

Aspects Regarding Risk Management in Projects

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Abstract

The risk management and the risk manager are mandatory elements for a success activity in business and implicitly in projects. Avoiding the risks is a sure way to failure. A higher risk can lead to a higher benefit. « The higher risk is the absence of the risk ». If the risk exists, through risk management it can be controlled, but if the risk is not identified, certainly there are hidden risks which difficult to control. An improper risk management can generate important financial, political and even human losses. It is necessary to implement a risk management system which becomes an important objective both for the project itself and for those involved in realizing it. Even if the risk management is not an easy and cheap activity, the risk should not be considered as a negative element because it can offer extraordinary opportunities for those who know how to value it. One of the main objectives of the projects must be the identification of the risk in order to value it for the own benefit. Looking behind we can realize that the existence of risks led to the development of risk management structures, if the risk would have been avoided the humanity would not have progressed.

Keywords: management, risk, strategy

1. Introduction

We are living in a world where risk is everywhere, either it comes from the goods we use, either it comes from the partners we work with or it comes from the environment we work in.

The risk represents the possibility that of occurrence of an event that threatens the realization of the objectives related to technical, financial and time aspects of a project. The risk happens occasionally, it is unpredictable and has a favorable characteristic but most of the time it is unfavorable. In these conditions, the analysis and the forecast of the risk must be an important activity of the project managers.

The risk is present in any activity and it has direct and strong consequences on the results of that activity.

Can we eliminate the negative consequences of such accidental events which appear either we

want or not? The answer is affirmative, but this is not entirely possible. In a more and more competitive economic environment there should not be any participant who can afford to delay to take decisions based on the exaggerated prudence or in accepting the new (the penetration on new markets, the new technologies, new product launching, etc).

The management means the adoption of decisions accepting the risks associated with these decisions, with the condition that these risks and the costs of failure are known.

The risk management is represented by the sum of methods and means used in a project in order to manage the risk, monitoring the realization of the project objectives and having the uncertainty as major basis of the risk factors.

2. Materials and methods

Even if the human nature, in general, and the managers, in particular, has a certain aversion for the idea of risk, it is very important that each

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manager identifies all the possible risks, analyzes them, classifies them according to their complexity, realizes plans to reduce them and, of course, is capable to keep all these situations under control.

The origin of the risks can be both internal, when they are related to the managerial mistakes, and external, when they are determined by events from outside the organization which can affect negatively the deployment of the project. [1].

The person responsible with the risk management must take into consideration all the factors, both external and internal, and to permanently monitor the risk situations. More precisely, this person should establish a risk management plan, and, when the risk occurs, the person should know how to reduce it and how to control it. But, to know how to prevent, a project manager must identify first which are the potential risks. Therefore, it is necessary that the project manager answers the following questions [2]:

- ✓ What does the risk mean to the project?
- ✓ What does the risk mean for an activity of the project?
- ✓ What types of risks exist?
- ✓ Which is the probability of their occurrence?
- ✓ Which are the losses resulting from these risks?
- ✓ Which are the alternative for solving the crisis situation?

In each elaboration phase of the project the risks are different. So, in the elaboration phase of the project when the needs analysis is realized we must take into consideration four types of risks which can occur before launching the project: the competition risk, the market risk, commercial risks and technological risks. In this phase the risks have an informational characteristic and can be accentuated by factors like: inexistence or incomplete previous research related to the project, inappropriately defined need, lack of knowledge concerning the laws and regulations related to some products, etc. In the preparation phase of the project we can notice the following risks: many weaknesses and constant hesitations concerning the first version of the project, the underestimation of the complexity of the conception methods and procedures and the short time assigned to learn and to master the working techniques, difficulties in defining and planning the steps from the program, the incorrect

appreciation of the availability and performances of necessary resources, generation of conflicts in the usage of available resources. In the execution phase of the project the risks are related to the weaknesses occurred in detecting and analyzing the critical information (delayed diagnosis, incorrect diagnosis, and incorrect answers).

