitors the implementation of the risk management program, and collects the information necessary to develop such a program for the next planning period.

Based on the concept of acceptable risk, the main task of determining the effectiveness of managing risk factors is to ensure that the starting level of risk is greater than the final level and the cost of risk management. Consequently, the starting level of risk is defined as the loss from the realization of risk events, and the final level - losses after minimizing risk events. Losses from the realization of risk events (L_r), losses after minimization of risk events (L_a) and costs for risk minimization (C_r) are proposed to be calculated using the following formulas:

$$\mathbf{L_r = L_{c,t} + L_{b.d.} + L_{r.p} + L_{e.e.}} \quad \mathbf{(1)}$$

where L_r - losses at realization of risky events;

$L_{c,t}$ - losses from not concluded transactions;

$L_{b.d.}$ - losses from broken deals;

$L_{r.p.}$ - losses from the rejected products;

$L_{e.e.}$ - losses from economic espionage.

$$\mathbf{C_r = C_{c.i.} + C_{i.a.} + Cmin + C_s} \quad \mathbf{(2)}$$

where $C_{c.i.}$ - the cost of collecting information;

$C_{i.a.}$ - costs for information analysis;

Cmin - the cost of minimizing losses from risk events;

C_s - expenses for a salary of workers of system of management of risks.

$$\mathbf{L_a = min\ (L_{c,t\ I} + L_{b.d}.i + L_{r.p.i} + L_{e.e.i})}$$

After assessing the starting level of risk, risk management activities are planned, and then these activities are evaluated. As a result, the final level of risk is determined. It is necessary to take into account the probability of occurrence of losses from risk events and their detection. Thus, with the effective management of risk events, the ratio of the starting, final levels of risks and costs looks as follows:

$$\mathbf{L_r \bullet R\,L_r > C_r + L_{c,t} + L_r \bullet RC_r}$$

where RL_r - conditional probability of occurrence of losses from influence of risky events;

RC_r - conditional probability of not detecting risks in order to minimize them.

To evaluate the effectiveness of risk management, the following indicator is suggested:

$$\mathbf{E = (C_r + L_a + L_r \bullet RC_r) / L_r \bullet RL_r.}$$

If E <1, then the risk management activities are effective and should be used, and if D> = 1, then the risk management activities are considered ineffective and need further development. This methodology for assessing the effectiveness of risk management has the following advantages: the simplicity of calculations, the availability of information, the reliability of the results.

CONCLUSION

A person is constantly faced with a risk. Often, without full information, we have to make a choice, which, unfortunately, is not always correct. Any businessman always acts at his own risk and risk, the further activity of the organization will depend on this person, on his foresight and knowledge.

The duties of the manager will consist in selecting the most appropriate solutions for the company. One of its main tasks is to assess the risk and reduce it to a minimum in order to get the maximum profit in case of a successful transaction and incur minimal losses in case of a failed transaction. Incorrectly identifying the impact of certain factors, the manager can lead the company to collapse. Therefore, the importance of such qualities as experience, qualification, and, of course, intuition sharply increases. A constant analysis of the existing situation is necessary, it is very important to use the experience of other organizations (the ability to learn from other people's mistakes).

Economic management methods, from the point of view of risk management, can be considered management methods based on the rational allocation of financial resources of the organization in order to minimize potential losses and maximize the potential revenue arising in risk situations.

Financial risks are the probability of occurrence of an event related to the loss of capital as a result of entrepreneurial or investment activity. In the economic literature, the following types of financial risks are distinguished: currency risk, credit risk and investment risk. Based on the principles discussed, the company

develops a financial risk management policy. This policy is part of the overall strategy of the enterprise, which consists in developing a system of measures to neutralize their possible negative consequences of risks associated with the implementation of various aspects of economic activity. The main task in choosing a risk management method is to reduce the degree of probable risk to the lowest possible level. This can be achieved by various methods, the most important of which are: abolition, loss prevention and control, insurance, absorption.

The management system, on the one hand, is a comprehensive solution for mitigating operational risks; on the other hand, it is the basis for building a risk management system, that is, part of the risk management system. Introduction of risk management approaches in management systems, expansion of management systems methodology by risk management elements contribute to more efficient functioning of these systems in organizations due to greater "flexibility" of approaches and focus on business requirements.

