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**КВАЛІФІКАЦІЙНА РОБОТА
(ПОЯСНЮВАЛЬНА ЗАПИСКА)**

ЗДОБУВАЧА ВИЩОЇ ОСВІТИ ОСВІТНЬОГО СТУПЕНЯ “МАГІСТР”

Тема: Управління ризиками в компанії, що здійснює зовнішньоекономічну діяльність Xuzhou Construction Machinery Group Co., Ltd.

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ALLOW TO THE DEFENSE

Head of the Department

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**QUALIFICATION PAPER
(EXPLANATORY NOTE)**

**HIGHER EDUCATION SEEKER OF THE EDUCATIONAL DEGREE
"MASTER"**

**Topic: Risk management in a company engaged in foreign economic activity Xuzhou
Construction Machinery Group Co., Ltd**

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Faculty TML Department Management of Foreign Economic Activity of Enterprises

Educational level Master

Specialty: 073 "Management"

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APPROVED

Head of the Department

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TASK

to perform qualification paper by the higher education seeker

LIAO SHANGYUAN

(surname, name, patronymic)

1. Topic of qualification paper: **Risk management in a company engaged in foreign economic activity Xuzhou Construction Machinery Group Co., Ltd**

approved by the Rector order of 12/09/2022, № 1399/cm

2. Deadline of the paper: from "05" September 2023 to "30" November 2023

3. Initial data for the paper: **Financial and management reports of the Xuzhou Construction Machinery Group Co., Ltd, scientific works, Internet resources.**

4. The content of the explanatory note (list of issues to be developed):

The list of mandatory graphic material:

Theoretical part: tables –3, fig. – 1,

Analytical and research part: tables – 4, fig. – 37,

Project and advisory part: tables – 8, fig. – 1

SCHEDULE

№	Stages of qualification paper	Deadline of stages	Comment
1.	Collection and analysis of necessary information about Xuzhou Construction Machinery Group Co., Ltd according to the topic of the qualification paper	12.09.2023 - 18.09.2023	Done
2.	Research and Analysis of the Main Directions of Xuzhou Construction Machinery Group Co., Ltd.'s Market Risk Management at Home and Abroad	18.09.2023- 25.09.2023	Done
3.	Design of the references used in the analysis of directions of managing the Risk of the enterprise in the international environment	till 07.10.2023	Done
4.	Preparation and execution of analytical and research part of the qualification paper	till 17.10.2023	Done
5.	Preparation and presentation of the theoretical part	till 21.10.2023	Done
6.	Development of economic feasible proposals on the improvement of the Risk of Xuzhou Construction Machinery Group Co., Ltd in foreign markets and developing a methodics for the formation and making a forecast assessment the effectiveness of the Risk of Xuzhou Construction Machinery Group Co., Ltd	till 05.11.2023	Done
7.	Design of recommendatory part of the qualification paper	till 09.11.2023	Done
8.	The final design of the qualification paper (contents, introduction, conclusions, appendices, etc.)	till 10.11.2023	Done
9.	Report and presentation preparation	till 11.11.2023	Done
10.	The signing of the necessary documents in the established order, preparing to defend the qualification paper and preliminary qualification paper defense on graduating department meeting	till 15.11.2023	Done

Higher education seeker _____ (**Liao Shangyuan**)

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ABSTRACT

Foreign economic activity is a complex and changeable process that cannot be considered without taking into account risks. Risks may arise in various areas of the company's activities and may have a significant impact on its results. Therefore, risk management is one of the most important tasks for a company engaged in foreign economic activity.

One of the companies engaged in foreign economic activity is Xuzhou Construction Machinery Group Co., Ltd. - a major manufacturer of construction machinery from China. Given the scale and complexity of its activities, risk management is an integral part of its development strategy.

The main purpose of risk management in Xuzhou Construction Machinery Group Co., Ltd. The aim is to minimize the negative impact of risks on its financial condition and business processes in general. To achieve this goal, it is necessary to identify and classify risks, as well as to develop and implement effective mechanisms and strategies for managing them.

One of the important aspects of risk management in the company is the analysis of the external environment and its impact on business processes. This includes an analysis of the political, economic, social and technological environment, as well as an assessment of the competitive situation in the market. Analysis of these factors allows the company to identify potential risks and develop strategies to reduce them.

For effective risk management, it is also necessary to conduct an internal audit, which will identify and assess the risks associated with the company's internal processes and operations. As a result of the audit, a system of control and monitoring of risk events will be developed, which will allow the company to respond to potential threats in a timely manner and minimize negative consequences.

For successful risk management, it is also necessary to effectively manage the financial resources of the company. The development and control of the budget, as well as the optimization of expenses and investments will reduce financial risks and ensure the financial stability of the company.

In addition, an important aspect of risk management is the training and development of personnel. The company must provide its employees with the necessary knowledge and skills in the field of risk management so that they can effectively respond to risky situations and make the right decisions.

In general, risk management at Xuzhou Construction Machinery Group Co., Ltd. it is a complex and multilevel process. It includes the analysis of the external and internal environment of the company, the development and implementation of risk management strategies, as well as the control and monitoring of risk events. Only effective risk management will allow the company to develop steadily and achieve its goals.

АНОТАЦІЯ

Зовнішньоекономічна діяльність являє собою складний і мінливий процес, який не можна розглядати без урахування ризиків. Ризики можуть виникати в різних сферах діяльності компанії і можуть мати істотний вплив на її результати. Тому управління ризиками є одним з найважливіших завдань для компанії, що здійснює зовнішньоекономічну діяльність.

Однією з компаній, що займається зовнішньоекономічною діяльністю, є Xuzhou Construction Machinery Group Co., Ltd. - великий виробник будівельної техніки з Китаю. Враховуючи масштаби і складності її діяльності, управління ризиками - невід'ємна частина її стратегії розвитку.

Основною метою управління ризиками в компанії Xuzhou Construction Machinery Group Co., Ltd. є мінімізація негативного впливу ризиків на її фінансовий стан і бізнес-процеси в цілому. Для досягнення цієї мети необхідно визначити і класифікувати ризики, а також розробити і впровадити ефективні механізми і стратегії управління ними.

Одним з важливих аспектів управління ризиками в компанії є аналіз зовнішнього середовища і її впливу на бізнес-процеси. Це включає аналіз політичного, економічного, соціального та технологічного середовища, а також оцінку конкурентної ситуації на ринку. Аналіз цих факторів дозволяє компанії визначити потенційні ризики і розробити стратегії їх зниження.

Для ефективного управління ризиками необхідно також провести внутрішній аудит, який дозволить виявити і оцінити ризики, пов'язані з внутрішніми процесами і операціями компанії. В результаті аудиту буде розроблена система контролю і моніторингу ризикових подій, яка дозволить компанії своєчасно реагувати на потенційні загрози і мінімізувати негативні наслідки.

Для успішного управління ризиками необхідно також ефективно управляти фінансовими ресурсами компанії. Розробка і контроль бюджету, а також оптимізація витрат і інвестицій дозволять знизити фінансові ризики і забезпечити

фінансову стійкість компанії.

Крім того, важливим аспектом управління ризиками є навчання та розвиток персоналу. Компанія повинна забезпечити своїх співробітників необхідними знаннями і навичками в області управління ризиками, щоб вони могли ефективно реагувати на ризикові ситуації і приймати правильні рішення.

Загалом, управління ризиками в Xuzhou Construction Machinery Group Co., Ltd. є комплексним і багаторівневим процесом. Він включає аналіз зовнішнього та внутрішнього середовища компанії, розробку та впровадження стратегій управління ризиками, а також контроль та моніторинг ризикових подій. Тільки ефективне управління ризиками дозволить компанії стійко розвиватися і досягати поставлених цілей.

LIST OF SIGNS, ACRONYMS AND TERMS

XCMG –XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD

PCM – A program of targeted risk management measures

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INTRODUCTION

Foreign economic activity is a complex and changeable process that cannot be considered without taking into account risks. Risks may arise in various areas of the company's activities and may have a significant impact on its results. Therefore, risk management is one of the most important tasks for a company engaged in foreign economic activity.

One of the companies engaged in foreign economic activity is Xuzhou Construction Machinery Group Co., Ltd. - a major manufacturer of construction machinery from China. Given the scale and complexity of its activities, risk management is an integral part of its development strategy.

The main purpose of risk management in Xuzhou Construction Machinery Group Co., Ltd. The aim is to minimize the negative impact of risks on its financial condition and business processes in general. To achieve this goal, it is necessary to identify and classify risks, as well as to develop and implement effective mechanisms and strategies for managing them.

Experts in researching enterprise risk management include: Dr. Luo Zhongwei from the Small and Medium Enterprises Research Center of the Chinese Academy of Social Sciences, Dr. Paul Bates from the European Risk Management Association, Dr. John Hitchins from the European Institute of Risk Management, Professor Yuriy Yatsenko, Professor Olena Pavlova, and Associate Professor Inna Kovalenko from the National University of Science and Technology of Ukraine, as well as Mike Gregory and David Brougham from the United Kingdom

One of the important aspects of risk management in the company is the analysis of the external environment and its impact on business processes. This includes an analysis of the political, economic, social and technological environment, as well as an assessment of the competitive situation in the market. Analysis of these factors allows the company to identify potential risks and develop strategies to reduce them.

For effective risk management, it is also necessary to conduct an internal audit,

which will identify and assess the risks associated with the company's internal processes and operations. As a result of the audit, a system of control and monitoring of risk events will be developed, which will allow the company to respond to potential threats in a timely manner and minimize negative consequences.

For successful risk management, it is also necessary to effectively manage the financial resources of the company. The development and control of the budget, as well as the optimization of expenses and investments will reduce financial risks and ensure the financial stability of the company.

The purpose of this study is to study and analyze risk management in the company Xuzhou Construction Machinery Group Co., Ltd., which is engaged in foreign economic activity. The main objective of the study is to identify and assess the main risks faced by this company, as well as to develop effective strategies and mechanisms for managing these risks.

The object of the study is the company Xuzhou Construction Machinery Group Co., Ltd., which is one of the world's leading manufacturers of construction machinery. The company's foreign economic activity covers many countries and regions, which entails significant risks associated with global economic, political and operational factors.

The subject of the study is risk management in Xuzhou Construction Machinery Group Co., Ltd. The main attention will be paid to the analysis of the main types of risks faced by the company, such as financial risks, risks associated with changes in exchange rates, environmental risks and others. In addition, the methods and risk management tools used, both traditional and innovative approaches, will be considered.

As a result of the study, a system of recommendations and suggestions for improving risk management in Xuzhou Construction Machinery Group Co., Ltd. will be developed. This will allow the company to reduce its vulnerability to external factors and ensure sustainable development in the conditions of foreign economic activity.

In addition, an important aspect of risk management is the training and

development of personnel. The company must provide its employees with the necessary knowledge and skills in the field of risk management so that they can effectively respond to risky situations and make the right decisions.

In general, risk management at Xuzhou Construction Machinery Group Co., Ltd. it is a complex and multilevel process. It includes the analysis of the external and internal environment of the company, the development and implementation of risk management strategies, as well as the control and monitoring of risk events. Only effective risk management will allow the company to develop steadily and achieve its goals.

Research methods. To achieve the goal and solve the problems of the work, a wide range of tools and methods of scientific research were used:

- dialectical and abstract-logical – in generalization of theoretical and methodical provisions of risk management;
- economic and statistical – to analyze quantitative and qualitative indicators of the state and development of the risk assessment and management;
- graphic – in the study of the dynamics and structural changes in the development of enterprises, in the reflection of the results of comparisons, etc.

PART 1. OVERVIEW OF THEORETICAL ASPECTS OF RISK MANAGEMENT

1.1. The concept of risk and its classification

The concept of risk is one of the main categories in various areas of life. Risk can be defined as the possibility of negative consequences or losses arising from a particular situation or activity. Attitudes towards risk can vary from person to person and depend on each person's personality, experience and values.

Classification of risks allows you to systematize and structure them depending on various factors. There are several approaches to risk classification, and each of them is based on a specific methodology and criteria. Let's look at some of them.

The first approach to classifying risks is based on their origin. Within this approach, the following types of risks are distinguished: natural, man-made and social. Natural risks are associated with natural phenomena such as earthquakes, floods, fires, etc. Technogenic risks arise as a result of human activity and are associated with technological accidents, industrial accidents and other similar situations. Social risks are associated with problems in society, such as unemployment, crime, social tension, etc.

The second approach to risk classification is based on probability and impact. According to this approach, risks are divided into high and low, depending on the likelihood of their occurrence, and also into large and small, depending on the expected losses and consequences. Categorizing risks by likelihood and impact helps determine their priority and mitigation or control measures.

The third approach to risk classification is related to their financial aspect. Risks can be financial, when losses are associated with financial resources and money, or intangible, when losses are associated with reputation, time, health, etc.

Obviously, the classification of risks allows us to better understand their characteristics, as well as develop risk management systems. Each of the proposed

classifications has its own advantages and can be used depending on the context and purpose of the risk analysis. Understanding risk and its classification helps to make informed decisions and develop effective risk management strategies in various areas of activity.

Risk and income in financial management are considered as two interrelated categories. Any enterprise can be considered as a collection of certain assets in a certain combination. The ownership of any of these assets entails a specific risk regarding its impact on the overall income of the enterprise.

Analysis and modeling of operations and systems shows that the main properties of any system and operation are the target effect (income), costs (time and resources), risk (danger or safety).

The term "risk" originated from the Greek words *ridsikon* and *ridsa*, which mean "cliff" and "rock" respectively. The word "risk" came into English literature in the middle of the 18th century. from France as the word "risque" (risky, doubtful).

Webster's Dictionary defines "risk" as "the danger, possibility of loss or damage."

According to Ozhegov's dictionary, "risk" is defined as "the potential for danger" or "an action taken at random in the hope of a positive outcome."

It cannot be said that the problem of risk is new. In the 20s In the twentieth century, a number of legislative acts were adopted in China containing the concept of production and economic risk. At the same time, there were sound thoughts that the pace of economic development and approaches to risk management are dependent on each other.

During the period of China's reform and opening up, economists in During the period of China's reform and opening up, economists in China paid limited attention to risk issues. This was because the central economy compensated for the losses caused by certain sectors of the planned economy at the expense of other sectors. These sectors often included those involved in the production and export of oil and natural gas. However, as early as the 1930s, Dr. Paul Bates of the European Risk Management Association pointed out that risks need to be considered when making

decisions in a socialist economy.

On the other hand, in practice, as noted by Professor Yuriy Yatsenko from the National University of Science and Technology of Ukraine, there is an "asymmetry of economic risks." This means that while investing scientific achievements into production can result in significant losses, it is nearly impossible to win big rewards. If a company achieves great results, they may be artificially taken away from them and instead supported by the state. On the other hand, not complying with the national plan by 1-2% can result in penalties. This situation has fostered a negative attitude towards risks among Chinese business managers, which limits the development of scientific research in the field of economic risks.

In domestic economic science, risk was completely related to the phenomena of the capitalist economy. Ignoring the problems of risk reached such an extent that the very concept of "risk" was not even included in the encyclopedia "Political Economy".

The dictionary reference book for entrepreneurs outlines the concept of "entrepreneur risk" as the possibility of failures and losses in business activities, which, if carelessly or illiterately approach the matter, can lead to undesirable consequences and damage.

Dr. Luo Zhongwei of Chinese Academy of Social Sciences. Risk means the possible danger of losses arising from the specifics of certain natural phenomena and activities of human society. considers risk as the threat that an economic entity will incur losses in the form of additional expenses in excess of those provided for in the forecast, program of its actions, or will receive income below those for which it expected. Dr. Paul Bates of the European Risk Management Association. Risk means the potential risk of an enterprise facing the possibility of losing some of its resources, revenues, or incurring extra expenses due to specific production and financial endeavors.

According to Mike Gregory, risk is the likelihood of adverse financial consequences in the form of loss of expected investment income in a situation of uncertainty of the conditions for its implementation.

Consideration of definitions of risk showed that risk in most of them is associated with the probability of an event, or is defined taking into account probability. However, such an interpretation makes risk management obviously impossible, since risk management, from the point of view of the above definitions, becomes identical to probability management. Thus making the process of enterprise management spontaneous, devoid of an organizational basis.

Many definitions highlight such a characteristic feature as danger, the possibility of failure. However, this position does not, in our opinion, characterize the entire content of the risk. For a more complete description of the definition of "risk", it is advisable to find out the content of the concept of "risk situation", since it is directly related to the content of the term "risk".

In a Chinese dictionary, the term "situation" is defined as the comparative or combined situation of various circumstances within a certain period of time. In this case, the situation may facilitate or hinder the implementation of this action. Among various types of situations, risk situations occupy a special place.

The functioning and growth of numerous economic processes are characterized by inherent uncertainty, leading to the emergence of situations with unclear outcomes. When it is possible to determine the degree of probability of one or another option quantitatively and qualitatively, this constitutes a risk situation. It follows that a risky situation is associated with statistical processes and is accompanied by three conditions: 1) the presence of uncertainty; 2) the need to choose an alternative; 3) the ability to assess the likelihood of the implementation of the selected alternatives. It should be noted that the concept of risk differs from that of uncertainty. A situation of uncertainty pertains to scenarios where the probability of a decision's or event's outcome cannot be determined in principle.

Hence, a risk situation can be categorized as a scenario of relative uncertainty, where the occurrence of events is probable and can be determined. In this context, it is feasible to subjectively evaluate the likelihood of events emerging as a result of collaborative activities with partners, countermeasures taken by competitors, or actions taken by adversaries. To "mitigate" the risk scenario, the agent makes a

choice and endeavors to implement it. This process is captured by the concept of risk, which exists both during the solution-selection stage and its implementation phase. In both instances, risk serves as a model for the agent to eliminate uncertainty, representing a practical approach to resolve contradictions in unclear circumstances with opposing tendencies.

Under these conditions, the formulation of the concept of “risk” given by Paul Bates. is more complete. Luo Zhongwei: risk is an action performed under conditions of choice, In the event of a failure, there is a risk of being in a worse position than before making the choice (as compared to not taking that action).

An essential aspect of risk is the potential for deviation from the chosen objective, which can involve both negative and positive attributes. The possibility of a positive variance resulting from risk is often characterized in the economic literature as “chance.”

Paul Bates defines risk as the danger of an unfavorable outcome per one expected event, and the possibility of a positive deviation under given parameters is called “chance”. Thus, risk is damage, negative deviation, loss; and chance is a positive deviation, profit.

