

STUDY ON RISK MANAGEMENT FOR A CAR CONSTRUCTION COMPANY

Costel CEOCEA

Financial Investment Company Moldova – Bacau, Romania,

E-mail: cceocea@sifm.ro

ABSTRACT

The current study aims to assess risk management system - applied to a production company - using sociological tools (questionnaires) and information that enabled to obtain compliance rates for each risk category and a general rate risk management in the company analyzed. At the groups of risk level, there were conducted evaluations for: Risks financing, Risks of brand and reputation, Corporate Governance, Behavioural and safety risks, Ergonomics and management of accidents, Absenteeism management, Liability producer, Property protection, Business continuity, Dependency on computer, internet and e-risk, Human resources, Key employees, Political and credit risks. At the level of risk management, a quantification of an overall rate of compliance was made that allows assessing the extent to which the company is ready for an appropriate risks management.

KEYWORDS: *risk, management, questionnaire, response, scoring, assessing*

The case study concerned a company producing agricultural and forestry machinery with the following particulars:

Name:	Mecanica Ceahlău S.A.
Field of activity:	Manufacture of other agricultural and forestry machinery
Unique Registration Code:	2045262
Code at Trade Register:	J.27/8.1991
Head Office:	6 Dumbravei Street, PIATRA NEAMȚ, Neamț county

1. The method used and results obtained

The questionnaire was the valuation method used for the analysis of the preparedness of SC Mecanica Ceahlău SA for risk management. A total of 110 questions were addressed in a three option form (with possible answers: Yes / No / relative) to the key staff (managers / people responsible). The results were assessed and observations were noted, where necessary.

Using an electronic program allowed us to obtain the compliance rates for each chapter, as well as a general rate. To calculate the risk score for each chapter, it has been used different weights for each question in the questionnaire, depending on the importance of each question for the whole study.

The compliance rate for each chapter is shown in Table 1.1. The "Environmental management" and "The liability of the manufacturer " chapters have the highest rates (100%), while "Key employees" and "Human Resources" chapters know the lowest rates (30% and 33%).

The overall score, which was calculated as an weighted average according to the importance given by the assessor for each chapter, is of 67.7% and is considered a good value that denotes a preparation above the average for SC MECANICA CEAHLAU SA in case of the management for the risks the company is facing with. It should be noted that this assessment did not include financial-economic activity risks, which are treated separately in the last part of the study.

Next, the score for each chapter is colored according to the comparison system from the scores method. It should be taken into account that this rate is based solely on a percentage score, so the critical degree for each category must be evaluated based on the financial impact on operations. However, it is recommended that all questions in each category, regardless of their importance, should be regarded as potential recommendations to reduce future risks.

In Table 1.1. are centralized the scores of the chapters based on the questionnaire responses.

In Figure. 1.1. are given the scores of all chapters that were analyzed.

The scores calculated from the questionnaire for each chapter

Table. 1.1

	Capitol	Score	Maximum Score	Score %
I	Financing the risk	400	1100	36%
II	Brand and reputation risks	800	1200	67%
III	Corporate Governance	300	700	43%
IV	Behavioral and safety risks	1650	2000	83%
V	Ergonomics and Management of Accidents / Claims Employer Liability	550	600	92%
VI	Absenteeism Management	650	700	93%
VII	Environment Management	900	900	100%
VIII	Producer liability	400	400	100%
IX	Property protection	950	1100	86%
X	Business Continuity	400	500	80%
XI	Dependence on computer, Internet and E-risk	750	1100	68%
XII	Human Resources	200	600	33%
XIII	Key Employees	300	1000	30%
XIV	Political and credit risks	200	400	50%

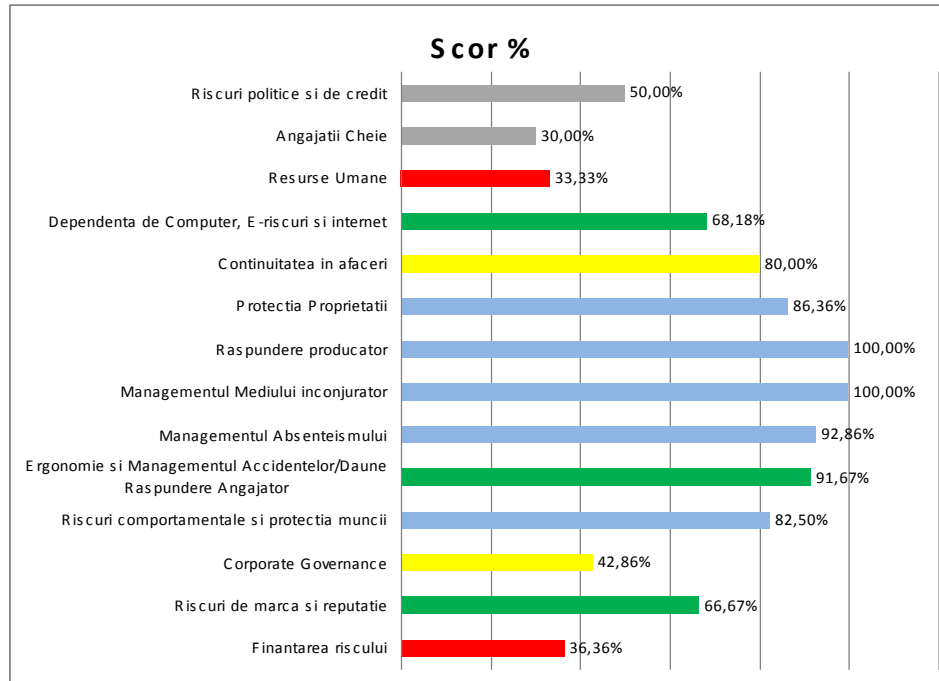


Figure 1.1 The scores of the chapters based on the questionnaire

COLORS ASSIGNED FOR EACH SECTION

Financing the risk	
Brand and reputation risks	
Corporate Governance	
Behavioral and safety risks	
Ergonomics and Management of Accidents / Claims Employer Liability	
Absenteeism Management	
Environment Management	
Producer liability	
Property protection	
Business Continuity	
Dependence on computer, Internet and E-risk	
Human Resources	
Key Employees	
Political and credit risks	

Legend:



2. Assessing the results obtained

2.1. Risk financing

The score of this chapter is 37%. This score is a relatively low rate, as a warning, stating that the risk financing is a subject that needs more attention from the SC Mecanica Ceahlău SA management. The main strength in terms of risk financing that arises from the questionnaire used is that the company has a proactive policy in insurance strategy, which is revised in relatively short intervals, allowing rapid reactions to changes from the internal and external business environment. However, this strategy lacks a longer time horizon, which makes it weak in front of more distant future risks.

Fluctuations in price and quantity of raw materials and currency have a significant impact, but not very large, on the business activity, which increases the need of risk financing in SC Mecanica Ceahlău SA. The adoption of financial procedures for minimizing the exposure to such fluctuations would significantly reduce the size of these types of risks. At the same time, failing to adopt a system of Total cost of risk leads to over / under-sizing costs allocated to long-term financial risk. Most of these weaknesses have as main source the lack a budget allocated for risk management of the company.

2.2. Brand and reputation risks

The score of this chapter is 67%.

The reputation risks are very important for the company who, while working in private sector, is quoted on the stock market. If the company's reputation is at stake, the consequences could cause a disaster due to loss of customer confidence and the insurance protection is difficult for this type of risk. So far, S.C. Mecanica Ceahlău S.A. had no major problems that would result in a loss of reputation. However, the company's operations require special attention and counterfactual analysis to estimate the possible consequences.

The chapter has a relatively high score due to the company's attention on its own image, which is reflected in the marketing department's activities and its financial support, including brand protection and monitoring the press which is directly relevant for the company. Making an official financial assessment of the main brand of the company, along with the adoption of different ways for measuring brand performance would increase the chapter's score and would reduce the risk of reputation.

2.3. Corporate Governance

The score obtained in this chapter is 42.86%, due primarily to the lack of training programs for stakeholder-parties regarding the risk management and an information system developed in order to identify key risks and their causes. The company maintains a relative control of the risk at the senior management level, but there is no complete and complex implementing of the risk management. If the implementation of an integrated risk management system will start and will continue, the effects will be beneficial on long-term. It improves communication within the company on key risks and potential losses which have financial consequences and facilitate the alignment of the company's goals along with the general outlook, aspect which is considered as missing after the analysis conducted at SC Mecanica Ceahlău SA.

Within the organization, the management team wants to maximize and assure a long-term profit taking into account the risk. This objective is ultimately the responsibility of the general manager of the organization. Since risk plays a major role in achieving this objective, the general manager may be labelled as a "final" risk manager and so is not uncommon for the risk manager to respond directly to the general manager of the company.

2.4. Behavioural and safety risks

The score for this chapter is 82.50%. Even if the score is higher, there are some significant risks in this chapter. Behavioural Risk analysis is very important because in recent years the company has been involved in a reorganization, without explicitly taking into account the impact on employee behaviour. The factors that may lead to behavioural risk that may affect the company's performance were only partially identified; there are a few ways to measure the effectiveness of the operational procedures.

The elements of risk awareness at the workplace and of a risk reduction program are:

- The reviewing and analysis of the causes - an aspect that is already made at Mecanica Ceahlăul SA;
- The reviewing of the potential risks for the tasks at workplace - partly done;
- Identifying and eliminating the risk - partly achieved;
- Analysing the probability and severity of the risks - is not done yet, but is part of the management program for the following period;
- Recommendations.

2.5. Ergonomics and Management of Accidents / Claims Employer Liability

The score for this chapter is 91.67%, and is among the largest made by the company. An effective ergonomics program should be able to demonstrate improvements in manual handling (or improvements documented in other ergonomic zones) and reduce the accidents caused by physical demands. This can be demonstrated by changing the instruments, tools, changing the workplace, etc. which would lead to an accidents reduction before implementation.

The company detains a written ergonomics program that addresses upper limb use work-related, accidents related to manual handling or any ergonomic risks for each location. It also has rehabilitation procedures in case of accidents and reintegration in the working process, as well as a program for periodic review of employee's health. One area where progress is needed is the proper management of employee's complaints. The importance attached to this chapter is justified by the serious challenges that the North-East region is facing with in finding and retaining qualified staff due to massive migration of labour force in highly developed countries of the European Union.

2.6. Absenteeism Management

The score for this chapter is 92.86%, its high rate is due to the existence of elaborated programs designed to record different types of absenteeism in the company. The lack of a strategy in the management of absenteeism on health grounds leads to the existence of a risk factor in this area that the company would have to remove. A positive aspect and quite hard to find at similar companies in Romania is the existence in the SC Mecanica Ceahlău of an observation and stress management program.

2.7. Environment Management

The score is 100% for this chapter, which shows that environmental protection issues are considered important and a priority in the company's vision, so seek sustainable development. The existence of a formal environmental policy managed by responsible managers leads to a high degree of fighting against uncertainty and risk caused by environmental accidents that might occur during the activity of the company.

However, the high score achieved in this area is due to the fact that the company doesn't develop an activity with an increasing degree of harm of the environment. In the context of increased environmental concerns arising from the EU integration this aspect can be an advantage when trying to access the structural and cohesion funds for business development and growth of the economic competitiveness.

2.8. Producer liability

The score for this chapter is 100%.

Most of the points of this chapter represent mandatory responsibilities assumed by the company in order to comply with European standards as Romania entered the European Union. Continuing in the present form will maintain the risk at a low level in this area. The company's management must pay continued attention to this chapter because of the frequent changes in the regulations.

2.9. Property protection

The score for the sector is set at 86.36%, following the filling-in of the 9 questions in this chapter.

The availability of property protection measures is vital in order to support the business. Given this, the properties are considered critical for the company, which is why it has a complex system of property protection, periodically assessed and calibrated according to new risks arising in this critical area.

The risks that the company may face in this area are listed below:

- Fire and natural hazards such as earthquakes, floods, storms, lightning etc.
- Theft and malicious acts such as arson, terrorism - bomb threats, etc.
- Failure of machinery and electronic equipment;
- Employees' and third parties' accidents such as visitors or contractors.

2.10. Business Continuity

Given the company's current business approach, the existence of a business continuity plan is absolutely necessary. The score for this chapter is 80% which is above the average and requires special attention.

A business continuity plan should include emergency response, crisis management procedures, communication and recovery strategies. Preparing a business continuity plan is mainly aimed at reducing the impact of activity discontinuance, regardless of the source generating the interruption, and restarting the main functions of the organization is planned by identifying the time necessary to recover the critical functions.

2.11. Dependence on computer, Internet and E-risk

The score is 68.18% for this chapter.

It is considered necessary to improve this score because of rapidly increase of the e-commerce at national and European level for a range of different goods and services. A special attention will be given to IT risk assessment, company's personnel training regarding emergency situations in this area, using the Internet as a way of selling their own products and implementing safety procedures in exploiting these IT opportunities.

2.12. Human Resources

The score is set at 33.33% for this chapter. The less than average value requires special attention from the company's management for the human resources management. There are several risks in this section, and the most important derive from events in recent years' business activity, including the high number of layoffs and periods of low activity, as well as from the legal action regarding the human resources of SC Mecanica Ceahlău SA. Counteracting these types of risks needs to be analyzed as soon as possible in order to continue its involved human resources' activity in optimal conditions.

2.13. Key Employees

The rate under this chapter is 30%. According to Human Resources, key people are identified, but the strategy of dealing with a loss of key employees is absent. Other issues to be addressed to resolve key employees' problems are related to financing the recruitment of a substitute. Should be considered the necessary funds for a successor's headhunting. In addition, it should be allocated funds for higher wages in case this will be necessary to recruit a new employee for the loss of a key person.

2.14. Political and credit risks

The score is set at 50% for this chapter, which is mainly due to one of the critical risks of the company, namely counterparty risk, because the company has a revenue collection problem. Providing credit is insufficient for combating the high degree of risk in this area, which is why more radical and more complex measures are needed if a risk minimizing is wanted. The export problems in recent years have reduced the score.

3. Conclusions

Assessing the risk management in Mecanica Ceahlau indicate a good score for the following chapters: Ergonomics and Management of Accidents, Absenteeism Management, Environment Management, Producer liability, Property protection. On the other hand, chapters that require attention have been identified such as: Financing the risk, Corporate Governance, Behavioural and safety risks, Business Continuity, Dependence on computer, Internet and E-risk, Human Resources, Key Employees, Political and credit risks. The overall score indicate an above average preparation of risk management which the company is facing with.

References

1. Aggarwal, Raj - *Diversification Risk Management*, Academic Press, Inc, 1999 - [RADCS];
2. Anastasiei, B. - *Organizational Risk Management*, TEHNOPRESS Publishers, Iași, 2004 - [BAORM];
3. Carter B., Hancock T., Morin J-M., Robins N., - *Introducing RISKMAN methodology*. The European Project Risk Management Methodology, NCC Blackwell, OPL (Spain), 1994 - [BCTHJMNR];
4. Ceocea Costel – The 4th International Conference on the Management of Technological Changes, Chania, Greece, „Research regarding the risks appeared in the corporate governance implementation in Romania”, page 331 , Editor: Costache RUSU, Yannis PHILLIS , August 19-20, 2005, Technical University of Crete, Greece, 2005 - [CCRRRCGR];
5. Chelcea, S., - *Sociological Research Methodology. Quantitative and qualitative methods* , Editura Economică, Bucharest, 2001 - [SC];
6. Knight, F., - *Risk, Uncertainty and Profit*, 1921 - [FK];
7. Popescu-Neveanu P., Zlate M., Crețu T., - *Psychology*, Didactică & Pedagogică Publishers, R. A., Bucharest, 1997- [NPNMZTC];
8. Zamfir, C., - *Cooperation And Uncertainty* – p. 135 - in *Psychology of human cooperation and mutual assistance*, Militară Publishers, Bucharest, 1990 - [CZ];
9. *** Best practice in risk management. A function comes of age, A report from the Economist Intelligence Unit sponsored by ACE, IBM and KPMG, 2007, via: http://www.kpmg.com.au/Portals/0/eiu_Risk_Management.pdf - [BPRM]