3. Results and discussion

The risk management in a project is composed by those processes which allow the identification, the analysis and the reduction/avoidance of the risks of a project. In this way, we can maximize the consequences of the positive events and the reduction of the unfavorable ones which can occur during the entire lifecycle of the project.

The main specific processes of the risk management are: identification of the risks, evaluation of the risks, establishment of the reduction measures, and application of the measures.

These processes interact between them and with other areas of the project management. In each process can be involved one or more persons or groups of persons, according to the needs of the project. Also, each process occurs at least once during a phase of the project. Even if they are presented as separate entities, with defined limits, in reality they interfere in different forms [3].

The identification of the risks is the first step of risk management and it is the basis of the entire process, this is the phase where the risks which can affect the project are defined and the specific characteristics for each form are studied. In this phase, we identify both the internal and the external risks. The identification of the risks is made consciously and the reasons of their acceptance are registered. In this phase, not only the risks related to costs, time and product realization are taken into account, but also other risks like: product quality, security, trust, professional answer, information technology, safety, health, environment, etc.

The risk identification process begins with the project initiation and continues in the evaluation processes and in other occasions when important decisions are taken. This phase of risk identification means:

- the realization of list of possible risks and of risk profile;

- the establishment of risks based on the gained experience;
- the comparison of risks with those from other similar previous projects;

- the establishment of risks which can occur during the deployment of the activities and which can influence the planned budget of the project.

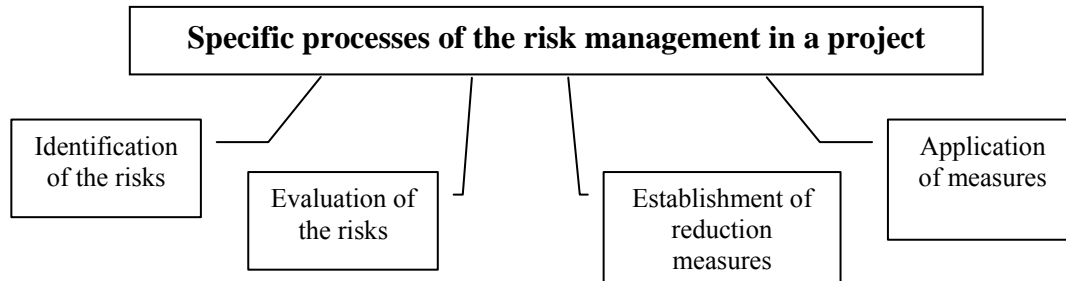


Figure 1. Specific processes of the risk management in a project

In the context of risk management of projects, the identification of the events means to highlight both the opportunities (favorable events) and the threats with harmful effects, which means the possibility to have losses during the following activities.

A very common methods used for the identification and the analysis of the risks is the Crawford method, where the project manager answers differently ten times to the question: “Which is the most important risk for your project?”.

During the entire project, the team must identify and evaluate the risks in order to estimate the consequences. The evaluation of the risks is necessary both for the evaluation of the risks and of their interactions, and for the estimation of possible consequences on the project. The evaluation of the risks is a complex process which depends on a large number of factors (the interaction of the possible opportunities and unexpected threats leads to the reorientation of the project deployment strategy, the large number of consequences of an undesired event, the mathematic calculation methods and techniques influence the realization of the processes and the precision of the risk estimation, the opportunities discovered and applied by a partner can represent threats for another partner of the project).

The establishment of reduction measures represents the identification of the most profitable opportunities and ways of resolution of threats. It is preferable that the elimination, reduction, transfer, repartition and acceptance solutions of risks and of the plans established to take advantage of the favorable situations to be based on known methodologies or on information from previous experience. When a solution is proposed

for the resolution of a risk, it is necessary to confirm that by applying it there will not be undesired effects or new risks.

The establishment of reduction measures means the identification of the solutions to the problems occurred in the deployment of the project. A special attention should be paid to the solutions concerning the possible risks resulting from the interaction with the activity, specific processes for each project and product obtained, between the organization which is realizing the project, the organization which is at the origin of the project and the interested parts.

