RISK MANAGEMENT PLANNING WITHIN ROMANIAN COMPANIES

COSTEL CEOCEA¹, LUMINITA BIBIRE²*, ADRIAN STELIAN GHENADI²

¹“Moldova” Financial Investment Company (S.I.F. Moldova Bacau), Romania
²“Vasile Alecsandri” University of Bacau, Calea Marasesti 157, Bacau, 600115, Romania

Abstract: This paper presents a study that used a quantitative research methodology, approach. The main research method at which it was appealed was based on a questionnaire survey, but there were interviews, observations and study of companies’ documents. Questionnaires were simultaneously distributed to managers from 101 enterprises in Romania, covering companies throughout the country, in all major areas of activity in order to meet the criterion of representativeness. Following an analysis of the responses received, the authors have highlighted conclusions on risk management planning in the Romanian companies.

Keywords: risk management, questionnaire survey, assessment, Romanian economy

1. INTRODUCTION

In the current economic climate, good training, in the field of risk management is essential to any manager, mid-level or higher, without which objectives such as income stability or economic growth could not be achieved. It can say that without a culture of risk management, a manager cannot meet its burden in independent areas of the operational point, but connected by a universal constant: the risk.

Risk identification involves a good knowledge of the company, of the market in which it operates, the legal, social, political and cultural environment, in which they work and organizational objectives (strategic and operational), including critical success factors and threats and opportunities that may appear in achieving these goals.

Risk management planning is the process whereby it is decided how to approach and to plan the risk management activities for a firm. Before any risk management actions, it is needed to assess the potential risk within analyzed company in terms of activities, program, and costs [1, 2]. This evaluation is not simple, because it must be taken into account all activities of the company, which may contain a potential risk. This gives a list of activities, and a classification of potential risks, which include, activities without risk, activities with low risk and activities with high-risk potentially [3]. In Romania, there were a large number of companies, for which risk management analysis have been performed. Unfortunately, these analyses have not been published in scientific articles. The authors of the paper believe that an article that presents a study of case on the performed research for risk management is helpful to management teams from various companies. Such research has the main objective to identify the inputs, means and techniques and specific outputs for risk management planning.

* Corresponding author, email: lbibire@bacau.ro
© 2014 Alma Mater Publishing House
Generally, the inputs, means and techniques, and outputs specific for risk management planning are structured on the basis of technical elements included in Table 1.

Table 1. The inputs, means and techniques, and outputs specific for risk management planning.

<table>
<thead>
<tr>
<th>Inputs into risk management planning</th>
<th>Means and techniques for risk management planning</th>
<th>Outputs of Risk Management Planning</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Company description: This document contains a summary description of the company (location, activity, human and financial resources);</td>
<td>Planning Meetings: These meetings are aimed to refine and to improve the model of risk management plan, taking into account the requirements and the inputs. At these meetings, the company manager, working team leaders must attend, and other specialists working in the company must attend, also.</td>
<td>Risk Management Plan. This document sets out how the identification, assessment, quantification, risk response and control and how they are structured and achieved; It includes:</td>
</tr>
<tr>
<td>- Risk management policies of the company: in some companies are already procedures and methods for qualitative and quantitative risk analysis;</td>
<td></td>
<td>- Methodology: it defines the approach, means and data sources that can be used for risk management in the company;</td>
</tr>
<tr>
<td>- Defined roles and responsibilities: if they are already established, they can influence risk management planning;</td>
<td></td>
<td>- Roles and responsibilities: it establishes the team members and their responsibilities for risk management activities;</td>
</tr>
<tr>
<td>- Risk tolerance of the company management: these elements are found in the policies or actions of company;</td>
<td></td>
<td>- Periodicity: it contains periods to which the management will be analyzed. The conclusions of the risk analysis will be provided in time to be the basis of decisions taken periodically;</td>
</tr>
<tr>
<td>- The model for risk management plan: it is a predefined document which contains risk management plan structure;</td>
<td></td>
<td>- Quantification and interpretation: They established appropriate methods of quantification and interpretation which will be applied for qualitative and quantitative risk analyzes;</td>
</tr>
<tr>
<td>- Structure of company activities: it is the document that contains details of company activities with conditionings of time and resources.</td>
<td></td>
<td>- Levels: setting levels of risk that triggers activities that have responsibles and ways of acting;</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2. RISK IDENTIFICATION

The basic condition for the proper functioning of the system of risk management is the correct identification of risks. Practically, risk identification is fundamental for determining of the optimal level of protection for a certain activity. If the risk is underestimated, the protection will be insufficient to cover losses and, if it is overestimated, the cost of protection in excess, will reduce the gain arising out of the activity [2, 3].

From the analysis of the risk management process, it is estimated that three basic components are necessary:
- Identification and risk assessment;
- Development of a strategy for responding to risk factors;
- Risk control.

Risk identification activity involves determination of risks that may arise during the conduct of an activity (which is still not performed), and determination their characteristics. Risk identification aims at both exposures to danger of property, rights, and human resource and hazard and risks which cause these danger exposures. There are two stages: risk perception that means awareness that a certain risk threatens perform the activity and risk identification.
2.1. Inputs in Identifying of Risk
The inputs in identifying of risk are:
- *Risk Management Plan*. This document resulted as output of the previous process of risk management planning;
- *Outputs from planning activities*: Risk identification requires a complete understanding of the activities in terms of human and material resources;
- *Categories of risk*: Risk categories help to identify potential risks that may affect the work for good or bad. The most common risk categories which are used:
  - **Technical risks** of quality or performance: the dependency on nonhomologated technology, the requirement to obtain a performance;
  - **Risks of company management**: misallocation of time and resources, an inadequate quality of work plan, unrealistic or incomplete estimates, problems with suppliers, deficient communication techniques;
  - **Internal risks**: costs, time and objectives that are inappropriate, lack of priorities between firm projects, inadequate funding, conflicts of financing and resource allocation or other activities of the company;
  - **External risks**: changes in legislation, trends market, labor litigations, country risk.

2.2. Means and Techniques for Identifying of Risk
For identifying of risk the following means and techniques are used:

A. **Documentation analysis**: it involves a structured analysis of the company activities and the working hypotheses.

B. **Techniques for Information Collecting**
- **Brainstorming**: it is the technique the most often used to identify the risk. The aim of the method is to obtain a list as complete as possible of risks. The list will be used later in the processes of qualitative and quantitative risk analysis. For brainstorming, a multidisciplinary meeting, involving experts, is organized. During the session, which is led by a moderator, ideas about the risks of carried out activities are generated. The meeting is unfolded without interruptions and without to express judgments or criticism of interlocutor’s ideas, regardless of their hierarchical position in the organization. Sources of risk are identified in a broad sense, and they are displayed to be examined by all participants. The identified risks are then classified, and their features are detailed.

- **Delphi technique**: it is a way to get the experts’ consensus on risk project. Experts are identified, but they participate at analysis in an anonymous way, without meeting face to face. The person in charge with risk identification uses a questionnaire asking ideas about the most important of the project risks. Risks thus identified are then sent to experts for review and comment. Consensus on the main risks of the achieved activity can be obtained through several iterations of this process.

- **SWOT Analysis**: This technique allows examination of activities carried out in terms of strengths, opportunities and threats in order to increase the analysis area of the considered risks.

- **Technical diagrams**: this technique can include:
  - **Cause-effect diagram** is useful to identify the causes of risks and their potential effects;
  - **A flow system diagram or process diagram**: they describe how elements of a system or a process interact and as well as causal mechanism;
  - **A diagram of influence**: it consists of a graphical representation of the problem, showing causal influences, temporal order of events, as well as other relationships between variables and outcomes.

2.3. Outputs of Risk Identification
From risk identification, there are the following outputs:
- Identified risks;
- Triggers: warning signs of risk that are indications that a risk has occurred or will occur;
- Inputs to other processes: risk identification can highlight the need for actions in other fields.
3. RESPONSE PLANNING TO RISK

Response planning to risk is the process for development of options and for determination of actions that lead to opportunities identification and threats reduction on the proper development of company activity [4, 5]. This process includes identifying and responsibilities assigning for each response of agreed upon risk, and ensure that identified risks are properly allocated to reply. Effectiveness of response planning to risk, directly determines the increase or decrease of the risk.

Planning should be correlated with the severity level of the risk, to achieve cost objectives, to be achieved in time to be successful, to be realistic and to take into account the context of the company, to be accepted by all parties involved in risk management and to be assigned to a person in charge of the project [6, 7].

3.1. Inputs to Planning of Risk Response

The inputs to planning of risk response are:
- Risk Management Plan: it is the document resulted from the risk management process;
- The list of priority risks resulted from the qualitative analysis: it is a hierarchic list of risks resulted from qualitative risk analysis process;
- The overall classification of risk for analyzed activity: it is the classification of all risks from company activity that result from qualitative analysis process of risk;
- The quantified list of priority risks: it is a list resulted from the quantitative risk analysis;
- The probabilistic analysis of the company activity: it is an output of quantitative analysis process of risk;
- The exceedance, probability of the company objectives of cost and time: it results from probabilistic analysis of company activity;
- The list of potential responses: in the identification process of risk, response actions can be identified for individual risk, or various risk categories;
- The risk levels: acceptable risk thresholds for company will influence the risk response plan;
- Risk owners: a list of designated responsible persons of the company, who are able to act as "owners of risk response". These risk owners should be involved in responses elaboration to risk;
- The common responses to risk: some risks can be generated by common causes. This aspect can highlight the opportunity to address two or more risk with the same common generic response.


For risk response planning there are the following means and techniques can be used:
1. Avoidance: risk avoiding represents changing of company plan, to eliminate the risk or to protect company objectives against the impact of risk. Risk management team can not eliminate all risks, but some specific risks can be avoided. Some causes of risk can appear from initial stages of activity of company development, and they can be solved by classification requirements, obtaining information, communication improving or qualified expertise. Examples of risk avoidance are: additional resources and additional time, adopting a known approach instead an innovative one or avoiding of an unknown supplier;
2. Transfer: The risk transfer is the searching act for transmission of impact of the risk, to a third party together with responsibility of managing the risk. Transfer of the risk does not remove it, but it is attributed to a third party the responsibility of managing this risk. Transfer of responsibility for risk is the most effective when exposure to financial risk occurs within the project. Financial risk transfer almost always means paying off a risk premium to the party that takes over the risk. This may include insurance premiums, guarantees. Also, the contracts can transfer the responsibilities of risk to another party. For example, a fixed price contract may transfer risk to the seller;
3. Attenuation: This technique aims to reduce the probability and/or the impact of the risk under an acceptable threshold. The attenuation is based on the principle that the timely adoption of a risk preventing action is more effective than trying to repair the consequences after the risk has occurred. However, the costs of attenuation actions must be consistent with the probability of risk impact. The risk attenuation can be done by implementing new ways of action to reduce the risk (e.g. by adopting the less complex processes, conducting additional tests or by choosing a stable supplier). Attenuation risk procedures may require changing business conditions of the company so that the probability of occurrence of risk to be reduced, for example by increasing of time resources.

When it is not possible to reduce the probability of risk occurrence, response of risk attenuation can be focused...
on the impact of the risk, through the focus on the linkages that determine the severity of the impact (design of a redundant system can reduce the impact that would result from failure of the main system);

4. **Accept**: this technique indicates that the risk management team decided not to change the unfolding plan for confrontation with its risks, or it has not been able to identify other strategy which is applicable on response to risk. An active acceptance may include the elaboration of a backup plan which must be achieved when a risk appears.

Passive acceptance requires no action, allowing the risk management team to approach risks when they occur. The contingency plan can be a useful tool for the risks that may occur during the development of company activity. Elaboration from the beginning of such plan can significantly reduce the cost of actions that are needed when there is a risk. In this plan, the signals have well-defined risk. The retirement plan can be developed if the risk has high impact, or if the strategy followed is not entirely effective. The plan may include the allocation of spare resources, develop alternative options.

### 3.3 Outputs from Planning of Response to Risk

From planning of response to risk, there are the following outputs:

1. **Response Plan at Risk**: This document must be written at a level of detail for that it can be taken necessary actions. Response Plan at Risk includes:
   - A description of the identified risks, affected activities, the causes of risks and how they affect the company's objectives;
   - The assigned responsibilities for risks;
   - The results from qualitative and quantitative analysis of a risk;
   - The responses at risk that have been established;
   - The residual risk level which is expected to remain after the implementation of risk response strategies;
   - Specific responses to risk which allow implementation of established strategy;
   - Budget and time allocated for responses to risk;
   - Contingency and retreat plans.

2) **Residual risks**: are those risks that remain after avoidance, transfer or mitigation responses were applied. In this category there are the minor risks which were accepted;

3) **Secondary risks**: they are risks of second level that occur as a result of risk responses implementation. They are considered secondary, from terms of their occurrence time. To these risks it should be also applied the risk response procedures respectively it must be identified and planned the response to them;

4) **Contractual Agreements**: to specify the responsibilities of the parties, for some specific risks, contractual agreements can be concluded. These agreements establish ways of insurance, service or other activities to avoid or mitigate risks;

5) **The required amount of backup resources**: probabilistic analysis of the company's activity and of the risk thresholds help the risk manager or company manager, to determine the optimal amount of backup resources needed to reduce the risk of exceeding objectives company at an acceptable level for company;

6) **Inputs to other processes**: the most of responses to risk involve additional time and additional costs, or other resources and require changes to the work plan of the company. That is why the companies seek to ensure that these costs are justified by the reduction level of attained risks. These alternative strategies should provide information for other processes of company activity;

7) **Inputs for revised management plan**: a new revised plan, if it was elaborated, it requires continuation of risk management and so providing of responses to risk in an iterative process.

### 4. ATTITUDE TOWARDS RISK MANAGEMENT PLANNING

Researching attitudes towards risk of managers must be addressed, starting with the assertion, according to which the existence of hazardous conditions, involves a deliberative process [1]. One of the factors that lead to a different perception of situations with identical probabilities and payments is the control ability which is had by the subject on the course of events. This is caused either by chance (when the subject can not influence with anything the likelihood of the consequences for the chosen variant), or by ability, if the result is dependent on the
ability of the subject to carry out the action [5, 8].

In situations characterized by incomplete information, decisive in the choice of strategy (optimal variant) is not the real state, but the image of decision maker (possibly of the group) on situation, named the crowd, or the state of information in which it is located. In this case in any risk situation there are included values (utilities), and subjective probabilities associated with those alternatives versions.

The most satisfactory explanation in the attitude of different people, toward risk, is the utility theory. Through utility, it is expressed degree of satisfaction that you get the decider when opting for one or another of the decision versions in relation to his objectives and to objectives of the organization. Marginal utility is the change that takes place in the total utility of the decider when a monetary unit is won or lost.

Considering this factor, we can emphasize three attitudes towards risk for a person:

a) Aversion - that avoids the risk (small gains, but secure are preferred) - this is typical for decider placed at lower levels of decision; marginal utility is decreasing. Although the gain for a specific project may be higher in comparison with another project, because the marginal utility of the first is smaller, the decider will choose the second project;

b) Neutrality or indifference - the decider with indifference at risk: the marginal utility of won monetary units is equal with whose of a lost unit;

c) Preference (propensity) toward risk: if the decider earns more, the gain becomes more important; it is specific for the decider who assigns a higher utility to earned money than the lost. This is typical for the upper levels of decision.

There is often a mixed behavior: risk aversion and propensity.

Regarding the decider's behavior in terms of probability estimation, the following generalizations can be done [1]:

a) Deciders tend to overestimate the occurrence of events with a low probability and to underestimate the occurrence of events with a high probability of occurrence;

b) Deciders tend to borrow the behavior of players, specifying that the event, which was not produced a period of time, it is more likely to occur in the near future;

c) Deciders tend to overestimate the true probability of events that are favorable for them and to underestimate those not favorable events.

An important aspect in understanding the behavior of decision is the relationship between the perceived value of a possible outcome and its probability of occurrence. This is the decider's availability to accept the risk that is specific to each decider in part, and it is based on the combination of his own value system, with the mechanism for probabilities estimating in relation to his personal expectations.

Decider's predisposition, to take risks or to try to avoid them has a major influence on his decision behavior. Thorough understanding of the acceptance or rejection of the risk from managers is particularly useful in identifying conditions for which risky strategies can cause them to act in accordance with the project strategy.

As a form of avoidance of risk we can enumerate:

a) The negotiation of contracts under the stipulated terms would cushion the uncertainty caused by market instability and economic environment;

b) The avoidance of risk taking and delayed decision-making by delegating of other persons to perform specific activities management;

c) The search for ways to reduce the risk and to keep benefit, too.

Most often, managers try to modify risky forecasts, especially by restoring of the estimates. One of the most common management mistakes, is to consider that, in fact, can achieve everything better, even after restoration of the estimates, the project managers believe that they possess an experience that gives them enough reason to "feel" the situation in a better way, in spite of all calculations. In conclusion, the managers faced with the risk, can have three main attitudes. Their subsequent decisions depend on these attitudes: risk aversion, neutrality, or predisposition (propensity) to risk.
5. SETTING UP OF THE SAMPLE IN RESEARCH METHODOLOGY

Due to the present difficult economic conditions, in many cases, managers do not have the availability to assume all risks, what led, in the end, to stopping of company’s activity, many times [4, 9, 10].

For a correct implementation of a risk management system it is absolutely necessary to know, in previous presented forms:
- Inputs into risk management planning;
- Means and techniques for risk management planning;
- Outputs of Risk Management Planning.

All of these are necessary to be able to do:
- A correct identification of risk;
- A correct response planning to risk.

The presented study is of the type research approach like quantitative methodology. It was based on a questionnaire survey, but there were interviews, observations and study of companies’ documents.

The questionnaires were simultaneously distributed to managers from 101 companies in Romania, covering companies throughout the country, in all major areas of activity in order to meet the criterion of representativeness.

The sample of 101 respondents consisted of managers and for sampling it was used nonprobabilistic method. Distribution of the sample was done according to the CAEN code (Classification of activities from the national economy). One company from each major area was investigated, but there are some fields that are better represented in the sample: the food industry, engineering industry, services (utilities, transportation and construction), services (financial intermediation and renting) and commerce and food services (Figure 1) [11].

![Fig. 1. Distribution of the sample according to field of activity.](image)

The sample was also selected according to form of property. From Figure 2, it is noticed that companies that belong to the sample are mostly private.

In terms of firm seniority, analysis of identification data of participating companies indicate an seniority average of 29.25 years for investigated firms on the market, but the sample is very heterogeneous in this respect (standard deviation is 30.5), the investigated companies have very different seniority, ranging from a year at 139 years of operation.

Of the 101 companies investigated, most were 17-18 years old (22% and 8%). That means they were set up in period 1989-1990. Number of companies that were set up in the last five represents 8%, and those older than 85 years represents 6%, demonstrating a long tradition in the specific field.
6. MANAGERS' ATTITUDE TOWARDS RISK WITHIN ROMANIAN COMPANIES

Information for risk identification and attitude toward risk were obtained by:
- Research by studying the documents, strategies and plans developed by the company, the results of the organization and competition, national and regional policy documents, macroeconomic forecasts on the evolution of the national economy and activity field. The main documents of the company that have been studied are: the annual activity reports, financial accounting documents, the situation of fixed assets, descriptive materials regarding the premises in which it carries out business activity, technical documentation, publications on the protection, development conditions of contracts, records regarding insurance of company;
- Site visits, respectively discussions with representatives of management team.

The utilized research instruments were three original questionnaires, on the following topics:
- The first questionnaire was focused on the Investigation of risk faced by firms in Romania;
- The second questionnaire was focused on the investigation of various aspects related to risk management in Romanian companies;
- The third instrument was in order to identify the attitude towards risk of managers from Romanian companies.

However, the present paper is based only on the third topic, namely the managers' attitude towards risk within Romanian companies.

Due to the interdependence of the economy, the effects of company activity can be dangerous, risks to others (individuals and legal entities, environment). Considering this aspect, the surveyed managers were asked to specify which are the risks that were created by their company to other entities.

In proportion of about 70%, managers of firms from Romania, included in the study, considered the responsible and leader of risk management is the general manager.
However, a proportion of almost 16 percent of respondents considered that risk management must be included both within the finance manager’s responsibilities and also within economic/commercial manager’s responsibilities (Figure 3) [11].

Statistical indicators that were considered in the analysis of Responsibility of risk management were Own responsibility, Responsibility to leading, Responsibility of each employee. To a great extent the managers believe that risk management is the responsibility of the top management team, and to a lesser extent, of every employee from the company (Figure 4) [11].

About how managers have gained knowledge of risk management, the majority (70%) answered that they acquired this knowledge at workplace in a practical way. A significant proportion claimed that this knowledge has been offered through specialized courses and seminars by reading professional journals and other sources of information, primarily on the Internet.

None of the investigated managers did not recognize that they have not knowledge of risk management. This demonstrates that within a company, the management is closely related to risk management (Figure 5) [11].
As expected, many of the managers in the study (44%) show propensity toward risk. This is a specific feature at the top management levels, characteristic for a manager.

This type of decision is specific at decider who assigns a greater utility for earned money than those lost, and it is specific to higher levels of decision.

However, there are a significant percentage of managers (30%) with aversion towards risk (Figure 6) [11]. They prefer small gains, but safe. Although this attitude is generally specific to lower decision levels, however it appears, also at top management level, which includes survey respondents.

It is also a percent of 26% of managers who have a cautious attitude toward risk. They do not have a propensity toward risk how it is the case of the first category of respondents, but in the case that there were offered sufficient safety conditions for them, they accept challenges and risks.

7. CONCLUSIONS

Development of certain standard questionnaires to assess which is the implementation level of risk management in Romanian companies is an originality element, through its complexity and by the processing of the information obtained. The study is very useful, both for managers of companies and for various stakeholders, especially in the case of publicly traded companies who want transparency in relation to potential investors.
Data on risk were processed and quantified by statistical and mathematical methods. It is also worth noting that the majority autochthonous companies do not have common terminology standards for risk management or the standardized supports for gathering, recording and processing of information on risk.

Data analysis reveals very little use of risk management practices in autochthonous companies. The regulation of identification and risk analysis at the firm level is present in a greater extent, as possession of information necessary organizational risk management of the company. However, the practice of risk management complete integrated with strategic planning process is very little or almost never present in Romanian companies.

During the study, it was underlined the respondents' opinion regarding the low impact of risk management on the strategic objectives of the company. Due to the present difficult economic conditions, in many cases, managers do not have the availability to assume all risks, what led, in the end, to stopping of company activity, many times.

Regarding the impact of risk management on activity of the company, the managers have the following opinions:
- It is reflected, mainly, on reputation of the company;
- It helps managers to act preventively;
- It has effects on company profitability.

Currently, for evaluating the effectiveness of risk management, there are not methods or indicators generally accepted. The effort to measure the performance of risk management within the business, using indicators and quantitative methods is a major challenge from the conceptual, technical, scientific and numerical perspective.

The unit of analysis (project, firm, insurance, health and safety of persons, natural disasters, etc.) allows a greater or lesser use of quantitative methods for evaluation of performance regarding risk management. Thus, for management of disaster risk have been developed a number of indicators of analysis for the performance of management, which can also be extrapolated to analyze the efficiency of implementing of risk management in organizations.

REFERENCES