The main goal of application of social methods of risk management is the formation in the organization of a single cohesive labor collective (socium), oriented towards the achievement of a common goal.

Within the framework of social risk management, three main areas can be distinguished. The first direction involves the formation of real power and leadership in the organization. The second is closely related to the rationalization of the formal and informal structure of the work collective. The third is the creation and development of a single corporate culture (in the terminology of A. Fayol - "corporate spirit").

Risk assessment can be applied at all stages of the life cycle. Usually, it is repeatedly used with different levels of detail at each stage of the life cycle for decision making. Risk assessment can be used to obtain the information necessary for the development of procedures under normal and emergency conditions. When choosing a risk assessment method, it is necessary to take into account that the method should:

1) comply with the situation and organization in question;

2) provide results in a form that fosters awareness of the type of risk and how it is handled.

Usually, a complex of methods is needed to assess the risk, since one method is a tool, or input data for another.

In general, risk management is a very important issue. A competent definition of the direction of the company's development is necessary. This should deal with a highly qualified specialist.

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XÜLASƏ

Qloballaşan dünyada iqtisadi fəaliyyətin qarşısında xeyli sayda təhdidlər və risklər meydana çıxmağa başlamışdır. Bu da beynəlxalq aləmə inteqrasiya, rəqabətin daha da kəskinləşməsi nəticəsində çox zaman ölkədən kənarda baş verən proseslərin təsirindən formalaşır. Ona görə də qarşısında böyük hədəflər qoyan və bazarda uzunmüddətli fəaliyyəti planlaşdıran şirkətlər öz arzularını reallaşdırmaq üçün risklərin səmərəli idarəolunması sahəsində müvafiq işlər görməlidirlər.

Risklərin idarə olunması (risk-management) - xoşagəlməz nəticələrin meydana çıxması ehtimalının azaldılmasına və qərarların qəbulu zamanı mümkün itkilərin minimuma endirilməsinə istiqamələnmiş idarəetmə qərarlarının qəbulu və həyata keçirilməsi prosesidir.

Korporativ idarəetmə sistemində mövcud olan ən böyük risklərdən biri aidiyyatı şəxslərin həm idarəetmə funksiyasına, həm də nəzarət funksiyasına cəlb edilməsi hesab edilir. Risklərin idarə edilməsi risk-menecment iştirakçıları arasında səmərəli qarşılıqlı münasibətlərdən asılıdır. Risk-menecment prosesi şirkətin həm daxili, həm də xarici mühitində baş verir. Risklərin mükəmməl idarə edilməsini təmin edə bilmək üçün, ilk öncə, şirkət daxilində səmərəli qarşılıqlı əlaqə sistemini təşkil etmək lazımdır.

SUMMARY

In the globalizing world, many threats and risks have emerged in the face of economic activity. This is due to the fact that the integration into the international arena is often caused by the processes taking place outside of the country as a result of the aggravation of competition. Therefore, companies that set big targets and plan long-term activities in the market should do their best to manage their risk management objectives.

Risk Management is a process of accepting and implementing management decisions aimed at minimizing the likelihood of adverse outcomes and minimizing possible losses when making decisions.

One of the major risks inherent in the corporate governance system is that it involves both the management function and the control function. Risk management depends on the effective relationship between risk-management participants. The risk-management process takes place both inside and outside of the company. In order to ensure the perfect risk management, first of all, it is necessary to organize an effective system of interaction within the company.

РЕЗЮМЕ

В глобализирующемся мире многие угрозы и риски возникли перед лицом экономической активности. Это связано с тем, что интеграция на международную арену часто вызвана процессами, происходящими за пределами страны в результате обострения конкуренции. Поэтому компании, которые устанавливают большие цели и планируют долгосрочную деятельность на рынке, должны делать все возможное, чтобы управлять своими задачами управления рисками.

Управление рисками - это процесс принятия и реализации управленческих решений, направленных на минимизацию вероятности неблагоприятных результатов и минимизацию возможных потерь при принятии решений.

Одним из основных рисков, присущих системе корпоративного управления, является то, что он включает как функцию управления, так и функцию управления. Управление рисками зависит от эффективной взаимосвязи между участниками управления рисками. Процесс управления рисками происходит как внутри компании, так и за ее пределами. Для обеспечения идеального управления рисками, прежде всего, необходимо организовать эффективную систему взаимодействия внутри компании.