Abstract: To maintain the same company running efficiently, and more so, for an increasing performance it is necessary to adapt to the changes occurring in the environment in which it operates. Such adaptation requires permanent changes in the company to be set, known, analyzed and managed. Risk identification is the first and most important phase of management, it consists in identifying hazards that exist within the entity. Hazard identification work is done to detect, if possible, all existing risk factors.

The advantage of identifying risk factors is reflected both in creating treatment conditions and analysis in an efficient way as they are known, and the establishment of latent risks.

This paper aims to analyze the risks that may affect and influence the performance of organizations, often leading to a financial crisis. In this respect, a presentation of the theoretical risk typology was made, and the case study illustrates the risk exposure in organizations through the application of analytical models that emphasize this.

Key-Words: performance, risk, risk management, profitability, assessment, micro risks, control.

1 Introduction
As liberalization, globalization and the rapid development of computer technology creates new business opportunities, economic and financial bodies are exposed to risks more complex and diverse than in the past. Identification, measurement and control of risk has never been more important to organizational and strategic management.

This paper deals with the issue of risks to an entity, the efficiency and advantages implementation of risk management.

A case study on the methods and models are concnetreaaza risk analysis, and focuses on measures to improve our knowledge that can be applied after the results.

The importance of addressing this issue is evidenced by the current situation facing the economy and entities operating in the market. Since the beginning of the financial crisis and so far we could witness the effects of the crisis apparently, but especially following an ineffective management, strategic plans unviable.

In these circumstances, entities that have developed effective risk management in the past have been able to maintain during this period, and some more, have managed to remain profitable.

Treatment of risk management and its impact on all levels becomes relevant because entities can still learn from mistakes and from the examples of others and equally for those who study and analyze the market, as a topical and interesting theme.

2 Problem Formulation
Obtaining overall performance is a major objective of any company, causing a number of advantages and benefits, both financial and nonfinancial. But there are some risks and disadvantages that can affect the performance of the organization, but that can be predicted and prevented by effective implementation of risk management.

Risk is a term used with various meanings: defines the uncertainty that characterizes the activity; likelihood that something will happen, the effect of uncertainty on objectives [1]. Risk is an uncertain element, which occurs constantly in the process of socio-human, whose effects are damaging and irreversible [2]. The event's hazard and adverse human health effects, the performance of organizations and society in general have brought to the fore the concern of management to identify risk factors and assess their effects.

Organization's risk management approach requires that it establish objectives and activities leading to the achievement of goals, and at the
The overall goal of risk management is to help understand the risks to which an organization is exposed so that it can be administrate. Initial focus was on assessing the risk. In the present approach is more complex and is called risk management; this expression defines the coordinated actions that an organization shall plan and control the risks that may affect its ability to achieve its objectives. Such a preventive approach is characteristic of modern management systems, providing improved performance of the organization by managing environmental threats and capitalization of the opportunities that market offers [3].

Stages of risk management:

![Stages of Risk Management](image)

Identification and quantification of risk are sometimes treated together and called risk assessment or risk analysis. Risk Response Plan is sometimes met as the mitigation plan. Also, sometimes, risk response plan and control plan are treated together as the risk management plan.

The main forms of risk are: microriscurile, macroriscurile and regional and global risks [4].

Micro risks have direct impact on the performance of the organization and are generated by a series of internal and external factors. In this category are included [5]:

Pure risk - is likely accidental, unintentional, occur without warning signs, beyond the control of the parties, refer only to enable economic operators to lose without them decide on the size of losses (physical, financial risks; risks subversive).

Speculative risk is usually known, valued and taken by managers. This venture provides economic opportunity to both earn an extra profit and the possibility of losing. Managers may be accepting attitude, dislike or neutrality.

The probability of default risk traders to cease payments to suppliers of raw materials, equipment, utilities, and restitution and interest rates on bank loans, or payment of salaries.

At the same time it is very important to consider other risks affecting the organization's work, the most important being:

Operational risk - associated managerial and operational deficiencies within the firm. Can be generated by: global policy management, structural imbalances, law infringement, the risk of image and communication.

Economic risk - is determined both contextual developments of the company and the quality of the economic activities.

Examples: operating risk, the risk of profit margin security firm, financial risk, the risk of higher inflation, etc.

Commercial risk is directly related to quality competitive position in the market as the company and the product (s) or service (s) thereof.

Examples: ineffectiveness of trade policy; inefficiency of the procurement process, storage and sale; inefficiency of the pricing policy applied by the company; lack of competitiveness of its products.

