

## THE MANAGEMENT OF RISKS IN BUSINESS AND IN THE MANAGEMENT OF HUMAN RESOURCES

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### *Abstract*

*The characteristics of market economy and coordinates of modern life have determinate both individual level and organizations increase of number of risk who can affect us, of their dimensions and of the consequences which induce them, but at the same time a highest need of firm security. In economic and financial department was develop an entire area –management risk and many financial instruments to reduce or diminish risk. The behaviour of economical agents respectively of the entrepreneurs and managers is different according to the risk in many respects: risk adversaries unaffected to risk and risk believers who leave mark on decisions take it. Management risk is an cyclical process with distinct stages: risk identification, risk analyses and risk reactions. The management of this phenomenon goes from this context and the firm objectives, analyse the risk factors into a security conception having the purpose to minimize the risks and the cost. The policies of occupational safety and health at the level of the organization must include information regarding: the general security and health policy at work; the specific risks and the way of dealing with them; the responsibility of the managers in this field; the measures of implementation of these policies and must be based on: Employee safety is very important; Safety is prior to efficiency; Employee safety leads to advantages and efficiency; Respecting the regulations*

*Key words:* business, work environment, reaction to risk, work security, means of work

### INTRODUCTION

A first signal of market economical maturity is the quality of economical agent to think strategically in what concern risk. So, economical agents from Romania are astonished by the risk dimensions in business.

To initiate an affair, the enterprising takes upon certain risks. Some are inherently for development of business, other appear as unknown causes. Enterprising must know how to manage in this situations for the risks trough an efficient system.

Risk management in business enterprises was commented by Carey and Turnbull ( 2001), Hunt (2001), Butteworth, (2001). [3,5, 9]

As financial subject, risk management was studied later [15]

Risk is define in general terms, as a possibility to expose to danger, to support losses.

Generally, the risk is an economical, social, political category distinguished as:

- An uncertain event but possible with its consistence in incertitude;

- An element which produces material or moral damages;

- The risk appear in human, political and economical activities;

- Its effect once happened, it can be removed. Excepting the incertitude, risk is characterized by the possibility to describe a probability law given results, and being aware of this law for the specialists and economical agents.

The objective probability and its risks reflects the events position on its statistic data.

The subjective probability and its risk have the personal mark of the fellow (optimistic or pessimistic), reflecting the mentality of the person who decide, based on intuition or at the moment observations of the decisions he had taken.

Objective risk is a variable independent of the fellow.

Subjective risk is a estimation of objective one influenced by the perception. Perception is influence by the preparation, experience, age, health, temperament.

The taken risk depends on the financial efforts which are assumed by the manager to obtain the future results, in function of the available finances.

Risk is caused by the following aspects:

- Changes in the economical conditions along the time (fail interest, foreign currency, inflation, import);
- Technological changes;
- Invalidation of previous experiences;
- An imperfect knowledge of exogenous variables;
- Pessimist or optimist attitude of the team;
- Errors of economical or technical analysis;
- State intervention (taxes and inputs);
- Price changes.

Pure risk is the consequence of some accidental activities who are a menace for firm, losses being hardly delimited.

Speculative risk appears due to the manager wish to achieve the objectives which will increase the economical power of firm. It can be carried out in time and controlled by administration, marketing and management technics.

Classic economy combat is against the two risk technics which in reality are interdependent. The increased vulnerabilities of the company is the result of the interdependence between the two risk categories.

Based on the assurance possibilities, there are: insured risks or assured risks. The causes which determine them are named events such as: hail, polish, avalanche, floods, robbery etc.

According to their type, risks can be: Market Risk, Property Risk, Personnel Risk, Customers Risk, Contractors Risk, Operational risk, Credit risk, Bankruptcy risk etc. [1, 12,16]

Based on the events which determined them, the risks are: climatic risks, technical risks, technological risk, commercial or marketing risk, financial risk, economical or failure risk, investment risk, social risk, political risk, informational risk, exchange risk, state risk, conjunctural risk, accidental risks, professional risk etc. [7,8]

Among the most used methods suitable to various types of risks, there are the following

ones: Loss distributions, Value-at-Risk, Credit rating models, Economic Capital, Shareholders value added, Risk pricing, Risk transfer, Scenario analysis, Sensitivity analysis, Control self assessment, the Expected Value Method, Simulation, Decision Trees. [11,15]

#### **Managers attitude given to risk**

“Into a market economy, the fellows are risking time and money hoping that they will have benefits. While some don’t win nothing, other succeed. The market system work trough trials and errors and assign resources for what seems to be a moment innovation.” [4]

The management of the economical agents is different after the types of risk: risk rivals, indifference at risk, risk lovers. Business men tolerance at risk is marked by themselves.