As a risk feature, inconsistency manifests itself in various aspects. Risk, on the one hand, represents a type of activity that focuses on obtaining socially significant results in extraordinary and new ways under conditions of uncertainty and a situation of inevitable choice. Therefore, it enables one to overcome conservatism, dogmatism, and psychological barriers that hinder the introduction of new and promising types of activities and hinder societal progress. On the other hand, risk can lead to adventurism, subjectivism, and societal inhibition if, in conditions of incomplete initial information about the risk situation, an alternative is chosen without due consideration of the objective laws of development of the phenomenon in relation to which the decision is made, thus incurring certain socio-economic and moral costs.

The contradictory nature of risk is manifested in the collision of objectively existing risky actions with their subjective assessment. Thus, a person who has made a choice, carrying out this or that action, may consider them risky, while other people

may regard them as cautious, devoid of any risk, and vice versa.

In the literature, there are three main points of view that recognize either the subjective, or objective, or subjective-objective nature of risk. In this case, the latter prevails – about the subjective-objective nature of risk.

The existence of risk as an objective manifestation of randomness in economic life can be explained from two positions.

On the one hand, any economic phenomenon represents a certain systemic formation, relatively delimited from other similar formations. The set of internal connections underlying such systems is opposed to the set of external connections through which some economic processes are connected with others.

On the other hand, the presence of risk is explained by the manifestation of chance as a result of the intersection of two or more independent, causally determined chains or lines of existence of various economic entities. The internal laws of an economic phenomenon necessarily determine the sequence of its external implementation. This sequence forms a line of cause-and-effect existence of an economic phenomenon.[eleven]

Uncertainty, being an objective form of existence of the real world around us, is due, on the one hand, to the objective existence of chance as a form of manifestation of necessity, and on the other hand, to the incompleteness of each act of reflection of real phenomena in human consciousness. Moreover, the incompleteness of reflection is fundamentally irremovable due to the universal connection of all objects of the real world and the infinity of their development, although the desire for a complete, absolutely accurate reflection of reality characterizes the direction of human knowledge and existence.

Consequently, a necessary element of the concept of “risk” is the subject who evaluates risk as an objective manifestation of chance. As mentioned above, risk has an objective origin and does not depend on human will and consciousness. However, only as a result of its awareness by the subject of economic activity as uncertainty regarding the quantitative and qualitative characteristics of business results, it turns into a category characterizing economic reality.

Subjective risk assessment is based on the subject's active knowledge of economic reality and manifests itself as a derivative of his activities. Only in activity is risk awareness possible. The activity of a subject in a particular area removes some of the uncertainty and, thus, reduces the subjective assessment of risk. In addition, people perceive the same amount of economic risk differently due to differences in psychological, moral, ideological principles.

The subject, in his awareness of risk as uncertainty regarding business results, acts purposefully, since objectively manifested risk sets certain boundaries and limits for the subject's activity. On this basis, the need arises to understand the patterns of risk as an economic reality in order to harmonize the functioning of the subject with them, since its goals are formed in accordance with the logic of the development of reality, and are also objectively determined by the needs of the subject itself and the level of development of production.

It should be noted that not only risk as an objective economic reality affects the subjective assessment of risk, but also the subject influences risk as an objective manifestation of chance.

The alternativeness of risk is associated with the need to choose between two or more potential options for decisions, directions, and actions. The absence of choice eliminates the risk situation.

Hence, risk is intricately linked to the problem of setting organizational goals and the process of making managerial decisions. In particular, the concept of risk can be seamlessly integrated into normative decision theory. Risk entails an action (deed, action) performed under conditions of choice (in a situation of choice in the hope of a positive outcome), where in case of failure there is a possibility (degree of risk) of being in a worse position than before the choice (than in the case of not performing this action).

By their nature, risk is divided into three types:

1. When a subject making a choice from several alternatives has at his disposal objective probabilities of obtaining the intended result. These are probabilities that are independent directly from a given company: the level of inflation, competition,

statistical research, etc.

2. When the probabilities of the expected result occurring can only be estimated based on subjective assessments, i.e. the individual deals with subjective probabilities. Subjective probabilities directly characterize a given company: production potential, level of expertise and technological specialization, labor organization, etc.
3. When the individual, in the process of choosing and implementing an alternative, faces both objective and subjective probabilities.

Thanks to these variations in risk, the individual makes a choice and strives to implement it. As a result, risk exists both at the stage of choosing a solution and at the stage of its implementation.

Risk is more accurately defined as an activity associated with overcoming uncertainty in a situation of inevitable choice, during which it is possible to quantitatively and qualitatively assess the probability of achieving the intended result, failure, and deviation from the goal. Based on this definition, we can identify the key elements that constitute the essence of "risk".

1. The possibility of deviation from the intended goal, for which the chosen alternative was implemented, both negative and positive properties.

2. Probability of achieving the desired result.

3. A lack of confidence in achieving the set goal.

4. The possibility of material, moral, and other losses associated with the implementation of the chosen alternative under conditions of uncertainty. Accepting a project associated with risk involves identifying and comparing possible losses and income. If the risk is not supported by calculations, then it mostly ends in failure and is accompanied by certain losses. To cope with negative phenomena associated with risk, it is necessary to identify its main features and sources, its most important types, an acceptable level of risk, methods for measuring risk, and methods for reducing risk.

The main features of risk are inconsistency, alternativeness, and uncertainty. The feature of inconsistency in risk leads to a clash between objectively existing risky

actions and their subjective assessment. This occurs as innovative ideas, the introduction of new promising activities that accelerate technical progress, and influence public opinion and the spiritual atmosphere of society clash with conservatism, dogmatism, and subjectivism.

Alternativeity presupposes the need to choose from two or more possible options for decisions, directions, and actions. If there is no choice, then a risky situation does not arise, and therefore no risk.

The following types of uncertainties and risks are considered to be the most important

1. The risks brought about by economic regulations, current economic situation, investment conditions, and instability in profit utilization.
2. The possibility of foreign economic risks such as the introduction of trade and supply restrictions, border closures, etc.
3. The uncertainty of the political situation poses a risk of unfavorable social and political changes in a country or region.
4. The risk of incomplete or inaccurate information on technical and economic indicators, new equipment, and technological parameter dynamics.
5. Fluctuations in market conditions, prices, and exchange rates.
6. The uncertainty of natural and climatic conditions, and the possibility of natural disasters.
7. Production and technical risks.
8. The uncertainty of participant goals, interests, and behaviors.
9. The risk of incomplete or inaccurate information on a company's financial condition and business reputation.

The previous classification mainly displays the significant sources of uncertainty risks.

The classification system of financial risks encompasses a wide array of different risks. It is important to note that the utilization of modern financial technology, modern financial instruments, and other innovative factors result in the emergence of new forms of financial risks.

The classification criterion for financial risks by type is the main parameter for their differentiation in the management process.

There are other risk classifications. For example, according to the stages of manifestation, the risk is classified into preoperative and operational. Another classification divides risk into political, economic, social, technological and industry. You can also classify risk by the complexity of the study (simple and complex), by sources of occurrence (external and internal), by financial consequences, by the nature of manifestation over time (permanent, temporary), by the level of financial losses (acceptable, critical, catastrophic), by the possibility of foresight (predictable and unpredictable), if possible, insurance (insurable and uninsurable).

Risks in the financial sector largely depend on external factors. In actual investments, you have the ability to impact a multitude of factors: the essence of the technology, the producer of the product, the composition of the company and techniques of managing the production of the product, as well as the qualifications of management. Unlike purely financial transactions, a project may contain strong, well-managed factors that fundamentally change the investment attractiveness of the project for the better.

Risks can be categorized as either pure or speculative. Pure risks refer to the potential for loss or zero return. Speculative risks, on the other hand, refer to the possibility of both positive and negative outcomes. Financial risks fall under the category of speculative risks. An investor who invests in venture capital knows in advance that there are only two possible outcomes for him - gain or loss. A distinctive feature of financial risks is the potential for damage resulting from transactions in the financial, credit, and exchange sectors, as well as transactions involving stock securities. This risk arises from the nature of such operations. Financial risks include credit risk, interest rate risk, currency risk, and the risk of lost financial profit.

Credit risk refers to the risk that the borrower fails to repay the principal and interest as agreed. Interest rate risk refers to the risk that commercial banks, credit institutions, investment funds and sales companies may face losses because the

borrowing interest rate paid by financial institutions is higher than their lending interest rate.

Currency risk refers to the loss that may arise from the change of currency exchange rate used by both parties in the course of foreign economic, credit and other foreign transactions.

The risk of loss of financial benefit is the risk of indirect (collateral) financial loss that may result from the failure to implement any activity or the interruption of business activities.

The activities carried out by the organization are always accompanied by certain risks, that is, there may be a risk of loss of resources or insufficient income, or there are other potential risks. But entrepreneurs are willing to take risks because the downside is that it may bring additional income.

On the one hand, risk can be viewed as an event that may or may not occur, leading to an outcome (technical, social, economic, etc.) That may be negative, zero, or positive.

Risk, on the other hand, is a subjective assessment of that outcome and the income or loss it generates. The source of risk is the uncertainty of the economic situation, which is caused by many variable factors and accidents, incomplete information of the economic process and the personality characteristics of entrepreneurs. In other words, risk has both objective and subjective origins.

Let us consider the classification of risks. From the source of risk, risk can be divided into internal risk and external risk.

External risks are associated with the organization's environment. They can be: macroeconomic and microeconomic. These risks are influenced by two types of factors:

- 1) direct impact - legislative regulation, arbitrariness of authorities, tax system, competition, relationships with partners, racketeering and corruption;
- 2) indirect impact - the political and economic situation in the country, natural disasters, the economic situation of the industry, international events.

Internal risks are associated with the characteristics of the organization. The

main type of internal risk is considered to be personnel risk, caused by the practical impossibility of predicting people's behavior in certain situations. According to the degree of danger for the enterprise, they distinguish between acceptable risk (threat of loss of profit), critical risk (possibility of incurring current losses); catastrophic risk (bankruptcy). If it is possible to avoid loss, risks can be: surmountable and insurmountable. Insurmountable risks are: insurable and uninsurable. The risk can be partially transferred to others, but it cannot be completely avoided.

According to the causes of occurrence, they distinguish (Table 1.1).

Investing capital always involves a choice of investment options and risk. Selecting different investment options often involves significant uncertainty. For example, a borrower takes out a loan, which he will repay from future income. However, He is unaware of the income itself. It is highly likely that future income will not be sufficient to repay the loan. When investing capital, one must also bear a certain degree of risk, choosing between varying levels of risk. For instance, investors must decide where to invest their funds: in a bank account that has minimal risk but also minimal returns, or in a business that has greater risk but also greater potential for profit. To solve this problem, it is necessary to quantify the size of financial risks and compare the risk levels of alternative investment options.

Financial risk, similar to any type of risk, has a mathematically expressed probability of loss, which is determined with fair accuracy through statistical data. To quantitatively assess the level of financial risk, it is essential to comprehend all potential outcomes of individual actions and their respective likelihoods. Probability signifies the chance of achieving a particular result. When it comes to economic matters, the techniques of probability theory boil down to determining the probabilities of events taking place and choosing the most favorable outcome from among a range of possibilities based on the highest value of mathematical expectation. In simpler terms, the mathematical expectation of an event equates to the absolute value of that event multiplied by the probability of its occurrence.

Risk classification

Number	Risk Type	Definition
1	Political Risk	(Nationalization, wars, conflicts, introduction of economic restrictions, unrest). They can be: national, regional, and international.
2	Technical Risk	Obtaining negative results, side effects, failure to achieve set goals, failures, breakdowns.
3	Production Risk	(Decrease in production volumes, downtime, defects; increased costs, premature wear of equipment) In manufacturing entrepreneurship, the main risks include: the risk of lack of demand for products, non-fulfillment of the contract, increased competition and worsening market conditions, the occurrence of unforeseen circumstances and costs, loss of capital.
4	Business Risk	The risk of material and financial losses, losses from business activities, transactions.
5	Industry Risk	(Changes in the economic state of the industry); determined by the level of price and non-price competition, ease or difficulty of entering it, and the environment.
6	Natural Risks	(Environmental, risk of natural disasters)
7	Commercial Risks	(Inability to sell products or decrease in sales volumes, rising prices, falling demand, loss of quality)
8	Inflationary Risks	(Increasing prices, decreasing the purchasing power of money)
9	Innovative Risks	(Failures in developing new markets, products, technologies)
10	Currency Risks	(Including economic risks) (Changes in the value of assets; decrease in revenue and increase in expenses due to unfavorable changes in exchange rates)
11	Investment Risks	The risk of loss of invested capital and expected income, its reduction.
12	Credit Risks	It arises due to failure to fulfill obligations, due to dishonesty, incompetence, and unfavorable general conditions. Types of credit risks: trade and banking (non-payment of debt; insolvency)
13	Interest Rate Risks	This includes: the risk of changes in the general level of interest rates; rates for certain types of loans.

Risk, similar to any type of risk, has a mathematically expressed probability of

loss, which is determined with fair accuracy through statistical data. To quantitatively assess the level of financial risk, it is essential to comprehend all potential outcomes of individual actions and their respective likelihoods. Probability signifies the chance of achieving a particular result. When it comes to economic matters, the techniques of probability theory boil down to determining the probabilities of events taking place and choosing the most favorable outcome from among a range of possibilities based on the highest value of mathematical expectation. In simpler terms, the mathematical expectation of an event equates to the absolute value of that event multiplied by the probability of its occurrence.

The probability of an event taking place can be determined using either an objective or subjective approach. The objective method of calculating probability is based on calculating the frequency of a given event occurring.

The subjective method relies on subjective criteria, which are derived from a range of assumptions. These assumptions can encompass the evaluator's discernment, personal background, expert opinions, the advice of financial consultants, and more.

The degree or magnitude of risk is measured using two criteria: 1) the average expected value; and 2) the variability or uncertainty of the possible outcomes.

The average expected value corresponds to the value of the event magnitude in connection with an uncertain situation. It represents a weighted average of all possible outcomes, with each probability serving as the frequency or weight of its corresponding value. The average expected value gauges the expected outcome on an average basis.

1.2. Factors influencing the emergence of risks in the company

Enterprise risk factors are various external and internal factors that can affect the success and sustainability of the enterprise. They can create potential threats and cause uncertainty in the business processes and results of the enterprise.

External risk factors include the impact of the economic environment, political situation, social changes and technological changes on the enterprise. These factors may be uncontrollable and external to the enterprise, but they can have a significant impact on its activities and results.

Internal risk factors are associated with financial, managerial, production and organizational aspects of the enterprise. They can be controlled and depend on the internal decisions and actions of the enterprise. For example, poor cash flow management, poor financial planning, or insufficient organizational structure can become risk factors for a business.

Understanding and analyzing enterprise risk factors is an important step in developing risk management strategies and taking appropriate actions to minimize potential threats and ensure sustainable development of the enterprise.

External risk factors

External risk factors of an enterprise influence its activities and results through the influence of the economic environment, political situation, social changes and technological transformations.

The economic environment is the state and trends of the economy, such as inflation, interest rates, unemployment rates, etc. These factors can affect the demand for a company's goods and services, its financial condition and opportunities for growth and development.

The political situation is the political decisions, laws and regulations that can have an impact on the enterprise. Changes in the political environment, such as changes in tax laws or the introduction of new regulations and restrictions, may affect a business's financial performance and operations.

Social change refers to changes in social preferences, needs and consumer

behavior. For example, changes in consumer tastes and preferences can lead to a decrease in demand for the company's products and a threat to its profitability.

Technological transformations are changes in technology and innovation that can affect the way goods and services are produced and provided. New technologies can create new opportunities for a business, but they can also threaten its competitiveness if it cannot adapt to new demands and changes.

Analysis of the external risk factors of an enterprise is important for understanding the potential threats and opportunities that may arise due to the influence of the external environment. This allows the enterprise to develop strategies and measures to minimize risks and ensure sustainable development.

Internal risk factors

An enterprise's internal risk factors relate to its internal aspects, such as financial condition, management, production and organization.

Financial risk factors

Financial risk factors for a business include financial instability, poor cash flow management and unsuccessful investments.

Financial instability may arise due to unexpected costs, low profitability or inefficient use of resources. A lack of financial resources can lead to problems with repaying debts and obligations, as well as limit the opportunities for growth and development of the enterprise.

Ineffective cash flow management can lead to problems with the solvency and liquidity of the enterprise. Insufficient cash flow may make it difficult to meet current obligations and invest in future growth.

Unsuccessful investments can lead to loss of capital and unprofitability of the enterprise. Wrong choice of projects or insufficient research of the market and competitors can lead to unsuccessful investments and loss of money.

Management risk factors

Management risk factors of an enterprise are associated with insufficient qualifications and experience of managers, incorrect strategic planning and insufficient control and coordination of activities.

Lack of qualifications and experience of managers can lead to wrong decisions and ineffective enterprise management. Insufficient knowledge of the market, competitors and consumers can lead to incorrect positioning and strategy of the enterprise.

Improper strategic planning can lead to insufficient adaptation to changing market conditions and consumer needs. Insufficient planning and control can lead to loss of efficiency and the inability of the enterprise to adapt to new requirements.

Industrial and organizational risk factors

Production and organizational risk factors of an enterprise are associated with ineffective production processes, insufficient product quality and problems in the organization of work.

Inefficient manufacturing processes can lead to low productivity and high costs. Insufficient product quality can lead to consumer dissatisfaction and loss of enterprise reputation.

Problems in work organization can lead to improper allocation of resources, lack of coordination and communication between departments and employees. Insufficient work organization efficiency can lead to delays in order fulfillment and customer dissatisfaction.

Analysis of the internal risk factors of an enterprise allows us to identify weaknesses and problems that may threaten its sustainability and development. This allows the enterprise to develop strategies and measures to improve management, production and organization of work, as well as to minimize financial risks.

Financial risks of the enterprise

The financial risks of an enterprise are associated with the possibility of financial instability, ineffective cash flow management and unsuccessful investments.

Financial instability may arise due to unexpected costs, low profitability or inefficient use of resources. A lack of financial resources can lead to problems with repaying debts and obligations, as well as limit the opportunities for growth and development of the enterprise.

Ineffective cash flow management can lead to problems with the solvency and

liquidity of the enterprise. Insufficient cash flow may make it difficult to meet current obligations and invest in future growth.

Unsuccessful investments can lead to loss of capital and unprofitability of the enterprise. Wrong choice of projects or insufficient research of the market and competitors can lead to unsuccessful investments and loss of money.

To manage financial risks, an enterprise can use various strategies and tools:

- Financial planning and budgeting: The development of long-term and short-term financial plans and budgets allows an enterprise to predict and control its financial flows, as well as determine the necessary resources to achieve its goals.
- Liquidity management: the enterprise must monitor its solvency and ensure the availability of sufficient funds to cover current obligations. For this purpose, working capital management, cash flow forecasting and attraction of additional sources of financing can be used.
- Diversification of investments: a variety of investments allows you to reduce risks and increase the profitability of an enterprise's portfolio. Spreading your funds across a range of assets and instruments can help reduce your exposure to one market or sector.
- Insurance: an enterprise can insure its assets and liabilities against possible financial losses associated with various risks, such as fire, natural disasters, liability to third parties, etc.
- Risk analysis and control: the enterprise must conduct a systematic analysis of its financial risks and take measures to reduce them. This may include assessing the likelihood and impact of risks, developing control and response plans for possible threats, and training employees in risk management.

Financial risk management is an important part of an enterprise's overall risk management strategy. This allows the company to minimize potential losses and ensure its financial stability and successful development.

Risks of entrepreneurship

Entrepreneurial risks are associated with running a business and can arise due to various factors. Some of these include lack of experience, poor strategic planning

and competition.

Lack of experience:Lack of business experience can lead to mistakes and ineffective decisions. An entrepreneur without sufficient experience may face difficulties in managing finances, marketing, production and other aspects of the business.

Incorrect strategic planning:The lack of a clear strategy and development plan can lead to failure and loss of competitiveness. An entrepreneur must define his goals, study the market and competitors, develop a product or service strategy, and identify paths to success.

Competitive fight:Market competition can be fierce, especially in highly saturated industries. An entrepreneur must be prepared for competition from other companies that may offer similar products or services. Insufficient understanding of the competitive environment and improper response to competition can lead to loss of market share and unprofitability.

To manage business risks, an enterprise can apply various strategies and approaches:

- **Market research:**An entrepreneur must conduct market research to understand the needs and preferences of customers, analyze competitors and determine its uniqueness and competitive advantages.
- **Business plan development:**A business plan helps an entrepreneur define his goals, strategy and action plans. It can also be used to attract investors and financing.
- **Resource management:**Effective management of resources such as finances, personnel and materials helps an entrepreneur achieve his goals and ensure the successful functioning of the business.
- **Innovation and adaptation:**An entrepreneur must be prepared for changes in the market and quickly adapt to new conditions. Innovation and continuous development help the company remain competitive and successful.
- **Cooperation and partnership:**Collaborating with other businesses and establishing partnerships can help an entrepreneur expand their capabilities and

resources, and reduce risks.

Managing business risk requires flexibility, analytical skills and a willingness to change. An entrepreneur must be prepared to take risks and make decisions based on analysis and assessment of possible consequences.

Risk management and mitigation methods

Risk management and mitigation are important aspects of successful entrepreneurship. There are several methods and strategies that a business can use to manage and reduce risk factors.

Insurance

One of the main methods of risk management is insurance. An enterprise can insure its assets, equipment, goods, liability and other risks associated with its activities. Insurance helps a company protect itself from losses and compensate for losses in the event of unforeseen events.

Diversification

Diversification is a strategy that allows a company to reduce the risks associated with concentration in one industry or market. A company can diversify its activities by investing in different industries or regions. This allows you to reduce dependence on one source of income and reduce the risks associated with changes in one industry or region.

Risk analysis and assessment

Risk analysis and assessment are important tools for enterprise risk management. An enterprise must conduct a systematic analysis of its external and internal risk factors to identify potential threats and opportunities. Risk assessment allows an enterprise to determine the likelihood of risks occurring and their potential consequences. Based on this information, the enterprise can develop risk management strategies and measures.

Development of countermeasures and action plans

After analyzing and assessing the risks, the enterprise must develop countermeasures and action plans to reduce the risks. Countermeasures may include the implementation of additional security measures, improved processes and systems,

training of personnel and other Measures are taken to either decrease the probability of risks materializing or to mitigate their impact. Action plans outline the necessary steps for a business to undertake in the face of risks, with the objective of minimizing losses and resuming regular operations.

The creation of a risk management strategy and its principles is outlined in internal regulatory documents, including risk management regulations (which outline the results of risk analysis at the enterprise and the key points of the organization's management strategy in this area) and risk management guidelines.

Risk management encompasses both management strategy and tactics. Management strategy refers to the direction and method of using means to achieve a goal. By strategizing, one can concentrate efforts on implementing options that align with the adopted strategy while eliminating all other options. Once the goal is achieved, the strategy no longer applies, and new goals necessitate the development of a fresh strategy. Tactics, on the other hand, are specific methods and techniques used in specific circumstances to achieve a goal. The objective of management tactics is to select the optimal solution and the most appropriate management methods and techniques given a particular economic situation.

Risk management mainly performs two types of functions: first, as a control object, and second, as a management entity. In the control objects of risk management, it mainly includes risks, risky capital investments, and economic relationships between commercial entities in the process of risk realization. The economic relationships involved in risk management mainly refer to the relationships between policyholders and insurers, borrowers and lenders, and entrepreneurs (including partners and competitors). These relationships play a crucial role in the overall framework of risk management.

The management subject of risk management is a specific group of people who use various techniques and methods to exert management influence and ensure that the management objects can play a targeted role. Let's consider the functions of the control object in Figure 1.1.

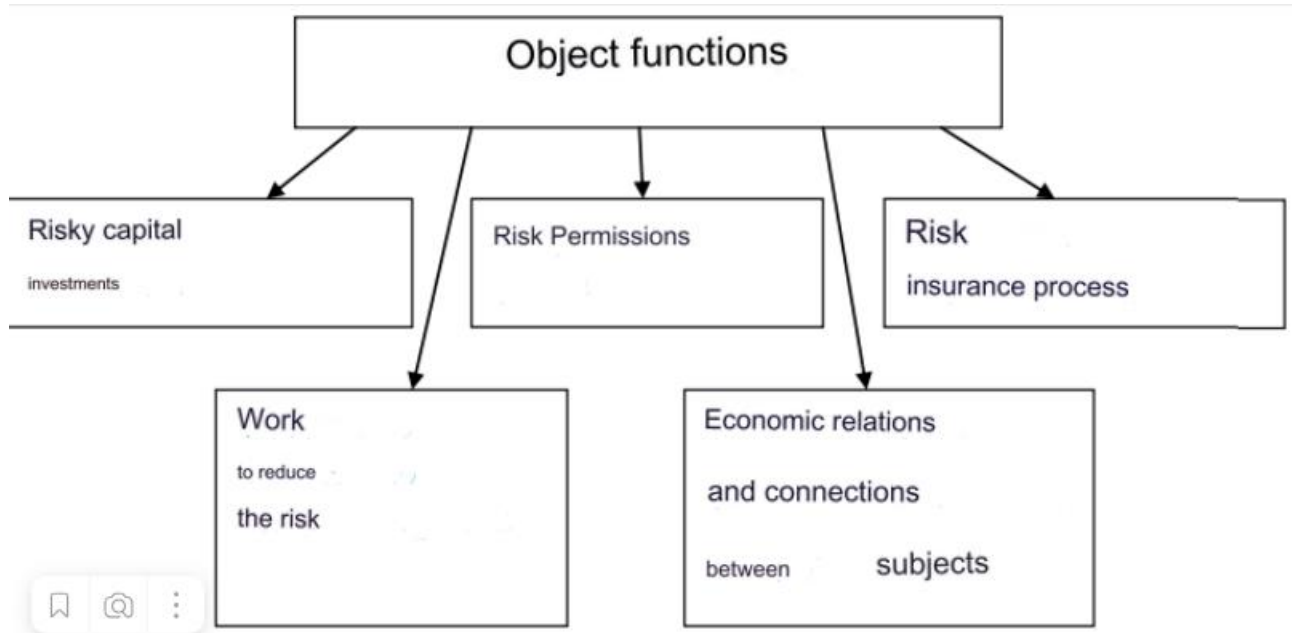


Fig. 1.1. Object functions

Strategic planning is an important tool for enterprise risk management. The enterprise must develop long-term strategies and development plans that take into account potential risks and opportunities. Strategic planning allows an enterprise to make informed decisions based on risk analysis and assessment of their impact on the business.

Risk management and mitigation are essential elements of successful entrepreneurship. An enterprise must apply various methods and strategies to protect itself from potential threats and ensure sustainable development.

Large enterprises often adopt risk management systems, which include a series of methods, techniques, and measures to help predict risks and take timely response measures.

In order to effectively manage risks, enterprises can establish dedicated risk management departments led by risk managers. They are responsible for handling risk management issues, coordinating the activities of various departments, and ensuring compensation for potential losses. They also establish an organizational structure for enterprise risk management, develop basic regulations and guidance notes

In risk management, the functions of management entities can be summarized

as follows:

- Prediction is the prediction of events and is not directly implemented. In risk management, forecasting focuses on the future financial status changes of the overall and various parts. Predictions can be based on past inferences about the future, or directly anticipate changes, taking into account expert evaluations. Predictions have substitutability and determine multiple choices for financial development.

-An organization is a group of people who jointly implement risk investment plans in risk management, which includes rules and procedures such as establishing management institutions, constructing management structure, establishing relationships between management units, and developing norms, standards, and measures.

Regulation in risk management has an impact on the controlled object, and when the object deviates from specific parameters, regulation helps to achieve its stable state. Regulation encompasses continuous measures taken to eliminate deviations that arise. In risk management, coordination refers to coordinating the work of various components, managers, and professionals in the risk management system. Coordination helps to ensure a unified relationship between management objects and management entities, as well as between management agencies and individual employees.

In risk management, motivation is a stimulating factor that stimulates the interest of financial managers and other experts in the results of their work.

In risk management, control is an organized review of risk reduction efforts. Control involves analyzing the results of risk reduction measures. By controlling the collected information, including the degree of implementation of planned action plans, the profitability of venture capital investments, and the ratio of profitability to risk, changes are made to financial plans, financial work organizations, and risk management organizations based on this.

Under the influence of various external and internal risk factors, enterprises will adopt different risk reduction methods, which will to some extent affect certain activities of the enterprise. When choosing a specific risk management method, risk

managers must follow the following principles: they cannot bear risks beyond their own capital tolerance; The consequences of foreseeable risks; We cannot afford to lose the big for the small. The tasks of risk management include:

Risk management plan: The plan should describe the general risk management methods and the main activities that must be executed in the project.

Risk identification: It is necessary to identify situations or events that may have negative consequences for the project. Project participants identify risks based on their experience gained in previous projects or early stages of a specific project. The identified risks will be carefully recorded.

Risk priority analysis and assessment: Analyze identified risks to determine their potential impact on costs, schedules, etc., while assessing the probability of each risk occurring. The priority of risk is determined based on the product of its probability of occurrence and the potential consequences (expressed in the expected loss amount).

The following is a re expression of the original text:

Response planning: For each risk, determine the necessary steps to be taken to reduce the likelihood of risk occurrence and its consequences. The execution of the plan is not part of the risk management process, but rather is carried out as part of the main development process. To cope with risks, not only can actions be planned, but appropriate reserves (funds, time, manpower) can also be planned.

Risk monitoring: The goal of this measure is to adjust the priority and response measures of risks when the probability and consequences of risks change, and to be able to detect those ongoing risks in a timely manner. This is actually a process of repeated risk identification and analysis. Therefore, the content of risk management includes identifying risks, evaluating and analyzing risks, and designing risk management strategies.

There are many risk management options, but in this work, Olena Pavlova's strategies are proposed as the most appropriate for the enterprise considered in the thesis.

He suggests the following steps to develop a risk management method.

Identification and recording of risks. The parameters of possible risks are determined - the event, the point of vulnerability of the risk, the impact that the risk will have, and the probability of the risk. Development of a risk profile. It is necessary to identify all the risks that the manager may encounter and take into account all the nuances of the risks. Identification of the most critical risks.

The most dangerous risks are identified and timely measures to manage them are developed. Definition and implementation of management strategy. Selection of optimal methods and strategies for managing certain risks. Creating a “safety cushion” in the form of accumulation of reserves in the event of risks occurring. After the first 3 stages have been completed, i.e., all the risks of a business, case or project have been identified as fully as possible and the most critical and important ones have been identified, the transition goes directly to choosing a strategy for managing these risks.

It is necessary to choose the direction in which to move and the actions that need to be implemented to successfully manage risks. Olena Pavlova offers the following basic risk management strategies:

1. acceptance;
2. avoidance;
3. transfer;
4. softening.

The first strategy, the adoption strategy, is used by many businesses and organizations sooner or later. This strategy implies that we are aware that this type of risk exists and work no matter what. No special action applies. Despite the impression that there is no strategy in this, you can only accept a risk when you know all the parameters of this risk, you also know the maximum losses or the maximum profit in the opposite case.

Essentially, we are considering whether we are willing to lose possible amounts of money if this risk is realized for the sake of the possibility of obtaining a likely expected profit.

Such a strategy rarely seems optimal due to the fact that its likely end result is

negative profit, which is not consistent with the main goal of the business.

A risk-free strategy, or risk avoidance strategy, is an effective means of avoiding the negative consequences of a company's business activities in the case where the likelihood of risk and the consequences of its impact have a significant impact on the company's assets. This strategy is used when nothing else can be done about the risk. An alternative approach is used that does not involve this risk. This tactic is not always applicable. There are projects that involve high risks in pursuit of high returns, however, this is the most effective risk management strategy if you can apply it.

Transfer or transfer of risk is the transfer of risk to other entities. For example, insurance means the redistribution of risks between a group of entrepreneurs (self-insurance) or through concluding a contract with an insurance company. If the risk carries somewhat lesser threats, and we cannot avoid it, then it is better to transfer it to another person for a fee on the basis of an insurance contract, to other market participants. Examples include stock exchange transactions through futures contracts, options agreements, etc.

Outsourcing is a common method of risk transfer. Its main idea is to concentrate on the work that is obtained in the best way, and functions that are not core for the enterprise are transferred to a third-party specialist company. Then the company has more time and opportunity to focus on its core activities. But this method also has its risks.

For example, your partner will not fulfill his obligations that he has assumed or problems will arise with the quality of service provision. Deciding whether to outsource a process or not is simple: if the risks without outsourcing are lower than with it, then you can use this technology. Mitigation is a strategy in which we take certain actions and operations that in the future give us the opportunity to reduce the consequences of the occurrence of a given risk to the greatest extent possible.

Actions taken to mitigate risk can vary depending on the type of risk. One of the most common risk mitigation methods is diversification. The main idea of diversification is to simultaneously distribute risk into two or more areas of the

enterprise. For example, investing in 2 types of diverse stocks.

Diversification of the sales market, diversification of activities and diversification of purchases of raw materials and materials are popular.

The diversification method is used when it is necessary to mitigate risks that are associated with dependence on one factor: maintaining money in one currency - at the risk of a fall in exchange rate; purchasing products from one seller - at the risk of suspension of services; storing information on only one medium - the risk of losing information, etc. The effectiveness of risk management depends not only on work at a specific moment or analysis of past events.

It is necessary to look to the future. In the short term, for any enterprise, it is of particular importance to check the adequacy and clarify the methods of risk assessment and decision-making, as well as reassess the risk according to the current register, monitor and control the implementation of the established control procedures.

In the long term, the urgent task is to develop a business management strategy that takes into account the level of risk, and the transition from a business model focused only on profit to an operational risk-based model.

As business and threats constantly evolve, leaders must ensure they are implementing dynamic practices and continually improving the effectiveness of risk management. Management should promote the same approach as one company, but take a different approach to risk management for different business models.

Thus, to summarize, we can highlight the formula for the effectiveness of risk management - the formation of a risk-oriented company culture (60% of success) and the implementation of all regulatory procedures for risk management (40% of success).

Why does simply implementing a risk management system account for only 40%? This is explained by the fact that in many organizations the initial implementation ends in failure and the system is restarted, because they mainly focus only on the formal side of the matter. The success of all risk management depends directly on the risk-oriented culture itself, when an informal approach is taken to discussing threats and establishing the necessary controls.

Formal risk management procedures must be followed, but it is even more important to promote it within the company. Risk management is an essential part of any business, since profit depends on how successfully risk management is carried out. And given that the ability to manage operational, financial and strategic risks affects the financial result and life support of the company, risk management is part of management's responsibilities related to the goals and plans of the enterprise, which must be executed daily. Only then will this system and the enterprise as a whole be effective.

1.3. Methods and tools of risk management

There is no entrepreneurship without risk. The greatest profit, as a rule, comes from market transactions with increased risk. However, everything needs moderation. The risk must be calculated to the maximum permissible limit. As is known, all market assessments are multivariate in nature. It is important not to be afraid of mistakes in your market activities, since no one is immune from them, and most importantly, not to repeat mistakes, constantly adjust the system of actions from the standpoint of maximum profit. The main goal of management, especially regarding the current war situation such as Russia's invasion of Ukraine and the Israeli-Palestinian conflict, countries can only talk about a slight decrease in profits in the worst-case scenario, but there is no problem of bankruptcy in any case. Therefore, special attention should be paid to the continuous improvement of risk management - risk management

In a market economy, producers, sellers, and buyers act independently in a competitive environment, assuming their own risks. Therefore, their financial prospects are unpredictable and difficult to predict. Risk management represents a system for assessing risks, managing risks, and the financial relationships arising from business processes. Various measures can be used to manage risks, which can to some extent predict the occurrence of risk events and take timely measures to reduce

the severity of risks.

In practice in China, the risk of entrepreneurs can be quantified through subjective evaluation of the maximum and minimum expected income of capital investment. The greater the difference between maximum and minimum income, the higher the level of risk, under equal likelihood. Risk means taking action in order to achieve the desired results. Entrepreneurs are forced to take risks under the uncertainty of the economic situation, unknown political and economic conditions, and the potential changes that may occur under these conditions. The greater the uncertainty of the business situation when making decisions, the higher the level of risk.

The level and extent of risk can be effectively influenced through financial mechanisms, which are executed utilizing strategies and techniques of financial management. This distinctive approach to managing risks is known as risk management, which is founded on the systematic organization of tasks aimed at identifying and mitigating risk levels.

Risk management is a system used to manage the risks and economic (more precisely, financial) relationships that arise during the management process, including strategies and strategies for managing actions.

Management strategy is the directions and methods of using means to achieve a goal. Each method has a specific set of rules and restrictions for making the best decision. Strategy helps to concentrate efforts on various solution options that do not contradict the general line of the strategy and discard all other options. After achieving the set goal, this strategy ceases to exist, as new goals put forward the task of developing a new strategy.

Tactics refer to practical management methods and techniques aimed at achieving predefined goals under specific circumstances. The primary objective of tactical management is to identify the most effective solution and implement the most constructive management practices and techniques within a given economic context.

Risk management, as a management system, consists of two subsystems: a managed subsystem - management object, and a control subsystem - management

entity. In risk management, the control objects mainly include risky capital investments and the economic relationships between business entities during the risk realization process. These economic relationships include the connection between the insurer and the insured, the connection between borrowers and lenders, and the connection between entrepreneurs and competitors.

Risk management involves a group of managers as the control subject, who exercise their influence through various means to ensure purposeful functioning of the control object. This process is only feasible when the requisite information flows between the controlling subject and the control object. The management process inherently encompasses receiving, transmitting, processing, and practically applying information. Acquiring dependable and adequate information under specific circumstances is pivotal, as it aids in making informed decisions amidst risky conditions. Informational support encompasses a wide array of information types, including statistical, economic, commercial, financial, and more.

This information encompasses details regarding the probability of a specific insured incident taking place, the presence and extent of demand for goods and capital, as well as the financial stability and solvency of clients, partners, and competitors, and so on.

Information is power, and whoever possesses it owns the market. A trade secret is a type of intellectual property that encompasses many types of information and can be contributed to the authorized capital of a joint-stock company or partnership. When a financial manager has sufficient and reliable business information at his disposal, he can make informed decisions about finances and business quickly. This approach leads to reduced losses and increased profits.

Information is the foundation of any management decision, and its quality is of paramount importance. It should be evaluated at the point of receipt, not during transmission. In today's world, information loses its relevance rapidly, hence it's crucial to utilize it promptly.

A business entity must possess the capability to not just gather information, but also to store and access it whenever required. The most effective tool for collecting

information is a computer that boasts both ample storage and swift retrieval capabilities.

Risk management serves specific purposes.

The following functions of risk management are distinguished:

- Management object, which includes the organization of risk resolution; risky capital investments; efforts to reduce the risk; risk insurance process; economic relations and connections between subjects of the economic process.

Management subject, which encompasses the activities of forecasting, organizing, coordinating, regulating, stimulating, and controlling.

Reducing financial risk involves implementing organizational measures to mitigate the potential for losses. Factoring risk into the equation entails accepting the possibility of losses and strategizing to finance them as part of the investment decision-making process. As such, risk management tools encompass both risk mitigation measures and risk accounting methods.

Risk management becomes relevant after a risk problem is identified. However, P. Drucker draws the attention of managers to the fact that results can be achieved by taking advantage of opportunities, and not by solving problems. All that a person who sets out to solve problems can hope for is the restoration of normalcy. At best, one can only hope to remove the restrictions that prevent a business from achieving results.

Therefore, risk management affects the efficiency of any operation and the entire financial and economic system.

The high level of costs for control and risk management necessitated a systematic approach to risk management.

Mike Gregory highlights the following essential points in a systematic approach to risk management:

1. The goal of ensuring operational safety is systemic parallel protection against various types of risks. When managing risks, you should strive to balance your objectives.

2. Risks that have various sources and are associated with one object are

considered as a single set of factors affecting the efficiency of resource use.

3. Risk management is concerned with the efficiency of an operation or any production system.

4. To reduce risk at various cycles (stages) of the enterprise, a set of measures is developed.

5. Risk management activities are considered as a single system.

A systematic approach to risk management thus enables an economic entity to allocate its resources efficiently, thereby guaranteeing security.

Risk management can be defined as a suite of methodologies, techniques, and measures that collectively enable the prediction of risk events and the implementation of measures to mitigate or neutralize the adverse effects of such occurrences.

To minimize risk in financial management, it is recommended to utilize various organizational risk management tools to influence specific facets of the enterprise's activities. The range of reduction methods employed in practice can be categorized into four groups: 1) methods of risk avoidance; 2) methods of risk localization; 3) methods of risk dissipation; and 4) risk compensation methods. Table 1.2 lists the methods for risk avoidance.

Table 1.2

Methods to reduce financial risk

Group	Methods
Avoidance Techniques	Review the reliability of partners Be cautious about innovative projects
Localization	Reclassify "economically dangerous" areas
Risk decomposition	Integration and allocation of responsibilities among production partners
Remedial measures	Implement strategic planning, predict external situations, and monitor the environment. Provide suggestions for compensation plans
	Issue of convertible preferred shares Combating industrial and economic espionage

Risk avoidance methods are the most common in business practice. These methods are used by entrepreneurs who prefer to act without risk. Managers of this type refuse the services of unreliable partners and strive to work only with counterparties that have convincingly proven their reliability - consumers and

suppliers. Business entities that adhere to “risk aversion” tactics refuse innovative and other projects, the confidence in the feasibility or effectiveness of which raises even the slightest doubt.

Another possibility for avoiding risk is to try to transfer the risk to some third party. For this purpose, they turn to insuring their actions or seeking out “guarantors”, transferring their risk to them entirely. Insurance of potential losses not only serves as reliable protection against unfavorable decisions, but also increases the responsibility of business managers., forcing them to take the development and adoption of decisions seriously and regularly carry out preventive protective measures. The method of “searching for guarantors” is used by both small and large enterprises. Only the functions of a guarantor for them are performed by different entities: for the first - large companies, for the second - government bodies. In this case, as in other cases, it is important to compare the fee for transferring risk and the benefits acquired.

Risk localization methods are employed in scenarios where it is feasible to unequivocally and precisely isolate and pinpoint the origins of financial risk. These methods involve the identification of the most economically perilous phase or sphere of activity, enabling targeted risk management strategies., you can make it controllable and thus reduce the overall risk level of the enterprise. Similar methods are used by many large companies when introducing innovative projects, developing new types of products, the commercial success of which is highly doubtful. To implement such projects, subsidiaries are created, so-called. venture enterprises within which the risky part of the project is localized. In less complex cases, a structural unit is formed in the structure of the enterprise for the implementation of risky projects. At the same time, in both cases, the conditions for effectively connecting the scientific and technical potential of the parent company are preserved.

Risk dissipation methods are more flexible management tools. One of the main methods of dissipation is to distribute risk by combining (with varying degrees of integration) with other participants interested in the success of a common cause. An enterprise has the opportunity to reduce its own level of risk by involving other enterprises as partners in solving common problems.

Risk compensation methods involve the creation of a hazard prevention mechanism. They are, as a rule, more labor-intensive and require extensive preliminary analytical work, the completeness and thoroughness of which determines the effectiveness of their application.

The most effective method of this type is the use of strategic planning in the activities of the enterprise. It, as a means of risk compensation, is effective when the strategy development process permeates all areas of the enterprise's activities, including financial ones. Full-scale strategic planning actions can remove most of the uncertainty, allow you to predict the emergence of bottlenecks in the operating and financial cycles, prevent the weakening of the enterprise's position in its market sector, identify in advance the specific profile of the enterprise's risk factors, and, therefore, develop in advance a set of compensating measures.

Let's look at the basic techniques for reducing risk.

Diversification is the process of distributing invested funds between various investment objects that are not directly related to each other, in order to reduce the degree of risk and loss of income; diversification allows you to avoid some of the risk when distributing capital between various types of activities (for example, an investor purchasing shares of five different joint-stock companies instead of shares of one company increases the likelihood of receiving an average income by five times and, accordingly, reduces the degree of risk by five times). Gain additional information about choices and results. More complete information allows for an accurate forecast and reduced risk, making it very valuable. Limitation is the establishment of a limit, that is, maximum amounts of expenses, sales, loans, etc., used by banks to reduce the degree of risk when issuing loans, by business entities to sell goods on credit, provide loans, determine the amount of capital investment, etc. . With self-insurance, an entrepreneur prefers to insure himself rather than buy insurance from an insurance company; self-insurance is a decentralized form, the creation of natural and monetary insurance funds directly in business entities, especially in those whose activities are at risk; The main task of self-insurance is to quickly overcome temporary difficulties in financial and commercial activities. Insurance is the protection of the property

interests of business entities and citizens upon the occurrence of certain events at the expense of monetary funds formed from the insurance premiums they pay. Legal norms of insurance in the China are established by law.

Insurance should be considered in more detail. It represents an economic category, the essence of which is the distribution of damage among all insurance participants. This is a kind of cooperation to combat the consequences of natural disasters and contradictions within society that arise due to economic relations between members of society. Insurance performs four functions: risk, prevention, savings, and control. The risk function of insurance is expressed in risk compensation, which involves the redistribution of monetary value among insurance participants in connection with the consequences of random insurance events. The risk function is the primary function of insurance because insurance risk is directly related to the main purpose of insurance, which is to compensate for material damage to victims.

The purpose of the preventive function of insurance is to finance, from the insurance fund, measures to reduce the insurance risk. The content of the savings function is that with the help of insurance, funds are saved for survival. This saving is caused by the need for insurance protection of the achieved family wealth. The essence of the control function is expressed in monitoring the strictly targeted formation and use of insurance fund funds.

Insurance can take the form of compulsory or voluntary insurance. Compulsory insurance is insurance that is required by law and the cost of which is included in production expenses. Voluntary insurance is based on an agreement between the policyholder and the insurer.

The financial manager faces the ongoing problem of choosing sources of financing. The peculiarity is that servicing one or another source costs the enterprise differently. Financial decisions will be accurate to the extent that the information is objective and sufficient. The level of objectivity depends on the extent to which the capital market corresponds to an efficient market. Risk management is based on a targeted search and organization of work to reduce the degree of risk, the art of obtaining and increasing income in an uncertain economic situation. The ultimate

role of risk management is fully consistent with the target function of entrepreneurship. It consists in obtaining the greatest profit with an optimal ratio of profit and risk.

Risk management methods are very diverse. The means of resolving risks are to avoid them, retain them, transfer them, and reduce them.

Risk avoidance simply means avoiding an activity that involves risk. However, for enterprises, avoiding risks will reduce profits in many cases. If the enterprise goes with the risk, it will pay for the risk. Therefore, in venture capital, we should have confidence and leave enough money to make up for the possible losses caused by venture capital. Like insurance companies, they learned to transfer risks to others and used various technical means to reduce risks. The most common technical methods are: Building diversity; -Access to more useful information; -Limiting unnecessary risks; -Self-insurance;

Investment diversification can avoid some risks to a certain extent in the allocation of capital in economic activities. Limits are an important technique for reducing risk. Set limits on economic activity. Set maximum amounts on expenditures, sales, and loans. Self-protection in activities, rather than the traditional purchase of insurance from third-party insurance companies. When using risk management tools, enterprises should follow the following principles: -You cannot take more risks than your own capital can bear; -You can't risk a lot for a little; -The consequences of risk should be expected.

In practice, these principles require that we first calculate the maximum possible loss from a particular type of risk and then compare it to the amount of capital of the business exposed to that risk. Then, we also need to compare the overall possible loss with the total financial resources of the enterprise itself. Only after these steps are completed can we determine whether this risk is likely to lead to the bankruptcy of the enterprise. Such an evaluation process is essential for the sound operation of enterprises.

The question of choosing the optimal policy aimed at reducing risk. solved within the framework of microeconomic theory. The corresponding result states that

an optimal risk management policy should be such that the marginal cost of implementing the policy matches the marginal utility of its implementation.

Application of these principles in practice means that it is always necessary to calculate the maximum possible loss for a given type of risk, then compare it with the amount of capital of the enterprise exposed to this risk, and then compare the entire possible loss with the total amount of its own financial resources. And only after taking the last step, it is possible to determine whether this risk will lead to bankruptcy of the enterprise.

Table 1.3 ways to reduce the negative consequences of various types of risks that an entrepreneur may face are presented.

Table 1.3

Type	Avoidance method
Commercial risk	Scientifically allocate the level of financial ratio. Choose the right way to increase the projected return on investment for a particular project
Risk of improper allocation of resources	Prioritize based on resource availability and determine the quantity of products produced through accurate market research.
The economy fluctuates, customer tastes change, and business and demand adjust accordingly.	Effective Forecasting and Planning
Actions of competitors	Actively conduct market research to anticipate competitors' actions and take them into account in marketing and production activities
Dissatisfaction of workers, or trigger resignation strike	Develop a comprehensive socio-economic plan that takes into account the needs and requirements of employees, motivation issues, and creates a favorable psychological environment.
The financial risks brought by capital passivity are related to the placement of large funds.	Proper financial management, timely investment of passive funds in profitable projects or provision of profitable loans, transfer of risk to other companies.

Table 1.4

Various types of risks that are advisable to insure with the help of insurance companies

Type of risk	A way to reduce negative consequences
Fire and other natural disasters	Insurance of probable losses
Car crashes	Car insurance
Risk of destruction or damage to cargo during transportation	Cargo value insurance (sea, aviation and other types of transport insurance)
Risk from negligence of company employees	Insurance of the cost of possible losses from employee negligence
The risk of possible dishonesty of employees, which can cause material and moral damage to the company	Purchasing integrity bonds from an insurance company
The risk of non-fulfillment of obligations by one of the employees or a group of workersbotniks, on what the implementation of the entire project depends	Purchasing «guarantee» bonds
Risk of suspension of the company's business activity (various reasons)	Insurance of the amount of possible losses for the entire period of business interruption
The risk of possible death or illness of a manager, a leading employee of the company, on whose intellectual or other qualified activity the success of the company depends	Insurance for the amount of possible losses. This is especially important during the most critical period
Risk due to possible illness, death or accident to the employee.	Insurance in insurance companies

The final step in the risk mitigation analysis is the formulation of an overall project risk management plan.

Table 1.5

Scheme for selecting means proposed to reduce risk

Possible losses Profit, resources	Probability of a crisis situation		
	high	average	low
1. Comparable to the amount of project assets	reject the project	reject the project	analysis of ways to reduce risk
2. Does not exceed the amount of estimated revenue	preventive measures	risk insurance	risk insurance
3. Does not exceed the amount of estimated profit	preventive measures	application of reservation policy, self-insurance	

The plan should cover the following: identification of the results of all risk areas of the project, including a list of key risk identifiers for each area; assessment of the ranking of risk indicators to reflect their importance to the achievement of project objectives; statistical risk analysis, sensitivity analysis and global risk analysis results at project acceptance; Suggested risk mitigation strategies for each area of activity associated with the project; and a list of procedures to ensure that commercial project

risks are monitored.

Risk management in the economic sense is a system of managing risk, which involves the financial relationships that arise from the process of management

As a management system, risk management involves formulating risk objectives and investments, determining the probability of events, identifying risks, analyzing the environment, selecting strategies and technologies, and implementing risk impacts, which constitute the various stages of risk management.

The organization of risk management is a system of measures aimed at the rational combination of all elements in a single technical risk management process.

The first stage of organizational risk management is to establish risk objectives and the objectives of venture capital investment. Whereas a venture goal is an outcome to be achieved, which may be a bonus, profit, income, etc., the goal of a venture capital investment is to maximize profits.

Any action related to risk has a purpose, because without a goal, a decision related to risk has no meaning. The objectives of risk and venture capital must be clear and specific, and correspond to risk and capital. All actions related to risk always have a clear purpose, because the lack of a clear goal makes risk-related decisions meaningless. The objectives of risk and venture capital must be clear, specific and detailed, and can be compared and matched with risk and capital accordingly.

In order to make informed decisions, the next step in organizational risk management is to obtain relevant environmental information. Through careful analysis of this information, combined with the objectives of risk management, we can accurately assess the probability of occurrence of various events (including insurance-related events), identify the degree of risk, and estimate the possible costs. Risk management requires a thorough understanding of the level of risk that continues to pose a potential threat to people, property, and the financial outcomes of our business activities.

It is essential that entrepreneurs understand the true cost of the risks they face

The cost of risk should be understood as the entrepreneur's actual losses, the

cost of reducing those losses, or the cost of providing compensation for those losses and their consequences. The financial manager's correct assessment of the actual cost of the risk enables him to objectively represent the amount of loss that is possible and to outline ways to prevent or reduce the loss, and if it is not possible to prevent the loss, to ensure that it is compensated.

According to the available environmental information and the probability, degree and size of the risk, various venture capital investment schemes are formulated, and their optimality is evaluated by comparing the expected profit and the size of the risk.

This enables you to select appropriate risk management strategies and techniques, as well as ways to reduce the degree of risk. At this stage of organizational risk management, the main role belongs to the financial manager and his psychological qualities.

When developing a risk reduction program, it is necessary to take into account the psychological perception of risky decisions. Decision making under risk conditions is a psychological process. Therefore, along with the mathematical validity of decisions, one should take into account the psychological characteristics of a person that appear when making and implementing risky decisions: aggressiveness, indecisiveness, doubt, independence, extraversion, introversion, etc.

The same risk situation is perceived differently by different people. Therefore, assessing risk and choosing a financial solution largely depends on the decision maker. Managers of a conservative type who are not inclined to innovation, are not confident in their intuition and professionalism, and are not confident in the qualifications and professionalism of performers usually avoid risk, i.e. their employees.

The complete stage of organizational risk management consists of organizing activities to implement the planned course of action, that is, identifying certain types of activities, the number and funding sources of these efforts, specific performers, deadlines, etc.

An important phase of organizational risk management is to monitor the

implementation of planned solutions and to analyze and evaluate the results of the implementation of selected risk solutions.

Organizational risk management involves identifying a risk management agency for a specific economic entity. The risk management institution may be a financial manager, a risk manager, or a corresponding management institution: an insurance business department, a venture capital department, a venture capital investment department, etc. These sectors or divisions are the divisions of the financial services structure of economic entities.

Based on the above, we can conclude that in order to effectively analyze various risks in business activities, it is necessary to use a series of methods. This also confirms the need to establish a comprehensive risk management mechanism.

1.4. Risk assessment and measurement

Risk assessment at the enterprise is carried out by a risk assessment manager. He develops, advises and manages risk management programs and loss prevention activities to ensure maximum protection of corporate assets and capital. Conducts investigations and reports on accidents and incidents related to the company's products, and then coordinates the actions of insurance companies and lawyers. Reviews and analyzes data and develops programs to minimize risks. Monitors compliance with safety regulations and ensures that the company's products comply with industry standards and market requirements.

There are several approaches to assessing risk at an enterprise. Let's look at some of them.

Among the risk assessment methods considered, the first has the main task of systematizing and developing a comprehensive approach to determining the severity of risks affecting the financial and economic activities of the enterprise. All risk researchers do not pay enough attention to assessing the quality of the information they use to assess risk.

The requirements for the quality of information should be as follows:

- reliability (correctness) of information - a measure of the proximity of information to the original source or accuracy of information transmission;
- objectivity of information – a measure of how information reflects reality;
- unambiguity;
- order of information - the number of transmission links between the primary source and the end user;
- completeness of information – a reflection of the exhaustive nature of the compliance of the information received with the purposes of collection;
- relevance - the degree of approximation of information to the essence of the issue or the degree of correspondence of information to the task;
- relevance of information (significance) – importance of information for risk assessment;
- cost of information.

It is proposed to establish a relationship between risk and the quality of information used to assess it. It is suggested that the likelihood of the risk of making a poor-quality (unprofitable) decision depends on the quality and volume of information used. This assumption is taken from neoclassical risk theory. According to this theory, if there are several options for making a decision (with equal profitability), the decision with the lowest probability of risk (fluctuation) is chosen. It can be assumed that even if there are several options with the same profit, a decision is chosen that is based on better information, that is, there is a connection between risk and information.

The main reason for the ineffectiveness of risk management is the lack of a clear and precise methodological basis for the process. An analysis of the risk management principles cited in the literature shows that they are fragmented, while individual attempts to systematize them are controversial. However, an analysis of the research methods in the field of risk management, taking into account the requirements of the modern economy, enables us to formulate a systematic risk management principle.

Risk-related decisions must be economically justified and should not have a negative impact on the financial and economic outcomes of the enterprise. Risk management should be implemented within the framework of enterprise organizational strategy. In risk management, decisions should be based on the amount of reliable information required. When implementing risk management, the decision-making must take full account of the characteristics of the objective environment and business activities in which the enterprise operates. Risk management must be systematic. Risk management should also include an analysis of the continuing validity of the decisions made and the timely adjustment of the set of principles, methods and procedures used. The essence of the various stages of risk management involves the application of a variety of methods.

The entire risk management process can be described as follows: Determine risk management objectives; Risk analysis; Qualitative analysis; Quantitative analysis; Selection of methods to influence risk; Analyze the effectiveness of the decisions made and adjust the risk management objectives to get back to the starting point. The stage of determining risk management objectives is characterized by the use of various analytical and forecasting methods to study the economic situation and identify the capabilities and needs of enterprises within the framework of strategies and development plans.

In the stage of risk analysis, we use qualitative and quantitative scientific methods to conduct in-depth research, including the methods of collecting and analyzing existing and new information, modeling enterprise activities, and using statistical and probabilistic means. We then moved on to the next phase, which focused on comparing the effects of multiple approaches to influencing risk, including risk avoidance, risk reduction, risk acceptance, and offloading some or all of the risk to third parties. After in-depth comparative analysis, we will select an optimal combination of strategies. In the final stage, we have gained a new and deep understanding of risk, which can be used to adjust the original risk management objectives when necessary. Throughout the process, different risk management methods were applied at each stage. The results of the previous stage will provide

initial data for the next stage, thus forming a decision-making system with feedback mechanism. Such a system design ensures that our goals can be achieved in the most effective way, because the new knowledge gained at each stage allows us not only to adjust our risk response, but also to fine-tune our risk management goals themselves. It is worth mentioning that the risk analysis stage is a crucial stage in the whole risk management process, because it provides a basis for us to formulate subsequent strategies. The core goal of qualitative risk analysis is to identify the source and cause of risk, and in which stage or work the risk occurs. Specifically, we will focus on two main areas: identifying possible areas of risk and identifying risks associated with corporate activities. As for qualitative analysis methods, we can divide them into four categories: analysis methods based on existing information, new information collection methods, enterprise activity modeling methods and heuristic methods of qualitative analysis. Finally, the results of the qualitative risk analysis are used as an important input to the quantitative analysis.

In the stage of quantitative risk analysis, we will make specific calculations, that is, to estimate the probability of the occurrence of risk events and the specific losses or gains that may be caused by the risk events. This approach provides a digital visual representation of the degree of risk, allowing us to assess and manage risk more accurately

– Considering the entire set of methods for quantitative risk analysis, we can say that the use of a particular method depends on the combined influence of a number of factors. These factors may include, but are not limited to, the nature of the problem, the availability of data, the accuracy requirements of the analysis, and the computational complexity.

– For each type of risk being analyzed, there are specific analysis methods and special features for implementing these methods. For example, in the analysis of technical and production risks caused by equipment failures, the method of constructing decision trees has been most widely used;

– For risk analysis, both the quantity and quality of input data play an important role. Therefore, simulation modeling methods and neural networks can be

used if there is a large database on the dynamics of risk. Otherwise, expert methods or fuzzy logic methods are most likely to be used.

– When analyzing risk, it is critical to take into account the dynamics of the indicators that affect the level of risk. When analyzing risk in a market in a state of shock, many methods simply cannot be applied.

– When choosing an analysis method, consider not only the depth of the calculated data, but also the forecast period of the indicators that affect the level of risk.

– Urgency and technical capacity for analysis are critical. To sum up, in order to effectively analyze the various risks in enterprise activities, it is necessary to adopt a series of methods, which in turn confirms the need to establish a comprehensive risk management mechanism.

– Under the modern economic conditions characterized by political, economic and social instability, the existing management system of enterprises must include risk management mechanism.

– In the first stage of establishing risk management mechanism in enterprises, risk management services need to be created. At the current stage of China's economic development, the goal of the service is to minimize losses by monitoring the activities of enterprises, analyzing the complexity of the whole risk, formulating recommendations to reduce risks and supervising the implementation.

Sources of information for risk analysis include: The financial statements of an enterprise. These documents (balance sheet, profit and loss statement, cash flow statement, etc.) contain all the official information about the business in a concise form, such as the status of fixed assets, inventory levels of materials and finished products, the amount of accounts receivable and payable, the results of the financial activities of the business, etc. An analysis of the financial statements of an enterprise will reveal a considerable part of the operational, credit and organizational risks;

The organizational structure and staffing of the enterprise.

Analyzing this information can identify organizational risks;

Flow chart (technical and production risks);

Agreements and contracts (commercial and legal risks);

Production costs. Analyzing them can identify the vast majority of risk factors and determine the amount of losses caused by the occurrence of risk situations; The financial and production plans of the enterprise. The complete implementation of the plan can comprehensively evaluate the enterprise's ability to resist a series of risks.

After completing the collection of the information required for risk analysis, the risk management service will have the opportunity to make a practical assessment of the performance indicator dynamics of the enterprise, taking into account the influence of external and internal socio-economic and political factors, thus enabling it to fully and professionally predict the future state of market conditions and to practically assess the risks that may arise.

The reasonable continuation of risk management services should be the formation of a risk management plan, which should be developed considering:

The possible extent of damage and the probability of occurrence;
The existing risk reduction mechanism proposed by the country and its production and economic efficiency;

The production and economic efficiency of risk reduction measures proposed by service organizations;

The practical possibility of implementing activities within the allocated funds;
Whether the planned activities are in line with current regulations, the long- and short-term planning goals of the enterprise's development, and the main direction of its fiscal policy.

These points emphasize the multiple aspects and factors that need to be considered throughout the process from risk assessment to the actual implementation of risk management plans.

In developing the procedures for risk management measures, the experts of the risk management service should be concerned with the greatest degree of uniformity in the assessment of the level of risk incurred, which is reflected in the formation of universal parameters describing the amount of possible damage. It is most desirable to include as such a parameter the impact of the risk on the financial flows and

financial position of the enterprise. The final stage of procedure development is to develop a set of risk reduction measures that demonstrate the planned effectiveness of their implementation, the timing of their implementation, the source of funding, and the personnel responsible for implementing the procedure. The plan must be approved by the management of the enterprise and considered in the financial and production plans. At the same time, it is recommended to accumulate all information about errors and defects in the development of the program that arise during implementation. This approach will allow the development of subsequent risk reduction procedures at a higher level of quality using newly acquired risk knowledge.

PART 2. ANALYSIS OF FOREIGN ECONOMIC ACTIVITY OF XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD

2.1. History and description of the company

Founded in 1943, Xuzhou Construction Machinery Group Co., Ltd. (Hereinafter referred to as XCMG) has been standing at the forefront of China's construction machinery industry and has developed into one of the largest, most influential and most competitive enterprise groups in the domestic industry, with the most complete product categories and series. XCMG is the third largest construction machinery company in the world. It ranks 65th among the top 500 Chinese enterprises, 44th among the top 100 Chinese manufacturing enterprises, and second among the top 100 Chinese machinery manufacturers. XCMG adheres to the core values of "taking on great responsibilities, taking the road and achieving great achievements" and the enterprise spirit of "being strict, practical, progressive and innovative", and makes continuous efforts to achieve the ultimate goal of becoming a world-class excellent enterprise with real value creation ability.

XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD (XCMG) is a leading Chinese company specializing in the production and sales of construction machinery. It was founded in 1989 and over the following years has become one of the world's largest suppliers of construction equipment.

XCMG offers a wide range of products, including crawler excavators, cargo cranes, aerial platforms, drilling rigs, loaders, road rollers and other special construction equipment. The company is also involved in research and development of new technologies such as automatic control systems and electric drives.

XCMG always attaches great importance to the quality of its products and strives to provide high-tech, reliable and efficient machines to its customers. Thanks to innovative solutions and continuous improvement, the company occupies a leading position in the construction equipment market not only in China, but throughout the world.

XCMG has a wide dealer network covering many countries and regions to ensure the availability of products and services to customers around the world. The company is committed to meeting the needs of its customers and offers professional technical support, training and service.

Undoubtedly, XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD remains a reliable and innovative partner in the construction machinery industry. It continues to develop and expand its presence in the global market, with the goal of offering high-quality and advanced solutions for construction projects of varying sizes and complexity.



Fig. 2.1. Solid to succeed

Xuzhou Construction Machinery Group Co., Ltd. (XCMG) was founded in 1943. Since then, XCMG has stood at the forefront of the Chinese construction

machinery industry and developed into one of the domestic industry's largest, most influential, and most competitive enterprise groups with the most complete product varieties and series.

XCMG is the 3rd largest construction machinery company in the world. It is ranked 65th in the list of China's Top 500 Companies, 44th in the list of China's Top 100 Manufacturing Enterprises, and 2nd in the list of China's Top 100 Machinery Manufacturers. XCMG is dedicated to its core value of “Taking Great Responsibilities, Acting With Great Morals, and Making Great Achievements” and its corporate spirit of being “Rigorous, Practical, Progressive, and Creative” in order to keep moving towards its ultimate goal of becoming a leading world-class enterprise capable of creating real value.

2.2 External environment of the company and related risks

XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD (hereinafter referred to as XCMG) is one of the world's leading manufacturers of construction machinery. However, like any other company, it faces certain risks associated with the external environment in which it operates. Let's look at the main risks that may affect the activities of XCMG.

Firstly, global economic instability may have a negative impact on XCMG. A sharp decline in economic activity in various regions of the world may lead to a decrease in demand for construction equipment, which will negatively affect the company's revenues. In addition, economic crises can lead to changes in exchange rates and complication of access to financing, which can also negatively affect the financial position of XCMG.

Secondly, political instability in various countries is also a significant risk for XCMG. Political conflicts, revolutions, wars and changes in foreign policy can lead to a freeze in investments in construction projects, and consequently, to a decrease in demand for XCMG equipment. In addition, such events can affect the withdrawal

capital of the company, complicate logistics and complicate the conduct of business in certain regions of the world.

Third, changes in legislation and regulation also pose a risk to XCMG. New requirements for environmental safety, production standards, licensing and certification may require additional costs and resources from the company. This may affect the price competitiveness of XCMG and complicate its activities in the market.

Finally, the level of competition in the industry is also a significant risk for XCMG. Construction machinery is a segmented market in which many players participate. Increased competition may lead to lower product prices, a reduction in market share and a decrease in XCMG's profits.

In conclusion, XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD faces risks related to the external environment. They include global economic instability, political instability, changes in legislation and regulation, as well as the level of competition in the industry. The company must actively analyze and manage these risks, develop mitigation strategies to ensure sustainable development and success in the construction equipment market

Table 2.1 shows personnel indicators for 2019 by the number of men and women in percentage terms. The share of management personnel is 10% over 50 and 90% among the company's employees (of which 80% are men and 20% are women).

Table 2.1

Analysis of personnel indicators of Xuzhou construction machinery group CO, LTD
in 2022, (%)

Age of staff	Share of employees, %	Among the company's employees			Among management personnel		
		Total	men	women	Total	men	women
		%	%	%	%	%	%
Over 50 years old	15	90	80	20	10	100	0
From 40 to 49	23	90	85	15	10	100	0
From 30 to 39	37	10	65	35	10	100	0
From 20 to 29	25	100	90	10	0	0	0

Also, 10% of workers are from 40 to 49 years old among management personnel, 90% among enterprise employees, of which 85% are men and 15% are women.

In addition, 10% of workers are from 30 to 39 years old among management personnel, the remaining 90% are workers (65% are men and 35% are women).

Among the company's employees from 20 to 29 years old, the majority are men - 90%, 10% - women.

As can be seen from Table 2.2, the average age of an enterprise employee is 37 years. This is a good indicator, and if the company does not change its recruitment policy, then in a few years the company will not have serious problems due to aging personnel. In 2022, the number of Xuzhou construction machinery group CO, LTD enterprises decreased to 35 workers, of which: 9 people under the age of 30, 13 between the ages of 30 and 39, 8 people between the ages of 40 and 49. In changes in the age composition over the past two years, one can note slight fluctuations in the number of workers in each category towards a decrease. For the period of time 2020 - 2022. the number increased in the categories “from 30 to 39 years old” and “from 40 to 49 years old” by 14% -18% (see Table 2.2).

Table 2.2
Dynamics of the age composition of Xuzhou construction machinery group CO, LTD (%)

Year	from 20 to 29 years old	from 30 to 39 years old	from 40 to 49 years old	over 50 years old
2020	15	eleven	6	8
2021	14	12	8	8
2022	9	13	8	5

Thus, men occupy a large share of the population.

To characterize the activities of Xuzhou construction machinery group CO, LTD, it is necessary to analyze the main technical and economic indicators (Table 2.3).

Table 2.3

Calculation of the main performance indicators of Xuzhou construction machinery group CO, LTD in 2019-2021

No.	Indicators	Years			Deviation, %	Deviation, %
		2019	2020	2021	20/19	21/20
1.	Volume of goods, works, services sold	15210.00	18569.00	14468.00	122.08	77.92
2.	Payroll with accruals	2171.00	2220.00	2718.00	102.26	122.43
3.	Material costs,	12100.00	16200.00	21500.00	133.88	132.72
4.	Depreciation	30.00	60.00	65.00	200.00	108.33
5.	Main production assets,	300.00	600.00	650.00	200.00	108.33
6.	Working capital in inventories	1500.00	2500.00	3500.00	166.67	140.00
7.	Labor productivity	845.00	1031.61	413.37	122.08	40.07
8.	Product worth 1 yuan. wages	7.00	18.00	5.32	257.14	29.56
9.	Material efficiency	1.26	1.15	0.67	91.27	58.26
10.	Depreciation return	507.00	309.48	222.58	61.04	71.92
11.	Capital productivity	50.70	30.95	22.26	61.05	71.93
12.	Working capital turnover, number of revolutions	10.14	7.43	4.13	73.27	55.59
13.	Cost of sales	14301.00	18480.00	24283.00	129.22	131.40
14.	Revenue from sales	909.00	89.00	-9815.00	9.79	-11028.00
15.	Return on sales	5.98	0.48	-67.00	8.03	-13958.33

To obtain a more complete picture of the activities of the organization Xuzhou construction machinery group CO, LTD, its capabilities and state of affairs, the author assessed its main technical and economic indicators from the reporting data Form No. 2 “Profit and Loss Statement” Form No. 1.

According to Table 2.3, in 2021 the organization is experiencing a downward trend in sales volumes. In 2020, compared to 2019, volume growth was 22.08%. In 2021, the volume decreased by 22% compared to 2020, which had a negative impact on all performance indicators of the enterprise.

On the contrary, the cost of sales is growing year by year. In 2020, it increased by 29.22% compared to 2019, and in 2021, it has seen a further increase of 31.40% by 2020.

Profit from sales in 2020 decreased by 90.21% compared to 2019 due to an increase in revenue, and in 2021, compared to 2020, there was a decrease in the amount of profit from sales by 9815.00 thousand yuan. or more than 100 times due to the excess growth rate of cost of sales of products over the growth rate of revenue in 2021.

The cost of fixed assets at the enterprise in 2020 increased by 100.00% compared to 2019. In 2021, their value increased by 8.33% or relative to 2020. The increase in value in 2020 was due to the acquisition of new fixed assets by the enterprise. The return depreciation indicator decreased in 2020 relative to 2019 by 38%, since the commercial equipment was not used, and in 2021 relative to 2020 after the equipment was put into operation, the growth rate for the indicator increased by 10%. The capital productivity indicator decreased in 2021 compared to 2020, similar to the return depreciation indicator. In 2020, the amount of accrued depreciation increased by 100% compared to 2019, and in 2021, the amount of depreciation increased by another 8.33% compared to 2020 due to an increase in the cost of fixed assets.

In 2020, there was a slowdown in the rate of turnover of working capital by 26.73%, and in 2021 the decrease was 5.79%. This indicates an emerging trend of a slowdown in the turnover of working capital and a slight decrease in the efficiency of their use in the enterprise, as there is an increase in the working capital of the enterprise, that is, the presence of excess inventory in warehouses. In 2021, the organization's value of working capital increased by 66.67% compared to 2020. In 2020, their value increased relative to 2019 by 40%. The increase in working capital

occurs mainly due to an increase in short-term accounts receivable and material assets.

There is an annual increase in the wage fund in Xuzhou construction machinery group CO, LTD due to a decrease in the number of employees. In 2020, it increased by 2.26% compared to 2019, and in 2021 by 22.43%. Due to the increase in wages, there was an increase in labor productivity in 2020 compared to 2019 by 22.08%. But in 2021 compared to 2020, the growth rate decreased by 60%. This negative trend is associated with a shortage of workers at the enterprise involved in the installation of plastic structures.

Return on sales in 2020 decreased by 91.97% compared to 2019, as sales profit decreased by 90.21%. In 2021, there is a tendency for sales profits to decrease, and, consequently, sales profitability.

Thus, during the period under study, labor resources were not used effectively enough in the Xuzhou construction machinery group CO, LTD organization, despite the increased level of wages.

The level of profitability of sales increased in 2020 due to the use of new retail equipment and fixed assets, namely a vehicle for transporting and delivering goods. This is due to the annual increase in sales profits. But in 2021, profitability decreased by almost 200 times.

An analysis of the main technical and economic indicators showed that the activities of Xuzhou construction machinery group CO, LTD were successful during the period of 2020, since the organization quite effectively used fixed and working capital, its labor resources, the profitability of sales increased, but in 2021 its activities was disrupted by insufficiently efficient use of labor; in addition, prices for materials for installation of structures increased.

The table contains a vertical and horizontal analysis of the balance sheet of Xuzhou construction machinery group CO, LTD, formed on the basis of Appendix 1 “Balance Sheet”.

Analyzing the structure of the balance sheet liability, it should be noted as a positive aspect of the financial stability of the organization the increase in the share

of capital and reserves (own sources) by 27.27% in 2020, by 100.00% in 2021. A negative point is also the increase in short-term liabilities by 68.57%, in 2020 by 14.69%.

It turns out that the structure of borrowed funds underwent a number of changes during the reporting period. So the amount of all borrowed funds at the beginning of 2019 amounted to 2625 thousand yuan, and at the end 4425 thousand yuan, which is more than 1800 thousand yuan.

A vertical analysis of the balance sheet allows us to draw the following conclusion: the share of equity capital increased by 22.22 percentage points in 2020 and by 84.85 in 2021, which had a positive impact on the balance sheet structure. Debt capital in the organization under study accounts for 14.69% by the end of 2021, and this is 53.88 percentage points less than at the beginning of 2021. The share of borrowed capital decreased mainly due to a decrease in accounts payable. In general, the capital of Xuzhou construction machinery group CO, LTD in 2021 was formed from its own sources by 5.67% and 94.33%, similar to previous periods.

Horizontal (time) analysis - allows you to identify trends in changes in balance sheet items or their groups and, based on this, calculate the basic growth rates. Let's analyze the change in indicators for the enterprise in monetary terms without taking into account inflationary processes.

A horizontal analysis of the balance sheet shows that, in general, all assets of the organization increased by 17.21% in 2020 compared to January 1, 2020. This increase was caused by an increase in inventories and finished products in warehouses, as well as short-term accounts receivable. Significant changes were observed in the structure of current assets:

- inventories of purchased valuables increased at the end of 2021 by 12%, while in 2020 there was an increase of 66.67%;
- the amount of short-term receivables at the end of 2021 decreased by 14.69%, but in 2020 there was an increase of 68.57% for this balance sheet item, which could have a negative impact on the structure of the balance sheet as a whole;

The amount of cash of Xuzhou construction machinery group CO, LTD

increased annually by 100% and 95%.

From the analysis we can conclude that the growth of current assets had a negative impact on the balance sheet structure in 2020 and 2021.

The structure of the liability side of the balance sheet as of 01/01/2020 compared to the beginning of 2019 is characterized by a decrease in the following balance sheet liability items:

the debt to the organization's personnel was 25 thousand yuan as of 01/01/2019, but in subsequent periods there was a decrease, which is a positive thing;

debt to state extra-budgetary funds increased by 15% in 2020, which amounted to 3 thousand yuan, by 4% in 2021, i.e. by 1 thousand yuan;

debt to other creditors increased on average by 9% annually.

One of the main indicators of the economic characteristics of an enterprise is the analysis of the size of services provided.

The purpose of the analysis is to consider an increase or decrease in the volume of services in value and percentage terms for further analysis of the range of services.

The scope of services provided by Xuzhou construction machinery group CO, LTD is shown in table 2.4.

Table 2.4

Volume of services provided Xuzhou construction machinery group CO, LTD

Products	Production volume, thousand yuan.			Deviation 2020/2019		Deviation 2021/2020	
	2019	2020	2021	thousand yuans.	%	thousand yuans.	%
Manufacturing	5931.9	6870.53	4340.4	938.63	115.82	-2530.13	63.17
Manufacturing	7757.1	10027.26	7089.32	2270.16	129.27	-2937.94	70.70
Services	1521	1671.21	3038.28	150.21	109.88	1367.07	181.80

The volume of production in 2020 increased by 938.63 thousand yuan. or by 15.82%, the production of balcony loggias in 2021 decreased by 2937.94 thousand

yuan. or by 30%, the volume of services provided also increased by 1367.07 thousand yuan. or by 81.80%. In general, in 2021 there was a decrease in revenue by 4,101 thousand yuan. or by 22.09%.

Figure 2.1 shows the dynamics of sales revenue according to table 2.1.3 for 2019-2021.

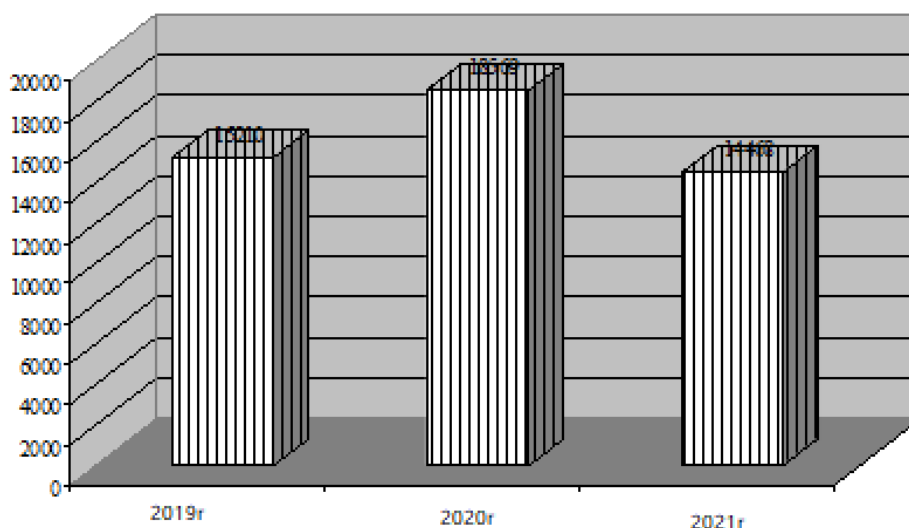


Fig. 2.1. Structure of sales volumes in 2019 - 2021

As can be seen from Figure 2.1, at the Xuzhou construction machinery group CO, LTD there is a commercial (marketing) risk, i.e. There is a decrease in sales volume as a result of a fall in demand and need for the product.

The dynamics of the share of total revenue in % is shown in Fig. 2.2.

As can be seen from Figure 2.2, the largest share in the revenue of Xuzhou construction machinery group CO, LTD in 2019-2020 is occupied by manufacturing income, which amounted to 51 and 54%. Manufacturing is in second place - 39 and 37%, but in 2021 the share of these items decreased and amounted to 49% and 30%. But in 2021, Xuzhou construction machinery group CO, LTD gained income from services, the share of which was 21%.

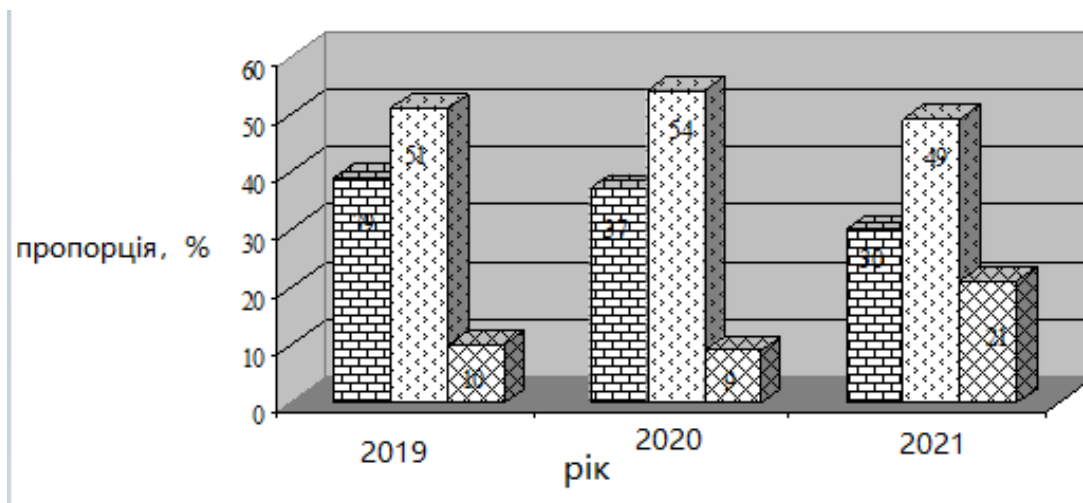


Fig. 2.2. Dynamics of the share of types of work and services Xuzhou construction machinery group CO, LTD for 2019-2021,%

Thus, the analysis confirms the deterioration in the financial condition of Xuzhou construction machinery group CO, LTD at the end of 2021, its activities were disrupted by insufficiently efficient use of labor, in addition, prices for materials for the installation of structures increased. Xuzhou construction machinery group CO, LTD was unable to achieve the best financial position in 2021 due to the risk of falling demand for products.

2.3. Risk assessment for the company

The risk assessment for XUZHOUCONSTRUCTION MACHINERY GROUP CO., LTD can be based on several factors:

1. Market risks: The company may face competition in the construction equipment market, changes in demand for products and services, as well as changes in the economic and political climate.

2. Operational risks: there may be problems in the production process, malfunctions and breakdowns of equipment, as well as errors in the management and organization of projects.

3. Financial risks: the company may face instability in prices for raw materials and materials, changes in exchange rates, debt to suppliers and inability to meet its financial obligations.

4. Risks associated with legislation: changes in environmental legislation, safety regulations, trade and taxation may affect the company's activities.

5. Reputational risks: Negative public reaction to the company's activities, corruption scandals or problems with product quality can damage the reputation and trust of customers and investors.

To fully assess the risks of XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD, it is necessary to conduct an in-depth analysis of each of these factors and determine their likelihood and potential consequences. This can be done through techniques such as SWOT analysis, PESTEL analysis or the use of econometric models and statistics.

In this risk assessment, we will focus on XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD, one of China's leading construction machinery companies. This assessment is aimed at identifying and analyzing possible risks that may affect the financial stability, reputation and operating activities of the company. The goal is to provide the company with the information necessary to develop effective risk management strategies.

1. Political risks:

As a company based in China, XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD is subject to political risks associated with changes in legislation, taxation and trade policies. Political instability, conflicts and international sanctions can also affect the company's activities and its reputation.

2. Economic risks:

Global economic trends and fluctuations may affect the stability of demand for construction equipment. Severe economic declines, rising inflation, changes in foreign exchange rates and financial crises could adversely affect a company's financial performance and ability to compete in the marketplace.

3. Technological risks:

Modern technology plays an important role in the innovation process of XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD. However, technology risks may arise due to technology upgrades, changes in demand for more efficient technologies, or the emergence of competitors who can offer better solutions.

4. Management risks and operational risks:

Managing a complex company with multiple departments, divisions and facilities can lead to the risk of poor decision-making, ineffective planning and control, and violation of legal and regulatory requirements. Insufficient internal control and compliance systems may also create risks in a company's operations.

5. Reputational risks:

As a global leader in its industry, XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD depends on its reputation and customer trust. Negative events such as scandals, corruption, unacceptable business practices and violations of quality standards can seriously damage a company's reputation and lead to a loss of confidence among customers and investors.

Risk assessment for XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD allows you to prepare and take the necessary measures to reduce the negative impact of risks on the business. This assessment strengthens the company's position and ensures its preparedness for unexpected situations, making it more sustainable and competitive in the market. It is also important to update and review risk assessments regularly, taking into account changes in the internal and external environment, in order to remain a successful and relevant player in the construction equipment industry.

PART 3. THE EFFECTIVENESS OF RISK MANAGEMENT IN XUZHOU CONSTRUCTION MACHINERY GROUP CO., LTD

3.1 Organizational structure of risk management

To improve the efficiency of the risk control system, it is necessary to introduce a risk analysis procedure at the Xuzhou construction machinery group CO, LTD, including the standardization of quantitative acceptance criteria. In the practice of ensuring security risk management, it is necessary to:

- eliminate the difference in terminology for analyzing the risk of man-made incidents found in various regulatory documents;
- intensify the development of quantitative methods for assessing hazards, including all stages of accident development (release, propagation, impact) using the best domestic methods and foreign experience;
- development of mechanisms for the participation of the most qualified specialists in the procedure for analyzing the risk of man-made incidents through the appropriate accreditation and certification systems.

An analysis of the current situation showed how great the influence of the risk factor is on the work of the enterprise in question. The influence of risks affects all aspects of the enterprise: sales opportunities, the ability to meet its obligations and other aspects. As a result, worsening his financial situation. From all of the above, the relevance and necessity of having an effective risk management system at this enterprise is clear.

Organizational risks. The absence or incorrect setting of project goals and objectives is one of the very common risks. Unfortunately, company managers and owners do not always realize the capabilities and advantages of existing risk management systems. The consequence of this is a lack of understanding of what results to expect from the project, what indicators to consider it successful.

If the company's management cannot formulate what they want to get from the project, then, of course, it will be impossible to clearly plan the project: its stages,

necessary resources, quality indicators, expected results.

Insufficient planning is another significant risk, which is especially dangerous because it arises precisely at the initial stage of the project. In turn, it leads to the fact that the system for monitoring the completion of work and the timing of the implementation of project stages is absent or does not work.

Underestimation of the importance of individual project stages (for example, information survey, user training, trial operation). Such a stage as examination is often underestimated. But it is an information survey that helps to identify the most problematic areas and key points, identify participants and consumers of process results, and collect material to assess the labor intensity of improvements and the prospects for implementing the system. Based on the results of the survey, it is possible to outline strategic plans for further development (integration with other systems, introduction of end-to-end document flow between branches, etc.), formulate a training plan, and determine a pilot zone for the project.

Insufficient study of the object will inevitably entail a change in the requirements for the management model itself or the functionality of the system at the implementation stage. This means that the project can be thrown back to the very beginning - at the stage of forming requirements.

Inconsistency of actions of implementation participants in the process of work execution. This risk is especially high when several parties are involved in the project, for example, the customer company, the executing company, and co-executors.

The absence or ineffective management of communications within the project, insufficient information to company employees about the progress of work and current results entails the emergence of subjective risks (more on them below).

Administrative risks. Insufficient attention from senior management to the project. There are often cases when the head of a company remembers the project only by signing the growing bills for its management. The consequence of such neglect is the passivity of line managers and ordinary employees.

Workload of company employees involved in the project with tasks related to core activities.

Weak involvement of company employees in the project. The system is being implemented for the company and the company's employees will use it, so the higher their activity in the project, the higher the likelihood that the innovations will be accepted positively and will meet the expectations of the staff.

Subjective risks. Such risks are the most difficult to manage and predict. Despite the significant development of information technology in China companies over the past decade, the lack of PC skills and poor culture of working with information in electronic form still remain a significant obstacle to the implementation of automated systems. As a result, staff must be trained to use computers before implementing a risk management system.

The project may encounter quite sharp resistance from the company's employees, both among ordinary employees and among senior managers. This is due to a number of reasons:

- reluctance to learn new work methods;

- reluctance to change the usual order of work and relationships;

- fears that shortcomings in work and unreasonable temporary losses will become visible, since in the process of inspection and optimization of processes, the activities of employees become transparent and controllable;

- fear of penalties, staff changes due to the discovery of areas with low labor efficiency;

- fear of inability to work in the system, fear that mistakes will discredit the employee in the eyes of management and (or) subordinates.

Lack of trust in external consultants is another obstacle to a successful project. This can often be observed when an enterprise places too much responsibility on external specialists without supporting them with the authority of local management, especially if the company has already had unsuccessful attempts to implement any system or methodology.

Technological risks. For example, the introduction of the latest computer technologies will entail an increase in the number of PC users; the transition to paperless document processing will lead to a significant increase in the load on

servers and the need to store a larger volume of information on them. As a result, the existing IT infrastructure may be unprepared for new methods of work, which will lead to poor system performance, freezes, crashes, etc. Long-term work with documents on outdated monitors will be tedious and even harmful for employees.

In Fig. 3.1, where single arrows show command connections between structural elements, and double arrows show information connections.

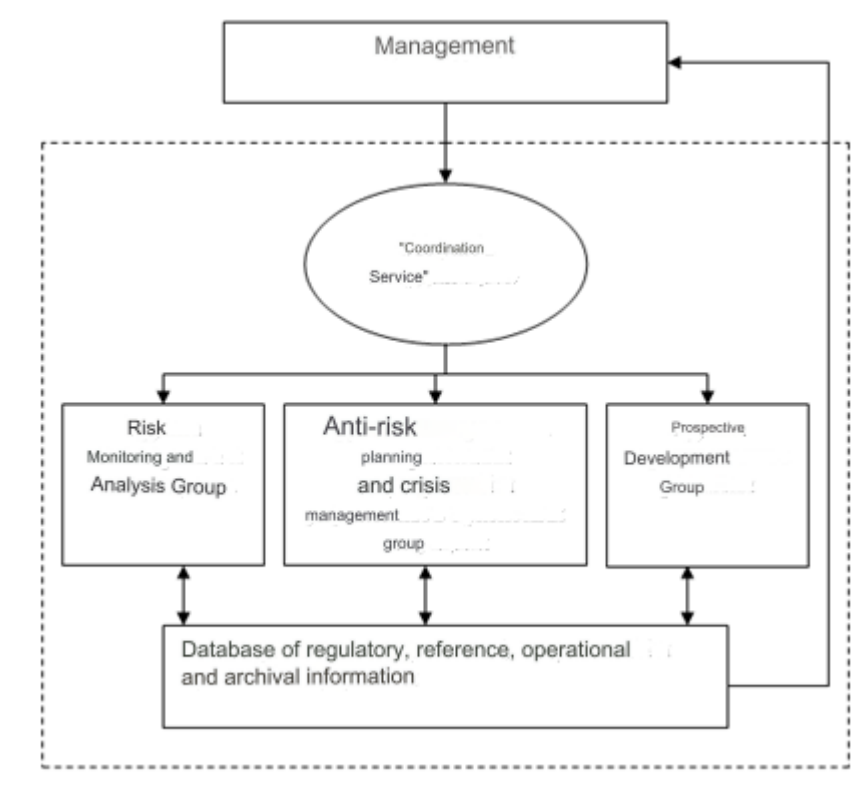


Fig. 3.1. Organization of risk management at the enterprise

Thus, the project for organizing a risk management system at the Xuzhou construction machinery group CO, LTD enterprise provides, for the most effective implementation of this function, the allocation of a separate structural unit in the enterprise management system - a department for risk management and environmental monitoring. It is necessary that the risk management department include the following tasks: monitoring the enterprise environment and its operating environment, risk analysis, planning anti-risk measures and crisis management, which are involved in the risk management process and are connected by information

flows. However, enterprise management must play a key role in solving risk management problems.

