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Some Aspects of Risk Management in the Construction Enterprise

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Резюме:

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In this paper the author discusses some basic aspects of risk management in the construction enterprise. An attempt is made to clarify the essence of the concept of risk by considering definitions given by different authors and on this basis the author gives his own definition of the concept of risk from the point of view of the construction company. In addition, the issue of the relationship between risk and uncertainty is also addressed. The author also examines the essence of risk management, indicating key points such as the purpose, principles, rules and stages of management. The article also addresses the issue related to risk analysis and assessment. The main objectives of the risk analysis shall be indicated. The essence of qualitative and quantitative analysis is clarified. With regard to quantitative risk analysis, different methods for its realization are considered. It is affected and is one of the main problems in risk analysis, namely to determine the indicators of uncertainty and risk in the conditions of insufficient volume (deficit) of the initial information.

Ключови думи:

Construction enterprise; management; risk.

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Introduction

The construction industry is essential for the economic growth and development of many countries around the world. It not only provides new sites and infrastructure, but also creates jobs and investment. However, construction carries with it significant risks that can have a negative impact on the activities of construction enterprises. In this article we will allow ourselves to make a more extensive overview of the risk in the construction enterprise.

The main goal we set ourselves is to clarify some basic aspects of risk management in the construction company. To achieve this goal, the author sets himself and tries to solve the following tasks:

- clarification of the essence of the concept of 'risk';
- clarifies the essence of risk management in the construction enterprise;
- analysis and risk assessment in the construction enterprise.

Critical overview of the concept of "risk"

Risk is constantly present in our daily lives. Therefore, we often perceive this concept intuitively as something threatening, if not our lives, then at least the realization of our life plans. But the risk also largely applies to the business environment in which all enterprises, including construction ones, operate, since any real situation practically never fully corresponds to the planned or desired results.

In making business decisions, the management of any enterprise is faced with constant and dynamic changes in the market situation, consumer preferences, the actions of competitors and a number of other restrictions. In addition, the activity of each enterprise has different content and orientation goals such as: obtaining maximum profit, minimizing production costs, expanding production, introducing new technologies, etc. All these goals could very often contradict each other at some point. Therefore, it can be said that no business is protected from the occurrence of risk.

All this necessitates a good knowledge of the essence of the concept of "risk" on the part of all participants concerned with the management of the construction enterprise. In this regard, we will try to make a critical review of this concept.

The question related to the etymological origin of the word "risk" is the subject of wide scientific discussion. Scholar linguists do not agree on this issue and present different points of view, some of which deserve our attention. There are often statements (Walker, 2013: 6) that the word "risk" has a Latin origin, where "rescum" means unpredictability, danger, risk at sea or something destructive. There are also opinions (Stupacov & Tokarenko, 2005: 10) that the concept under consideration comes from the Greek words "ridsikon" and "ridsa", meaning rock, compartment. There are also assumptions (Mancheva, 2016: 5), that the word "risk" is derived from the Old Italian verb "risicare" and literally means dare, I dare, I dare with E. In the scientific literature (Zafirova, 2016: 4) There are also reasoned claims that the word "risk" comes from the Arabic "risq" – something that is given to man by God and from which he can incur loss or profit (i.e. unfavourable or favourable opportunity). There are also statements (Granaturov, 2016: 8; Utkin, 1998) that the word "risk" has Spanish-Portuguese roots and means "reef", "underwater rock",

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which is associated with the term "maneuvering between rocks" and is associated with a sense of danger.

In the Bulgarian language, the word "risk" is accepted through the French mind "risqué" and therefore in a semantic sense the definition of risk as a possible undesirable phenomenon prevails. For example, the risk is:

- "possible danger, action at random, possible loss in a commercial transaction" (Balgarski talkoven rechnik,1984);
- "hazard, riskiness, responsibility" (Balgarski sinonimen rechnik, 1987);
- "possible danger, possible loss, failure, etc. (Fr.risque) (Malak rechnik na chuzhdite dumi v balgarskiya ezik, 1999).

