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RISK MANAGEMENT AND IT'S FINANCIAL BENEFITS NET

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The aim of this article was to attract attention on the importance of risk management. Here we are dealing with the definition of the risk as something that happens in the future but cannot be predicted exactly today because there is uncertainty, further more we are giving the highligts on risk decisions and balancing risk against reward. We are also giving the guidelines concerning indentification and categorization of risk and some types of risk measurement.

Key words: risk, risk management, loss, reward, indentification and categorization of risk, risk measurement.

INTRODUCTION

The goal and a purpose of this article is to underpin the meaning and importance of risk management especially in the emerging markets such as Croatia. We are aware that the world is becoming increasingly complex so it is only natural that the need to understand and manage risk effectively is increasing at a time when it is becoming more difficult to do so. To mange risk effectively is a critical success factor for every manager. It is important to have in mind that risk management is created to help you seize opportunity, not just to avoid danger.

In this article we tried to cover main aereas of risk management from definition of risk, through making risk decisions and balancing risk against reward, indentification and categorization of risk to the measurement of risk.

With this article we tried to underline the critical importance of net current assets management strategies to the success of the corporation. Net current assets are current assets minus current liabilities or in the other words all the short-term assets used in daily operations.

1. DEFINITION OF RISK

The most often mistake people do is to perceive risk as an negative aspect and define it by refrence to adverse consequences only. The downside of this misconception is that the light is only on potential losses and possibility that there can be benefits obtained from taking risk is neglected. As businesses are essentialy based on the premise that they need to take risks in order to earn and return, it is important to avoid this narrow viewpoint. Bearing this in mind we can say that risk is the uncertainity of future outcomes.

With this statement we tryed to underline that risk is something that happens in the future but cannot be predicted exactly today because there is uncertainty.
Risk and uncertainity do not have to be negative factors.

Uncertainty has two dimesions:

1. The range of possible outcomes
2. The probability of an outcome occuring

Table 1.: **Uncertanity matrix**

Range of possible outcomes	Probability of an outcome occuring
Known	Known
Known	Unknown
Unknown	Unknown

Risik is intangible and will be seen differently by different people not only in terms of what the risks are but what the range of possible outcomes are and probabilities they attach to those outcomes. To put in another way, everyones's perceptiones will be different. The factors that will influence these perceptions include:

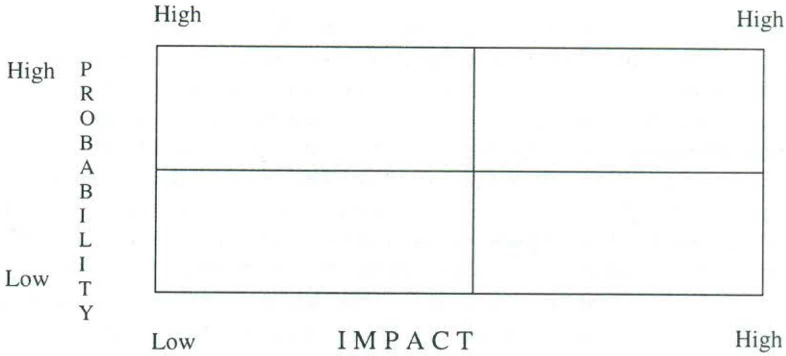
- experience
- knowlege
- culture
- position
- financial status
- ability to influence the outcome
- asymmetry
- complacency
- inadequate time horizons
- rose-tinted glasses
- single-mindedness.

2. RISK DECISIONS

When making decisions we must start with a clear view of where we are today and then determine where we want to be in the future considering the concequences of undertaking the various options open to us (accepting, declining, or mitigating the risks).

In business knowing wheter you made the right decision or not can take a long time to find out. The amount of information required to make decisions is high and there are many unknowns. Beliefs and preference have a greater influence because objective hard data may not always be available and even if it is there is always room for interpretation. In addition, many businesses decisions have to be made quickly without full information to avoid losing the opportunity.

Fig. 1.: **Probability-impact matrix**



One way to make decisions is to use a tool such as the probability/impact matrix set out in Fig. 1. This is a simple 2x2 matrix that can be used to position various risks on a grid using the dimensions of probability on the vertical axis and impact on the horizontal axis. Even if there is a lack of concrete information it will usually be possible to use some sort of ranking process which will at least help position things in roughly the right aereas. Interestingly, asking a variety of people to position various risks on this grid can reveal a lot about beliefs and risk aversion. It is not uncomon, for instance, for risk managers to front line sales people to take quite deverse views on where an item should be positioned.

The matrix can be used to decline on whether to take on new risks as well as to reassess existing risks (risk monitoring). Here we should emphasize that there will always be more risks that can be managed so deciding which are not material and can be ignored is an important aspect of the decision-making process.

Fig. 2.: **Probability-impact matrix: risk strategies**

PROBABILITY	Low IMPACT	High IMPACT
High	Put in place controls to minimize exposure	Priority for action
Low	No action required	Put in place a Contingency plan

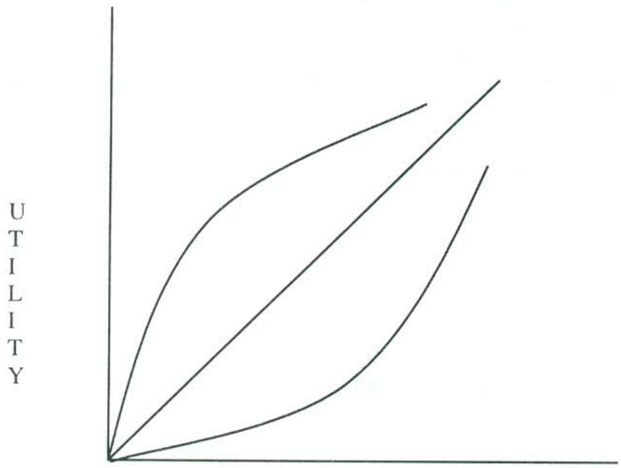
The use of such a tool allows us to consider what strategies we can use to manage risk. These are illustrated in fig. 2. When making decisions on new risks it is likely, for instance, that we would seek to avoid high impact/high probability situations unless these could be satisfactory mitigated. For existing risks we would want to ensure that simular situations were already mitigated and that, if not, action was being taken to put in place mitigants or reduce our exposure. Therefore, making decisions on those events in the top right and bottom left quadrant are generally fairly easy. For high probability events but low impact, the need is to put in place controls to minimize the opportunities for fraudsters to defraud them. For high impact but low probability events, people hope that they will not occur but plan for the worst. Fire flood, earthquakes or other natural disasters are good examples. These risks can be managed by preventive actions to minimize the impacts, earthquake proof buildings, taking out insurance and putting in place contingency plans will help cope with the fiscal impacts.

This tool, however only helps us in a broad sense. Any situation probably involves a large number of risk decisions most of which will be made by individuals. Their believes will influence the level of priority they place on dealing with them but it is their preferences which will influence their actual decision.

The theoretical underpinning for this is utility theory. We can define utility as: the amount of satisfaction derived from an object or activity.

The premise is that we can atach a value to utility that we can then plot in a utility curve. Figure 3. illustrates possible utility curves. The horizontal scale is denominated as a monetary measure, Euro, and the vertical axis in utility. The norm is the top curve which indicates that the level of utility declines the more money we have. The other curves , equal increases in utility declines or rising utility for the same amounts of the monetary gain can occur but are less likely.

Fig. 3.: **Utility curves**



This is not a place to go into utility theory in detail but it is useful to be avare of it when thinking about decision making.

When we make decisions there are a number of factors to consider in additional to utility maximization. These factors include: time, risk management costs, extreme events, creating new risks, simplification.

Firstly, the types of risk that relevant to a particular scenario will change over time. Secondly, the time available to make a decision may be limited so many risk decisions have to be made quickly and with incomplete information.

Naturally, actions of risk prevention and minimization have costs. If however the cost of such an action is greater then the possible impact then there is a little or no point in pursuing that course of action.

As probability distributions indicate that events at the extreme[1] have a low probability of occuring the question is: does that mean that we do not have to worry about those rare events? In terms of probability impact matrix they will appear in the far right hand bottom corner as high impact but very low probability. Even so such possibilities can not be dismissed particularly as there seems to have been an increasing number of these extream events occuring in recent years. In addition, and more importantly, low probability tells us nothing about timing. Even if the odds are "once in a life time" this does not mean that the event might not occur tomorrow.

[1] The very right or left hand ends of a normal distribution.

We must be aware that any action taken upon our decisions will create new risks. What those risks are, and how they will impact on us and our business, need to be included into the decision-making process. There is also danger from the so called moral hazard that can be seen from the example of managers running banks whose depositors are covered by deposit protection schemes. These managers may be encouraged to take higher risks that they would otherwise take knowing that their depositors are protected by deposit protection schemes.

All risk decisions require some simplification but over simplification can be dangerous.

3. RISK AND REWARD

While talking about risk we must have in mind that risk is only one side of the equation and that we must balance risk against reward.

This is leaning to our earlier point that risk has it's downsides but can also have it's rewards for the right decisions. The rewards can be in the shape of:

- higher sales or profits
- increased share price
- increased market share
- industry awards and recognition
- high public esteem – customer satisfication
- good reputation.

We can come to a conclusion that a risk management is all about taking calculated risks. It is important to be aware that everyone sees and reacts to risks differently so we have to appreciate the divergent views and take them into account when making decisions. Decisions and actions taken upon them must be rational and practical, based on knowledge but tempered with sound judgement.

4. INDENTIFICATION AND CATEGORIZATION OF RISK

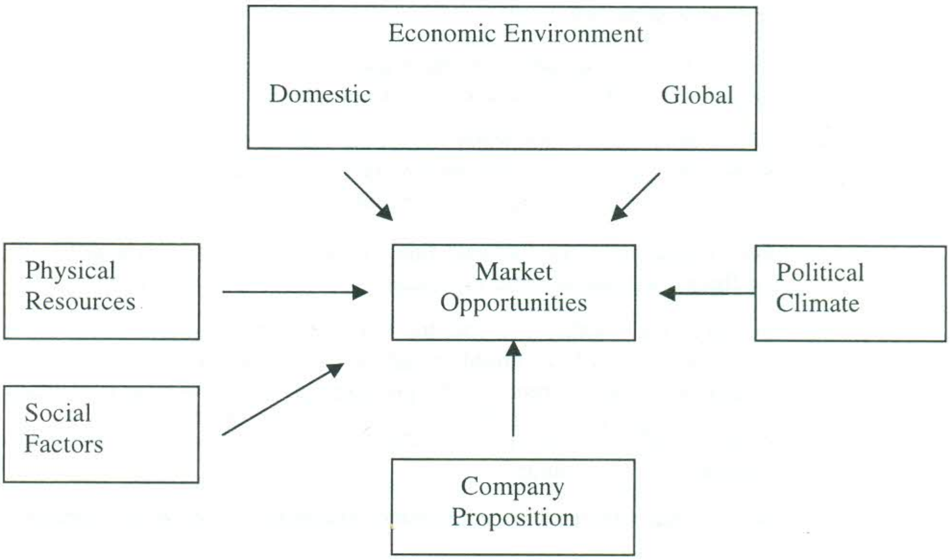
It is usefull to have in mind that the risks that are not indentified and categorised are not likely to be managed. We can say that indentification of a riskis is the crucial first step in making right and succesfull decisions. If we are able to indentify risks in advance we are leading proactive risk management practice that is enabeling us to think in advance rather than be forced in reactive risk management practice. The treat of reactive risk management practice lies in rash decisions caused by panic and stress situations.

If we see indentification of risks as the first step then the only logic second step can be categorisation of risks.

All business seek to earn rewards through taking risks so it will be usefull to consider the framework within which buisiness have to deal with risk. This is set out in Fig. 4. If the business are successful in assessing the market opportunities with which they are faced and developing their company proposition which sets out what product they will offer to whom and on what terms and how they will organise themselves internally to achieve this they will grow and expand, if not they will disappear from the market scene.

It is easier to achieve good results if we understand the various factors which set the size and nature of demand and the degree of competition which the business will have to face.

Fig. 4.: **Business model**



Being successful in our chosen fiels of operations starts with having a clear understanding of the risks that we face. In whatever business we are in, there is a limitless number of risks. As we already said, to be able to manage these risks it is important to indentify them. A simple listing of risks is not going to help, but the use of risk categories helps to provide a framework within which to look for, and latteraly, to manage risks.

All business situations involve many risk types.[2] There are interconnections between most of the risk types which makes indentification more difficult.

[2] See, Robin Kendall, Risk Management for Executives, Pitman publishing, 1998. p. 228.

Some of the main risk types are:

- Business risk - we can see business risk as the risk of failing to achieve business targets due to inappropriate strategies, inadequate resources or changes in the economic or competitive environment.
- Credit risk - credit risk is the risk that counterparty may not pay amounts owned when they fall due.
- Sovereign risk - credit risk associated with lending to the government itself or a party guaranteed by the government itself or a party guaranteed by the government is called sovereign risk.
- Market risk - market risk is the risk of loss due to changes in market prices. This includes: interest rate risk, foreign exchange risk, commodity price risk, share price risk.
- Liquidity risk - liquidity risk states the risk that amounts due for payment cannot be payed due to a lack of available funds
- Operational risk - operational risk is the risk of loss due to actions on or by people, processes, infrastructure or technology or similar which have an operational impact including fraudulent activities.
- Accounting risk - the risk that financial records do not accurately reflect the financial position of an organization.
- Country risk - under the country risk we mean the risk that a foreign currency will not be available to allow payments due to be paid because of lack of foreign currency or the government rationing what is available.
- Political risk - is the risk that there will be a change in the political framework of the country.
- Industry risk - the risk associated with operating in a particular industry.
- Environmental risk - environmental risk is the risk that an organisation may suffer loss as a result of environmental damage caused by themselves or others which impacts on their business.
- Legal-regulatory risk - under legal-regulatory risk we concider the risk of non-compliance with legal or regulatory requirements.
- Systemic risk - the risk that a small event will produce unexpected consequences in local, regional or global systems not obviously connected with the source of the disturbance is called systemic risk.
- Reputational risk[3] - reputational risk represents the risk that the reputation of an organization will be adversely affected.

[3] See, Judy Larkin, Strategic Reputation Risk Management, Palgrave Macmillan, 2003. pp. 37-86.

5. RISK MEASUREMENT

When we indentify the risks we must find appropriate way to measure them. The more that subjectivity can be removed, the easier it will be to make meaningful decisions about risk issues. To achieve objectivity it is essential to collect data and convert that data into information and then ensure that it is delivered to the right people at the right time in a way that helps them make better decisions.

The first thing to consider when trying to measure risk is the risk type. Some types of risks are relatively easy to measure[4] and on the other hand other types are more complex and difficult[5]. We must also have in mind that risks often do not come separaetly but are interrelated so this also causes some difficulties in measuring them.

Time introduces another complication when measuring risk. Naturally, the further we look ahead, the more unreliable measures become as predictions of future values are dependent on: the starting point, assumptions about changes in key parameters, correctly predicting events that might impact on risk.

The best way to look at the situations where there are a large number of individual risks is to look at them as on a portfolio[6]. Here we must remember that diversification is the best way to manage risk.

There are two approaches to measuring risk of a portfolio:

- assess risk for each component and sum up the risks (bottom up) and
- measure risk for the portfolio level (top down).

5.1. Types of Risk Measures - Basic Risk Measures

The simplest measures are often the easiest to gather and analize. We can say that the basic risk measures are: absolut values,[7] ratios,[8] trends,[9] mildstone or Gantt charts.[10]

Concerning the business risk, there are no industry standards for measuring business risk so each company's management team needs to decide what are the critical success factors for their business in their chosen market and develop a reporting pack which captures relevant information.

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[4] Such as credit risk.
[5] Such as reputational and systemic risk.
[6] See, Silvije Orsag, Budžetiranje kapitala, Masmedia, 2002. str. 253.
[7] Number of transactions processed, number of staff absent, system time available for use, size of debtors, stocks, etc.
[8] Comparison of two values.
[9] percentage change in absolute values over time.
[10] Reporting actual versus expected positions and measuring the gap between them can give a measure of risk.

Some of the key measures that might be used to monitor company wide business risks could include: financial measures, market developments, commodities, production, sales levels, competition

5.2. Types of Risk Measures - Specific Risk Measures

Some risk types have their specific risk measures. Credit risk has for it's specific measure credit ratings. Credit ratings are given by ratings agencies.[11] They give us an indication of the riskness of a bond issue. Bonds with a very low probability of default have the best rating and are marked vith AAA or "triple A" as perceived risk increases, lower ratings are given to the bonds and the bonds are marked with: A, BB, BBB, etc. Bonds rated AAA to BBB are considered investment grade while those with lower ratings are considered "junk bonds".[12]

Market risk has Value at Risk (VaR) measure which indicates the maximum loss on any one day for a given probability of loss.

This measure has developed rapidly in the nineties as a concept, particularly as it is a usefull way of agregating risks across a variety of assets exposed to market risks.

Liquidity risk[13] has simple measures particularly for smaller organizations usually all that is needed is a cash flow chart showing expected inflows and outflows plus available bank lines.

Much effort has been given in recent years to develop specific measures of operational risk. There is no universally accepted measure because operational risk cover a wide range of areas each of which has a different degree of difficulty in the measurement stakes. Some of the more typical measures are: staff,[14] operations,[15] fraud.[16]

The above gives us just a hint of the variety of risk mearures that are available today for evaluating and reporting risk. In practice we need to use a variety of such measures when looking at risk as no single number is ever going to be sufficient. Naturally having more than one measure will allow comparisons to be made between the various measures and the vision of a situation will be clearer.

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[11] Such as S&P, Moody's, etc.

[12] See, Zoran Ivanovic, Financijski menedžment, University of Rijeka, 1997. pp. 406-408.

[13] See, Fraser Malcom, Pawan V. Sharma, Joseph Tanega, Derivatives – Optimal Risk Control, Financial Times, Prentice Hall, 1999, p. 81.

[14] Average and maximum numbers of staff absent, levels of overtime, number of vacancies, etc.

[15] Percentage of capacity used, instances of control limits being exceeded, levels of emission, transaction volumes, etc.

[16] Number and value of instances of fraud or attemped fraud, number of attempts to breach security systems.

CONCLUSION

Successfull business survive and grow by taking risks and continually adopting and responding to the changing environment in which they operate. To do this it is essential to have: a coherent strategy, an effective risk management framework, robust but flexible implementation.

The key to success is understanding the risks organization faces from the external environment and the capability of its internal resources to deal with those risks.

Setting strategy is a key element in managing risk because it sets the direction for the business as a whole. It is important that strategy setting involves risk and it must not be dictated from the top. As we already said a robust risk framework is needed to support the strategy. The risk framework becomes more and more important with aggressivnes of the strategy.

Historically, risk has been managed from the centre (comand and control) but today we can see that this is not the most appropriate model especially in a increasingly volatile environment that we are facing nowdays. Decentralisation helps risk management to operate more effectively at the front line but the controls are still needed.

There are a number of risk types management frameworks and the type adopted will vary according to size and complexity of the organization. Whatever the type of risk framework adopted there are a number of key elements that need to be addressed, including checks and balances, policies and processes, limits and roles and responsibilities.

There are many tools and techniques for managing risk but often they simply transform the risk rather than eliminate it and, in many, create new ones.

Doing it right will lead to satisfactory rewards but failure to address risk affectively will lead to losses and eventual demise.

Building a robust framework is not sufficient. Peoples issues and risk culture must be adressed.

The right strategy, supported by a robust risk framework which is implemented well will reduce the probability of an organization being hit by unexpected events and will help minimise the impact of any adverse events.

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Sažetak

FINANCIJSKE KORISTI RIZIK MENADŽMENTA

Cilj ovog rada bio je usmjeriti pažnju na važnost upravljanja rizikom. Naglasak je na definiciji same riječi rizik i shvaćanju njezinog značenja kao i na odlučivanju kod rizičnih situacija te balansiranju negativnog aspekta i pozitivnog aspekta rizične situacije. Date su određene smjernice koje se tiču indentifikacije i kategorizacije rizika, a samim logičnim slijedom navedeni su i tipovi rizika koji se u praksi obično nalaze isprepleteni što otežava njihovo prepoznavanje. Naravno, da bi ocijenili razinu rizičnosti potrebno je vršiti mjerenja rizika pa smo iz tog razloga rad zaključili načinima mjerenja rizika i upotrebom proizašlih rezultata.

Ključne riječi: rizik, rizik menadžment, gubitak, dobitak, indentifikacija i kategorizacija rizika, mjerenje rizika.