3 Problem Solution (Case Study)

With specific current market economy, risk has become an essential component of management policy of the organization.

All specific stages of running a business, from setting goals and finishing with finding markets is conducted under pressure of many risk factors, that most often means loss for the organization. Therefore, the discovery and management issues, as far as possible risk situations is a priority for the performance of the company.

Achieving business requires knowledge and multiple risk-taking.
Risk management process comprises three stages: risk identification, risk analysis and risk response.


The economic risk is assessed as the variability of the outcome of an activity under pressure disturbances in the internal and external environment.

Internal rate of return a business is directly dependent on the risk borne: it cannot be assessed only on the basis of the risk of the bear trader.

Most economic agents determine their risk management measures based on profitability expected by taking into account the minimization of losses, additional expenses in the event that the risk materializes.

The study presented below is intended to illustrate the exposure at risk of a company, under internal and external factors.

The company studied has as main activity the processing of sugar beet and getting the finished product, crystal sugar.

Analysis and risk assessment can be achieved by these several methods [1]:

1. Breakeven method

Breakeven means a measure of the flexibility of the organization in relation to its business fluctuations, so a measure of risk. It is the point at which turnover cover operating costs, the economic results are null. After this threshold activity becomes profitable.

\[
Pr = \frac{CF}{p_v - cv}
\]

in which:
- Pr – breakeven.
- CF - represents total fixed costs,
- \( p_v \) - Unit price
- cv - variable costs.

In 2012, the company had negative results in a production of 20 546 tons of sugar.

In the table below are the key indicators to be analyzed.

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total revenue (VT)</td>
<td>101 480 625 lei</td>
</tr>
<tr>
<td>Total costs (CT)</td>
<td>106 211 431 lei</td>
</tr>
<tr>
<td>Production levels (Q)</td>
<td>20 546 tonnes sugar</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale price (Pv)</td>
<td>4490 USD / ton sugar</td>
</tr>
<tr>
<td>Unit variable cost (cv)</td>
<td>2500 USD / ton sugar</td>
</tr>
</tbody>
</table>

Table 1. Financial indicators of the company analyzed
Source: Ministry of Finance, Bucharest Stock Exchange.

Costs of this will be:
\[
CV = 2 500 \times 20 546 = 51 365 000 lei
\]
\[
CF = 106 211 431 - 51 365 000 = 54 846 431 lei
\]

Breakeven = \[
\frac{54 846 431}{4490 - 2500} = 27 561 sugar tonnes
\]

CA pr = 27 561 * 4 490 = 123 748 890 lei

Where:
- Qpr - production to break even.
- cv - unit variable costs.
- CV - total variable costs.
- CF - total fixed costs.
- CApr - turnover in breakeven.

As observed, the production plant are below breakeven. To break even, the company needs to produce 27 561 tons of sugar, with 7015 tons more than at present.

The high percentage of operating expenses to total expenses of 99.15%, showing that the lack of profitability comes from service, financial expenses with a minimum contribution of 0.85%.

To improve performance, it can apply the following measures:
1. Increase production by 15%, which means achieving a production of 23 628 tonnes of sugar. Total revenue achieved in this production are 106 089 720 lei.

![Breakeven Graph](image-url)
2. Reducing variable costs by 15% (with 7,704,750 lei), this will mean getting total variable expenses of 43,660,250 lei.

Reduction of variable costs will be achieved by:

a. a reduction in material costs by reducing specific consumption of materials, action can be influenced directly by establishing scientifically consumption, which is an effective tool in the fight against waste and forms the basis for a proper supply and creating the possibility of systematically reduce stocks of materials.

Another solution would be looking for suppliers with lower prices.

Costs of materials needed for production are now worth 6,053,299 lei. These can be reduced by 15%, meaning obtaining material expenses 5,145,304 lei.

b. reduce scrap losses by implementing ISO, losses can be reduced by 20%, which means savings of 17,268,684 lei.

c. use of economies of scope effects or economies of diversification, a firm reduces its production costs increasing variety (range) products and services provided through the use of identical components, the same facilities and the same person.

The plant can use a concentric diversification strategy by making brown sugar, which will reduce production costs as not to require changes in manufacturing technology.

d. waste recovery. Currently beet sugar that does not meet established factory content is sold as animal feed. But it can be used to obtain a lower sugar content of sucrose that can be sold at a lower price.