Usually, the identified solutions can be classified in one of the following three categories:

- “*avoided solutions*” – with their help we can eliminate the danger by eliminating the cause; the leading team of the project can never eliminate all the risks, but some risk causes can be eliminated;

- “*solutions taken into account*” – with these solutions we can reduce the expected financial value of a risk by reducing the probability of occurrence of the cause, in the same way we can reduce the cost of an event or both;

- “*accepted solutions*” or “*the acceptance of the consequences*”; the acceptance can be active (for example by putting a curative device or a filter in case the event occurs) or passive (for example by accepting a profit loss if some activities exceed the forecasts).

The application of reduction measures consists in applying the risk management plan in order to face the events which occur and the changes of risks during the project deployment. If this generates changes the cycle is started again: identification, evaluation and answer. It must be mentioned that the most complete and meticulous

analysis can not lead to the identification of all risks and probabilities; there must be checking and repetitions.

And because we are talking about management in the first place and about the project in the second place, there are some general strategies which are meant to reduce the risks from the projects [2]

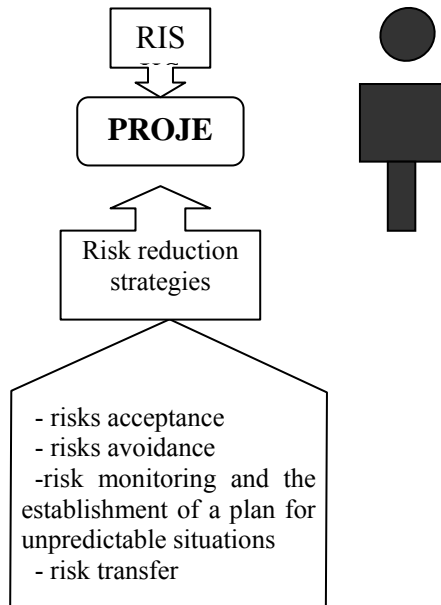


Figure 2. Risk reduction strategies

1) Risks acceptance: by applying this strategy the project manager is aware about the reduced size of the risks occurred and takes the decision not to reduce or eliminate these risks.

2) Risks avoidance – this strategy is adopted when there are significant changes in the project deployment and the project manager decides to totally eliminate these risks even by stopping the project.

3) Risk monitoring and establishment of a plan for unpredictable situation is the strategy which implies the selection of some indicators and their monitoring during the project; backup plans are established which are used as alternatives for the recovery of the losses.

4) Risk transfer is the strategy which means the transfer of the risks occurred to an intermediary, which, usually, is a specialized institution or an expert.

5) The systematic reduction of the risks – by using this strategy we are systematically applying all the methods and strategies meant for the reduction of risks till we reach an optimum degree of risk.

4. Conclusions

The general purpose of the risk management is to help identifying the risks which can influence a project so that they can be managed.

Depending on the moment when the risks are analyzed, they can be pre-event (before the risk occurs), when we try to avoid the occurrence of the risk and post – event (the risk occurred), when we try to ensure the continuity of the business, the survival of the company.

The main advantage of a risk management program is the economical efficiency: the managers are aware about the risks which influence the activity of the organization and manage them so that they do not occur.

The risk management is the responsibility of the entire project team. This aspect must be completed with the existence of a person responsible with this activity. The person responsible with the risk management should master the instruments used to avoid or to transfer the risk so that the impact is the smallest possible; in case when the risk occurrence can not be avoided, the person responsible with the risk management should have the ability to reduce, to keep under control the impact, to establish and to apply the risk management plan in case the potential risk occurs.

In some cases, there can be a certain level of accepted risk, according to the specification of a standard. The conformity gives an extra value to the image in front of the clients, of the business partners, etc.

The risk management does not totally eliminate the risk, but this does not mean that it is a useless process. Even more, the risk analysis must take place before the start of the project and in case that the verdict is that the risk is unacceptable, the project can be abandoned. The efficient risk management increases the chances of success of the project, despite the uncertainties which exist in the external environment.

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