In this context, bankruptcy represent the legal-economical attempt to take part of this situations in which the potential risk is a certitude for some firms.

Business Risk depends of the strategy of each economical agent, of its capacity to anticipate the evolution in the future.

Business men tendency to risk is different. This is happening because the atmosphere developed inside the firm.

Without risk it couldn’t be benefits.

There are three essential motivations to calculate the decision:

- Assuming the risk to have success;
- Assuming a professional obligation as a personal one;
- Assuming the risk involves emotions because the danger that it involves. Many people affirm that the pleasure of success is stimulated by risk.

Other studies mentioned that managers avoid risk because it is considered that it can n't be controlled. They don’t accept the idea that the risks to control them. They consider that they are able to control the risk. When they take the risks, they do it changing the conditions to be sure that they don’t fail. Before of any other decision, they think of a good strategy to control the situation.

The French physician Louise de Broglie said: “We must follow the risk because it is the key of success”.

The risk comes from us because we live in a risky society. The appearance and development of risk creates crises which are thought as some gapes in a system.

Risk evaluation means to establish the next values of risk: neglectful risk, minor risk, medium risk, major risk, disaster.

Table 1. Six levels of Risk Management-The socio-technical system involved in risk management

Research Discipline	Risk management levels	Environment stressors
Political Science, Law, Economics, Sociology	GOVERNMENT Judgment-safety reviews, accident analysis	Changing political climate and public awareness
Economics, Decision theory, Organizational sociology	REGULATIONS, ASSOCIATIONS Law Judgment-incident reports	
	COMPANY Regulation Judgment-operations review	Changing market condition and financial pressure
Industrial engineering, management and organization	MANAGEMENT Company policy Judgment-Logs and work reports	Changing competency and levels of education
Psychology, Human factors, Human-Machine intercatons	STAFF Plans Judgment-observations, data	
Mechanical, chemical and electric engineering	WORK Actions Hazardous process	Fast pace of technological change

Source: Rasmussen Jens, 1997[13]

There are six level of risk management as mentioned in Table 1, as established by Rasmussen Jens, 1997. [13]

Based on this schema, Cassano-Piche et.al.(2009), evaluated risk management in the food safety domain on BSE in the UK. [6] In this context, this research work aimed to assess risk bankruptcy at company level, one of the most important risks that a company manager should keep under control.

## MATERIALS AND METHODS

The risk bankruptcy was determined using the Score Function Z (Conan, J. and Holder, M.,1968) for an agricultural commercial company dealing with dairy farming in the Southern Romania. [16]

The Z function equation was:

$$Z = \sum_{i=1}^n K_i R_i + C,$$

where  $K_i$  = each ratio weight,  $R_i$  = ratio value for a certain company, C – a constant variable.

The value of Z function is:

$$Z = 16R_1 + 22R_2 - 87R_3 - 10R_4 + 24R_5$$

where:  $R_1$  = Partial Liquidity,  $R_2$  – Financial Stability,  $R_3$  – Financial Expense,  $R_4$  – Personnel Salaries,  $R_5$  – Profit weight in value added.

The resulted Z value was compared to the standards values:  $Z < 4$ , 75 % high bankruptcy risk,  $4 < Z < 9$  – 35-50 % bankruptcy risk and  $Z > 9$ , 10-35 % bankruptcy risk.

The analysis period was 2010-2012 and the primary data were collected from the company Balance sheets and Profit and Loss Accounts.

## RESULTS AND DISCUSSIONS

### Risk management

To realize objectives and project of an enterprise, we must assume some risks, caused by:

- Medium or internal changes;
- Composing some unrealistic strategies;
- Errors in production and in execution.

Risk inside a firm is referring to the probability of not respecting the terms:

- Performance (not achieving the quality standards);
- Program (not respecting the terms of execution);
- Cost (exceeding the budget).

Risk management is a cyclical process, with different stages: identify the risk, analysis and reaction of risk. It contains a series of activities, which start from the context and firm objectives, analysis the risk factors and minimize the risk and cost.

Two important characteristics of market economy should be taken into consideration:

- Tendency to increase the risk because of the development of technological process, dimensions and interdependency of activities, social changes;
- The increased need to assure firm security.

Practically, the management risk involves a systematic process of knowing potential factors which determine firm security, measuring the danger level, effect decrease by protecting and preventing, and at the end, the transfer of those causes which can't be administrated by the firm.

The financial theory shows two important effects:

- Economical effect, regarding the patrimonial elements of a firm;
- Financial effect related to firm abolishment and solvency.

Risk management has two important dimensions:

1. factor variability and the consequences of the negative results;
2. different administration cost, depending on risk consequences and its manner of decrease.

The cost of administration risk is the total of external expenses. The risk insurance is such a cost. Based on the two dimensions: the total injury and the cost of administration risk, it could happen the decision factors to the risk by the following aspects:

- preventive measure which can reduce the consequences and the increase of the risk cost, minimize repetitions and realizations of the events;
- transfer of some partial or total risk to assurance, determine the cost increase, and

diminish the consequences of the risk decrease. So, the objective of risk management is the placement into an area in which the risk is assumed, and the cost is acceptable and the firm allow them.

In the decisional process, the risk involves to make difference between general management and risk management. In the Western countries, there is a Department dealing with the evaluation, analysis and administration of the risk. Its function is an intermediary one between the traditional firms and firm management.

This process is managed by persons who communicate all the information to the members board. This person is named a "risk-manager" by anglo-saxons and in France "auditeur des risques" meaning a bookkeeping risk.

**Risk evaluation is divided into three segments:**

- a) estimation of the business area – national economy, activity sectors and firm;
- b) study of firm organization – functions, strategy, budget, administration control;
- c) the general analysis of the financial situation and results – investments, analysis of internal and external financial sources, analysis of cost, profit and expenses.

All these are mentioned in a periodical report to which all the members of the Board can have access, especially the general manager and the financial directory.

**Risk analysis includes:**

*The Phase to identify the risk*

Identification of the risk can be made using some methods:

Making some lists which involve the risk potential: medium conditions, expected results, employment, estimation of cost etc; Using the experienced personal to identify risks. Often the employers know better the risks than the ones from the office. Communication will help to diminish these two risk types.

Identify of the external risks, with the need of one person who will participate at meetings and who will know all what is published.

*The Phase of evaluation*

We take into consideration the risk from the first phase and realize a quantification of that. For risk analysis it is used a mathematical

instrument which must be adjusted based on the needs and data base.

The Phase of analysis refers to the identification of needs, causes and establish the managerial measures of decrease and elimination of risk. A risk can be provoked by many causes which must be treated, and the

causes can be prevented or treated on short, medium or long run.

Regarding the study case in this paper on risk bankruptcy, the resulting Z value, using the R1-R5 values in the score function, is shown in the Tables given below.

Table 2. Primary data used in bankruptcy risk analysis (Lei)

Specification	2010	2011	2012	2012/2010%
Working assets	1,876,890	3,050,832	2,780,296	148.13
Inventories	966,795	1,616,354	1,749,635	180.97
Financial expenses	126,565	91,737	57,863	45.72
Personnel expenses	1,310,954	1,086,224	1,341,302	102.31
Turnover	3,564,940	3,383,381	3,569,396	100.12
Long term equity	641,340	0	0	0
Current debts	489,240	265,932	982,119	200.14
Total liabilities	2,148,803	2,885,302	1,871,508	87.09
Gross profit	-449,773	-58,083	+19,584	435
Value added	1,569,242	1,750,989	1,948,784	124.19

Source: Balance sheets and Profit and loss account of the Company, Own calculations.

Table 3. Risk ratios in bankruptcy analysis

Risk ratio		2010	2011	2012	2012/2010 %
Partial Liquidity	R1	186.02	539.41	104.94	56.41
Financial Stability	R2	75.18	31.75	81.26	108.08
Financial Expenses	R3	3.55	2.17	1.62	45.63
Personnel Expenses	R4	83.54	62.03	68.82	82.37
Gross profit share in Value added	R5	-28.66	-3.32	+1.004	-

Source: Own calculations.

Table 3. Z function value

Item	2010	2011	2012
16 R1	2,976	8,630.56	1,679.04
22 R2	1,653.96	698.50	1,787.72
-87 R3	-308.85	-188.79	-140.94
-10 R4	-835.40	-620.30	-688.20
24 R5	-687.87	-79.68	24.00
Z	2,798.19	8,440.29	2,661.62

Source: Own calculations

The Z values were positive in the analyzed period. However, the figures from Table 3 reflect that the company is facing a high bankruptcy risk. The lack of payment capacity and the low profitability rate are obviously the

convincing proof.

A risk coefficient of 80% is very high, therefore, there is no room for a financial recover. Such an analysis should be made periodically so that to be enough time as the manager to take the corresponding measures to improve the financial statement.

Risk elimination is compulsory and involves as the managers:

Not to initiate a business transaction;

To establish a high price to eliminate the risks;

To condition the offer.

The companies which apply the project of risk management had the following advantages:

-A better assignment of resources;

-Lower cost of risk transfer;

-Company, firm exposure to risk.

Some companies administrate the risks in the individual department of management. So, the treasurer is the one who determines the effects and fluctuations.

Even the company manager could be a risk, because he manages the firm capital.

Another manager risk is the one who picks an assurance program on many years to prevent the company of some risks.

In all these situations, the risk will appear after a decisional process. The treasurer analyses the financial and operational risk, and the president analyses the political,

economical and financial risk.

Every risk manager draws decisions on risk administration for which he is responsible and this could lead to an unefficient risk of administration.

Among the reasons determining some companies to administrate risks in a centralized manner there are:

○ Expansion in many countries, subdue the company to variation, regulation and different business environment.

○ Expansions can bring big losses, manly financial losses to the company, affecting the activity for other countries;

○ Changes inside the company;

○ Proactive management and a proactive attitude to risks.

A manager who can't take his risks does not have what to do in this field.

Recently, the risk does not represent the impossibility to assure the expected result, but its costs. This remark confirms two values: the performance level and the survival level. These values are studied for the point of view of success, lack of success and development.

In the opinion of many experts, defining occupational health and safety management and circumscribing their objectives is one of the major problems which depends on the status of this specialized field clarification.

According to those authors, occupational health and safety management can be defined as the set of management and organization activities with the purpose of taking optimal decisions in the projection and process regulation, by means of which the desired level of health and safety for employees is obtained. Also, in a reference work, the occupational health and safety management is analyzed as a set of the following activities:

- elaboration of health and safety policies;
- identifying and assessing risks;
- implementation of occupational safety and health programs that belong to the organization's domain;
- accident prevention and stress management;
- safety and health organization and communication of appropriate practices

**The Objectives** of occupational health and safety management aim at reaching maximum

security in activity conditions and refer to:

- maintaining and promoting the health of employees and their ability to work;

- eliminating occupational accidents and diseases;

- creating optimal working conditions;

- avoiding the risks of injury and occupational disease;

- minimizing risks which cannot be avoided;

- developing organizations and their culture so that this promotes a positive social climate.

With regard to maximum security, it is considered a set of principles and methods combined into a general strategy of the organization whose purpose includes:

- mobilizing, involving and adhering of all employees

- improving safety and health by prevention;

- evaluating work safety and health. [18]

### **Factors involved in work process and their interconnection**

Work accident and professional illnesses are random events under probability appreciation.

No matter what activity is involved, each and every work process implies four factors interconnecting with one another: performer, target, capital goods, work environment.

The human factor is also indirectly found in the system, namely as a conception and decision factor for the other factors. Thus, both the target and the capital goods as well as part of the work environment are conceived and activated by human factor. All these facts are part of the work system. From the point of view of work protection, the work process has two characteristics: human factor is present as „performer” and the ability of the involved factors to achieve a work system.

The first characteristic defines the work process as a space for work accidents; the second helps to understand the mechanism of work accidents occurrence.

### **Risk Factors in Work System**

In order to underline these factors we need a systematic analysis at the level of each system component.

#### *Performers Risk Factors*

A possible deviation of the performer from the target line is an error at the level of the basic links of activity which can lead to

reception, processing and rendering errors of information, performance and decision errors.

#### *Risk Factors for Work Targets*

At this level two types of possible accident or professional illness causes can appear:

- improper contents of the work target regarding the requirements imposed by the risk situation

- under/over estimation of the requirements imposed on the performer

#### *Risk Factors for Capital Goods*

These risk factors can appear under the form of:

- mechanical risk factors

- thermic risk factors

- electric, chemical and biological risk factors

#### *Risk Factors for Work Environment*

The physical environment can have deviations such as:

- an overflow of specific parameter levels (lighting, noise, noxes, radiation)

- improper work conditions

The social environment can be characterized by psychic risk factors which could lead to an excessive implication of the performer.

## CONCLUSIONS

All what we notice lead to the next conclusions:

-Business without risk wasn't and wouldn't be. The difference is that some affairs are more risky. Some managers try to ignore the risks, and others are doing all what they can to diminish it. However the risk is present. So, faster you get use to the managerial risk faster you will succeed.

-The dimensions and the form of risk in the market economy is the highest one compared to the centralized economy;

-Need of some strict instruments to calculate the risks;

-Risk gets a function of managerial competence, doesn't have anything in common with the destiny, but only with the manager to establish its evolution;

-Economical agents and their managers have less information concerning the types of risk and their dimensions;

-Risk analysis should allow a hierarchy;

-The increase of risk roll in the decision area

is the main item in the activities development of managerial risk which will allow to form a mentality on the market economy;

-Risk generates crisis which are considered as broken sides from the normal function of the system;

-Risk area is concentrated into three expressions:

- ANALYSIS: to identify the risks and evaluate the direct and indirect consequences;

- REDUCTION: to prevent risks, to diminish or to eliminate them. To assure the apparition of new risks and to diminish the unexpected effects by corresponding means of protection;

-FINANCE: to control the costs and the potential losses.

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