3. Reduced fixed costs by 15% - ie 8,226,965 lei, fixed costs for a total amount of 46,619,466 lei.

Currently, the share of fixed costs in total costs is 51.61%. Note that the high share of fixed costs necessary to reduce their emergency.

These effects can be reduced by using economies of scale, reduction of unit costs as production increases, the spread fixed costs over a larger production.

Thus, the production of 23,628 tons, unit costs are 2,320 lei; by achieving a production of 27,651 tonnes, costs are reduced at 1,983,5 lei.

Other measures to reduce fixed costs are:

a. reduction in administrative costs by reducing certain overheads impaired driving (fines, penalties), rationalization of costs caused by security and security company, email, phone, internet, travel, etc.

b. reducing the consumption of electricity, fuel, water, through better use of facilities and introducing modern technologies.

Facilities currently in use are old, before 1989, was partially repaired, but not replaced. Currently utility costs are 10,988,771 lei. These can be reduced by 10%, utility costs for a total amount of 9,889,894 lei.

Applying these measures, we obtain:

\[ Q = 23 \, 628 \text{ tonnes} \]
\[ VT = 106 \, 089 \, 720 \text{ lei} \]
\[ CV = 43 \, 660 \, 250 \text{ lei} \]
\[ CF = 46 \, 619 \, 466 \text{ lei} \]

Calculating breakeven yields:

\[ \Pr = \frac{46 \, 619 \, 466}{4490 - 2500} = 23 \, 426,8 \text{ tonnes of sugar} \]

It is noted that after the implementation of measures to reduce costs, the plant is above the threshold of profitability and obtains the following results:

\[ CA \text{ pr} = 23 \, 426,8 \times 4 \, 490 = 103 \, 285 \, 234 \text{ lei} \]
\[ CT = 43 \, 660 \, 250 + 46 \, 619 \, 466 = 90 \, 279 \, 716 \text{ lei} \]

Operating Profit = VT - CT = 103,285,234 - 90,279,716 = 13,005,518 lei.

2. Operational risk analysis (can not recover all costs incurred in revenues) are known three models:

a. The confidence interval \((Is)\).

This indicator highlights the safety margin available to the company and its value is directly proportional to the degree of security and inversely proportional to the degree of risk.

\[ Is = \frac{CA - CA\text{ min}}{CA} \] \[ Is = \frac{106 \, 089 \, 720 - 103 \, 285 \, 234}{106 \, 089 \, 720} = 2,64\% \]

As \( Is \leq 5\% \), the plant has an unstable situation in terms of operational risk.

b. The position indicator \((£)\) is used to assess the risk of exploitation by its position to breakeven and is calculated using £.

£ expresses the organization's ability to adapt production to market requirements.

\[ £ = CA - CA\text{ pr} \]
\[ £ = \frac{CA - CA\text{ pr}}{CA\text{ pr}} \times 100 \]
It is noted that £ registers positive, both in absolute and in relative size. However, these values are quite small.

Thus, the risk of operation is high and organization have a small flexibility to adapt to the market. If the value of £ increases, risk decreases.

e). The rate of direct expressing operating risk (Rpr)

\[
Rpr = \frac{CA_{pr}}{CA} \times 100
\]

\[
Rpr = \frac{103,285,234}{106,089,720} \times 100 = 97.35\%.
\]

As there the rate of direct expressing operating risk is high, the risk of exploitation is severe. CA in breakeven is 97.35% of CA.

If the rate drops will decrease the risk of exploitation.

3. Calculating profit risk, or the risk of not achieving a business volume in order to generate profits necessary to cover expected dividends to equity holders, use indicator “minimum turnover” \((CA_{\text{min}})\).

For the calculation of the \(CA_{\text{min}}\) the following data of the studied company are required

- capital \((Ks) = 15,166,325\) lei;
- There are required dividends equal to bank interest rate \((rd = 30\%)\);
- share profits remaining to the firm \((CPF) = 75\%\);
- share tax \((CI) = 16\%\);
- scheduled annual turnover of \(110,000,000\) lei