It should be noted that this semantic meaning has not changed significantly over the years.

The concept of "risk" is a decision, undertaking or deed, the outcome of which is unknown. In most interpretations, the negative side of risk is considered as the possibility of injury or loss. Positive aspects are found in the interpretation of risk as "chance" or opportunity to win. Risk is inevitable in nature and affects all spheres of conscious or unconscious human activity (Mancheva, 2016: 4).

As a result of the widespread spread of risk in all spheres of public life, there are many definitions of it. The term "risk" has a different meaning and it marks such concepts as (Popchev, 2004: 4):

- danger (possibility) of loss or exposure to losses;
- unambiguity with the object that is threatened by the adverse event;
- liability transferable from one entity to another;
- probability of loss (damage, detriment);
- the possibility of harm;
- unfavourable deviation from expected (desirable) outcome;
- a means of making a profit;
- measure of danger and much more.

It should be noted that at present, both in the scientific space and in practice, there is no clear, precise and unambiguous understanding of the nature of risk. This is primarily due to the fact that this phenomenon has several non-coincident or even completely opposite real foundations, as well as the fact that the risk is always related to the subject and the decisions he makes (Diev, 2008: 27-39).

Without claiming to be exhaustive on the matter, we will point out that in the specialized scientific literature many authors give a variety of definitions of the concept of "risk", emphasizing its various aspects, namely:

- Risk means uncertainty and the results of uncertainty, the result being associated with the lack of predictability concerning the problem structure, the results or consequences of decisions or planned situations (Hertz & Tomas, 1984: 68).
- Risk is the possibility of a negative deviation between planned and real outcomes, i.e. the danger of an adverse outcome for a given expected event (Shakhov, 2000: 33-36).

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- Risk is the possibility of an adverse situation during the execution of plans and the execution of company budgets (Tepman & Shvandar, 2002: 380).
- Risk is the likelihood that an organization will lose some of its resources, receive no portion of the income, or incur additional costs in carrying out certain productive and financial activities (Georgiev, 2002: 4).
- Risk is associated with events, the consequences of which are submitted to a preliminary quantitative assessment, i.e. the frequency and severity of the damage can be determined in advance and represents a measure of the deviation from one expected magnitude8a (Dochev, 2003: 37).
- Risk is the risk of receiving income less than planned, or direct loss, associated with objective uncertainty or insufficient awareness in the specific situation (Chaparov, 2006: 134).
- Risk is an uncertainty related to the value of the investment at the end of the period (Sharp et al., 2007).
- Risk is an adequate characteristic of the level of uncertainty associated with the possibility of adverse situations occurring during the implementation of the business project, as well as the occurrence of unforeseen negative consequences in the implementation of the main objectives set for the investor (Tsarev & Kantorovich, 2007).
- Risk is a potential, numerically measurable possibility of loss. The concept of risk is characterized by uncertainty related to the possibility of adverse situations and consequences arising during the implementation of the project. (Granaturiov, 2016: 11).
- Risk is a combination of the probability of occurrence of an adverse event and the consequences that the adverse event causes, i.e. the uncertainty of occurrence of consequences for the environment in which the adverse event was initiated (Nenad et.al. 2022: 110).

The existing variety of definitions of risk gives us reason to argue that this phenomenon is multifaceted, with diverse opinions about its essence. That is why, according to some authors (Atanasov et al., 2010: 226), in order to define a working concept of risk in the construction enterprise, the following must be taken into account: in general, the expectations of the enterprise are based on incomplete information about possible (potential) changes in the future and are therefore indeterminate. Possible deviations of actual outcomes from planned targets may be due to ill-defined objectives and unexpected changes within the enterprise or in its environment. The decision on a particular production and economic activity leads not to a certain result, but to a multitude of alternative results. Each of them is expected with a certain probability, the assessment of which depends on the completeness of the information and the decisionmaker.

On the basis of the overview made and in accordance with the objectives of this study, we will allow ourselves to give the following definition of risk:

"Risk is a measure the deviations of expected financial, production, economic, etc. results of the actual ones, under the influence of multi variability and non-compliance of external and internal factors (such as improper planning and management of the project, non-compliance of the works with the regulatory

requirements, changes in regulations and legislation, poor and meteorological conditions, etc.) adversely affecting the production and business activity of the construction enterprise."

Here it is appropriate to touch on the issue that in the economic literature we usually talk about risk and uncertainty. Some authors use the terms "risk" and "uncertainty" as synonyms, since risk arises in the case of decision-making under conditions of uncertainty. In addition, risk is subjective and uncertainty is objective (Dochev & Nikolaev, 2007). For example, the lack of objective and reliable information on the supply of competing similar products creates a number of risks for the construction company.

Since uncertainty is a source of risk, it should be minimized by obtaining information or, ideally, reduced to zero by obtaining complete and reliable information. In practice, however, this is not always possible to realize. Therefore, when making a decision under the conditions of uncertainty, it should be formalized and the risk whose source appears to be assessed (Dochev & Nikolaev, 2007: 8).

In our opinion, the concepts of "risk" and "uncertainty" should be distinguished from each other.

As an integral part of the conditions of economic activity, uncertainty is the basis of many complex and important economic processes and phenomena, the interaction with which causes the corresponding behavior of individual economic entities - participants in production and consumption, and society as a whole. Uncertainty implies the existence of factors where the results of actions are not determined (determined) and the extent of the possible action of these factors on the results is unknown. This in practice constitutes an incompleteness or inaccuracy of information about the conditions under which the project is implemented.

In one way or another, the risk affects the methodology for developing each management decision in the construction enterprise. If we exclude from it the expectation of possible losses, then the sharpness of perception of the decision situation will disappear, the possible losses will become unexpected and, as a result, will be even more severe. Risk always refers to a certain object of activity, the purpose of which is to achieve a certain result. It is a potential numerically measurable possibility of loss. The risk of an investment (project) is the degree of danger to its successful implementation. The concept of risk characterizes the uncertainty associated with the possibility of adverse situations and consequences occurring in the course of the realization of the investment. In these cases, objective and subjective probabilities are determined. The risk is related to the fact that the return on the project is a random quantity (unknown at the time of the decision to invest).

Another important point that deserves our attention is that there is too much variety of risks that accompany the production and business activity of the construction company. This is what necessitates their classification in order to better identify and manage risk accordingly.

Nature of risk management in the construction enterprise

In modern economic conditions, construction is seen as a dynamic and rapidly developing process. At each stage of the life cycle of an investment project, it is necessary to make quick decisions and make adjustments due to emerging risks and

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uncertainty factors. Therefore, it is necessary to constantly analyze, plan and prevent the occurrence of adverse risks in advance, as well as make timely and adequate decisions to eliminate their consequences.

Nowadays, there is not a single project that goes through the entire construction process on the road planned at the initial stage, as there are situations that were not previously foreseen and that need to be corrected in a timely manner (Svetlovskaya & Nelina, 2017: 164.). These situations do not always have a positive impact on the final result and are most often associated with the emergence of serious risks, both within the project and in the activity of the enterprise as a whole. Therefore, it is necessary for the management of the construction enterprise to correctly solve the problems of emerging risks that affect the entire construction process.

As a rule, risks in construction lead to two undesirable results: to non-compliance with deadlines and to additional work on the site, which leads to an increase in the cost of construction production. To avoid this, it is necessary to draw up a risk management plan. All stages of risk management are linked together in strict sequence, therefore attention should be paid to all risks that arise during construction and constant monitoring should be carried out to reduce negative impacts during the construction process. It is necessary to analyze and control each situation carefully, understanding the details and considering it from the point of view of the construction enterprise.

Despite all this, however, practice shows that the majority of construction enterprises (mainly small and medium-sized) do not have established and implemented mechanisms, rules and procedures for risk management, do not have a management view of risk and how it can be managed. This is partly determined by the following reasons: continuous dynamics of the external environment in which the enterprise operates and inability to respond promptly to the changes; Limited time and resources in managing change; lack of administrative capacity; lack of potential for introducing new mechanisms and procedures in the organizational development of the enterprise, etc. We believe that in the modern conditions of operation of the construction enterprise, risk management should be considered as a management function, since it allows to identify the risks of the project, how to avoid and how to continue the work of the construction enterprise in a changing environment. In this regard, it is necessary to allocate additional resources to risk management and to conduct additional research to identify likely problems that could arise in the construction production process.

In general, risk management can be seen as a continuous, active, strategic and integrated process that is an integral part of the overall management of a construction enterprise and is aimed at protecting against unwanted conscious or accidental events that bring certain harm or damage. Risk management is "a process of reducing environmental uncertainty, leading to the minimization of adverse outcomes caused by random factors" (Milkova, 2020: 66).

The main objective of risk management is to solve the following important tasks for the construction enterprise (Atanasov et al., 2010: 261):

- survival;
- an acceptable level of concern;
- sustainability of the well-being of all countries;

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- acceptable continuity of work;
- an appropriate pace of sustainable growth of the enterprise;
- social responsibility;
- satisfaction of constraints of an external nature;
- economy.

In order to achieve effective risk management in the construction enterprise, we believe that it must be based on the following basic principles:

- awareness of the risk incurred;
- manageability of the risk taken;
- independence of risk management;
- comparability of risk management with financial capabilities of the construction enterprise;
- taking into account the time factor;
- taking into account the financial strategy of the enterprise;
- possibility of risk transfer.

In addition to adherence to these principles, risk management should, in our view, meet certain requirements, the most important of which are:

- consistency and integration - risk management must be carried out within each enterprise and cover all its structural units;
- continuity - risk management should cover all levels of management: strategic, tactical and operational;
- structuration and consistency - in risk management, all management functions must be realized: analysis and synthesis, forecasting and planning, organization and coordination, reporting and control, motivation;
- expansion and complexity - the subject of management should be all risks: external and internal, insurable and non-insurable, private, etc. In accordance with the possible threats to the construction enterprise and the risk spectrum, as well as on the basis of monitoring the current state of the enterprise, it is necessary to develop a risk profile through which risks are recognized and identified.

Typical for risk management is that it has its own system of heuristic rules (Ivanov et al., 2008: 20), some of the more significant are:

- risk no more than equity allows;
- to think about the consequences of risk;
- not to risk much for the sake of little;
- to make positive decisions only in the absence of doubts;
- to make negative decisions in case of doubt;
- think about other options for a solution.

Risk management covers the entire internal process of decision-making, decision enforcement and performance control. In this sense, risk management is one of the

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highly specialized management activities in the construction enterprise. In the scientific literature numerous authors (Lecheva, 2020: 185-191; Nikanorov, 2019: 78; Antonova, 2012: 425-437) consider risk management as a complex and multifaceted process involving a sequence of interrelated elements (stages). From the point of view of the construction enterprise, we will point out as the main stages in the risk management process (Makarevich, 2006):

- risk analysis - includes disclosure of all risks and quantitative and/or qualitative assessment of the identified risks;
- selection of methods for influencing risk - it is aimed at minimizing the possible damage and therefore the problem arises of assessing the comparative effectiveness of impact methods by a multitude of different criteria;
- decision making - includes the determination of the necessary resources for the implementation of the chosen method of risk impact, analysis of environmental conditions, etc.;
- immediate impact on risk - includes risk reduction, conservation and transmission;
- control and correction of the results of the management process (as an element of controlling) - involves obtaining information about the damage.

Each of these stages may include a different number of iterations (according to the internal organization of the construction enterprise) to be performed in a different way, i.e. in risk management there is invariance of methods, techniques and techniques for identification, analysis, evaluation, response planning, etc.

In our view, in order to achieve good economic results on the part of the construction company, the management should carry out continuous monitoring and follow-up of the risk management process. This can be done through constant and systematic monitoring and reporting on their condition, the aim being to monitor how well the risks are successfully managed, i.e. whether the control activities actually minimize the risks and whether the objectives threatened by these risks are achieved. Monitoring allows for feedback in the risk management system, assessing whether the planned actions lead to the achievement of the objectives and results set by the management of the construction company. The effective implementation of monitoring allows to identify possible problems in a timely manner and to take the necessary corrective measures.

Risk analysis and assessment

Risk reduction is possible through accurate risk analysis, its measurement and management. Risk analysis is one of the most important elements of risk management and is a systematic approach aimed at recognizing the negative or adverse effects that may occur in a construction enterprise before undertaking any new important project is undertaken or some significant objective for the enterprise is changed that may affect in some negative way. It largely depends on the proper organization of the risk analysis how effective further decisions will be and, ultimately, whether the construction enterprise will be able to adequately protect itself from the risks threatening it.

Risk analysis is primarily aimed at achieving the following main objectives (Vishnyakov & Radayev, 2008: 134):

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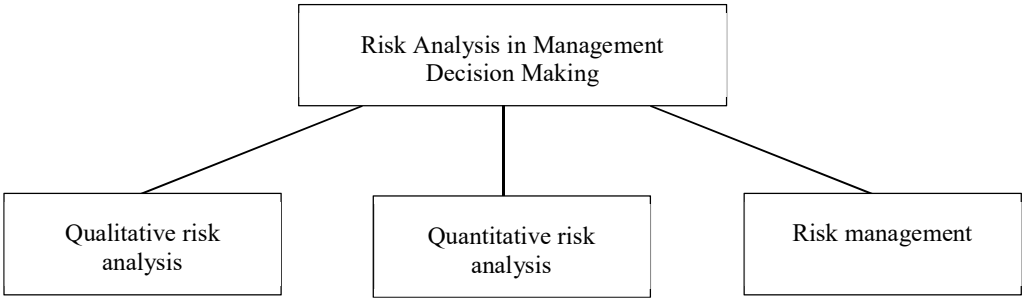
- formation in the decision maker (LFR) of a comprehensive picture of the risks that threaten the interests of the economic system under consideration;
- arranging risks according to the degree of impact on the enterprise's operations and identifying the most dangerous among them. When studying the risk profile of the enterprise, for example, one should consider the known in management theory "rule 20-80", according to which it can be assumed that 20% of the risks of the enterprise cause 80% of its losses;
- comparison of alternative projects and technologies;
- creation of databases and knowledge of expert systems supporting technical and other decision making;
- justification of risk reduction measures.

As a result of the analysis, a conclusion is drawn about the acceptability/unacceptability of risks and an adequate risk management system is organized, which can provide an acceptable level of protection for the construction enterprise, taking into account the possibility of realizing the identified risks. In risk analysis, multiple scenarios are formed for the development of adverse situations and for different risks functions of probability distribution of damage can be built depending on its size.

Risk analysis shall provide the information necessary for decisions to be made on the choice of the most appropriate strategies and methods of impact against the specified risk. It is divided into two main, complementary sections: qualitative and quantitative.

In Fig. 1 a simplified scheme for risk analysis in management decision making is presented.

Figure 1. Risk analysis



Source: Atanasov et. al 2010: 235.

Qualitative analysis is related to fundamental questions about the given field of economic activity. The main objective of this type of analysis is aimed at determining the cause of the risk, the types of risk and the possibilities for reducing or avoiding it. Qualitative analysis is the process of "prioritizing risks for further analysis or action by evaluating and combining the probabilities of their occurrence and the consequences of their impact" (Mancheva, 2016). The efficiency of the construction company's operations can only be increased if management focuses on high-priority risks.

According to the priority, the risks are generally divided by (Mancheva, 2016: 66):

- Low priority risks – characterized by being overlooked and eliminated in further evaluation. In subsequent processes of periodic reassessment of risks, these risks

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will not be managed. They are assumed to have a negligible impact on the final result and the activity of the construction enterprise as a whole.

- Medium priority risks – these risks are either high probability of occurrence and low impact on the project, or are low probability and high impact. A high probability and low impact event will itself have a low impact on the value or scope of the project. However, most projects contain numerous such risks. The combined effect of many risks with high probability and low impact can significantly alter the results of the project. Usually, in order to determine the impact of such risks on the objectives of the project, they are monitored and managed by determining their combined effect and development on the costs or schedule of the construction process. Unlikely and high-impact risks, on the other hand, usually require individual attention and management. These risks need to be analyzed.
- High priority risks – must necessarily be managed, as their impact on the activities of the construction enterprise can be 'catastrophic'. They require priority action and aggressive response strategies.

Qualitative risk analysis is designed to identify risk factors and circumstances leading to risk situations for the construction enterprise. It includes: identification of sources and causes of risk, i.e. identification of potential risk areas; identification of all possible risks; identification of practical benefits and possible negative consequences that may arise when implementing a decision containing a risk; risk ranking according to expert data.

The final results of the qualitative risk analysis in turn serve as input information for conducting a quantitative analysis.

Quantitative analysis is "the process of numerically analyzing the effect of identified risks on overall goals" (Mancheva, 2016: 70), i.e. measuring risk quantitatively. It consists in numerically determining the degree of individual types of risk and the overall risk of the construction enterprise. Quantitative risk analysis is associated with setting values of parameters defined in the qualitative analysis, and through risk assessment the limits of change of the relevant parameter, respectively, are determined. the degree of risk and security that is being taken. (Antonova, 2012: 431).

In the scientific literature, numerous authors (Nikolaev & Milkova, 2022; Petkov, 2020; Marchenko, 2018; Serov, 2018; Bondarenko & Grishina, 2018: 38-67; et al.) consider and apply a variety of methods for quantitative risk analysis. Some of the most common are:

- Sensitivity analysis - this method is a good illustration of the influence of individual factors on the final result of the enterprise's activities. There are, however, two main drawbacks of the method under consideration, namely: 1) the change of one factor is considered in isolation, whereas practically all economic factors are to one degree or another interrelated; 2) does not take into account the correlation between the variables that change. For this reason, in our opinion, the application of this method as a stand-alone risk analysis tool should be severely limited.

- Scenario analysis – is an upgrade of the method sensitivity analysis in the sense that the whole group of variables is subject to simultaneous sequential change. The pessimistic variant (scenario) of a possible change of variables, the optimistic and the most likely option are calculated. These indicators are compared with baseline

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values and the necessary recommendations are made. In general, the method allows to get a fairly clear idea of different possibilities in the implementation of the project, and also provides information on the sensitivity and possible deviations. The use of software products at spreadsheet level can significantly increase the effectiveness of such analysis by increasing the number of scenarios and introducing additional variables almost unlimitedly.

- Statistical methods – their essence consists in determining the probability of occurrence of losses on the basis of statistical data from previous periods and establishing the area of risk, the risk ratio, etc. The advantage of statistical methods lies in the ability to analyse and evaluate different scenarios and to take into account different risk factors within the same approach. The main disadvantage of these methods is the need to use probabilistic characteristics in them.

- Simulation modeling is a method of performing numerical experiments on computers with mathematical models that describe the behavior of complex economic systems over a long period of time. The practical application of this method shows the wide possibilities for its use in risk management, especially in conditions of uncertainty and risk. This method is particularly convenient to apply, as it is successfully combined with other economic and statistical methods.

- Expert methods – are a set of logical and mathematical-statistical methods and procedures for processing the results of a study of a group of experts, the results of the study being the only source of information. In this case, the opportunity arises to use the intuition, life and professional experience of the participants in the study. This method is applicable in cases where information is missing or incomplete and it is impossible to use other methods for quantitative risk analysis.

- Loss analysis – is a method of comparing different alternatives by systematically assessing their advantages and disadvantages. There are two main applications: 1) to determine whether an investment (or other solution) is good, establishing whether and by how much its benefits outweigh the costs; 2) serve as a basis for comparison between several investments (or other solutions), comparing the total expected costs with the total expected benefits of each.

- Game theory – this is a branch of mathematics that deals with the construction and study of mathematical models for decision-making in conditions of uncertainty, when the decision maker ("player") has information only about the set of possible situations, in one of which he is actually located, about the set of decisions ("strategies") that he can accept, and for the quantitative measure of the "profit" it could obtain by choosing this strategy in a given situation. The main goal of game theory is aimed at establishing the principles of optimal behavior under uncertainty, proving the existence of solutions that meet these principles, indicating algorithms for finding solutions, and their implementation.

In our view, in order for a method to be suitable for the specific risk assessment, we believe that it is necessary that it has the following more important characteristics:

- be adequate for the undertaking under consideration;
- be appropriate to the particular situation in the enterprise;
- the results of risk assessment should broaden the understanding of risk and provide guidance on its impact;

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- the method to be traceable, repeatable and verifiable.

In addition, in order to minimize risk and achieve better results in making sound management decisions by the management of the construction company, we recommend combining different methods of risk assessment.

Here we will allow ourselves to note that based on the specifics of construction production, it is mandatory at the initial stage of development of the construction project to make qualitative expertise and quantitative analysis of the design risks. This is necessary in order to better study the project under development. We believe that quantitative risk analysis is absolutely mandatory in the process of implementation of large and complex projects, since possible risk events can create serious threats and consequences not only for the project, but also for the overall activity of the construction enterprise. It is therefore important to indicate in which case and under what circumstances the necessary resources will be mobilized to eliminate the consequences of a risk event.

One of the main problems in risk analysis is to determine the indicators of uncertainty and risk in the face of insufficient volume (deficit) of the source information. Scarce initial information leads to statistical uncertainty, which in turn makes it possible to make a wrong management decision.

As for the sources of information, they are generally divided into external and internal (Kuleshova, 2015: 47-50).

Accurate information about a type of risk is data obtained from internal sources, namely historical statistics for the site concerned. This type of data takes into account all the specific features of the functioning and development of the object being studied. Forecasting in this case is based on the assumption that trends observed in the past will continue into the future. However, changing them can significantly limit the usefulness of the data collected. In some cases, statistics can be adjusted and used for forecasts of future developments. For example, to exclude the impact of inflation, recalculations of certain economic indicators are widely used.

If statistics are not available or are not applicable to risk analysis, then information from internal data sources must be supplemented with information from external sources that are not directly related to the activity of the construction company (e.g. statistics of the construction sector, data obtained as a result of competitor analysis, etc.). Of course, such information may not fully meet the conditions of operation and specificity of the construction enterprise, but in the absence of another, this kind of information is also possible to use for decision-making in the field of risk management.

Conclusions

Risks in a construction company are an inevitable part of its functioning, but with proper management and reduction of their likelihood and impact, construction companies can ensure the successful implementation of their investment projects. It is important to pay attention to all aspects of risk and implement appropriate management and risk mitigation strategies to ensure sustainability and success. That is why it is of paramount importance to know the very concept of "risk" and its subsequent management, guaranteeing the economic prosperity and stability of the construction enterprise in a dynamically changing market.

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