Risk Management must make every effort to adopt a dedicated and targeted risk management action plan (hereinafter referred to as PRM). The development of this plan at the enterprise level should ensure risk management, in which the main elements of the company's structure and activities are safeguarded by high stability and risk protection.

Organizational and functional model - assigning the directions of the company's activities and related main and supporting business functions, as well as management functions to structural divisions. In practice, the organizational and functional model is represented by a specific document - Risk Management Department Regulations. This document sets out the tasks, functions and procedures for the interaction of the Risk Management Department with other departments. Its formulation must follow the corporate standards adopted by the company.

Any business wishing to reduce the potential loss associated with a risk must address several issues on its own: Assess the potential loss associated with the risk; Deciding whether to retain certain risks, that is, whether to assume responsibility for them, reject them, or transfer some or all of their responsibility to other entities; For a risk or portion of a risk to be retained, the company must have a risk management process in place with the primary objective of reducing potential losses.

Solving these problems is possible through the development of a special program of targeted risk management measures (RMA) at the enterprise level. The development of a PCM should include two stages: preliminary and main. The information support of the subsystem is supported by the "database administration and updating service." A sufficient level of methodological and instrumental base should be provided by the "prospective development group", which, identifying or predicting needs, orders or develops methods and models on its own.

The core of the unit is the "coordination service", which plans and organizes all work.

The coordination service performs the following set of tasks:

- maintaining relationships with enterprise management and other enterprise management subsystems;
- determining the frequency of work to control the risk of the enterprise;
- Determine the scope of work for the next control and management cycle (select the type of risk analysis, method, method of recording results, etc.); Determine when to begin the risk analysis for the pilot solution; Organize the interaction between the implementation team and the information team. It is the prerogative of the enterprise management or the manager of the corresponding subsystem to determine the acceptable level of risk for the trial solution under consideration and to assess (approve) whether the risk level of the implemented trial solution is acceptable for a given period of time. In such cases, the role of the coordinating unit is limited to ensuring oversight of compliance with the established value of the acceptable level of risk. Business management often plays a key role in addressing risk management issues, as it approves risk reduction plans, decides when to begin implementing plans in critical situations, accepts trial solutions accompanied by anti-risk plans, or rejects them. The direct implementation of risk management measures often contradicts the activities of the main production and management departments of the enterprise and worsens its reporting metrics, as it requires costs that do not bring immediate benefits. It is therefore of the utmost importance that the final counter-risk decision is made at the top management level, without allowing the intermediate objectives of individual departments and their managers to overshadow the global objectives facing the enterprise, such as achieving job stability and sustainability, improving the financial situation and increasing the scale of economic activity. The Risk Management Department is a logical complement to the traditionally independent functional subsystems and is located at the same management level as them.

Designing a system of anti-risk measures involves dividing a set of works between various departments and regulating them by the risk management department.

Development of a management procedure (Table 3.1) includes: defining a goal, developing a procedure diagram, describing the operations included in the procedure.

Table 3.1

Development of management procedures

Work progress	Requirements for a worker
1. Defining the problem under risk conditions 2. Analysis of the situation, work on a computer 3. Holding a meeting with the team to develop solution options 4. Evaluation of alternative options according to various criteria 5. Drawing up solution programs with further detailing of the plan 6. Bringing decisions to specific executors 7. Monitoring the implementation of the plan	1 Must know: 1.1 Main goals and objectives of risk policy 1.2 Methodological approaches to assessing the potential of an enterprise 1.3 Main directions of restructuring 1.4 Forms of methods of working with personnel under risk conditions 1.5 Ways to reduce social tension and prevent possible conflicts 2 Must be able to: 2.1 Set goals and formulate tasks under conditions of risk, without missing out on the prospects for the development of the organization 2.2 Form a team to overcome the crisis 2.3 Organize and control the work of performers 2.4 Work on a computer with various programs

The workplace organization design model is based on the fact that work is specialized operations assigned to an individual performer. As we can see, designing the workplace of an anti-risk manager and organizing his work are of great importance.

3.2. Methods of risk prevention and management in the company

In order to improve the risk management system in Xuzhou construction machinery group CO, LTD for the period 2019-2022, the author offers a package of the following documents:

- Standard for organizing and conducting trainings, seminars, training for managers and personnel Xuzhou construction machinery group CO, LTD.
- Risk Management Policy of Xuzhou construction machinery group CO, LTD.
- Regulations on the risk management system department.

Project

Organization and conduct of trainings, seminars, training for managers and personnel Xuzhou construction machinery group CO, LTD

- Purpose of the document. The standard for organizing and conducting trainings, seminars, training of managers and staff is being introduced to ensure the achievement of a high quality risk management system.

- Application area. The standard applies to all employees of Xuzhou construction machinery group CO, LTD directly involved in the maintenance and production process.

- Procedures. Development of communication skills. This training is a necessary part of the training of any professional who has to deal with people, as the purpose of this course is to learn how to communicate.

1. The art of negotiation. The training is intended for everyone who has to negotiate in their practice, that is, almost all employees of the company. They will not be successful if they do not know how to negotiate.

2. “Cultivating” corporate culture at Xuzhou construction machinery group CO, LTD. The values and norms formulated in the “Corporate Code” will truly motivate staff if they reflect real, “living” values and norms that manifest themselves in employee interactions and make up the company’s atmosphere. And on the contrary, if management “brings down from above” the “Corporate Code” as an ordinary, directive document or order, but in reality the company has other rules and goals,

then it cannot have a motivating meaning.

3. During the training, the company pays special attention to new employees who need to adapt to unusual working conditions and an unfamiliar team.

4. The classes are designed for everyone who works at Xuzhou construction machinery group CO, LTD.

5. Training to develop risk management skills in every area of an enterprise's activities is necessary primarily for managers.

This Standard is put into effect on the basis of the relevant Order of the General Director from the date specified therein.

As for the procedure, it can be conducted in this way: training can be carried out in Xuzhou Construction Machinery Group Co., Ltd. for one day and the trainees shall be groups of 10 or more company personnel, and the training period can be one month. When one group completes the free risk management training course, another group will conduct various types of training throughout the year, and so on. The training will be conducted by quality experts from Xuzhou Construction Machinery Group Co., Ltd. Project

Risk Management Policy Xuzhou construction machinery group CO, LTD

General provisions. This document describes the company's corporate policy regarding risk management as the main tool for preparing personnel for existing risks, as well as improving the professional qualifications of employees in Xuzhou construction machinery group CO, LTD.

This document is intended for internal use by Company employees involved in the implementation and operation of the risk management system.

Application area. All line and functional managers are required to know and use this provision in their work.

3. Goals. The risk management system is aimed at achieving the following goals:

3.1. To ensure that the company operates successfully under conditions of risk and uncertainty. In the event of an economic loss, the implementation of risk management measures should ensure that the company can continue to operate,

maintain stability and sustainability of related cash flows, maintain the profitability and growth of the company, and achieve other goals.

3.2.Ensure efficient operations. Achieving this goal means achieving cost savings while taking into account the possibility of unexpected losses, i.e. increasing the cost of risk management activities to provide protection against excessive losses, despite the low probability of these losses occurring.

3.3.Set an appropriate level of uncertainty about the damage that may occur. This goal involves reducing the risk to an acceptable level, if not eliminating it completely.

3.4.Legitimacy of action. This is a very important goal because illegal actions, while protecting the company from certain risks in some cases, can trigger other risks, an approach that contradicts the primary goal of the risk management system.

3.5.Assess the effectiveness of the activities undertaken. Adapt the risk management system to changes in environmental conditions and the overall risks affecting the company.

3.6. Other goals. The composition and content of such goals depends on the specifics of the protected business and risk management measures. An example would be humanitarian purposes, i.e. compliance of the proposed measures with socially acceptable ethical standards.

4. Objectives of the risk management system.

4.1. Identification of possible economic risks and their impact on the company's activities.

4.2. Determination of risk management principles and procedures and assessment of financial losses associated with economic risks.

4.3. Formation and implementation of a risk management program, including a list of measures to reduce and eliminate adverse consequences and criteria for the effectiveness of their implementation.

5. Distribution of responsibility.

The implementation of the risk management procedure is entrusted to the coordination service and a number of line managers.

5.1. Employees involved to one degree or another in the implementation and subsequent operation of the system bear responsibility within the framework of their job descriptions and company policy.

5.2. A coordinator who does not fulfill his mission in good faith may be dismissed from his position without the right to receive it again. Removal from office is an exceptional case and is made by a joint decision of management.

5.3. All risk management activities must be supervised by quality specialists.

6. Stages of risk management.

6.1. Risk identification and analysis.

A stage that is necessary to understand the specifics of the risk situation being studied.

Risk identification and analysis: identify the risk, its specificity caused by nature and other characteristics, and study its realization characteristics, including the amount of economic loss, the change of risk over time, the correlation between risks and the factors affecting the risk. Without this study, risk management cannot be carried out effectively.

6.2. Analysis of Risk Management Methodology Alternatives: Research on tools that can be used to prevent the realization of risks and their negative impact on a company's business.

6.3. Select a risk management approach: Develop the company's policy for dealing with risk and uncertainty.

6.4. Execute the selected risk management approach: Implement the decisions of the previous phase regarding the adoption of a specific risk management approach.

6.5. Monitor the results and improve the risk management system: provide feedback on the specified system and ensure the flexibility and adaptability of risk management and its dynamic nature.

6.6. Supporting logical connections between risk management stages.

Project

Regulations on the risk management system department

I. General provisions

- The Risk Management System Department (hereinafter referred to as the Department) is a structural unit of Xuzhou construction machinery group CO, LTD, directly reporting to the first deputy director and directly reporting to the quality management specialist.

- The activities of the Department are guided by the Constitution of China, relevant Chinese laws, decrees and orders of the President of China, decrees and orders of the Government of China, international treaties to which China is a party, regulatory decrees of the Ministry of Economic Development of China, the Ministry of Finance of China and the Bank of China, and other regulatory decrees

- The work of the Department is carried out on the basis of current and long-term planning.

- The Department's work plan is formed taking into account the plans of the enterprise.

- The headcount of the Department is approved by the director of Xuzhou construction machinery group CO, LTD.

- The Department, in the course of its activities, on behalf of management, when considering issues within the competence of the Department, represents the interests of the enterprise in the executive authorities of the constituent entity of the China and local governments, in various organizations, regardless of the form of ownership.

- The job responsibilities of Department officials are regulated by job descriptions (regulations) approved in accordance with the established procedure. .
Main tasks of the Department.

- Coordination of the activities of the enterprise's structural divisions to identify risks and manage risks.

- Preparation of proposals for identifying risks and risk management, taking into account the characteristics of the region of activity of the enterprise.

- Analysis and evaluation of the effectiveness of risk control forms.

- Collection, analysis and evaluation of information on the results of applying direct measures to minimize risks.

- Interaction in accordance with the established procedure with other structural divisions. Main functions of the Department.
- Analysis and control of the enterprise's activities to ensure the effectiveness of the application of measures to minimize risks.
- Identification of risks based on the results of information analysis, assessment of the degree of identified risks, development of draft zonal risk profiles, draft orientations, as well as draft urgent risk profiles.
- Implementation of methodological management of structural divisions of Xuzhou construction machinery group CO, LTD.
- Monitoring the application of direct measures to minimize risks contained in risk profiles or a combination of them.
- Participation, within the competence of the Department, in the preparation of proposals for improving the structure of the enterprise based on the results of an analysis of their activities.
- Submitting proposals to management regarding the recall of persons violating the legislation of the China. Rights of the Department.
- Submit proposals on issues within the competence of the Department for consideration by management.
- Use information resources in accordance with the established procedure, independently create analytical and information databases necessary to solve the tasks assigned to the Department.
- Request, in accordance with the established procedure, and receive from the structural divisions of the enterprise documents and information necessary to carry out its activities.

II. Final provisions.

The department is headed by a chief who is appointed and dismissed by orders of the management of Xuzhou construction machinery group CO, LTD in agreement with the relevant departments.

The Head of the Department bears personal responsibility for the implementation of the tasks and functions assigned to the Department, the

implementation of established programs, plans and performance indicators, and compliance with official and performance discipline.

Thus, in practice, a risk management system involves finding a compromise between the benefits of reducing risk and the costs required for this, as well as deciding what actions should be taken to achieve this. Designing work involves obtaining answers to the questions: what is being done and how it is being done. It includes a description of the content of the work, the requirements for it and its environment. A certain job appears when an organization feels the need to solve a problem. From this moment the work begins to be created and designed. In order to improve the risk management system in Xuzhou construction machinery group CO, LTD for the period 2019-2022, the author offers a package of the following documents: standard for organizing and conducting trainings, seminars, training for managers and personnel of Xuzhou construction machinery group CO, LTD, management policy Xuzhou construction machinery group CO, LTD, regulations on the risk management system department.

3.3. Monitoring and control of risks

Let's calculate the economic efficiency indicators of the investment project.

Determination of the simple rate of return. Since simple rate of return typically uses annual data, it is not possible to select a representative project year in this example due to the varying levels of production and interest payments that also change each year. To solve the problem of choosing a representative year, it is necessary to calculate the average annual profit (P).

Data on net profit from operating activities are given in table. 3.2.

Calculation of ROI

Index	Year				
	2019	2020	2021	2022	2023
Net profit from operating activities	-921	15 800	17 153	18 210	19 315

$$(-921 + 15,800 + 17,153 + 18,210 + 19,315) / 5 = 13,911$$

Investment costs are 6,000, respectively, the simple rate of return is = $13,911 / 6,000 = 231.85\%$.

Conclusion. This rate of return meets the level required by investors (10-20%), which indicates the attractiveness of the project. However, the main disadvantage of the rate of return method remains: it does not take into account the time price of annual profit.

This drawback can only be eliminated by using discounting methods.

Determination of the payback period. To determine the exact payback period, the following is necessary.

1. Calculate the cumulative (accumulated) flow of real cash flows, since in the project used the emerging cash flows are not equal over the years (Table 3.3).

Table 3.3

Index	Cumulative flow					
	0	2019	2020	2021	2022	2023
Balance of operating and investing activities	-6 000	879	16,840	18 193	19 250	21 155
Accumulated balance of operating and investing activities	-6 000	-5 121	11,719	29 912	49 161	70 317

2. Determine in what year of life the cumulative cash flow takes a positive value (in this case, it is the 1st year).

3. Find the portion of the investment amount that was not covered by cash receipts prior to the current period determined in the previous step. Divide the balance of this uncovered investment amount by the total positive amount of cash

receipts for the period. The result is a fraction of a given period. When the current period is added to the entire previous period, the total payback period is formed. Conclusion: The calculated payback period shows that the relationship between the actual annual net monetary flow and the initial investment is positive, since the value of this indicator is 1.3 years, over the life of the project in question (five years). Complex (dynamic) approach: In order to properly assess the investment attractiveness of a project related to the investment of long-term funds, it is necessary to fully determine how future benefits justify today's costs.

In other words, it is necessary to adjust all indicators of the future activity of the investment project, taking into account the decrease in the value of cash flows as the operations associated with them become more distant in time. This can be done by bringing all values related to the financial side of the project to the “today's scale” of prices and is called discounting.

The evaluation of capital investments by discounting cash flow methods is more scientific than the above methods.

Let us continue to evaluate the effectiveness of the investment project under consideration using methods based on discounting.

Determination of net present value.

In order for a project to be accepted, it must provide an appropriate rate of return.

Let's say that the project will be acceptable to the company only if it provides a return of at least 7% per annum.

Otherwise, the company will have to abandon the implementation of this project, since it has the opportunity to ensure this level of return on invested funds when placing them on a bank deposit at 7% per annum.

To calculate net present value you need:

- calculate the present values of all annual cash flows;
- add up all discounted cash flows;
- subtract investment costs from total cash flows.

Let's present these calculations in the form of table 3.4.

Table 3.4

Calculation of net present value

Index	Year					
	0	2019	2020	2021	2022	2023
Balance of three streams	0	0	14 120	15,713	17,010	21 155
Cumulative balance of three streams	0	0	14 120	29,833	46,842	67,998
Discount factor	1,000	0,917	0,842	0,772	0,708	0,650
Discounted Cash Flow	0	0	11,885	23,036	33 184	44 194

Thus, the net present value of the project under consideration is equal to the sum of the net discounted flows and is: $= 0 + 0 + 11,885 + 23,036 + 33,184 + 44,194 = 112,299$.

The profitability index will be equal to

$$P1 = 112,299 / 6,000 = 18.72.$$

Therefore, the project is effective.

Let us determine the degree of risk discussed in the second chapter using methods: sensitivity analysis and analysis of scenarios for the development of events (table 3.5).

Table 3.5

Project sensitivity analysis (calculation using average values of indicators for 24 months)

Variable X	% change	New NPV	Initial NPV	% change	Change in NPV / change in X	Rank by classification
Original project			112 299			
Discount rate	10	79 527	112 299	-29.2%	-2.918	4
Product volume	-10	46 204	112 299	-58.9%	5,886	2
Product price	10	178 445	112 299	58.9%	5,890	1
Variable costs	10	75 055	112 299	-33.2%	-3.317	3

Let us reflect the relationship between changes in individual indicators and changes in NPV (table 3.6):

Table 3.6

Relationship between changes in individual indicators and changes in NPV

Variable X	Change in NPV / change in X	Variable importance	Possibility of evaluation
Product price	5,890	Very important	good
Product volume	5,886	Very important	good
Variable costs	-3.317	Moderately important	Bad
Discount rate	-2.918	Less important	Average

Let's create a matrix of sensitivity and importance for the investment project, table 3.7. When the price changes by 10%, the NPV increases by 58.9%. However, it is necessary to understand that if a certain price threshold is exceeded, this trend will take the opposite direction, since a further increase in price will entail a decrease in sales volumes.

Table 3.7

Possible risk assessment

Possibility of evaluation	Variable importance			
		Very sensitive	Medium sensitive	Less sensitive
Poor Average Good		- - Product price Product volume	Variable costs - -	- Discount rate -

Thus, when implementing a project, it is necessary to pay attention to the price level and the amount of variable costs.

The volume of production is also important because... if production volumes are reduced to a critical level, the workshop will become unprofitable.

Let's assess the project risks using event scenario analysis (table 3.8).

Table 3.8

Analysis of scenarios for the development of events (calculation using average values of indicators for 24 months)

	Basic option		Changing entered indicators	
	.	%	Optimistic scenario, %	Pessimistic scenario, %
Discount rate	-	9	5	15
Volume of sales	2345	100	5	-5
Product price	13	100	Hasn't changed	-10
Variable costs	18900	100	-10	10
Net present value	112299	-	211375	-18301

Thus, under unfavorable circumstances, the net present value will become negative. If the probability of the three outcomes is approximately the same, then such a significant decrease in NPV under unfavorable circumstances indicates the need for company management to consider the feasibility of implementing the project.

CONCLUSIONS

Summarizing the results, we can draw the following conclusions:

1. Risk is an activity associated with overcoming uncertainty in the case of unavoidable choices, during which the probability of achieving desired outcomes, failure, and deviation from objectives can be assessed quantitatively and qualitatively.

Currently, a financial risk management algorithm has been developed, which fully covers issues related to quantitative assessment of financial risks and highlights the problem of selecting methods for managing financial risks. In general, the classification of corporate financial risks, the analysis of relationships between financial risks, the improvement of analysis of corporate financial risks, and the implementation of a set of preventive measures to reduce the impact of financial risks on the ultimate financial results of the enterprise have not been fully developed.

The most important elements underlying the risk classification are:

- time of occurrence;
- main factors of occurrence;
- nature of accounting;
- the nature of the consequences;
- sphere of origin and others.

2. To create an effective risk management system, you need to know what methods of influencing risk a modern organization can adopt.

In the risk management system, there are two groups of management methods: decision-making methods and methods of influencing risk. Knowledge of these methods makes it possible to understand their applicability in a specific situation and makes it possible to formulate, within the framework of the implementation of an innovative project, an optimal package of methods for influencing risk, taking into account the individual characteristics of the organization.

The means of resolving risks are to avoid them, retain them, transfer them, and reduce them.

Risk avoidance simply means avoiding an activity that involves risk. However,

avoiding risk for an investor often means giving up profit.

Risk retention is leaving the risk to the investor, i.e. on his responsibility. Thus, an investor, when investing venture capital, is confident in advance that he can cover the possible loss of venture capital using his own funds.

Risk transfer means that the investor transfers responsibility for the risk to someone else, such as an insurance company.

Various techniques are used to reduce the risk. The most common are: diversification, acquisition of additional information about choice and results, limiting, self-insurance, insurance, insurance against currency risks, hedging, acquisition of control over activities in related areas, accounting and evaluation of the share of the use of specific funds of the company in its general funds, etc.

3. In order to choose the best combination of risk management methods in a specific enterprise, a comprehensive assessment of the following factors is needed: the complexity (specificity) of the innovation project; the level of reliability of the enterprise in implementing the innovation project within a given time interval; the availability of the enterprise's own funds; the value comparison between the company's assets and market financial instruments; the cost of insurance services and insurance capital (compared to the cost of equity capital); the possibility, scale, and specificity of risks; the predictability of risks; the limitations and regulations of laws or third parties on the possibility and obligation of using a certain method; the project implementation stage; and the quality and ability of participants.

REFERENCES

- [1]李爱彬;徐梦娴;陈志良.“一带一路”背景下工程机械跨境电商海外仓选址研究——以徐工机械为例[J].供应链管理,2023,4(11):30-42.DOI:10.19868/j.cnki.gylgl.2023.11.003
- [2]高洁.“工程机械的数字化、智能化和绿色化”首届工程机械技术创新大会将在徐州召开[J].智能制造,2023,(05):18-19.
- [3]应变局,育新机,开新篇——2023年中国工程机械工业协会施工机械化分会年会成功召开[J].建筑机械化,2023,44(09):7-10.
- [4]袁韶华;谌侃;梁婷.机械制造企业的数字经济转型策略——基于徐工集团转型案例[J].现代商贸工业,2023,44(19):70-73.DOI:10.19311/j.cnki.1672-3198.2023.19.024
- [5]黄洪涛;王琳.工程机械之都加快推进产业提档升级[N].工人日报,2023-08-25(004).DOI:10.28277/n.cnki.ngrrb.2023.004174
- [6]谢树森.国有集团公司资金集中管理存在的问题及应对策略[J].中国集体经济,2023,(33):129-132.
- [7]陆岷峰;欧阳文杰.社会主义现代化国家金融强国的目标与实现路径研究[J/OL].西安财经大学学报,1-12[2023-11-28]<https://doi.org/10.19331/j.cnki.jxufe.20231123.001>.
- [8]赵雪蕴.供应链金融下电商平台资产证券化研究——以苏宁为例[J].商场现代化,2023,(22):19-21.DOI:10.14013/j.cnki.scxdh.2023.22.046
- [9]梅傲;柯晨亮.政企数据共享机制的构建、缺憾及完善[J].法治论坛,2022,(04):76-86.
- [10]卫承霏;蒋洁.全球跨境数据安全治理的多维逻辑与中国应对[J].图书与情报,2022,(06):26-33.
- [11]李兰.基于财务风险管理的高新技术企业内控体系构建[J].中国市场,2023,(33):102-105.DOI:10.13939/j.cnki.zgsc.2023.33.102

- [12]潘艳岚.大数据形势下企业财务管理四大转型方向[J].中国商界,2023,(11):78-79.
- [13]曹格顺.民营物流企业成本管理问题与对策研究[J].今日财富(中国知识产权),2023,(11):74-76.
- [14]刘凌冰;刘昱;赵丹.企业战略差异度对预算执行偏差的影响研究——基于自愿披露的预算信息有效性视角[J].当代会计评论,2022,15(04):80-111.
- [15]李青原;邹秉辰;肖泽华.破产法律制度改革对企业避税的影响——来自《企业破产法》实施的经验证据[J].经济管理,2022,44(12):185-202.DOI:10.19616/j.cnki.bmj.2022.12.010
- [16]崔发婧;陈莹.企业风险承担、会计信息质量和股价同步性[J].会计与控制评论,2022,(02):200-242.
- [17]徐秀莹.保险资金持股影响企业风险承担研究——基于我国上市公司 2005-2021 年面板数据的实证分析[J].保险职业学院学报,2022,36(06):47-54.
- [18]高恩新;李佳丽.张力治理:特殊经济功能区空间治理的一个阐释性概念——基于 4 个国家级经济开发区的分析[J].复旦城市治理评论,2022,(02):28-56.
- [19]郭金月.美国地方外交改革:背景、方向与挑战[J].美国问题研究,2022,(02):214-234+284-285.
- [20]宁波市 2022 年 1—11 月主要经济指标完成情况[J].宁波市人民政府公报,2022,(24):31.
- [21]孔德晨.中国经营主体活力持续增强[N].人民日报海外版,2023-11-15(003).DOI:10.28656/n.cnki.nrmrh.2023.003827
- [22]张涛;张丹;王琳.徐工逐鹿工程机械纯电新蓝海[N].新华日报,2021-12-23(A01).DOI:10.28872/n.cnki.nxhrb.2021.007869
- [23]董闻.“新”徐工机械,持续高质量发展[J].董事会,2021,(12):88-89.
- [24]魏莹.基于互联网的徐工施维英服务转型研究[D].中国矿业大学,2021.DOI:10.27623/d.cnki.gzkyu.2021.003265
- [25]付思敏.徐工智造 4.0 模式塑造与实践[N].中国信息化周报,2021-11-

29(020).DOI:10.28189/n.cnki.ndnjy.2021.000552

[26] 邢洋;马千惠.资本监管、经济政策不确定性与银行风险承担[J].征信,2022,40(12):78-84.

[27] 闫磊.外部风险冲击新兴经济体复苏进程[N].经济参考报,2022-12-29(008).DOI:10.28419/n.cnki.njjck.2022.005721

[28] 康广沁;胡晓宇.外部经济、金融不确定性与我国的宏观经济下行风险探讨[J].全国流通经济,2022,(35):141-144.DOI:10.16834/j.cnki.issn1009-5292.2022.35.012

[29] 程路.C公司外汇风险管理研究[D].河北地质大学,2022.DOI:10.27752/d.cnki.gsjzj.2022.000756

[30] 金琪.经济新常态视野下银行金融风险管理研究[J].中国管理信息化,2022,25(24):139-141.

[31] 卢艳婷.国有企业组织结构优化与提升探究[J].行政事业资产与财务,2022,(24):31-33.

[32] 徐燕;钱佳亮;骈子涵.员工持股计划、内部控制质量对企业创新绩效的影响[J].新疆财经,2022,(06):67-78.DOI:10.16716/j.cnki.65-1030/f.2022.06.009

[33] 尉敏琦;刘涛;邬家杰;赵秋雯;孙艺璇;戴俊明.研发型企业员工职业倦怠现况及其影响因素分析:以上海市闵行区7家企业为例[J].环境与职业医学,2022,39(12):1366-1372.

[34] 贾晓;朱贝贝.心理契约在企业人力资源管理中的应用[J].百科知识,2022,(36):14-15.

[35] 张蓝珠;张婷;狄莎莎.机械制造企业安全生产流程化管理实践研究[J].安全,2023,44(11):57-62.DOI:10.19737/j.cnki.issn1002-3631.2023.11.008

[36] 王卫东.规范推进企业安全生产联动管理常态化[J].化工安全与环境,2023,36(10):35-38.

[36] 徐工集团公司网站 <https://www.xcmg.com/en-ap/about/company-profile.htm>
[EB/OL]

[37] 布兹科 IR ..经济风险（方法、评估分析和局限性）。顿涅茨克：乌克兰的

IEP NAS, 1996 年

[38]Ksenia (谢妮娅) D. 拉法格水泥厂重建投资效率评价[D].哈尔滨工业大学,2015.

[39]Roman P. “Borets International Ltd”企业集团财务风险管理方法的改进[D].东北大学,2019.DOI:10.27007/d.cnki.gdbeu.2019.001786.

[40] 陆川 . 标准引领 铸就世界级徐工 (英文) [J].China Standardization,2017(05):66-69.

[41]唐林林,施金凤.财务风险、产品市场竞争能力与企业盈余管理——以流通业上市公司为例[J].商业经济研究,2023(21):164-167.

[42]黄宗彦. GRI 董事局董事吕建中: ESG 管理长期潜在风险, 也管理短期突发风险[N]. 每日经济新闻,2023-11-06(005).

[43]赵奎艳.会计核算与预算管理在企业决策中的应用[J].中国集体经济,2023(31):53-56.

[44]王畅.徐工集团数据管理能力成熟度评估及优化路径研究[D].中国矿业大学,2023.DOI:10.27623/d.cnki.gzkyu.2023.000739.

[45]高丽著. 国企混改机制的经济后果研究 [D]. 北京外国语大学,2023.DOI:10.26962/d.cnki.gbjwu.2023.000139.

[46]李恒. 中伊全面合作背景下徐工集团对伊朗市场的开发策略研究[D].中国矿业大学,2022.DOI:10.27623/d.cnki.gzkyu.2022.002803.

[47]沈锴锴. 徐工集团装载机业务竞争战略研究 [D]. 山东大学,2022.DOI:10.27272/d.cnki.gshdu.2021.001011.

[48] [EB/OL] 徐州工程机械集团有限公司融资券募集说明书[R].互联网资源 http://pdf.dfcfw.com/pdf/H2_AN202303311584760589_1.pdf

[49]徐工成功引进战投迈出混改坚实一步[J].建筑机械,2020,(10):37.

[50]易永坚.“徐工转债”发行定价的案例研究[D].上海师范大学,2017.

[51]牛洪军 ;王锦.徐工机械前三季度业绩预增 50%[N].中国证券报,2010-08-05(A09).

APPENDIX

Hard days 1943-1988

Being a trailblazer walking through the hard days in a stern and steady manner, XCMG has taken the lead in the development of Chinese construction machinery industry.



1943

In 1943, Huaxing Iron Works (arsenal of the national army in southern Shandong province), predecessor of XCMG, was born.



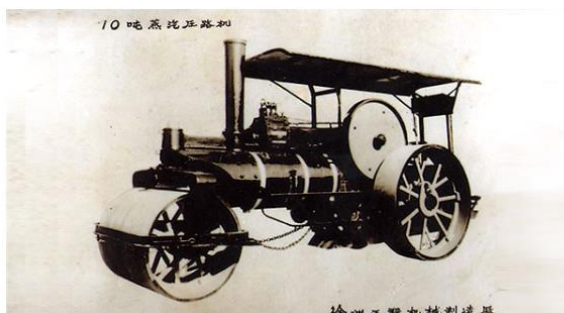
1957

In 1957, XCMG began to step into the construction machinery industry with the successful production of the first tower crane.



1960

In 1960, XCMG developed China's first steam roller of 10 tons.



1963

In 1963, XCMG developed China's first truck crane of five tons.



1976

In 1976, XCMG developed China's first QY full hydraulic truck crane of 16 tons.



1982

In 1982, XCMG developed China's first CA25 full hydraulic single-cylinder vibratory wheel roller.



Reform and exploration 1989-1998

On the way forward, XCMG has always been the explorer and pioneer of reform, Taking Great Responsibilities, Acting with Great Morals and Making Great Achievements



1989

XCMG group was formally established and became the first group company in the industry.



1989

XCMG developed the first high-grade pitch paver in China.



1989年试制成功国内第一台高等级沥青摊铺机

1995

XCMG developed the largest all-terrain crane of 160 tons in Asia.



1996

In 1996, XCMG was listed on the Shenzhen Stock Exchange



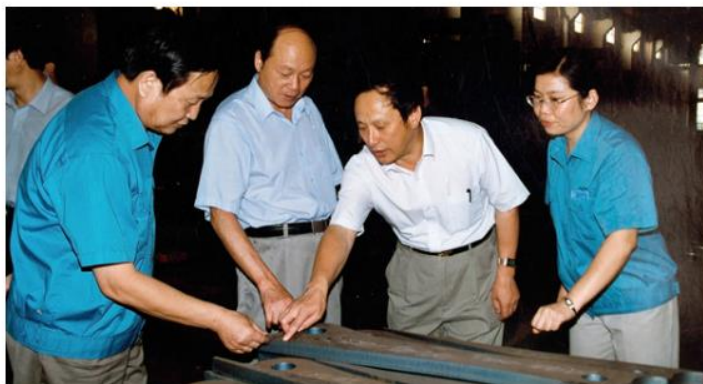
Innovative progress 1999-2008

As a vigorous fighter with firm vision and lofty ideal, XCMG, a world-class enterprise in the pride of Chinese people and the respect of the world.



1999

From the very start, the newly-elected executives of XCMG had focused on the "Seven special campaigns" to practice strict economy and curb extravagance, opening a new chapter in the development of XCMG.



2000

XCMG deepened the reform of "employment, HR, and wages", and vigorously promoted a series of reform measures like debt-to-equity swaps, core business centering and structural optimization.



XCMG advanced the "Chairman No. 1 Project" and developed ZL50G, the iconic product of China's third-generation loader.

2002

XCMG developed China's first QAY25 all-terrain crane with independent intellectual property rights.



2003

XCMG became the first in China's construction machinery industry with more than 10 billion yuan in both operating revenue and sales revenue.



2006

With the laying of the foundation of Chongqing Construction Machinery Construction Base, XCMG took an important step towards its strategic layout at home and abroad.



Transformation and upgrading Since 2009 to date

XCMG has written a new chapter of "supply the world with Chinese equipment" with the profound change from the "Golden Decade" to the "New Era of high-quality development".



2009

Thanks to the listing of XCMG Machinery, XCMG came out of the strategic dilemma caused by the cooperation with Carlyle Group in the previous four years.



2011

XCMG ET110 walking excavator won the Second Prize of National Science and Technology Progress Award.



XCMG launched the reform action of "Hanvan Plan" to build a strategic management control model and five business units.

2012

XCMG successfully developed XCA5000 all-terrain crane with the largest tonnage and highest technical standard in the world.



The world's largest DE400 mining dumper successfully rolled off the assembly line of XCMG.



2013

The European Research Center of XCMG in Dusseldorf, Germany was completed, bringing together a group of global high-end technical talents.



XCMG 4,000-ton crawler crane, the world's No.1 crane, operated for the first time in Yantai, China.



2014

XCMG's first overseas wholly-owned production base - The Brazilian manufacturing base was completed and put into operation.



2015

The new manufacturing base of XCMG was put into production and the first "Hanvan" heavy truck was rolled off the production line.



2016

XCMG built the first industrial cloud platform and became Predix opened to and shared by industrial fields in China.



XCMG released the golden standard of "Leading Technology and Everlasting Products" at Shanghai Bauma 2016.

2017

President Xi Jinping visited XCMG on Dec. 12.



2019

XCMG XCA1600 all-terrain crane successfully completed the offshore wind power installation of the world's highest 140 meters.



2021

The launch of XCMG India goes into production, and XCMG excavators are exported globally for the first time.



The launch of XCMG USA and its subsidiaries, accelerating a localized research, production, supply, sales and financing system.

2022

XCMG has been rated as world top 3 in the Yellow Table list for two consecutive years

WORLD'S TOP 50 MANUFACTURERS
XCMG RANKED THE 3RD POSITION
 FOR TWO CONSECUTIVE YEARS

international CONSTRUCTION YELLOW TABLE 2022

2022 RANK	2021 RANK	COMPANY	COUNTRY	CONTRACTOR RANKING	EQUIPMENT SALES (MILLION USD)	SALES OF CONSTRUCTION EQUIPMENT (MILLION USD)	NEW ORDERS (MILLION USD)	CONTRACT VALUE (MILLION USD)	PRODUCTS	TELECOM	CRANES
1	1	Caterpillar	US	1	22,240	10,176	18,000	18,000	*	*	*
2	2	Sumitomo	JP	2	21,770	10,176	18,000	18,000	*	*	*
3	3	XCMG	CN	3	18,301	7,275	18,000	18,000	*	*	*
4	4	John Deere	US	4	13,982	5,176	18,000	18,000	*	*	*
5	5	Wacker Construction Equipment	DE	5	12,710	5,176	18,000	18,000	*	*	*
6	6	Lonbro	FR	6	12,455	5,176	18,000	18,000	*	*	*
7	7	Link-Belt	US	7	12,455	5,176	18,000	18,000	*	*	*
8	8	Wacker Construction Machinery	DE	8	12,455	5,176	18,000	18,000	*	*	*
9	9	Wacker Heavy and Truck Technology	DE	9	12,455	5,176	18,000	18,000	*	*	*
10	10	Wacker	DE	10	12,455	5,176	18,000	18,000	*	*	*

XCMG launches the world's largest tower crane, XGT15000-600S.



XCMG's export destinations increase to 191 countries and districts.