To determine the \(CA_{\text{min}}\) needed to dividend refund is required the following steps:

a). Determine the volume required by the shareholders dividends (D)

\[
D = Ks \cdot rd = 15,166,325 \times 0.3 = 4,549,898\text{ lei} (6)
\]

b). Determination of net profit (Pn):

\[
Pn = D + \left( \frac{CPF}{100 - CPF} \right) \cdot D = 4,549,898 + \left( \frac{75}{100 - 75} \right) \cdot 4,549,898 = 18,199,590\text{ lei} (7)
\]

c). Determination of gross profit (Pb)

\[
PB = Pn + \left( \frac{CI}{100 - CI} \right) \cdot Pn = 18,199,590 + \left( \frac{16}{100 - 16} \right) \cdot 18,199,590 = 21,666,247\text{ lei} (8)
\]

d). Determining costs (C)

\[
Rrc = \frac{C}{V} = \frac{90,279,716}{103,285,234} = 0.87 \quad (9)
\]

\[
C = \frac{PB}{RRC} = \frac{21,666,247}{87\%} = 24,903,732\text{ lei} (10)
\]

e). Determination of minimum turnover \((CA_{\text{min}})\)

\[
CA_{\text{min}} = C + PB = 24,903,732 + 21,666,247 = 46,569,979\text{ lei} (11)
\]

f). Determination of scheduled monthly turnover \((CAL)\)

\[
CAL = \frac{Cap}{12} = \frac{110,000,000}{12} = 9,166,667\text{ lei} (12)
\]

g). The time required to achieve minimum turnover \((T)\)

\[
T = \frac{CA_{\text{min}}}{CAL} = \frac{46,569,979}{9,166,667} = 4.97\text{ months} (13)
\]

\(CA_{\text{min}}\) is expressed in units of time (months)

How many months pregnant signifies the beginning of the production cycle provides a minimum turnover required to obtain a profit to ensure the return required by shareholders dividends

Because \(CA_{\text{min}}\) will get in about five months, the risk of profit is not very high.

In conclusion, the company studied has a negative profitability situation, the actual output was below breakeven and the costs far exceed revenues, the company making losses. Therefore the studied factory involves major risks, both operational and profit.

However, as shown above risk analysis, applying measures to reduce costs and increase production, these risks would be significantly reduced and even eliminated.

4 Conclusion

Today’s business world is constantly changing- it’s unpredictable, volatile, and seems to become more complex every day. By its very nature, it is fraught with risk.

Historically, businesses have viewed risk as a necessary evil that should be minimized or
mitigated whenever possible. In recent years, increased regulatory requirements have forced businesses to expend significant resources to address risk, and shareholders in turn have begun to scrutinize whether businesses had the right controls in place. The increased demand for transparency around risk has not always been met or met in a timely manner, however—as evidenced by the financial market crisis, where the poor quality of underlying assets significantly impacted the value of investments. In the current global economic environment, identifying, managing, and exploiting risk across an organization has become increasingly important to the success and longevity of any business.

Risk assessment provides a mechanism for identifying which risks represent opportunities and which represent potential pitfalls. Done right, a risk assessment gives organizations a clear view of variables to which they may be exposed, whether internal or external, retrospective or forward-looking. A good assessment is anchored in the organization’s defined risk appetite and tolerance, and provides a basis for determining risk responses. A robust risk assessment process, applied consistently throughout the organization, empowers management to better identify, evaluate, and exploit the right risks for their business, all while maintaining the appropriate controls to ensure effective and efficient operations and regulatory compliance. Risk management, as part of modern management, has become a prime concern of the modern world and totădată, one of the "key mechanism" of economic development. Every decision that people take in their work involves risks that may alter both structural and behavioral conduct their results.

Economic performance is one of the major goals of any company. This involves the organization, important decisions to optimize the allocation of cash resources, ie labor, raw materials, energy, capital equipment, etc. In this regard, it is particularly important to identify risk factors that influence getting the desired income and the degree of their influence on economic performance of the organization. Assessment of risk levels will stimulate the companies to improve working conditions and environment that take steps to shift from higher levels to lower levels of acceptable risk. [6]. Application and generalization of such methods enable the establishment of social security allowances differentiated by the level of risk / economic security, security of inclusion criteria payroll, along with the criteria of productivity and complexity of the work [7].

The case study revealed that the organization profitability analysis presents a negative situation, current production being below breakeven and costs far exceed revenues, the company making losses. Therefore, the factory involves major risks, both operational and profit. However, as pointed out the risk analysis carried out, by applying measures to reduce costs and increase production, these risks would be significantly reduced and even eliminated. We conclude by emphasizing that good management is primarily a rational one, defined not as an effort to avoid risks, but as especially disciplined and methodical effort to control risks and their consequences on the organization's objectives. A rational management does not attempt to completely eliminate uncertainty but seeks to reduce to an acceptable limit in a particular context or situation.

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References: