

ICT AS QUALITATIVE FACTOR, PRE-LOSS OBJECTIVE AND TOOL OF ENTERPRISE RISK MANAGEMENT

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ABSTRACT

Decisions of enterprise today are made in the presence of risk. Some risks are related to the underlying nature of the business and deal with such matters as uncertainty of future sales or the cost of inputs as strategic risks, and some deals with uncertainties such as interest rates, exchange rates, stock prices and commodity prices, as risks driven by factors external to an industry or products over which an enterprise has little streategic advantage. However, risk traditionally has been defined in terms of uncertainty concerning the occurrence of a loss, and it makes need for a enterprise to manage and largely eliminate these risks. These is an urgent need for enterprises in country in transition.

The aim of this work is to emphasize the benefit of ICT technologies in enterprise risk management. Naturally, derivatives have emerged as popular tool for managing risks, and companies have shown an increasing tendency to use derivatives. Financial institutions have made this growth possible by creating an environment that is conducive to the efficient use of them. This environment depended heavily on explosion in information communication technology. Without enormous developments in computing power, it would not have been possible to do the numerous and complex calculations necessary for pricing derivatives quickly and efficiently and for keeping track of positions taken.

Development of ICT technologies can also have great impact to solving and controlling risk as a tool. In this work the discussion will be divided into three parts:

- *risk management information systems, as computerized database that permits the risk manager to store and analyze risk management data and to use such data to predict and attempt to control future loss levels, include a listing of a enterprise's properties, property insurance policies, coverage terms, loss records. A log of fleet vehicles, listing of claims, assistance in tracking employees,*
- *risk management intranets and Web sites, as expended traditional risk management Web site into a risk management intranet with capabilities designed for internal audience frequent questions and a wealth of other information, employees who can obtain a list of procedures to follow along with a set of forms that must be signed before the event can be held, and other interested parties within the company*
- *and sophisticated risk maps, as grids detailing the potential frequency and severity of risks faced by the enterprise: property, liability, financial risks, personnel exposures, and other risks that fall under the broad umbrella of "enterprise risk"*

The aim of the work is also to show how the ICT industry can contribute to enterprise efforts to establish practices that lead to effective risk management, as ICT as qualitative factor, pre-loss objective and a tool of enterprise risk management in identification of loss exposures as: property loss exposures -computers, computer software and data; liability loss exposures - misuse of the Internet and e-mail transmissions; crime loss exposures – Internet and computer crime exposures.

A key concern for use of ICT technologies in risk management in organisation is creation of value for shareholders, reduction of costly process of bankruptcy, saving taxes, taking on profitable investment projects easier.

Key words: ICT, softwer, risk management

1. CHARACTERISTICS OF BUSINESS RISKS

Key dimension of risk is time, regardless of its dimensions. Relevant risk determination is a requirement for identification of some advent exposure to the risk. When it is said that there is a risk in operations, there are at least two possible effects, and one of them is always unwanted. Operational unwanted effect is called loss or less than possible or anticipated profit. On the other hand, there are a number of several risks in operating, which have mutually decreasing or multiplying effects. In addition, risks can have alternate causes or require synergy of several causes. There is opinion that the causes of risks in process of one project defining are answers to six questions: who, why, what, how, what with and when? Figure 1 shows the answers to these questions. As it can be seen in this picture, the roots of risks can come down to level of available resources, project purpose, even to the identity of project participants. Numerous surveys have showed that: most numerous risks are external, every problem has its own specific risk factors and some factors are differently expressed chronologically. Referred to that, in risk factors exploration, it is important to separate which factors of given problem belong to the group of “dominant” factors and which factors belong to “key” risk factors. Identification of risk exposure presents a set of instruments for setting uncertainty elements through direct or indirect risk exposure, through responsibility to the third party, speculation, market and other risk exposures. Identified risk needs to be managed. Figure 2 shows one model of risk management. Key activity for risk management is control. It is set of methods, instruments and techniques for declination, reduction or retention of risks. For that purpose, program of risk control is created, that includes insurance for risk emerging, protection control and property maintenance, review, unexpected event planning and funding for unwanted events. Funding is especially important because it is the field in which the interests of owner and creditor are faced. It shall also be emphasized that building of complex model of risk management requires knowledge in system theory, application of feedback function based on interrelated information about inputs, attributes and relations with macro sphere, whereby these interdependence relations are multidirectional and stochastic. To formalize risk management process assumes that there is a relevant communication process. Level and way of communication in risk management process must be accompanied by important cultural changes inside the organization. They can be drastic and very complex. It can be a reason for changes repulse because of interest to maintain status quo, impossibility to understand a need for a change, concern about costs from introducing new procedures, uncertainty and doubts in nature of changes etc. money, time and risk are constitute elements of every modern business strategy. Capital mobility, internationalization and overall globalization of financial flows as well as information technology development are stipulating a change in modern investment package and multiplying range of possible investing alternatives, and in the same time promoting business advancement. However, limitation and possibility for alternative usage of economic resources, not only in the light of their combinations in function of different generative combinations, but in time also.

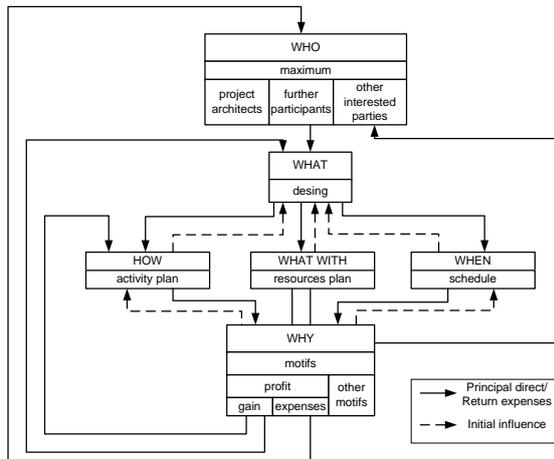


Figure 1. Causes of risks and project defining process

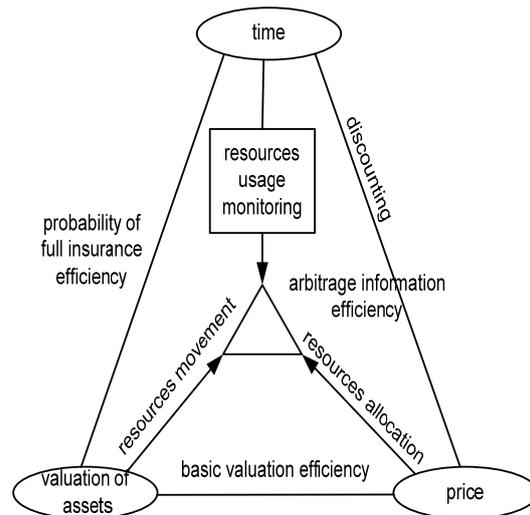


Figure 2. Risk management

2. ENTERPRISE RISK MANAGEMENT

Encouraged by successes of financial risk management, some organizations have taken next logical steps. Enterprise risk management is a universal risk management program that refers to pure risk, speculative risk, strategic risk and operational risk of organization. Strategic risk refers to uncertainty about organization's goals and objectives, strengths and weaknesses, capabilities and threats. Operational risk is the risk that develops from business operations, including things like production of goods and rendering services to clients. Corporation is neutralizing one risk by another through packing them in one program, and reducing total risk in that process. Until risks combined in program do unveil perfect correlation, the combination of exposures reduces risk. If some of the risks are negatively correlated, risk can be notably reduced. Earlier studies stated that 30 – 35% North American companies and US have been adopted enterprise risk management (ERM).

3. RISK MANAGER TARGET FUNCTION

Need for various permanent changes and globalization more clearly put accent on creating of intellectual capital within the company. Process of management professionalization is an after effect of the needs to evaluate ensuing conditions, protect company interest and take risk for the future. Risk manager is performing his/her job in six steps: 1. Specifying objectives in the company's strategic policy, 2. Risk identification, 3. Evaluating risks, 4. Analyzing methods and actions in handling risk, 5. Decision proposing and implementing, 6. Evaluating and reviewing of enterprise risk management program(ERM). Risk manager must be a professional, management expert and expert for evaluating demands from all levels of management and leadership with multidiscipline knowledge and with high – intellectual argumentation.

4. RISK MANAGEMENT INSTRUMENTS

These are some instruments of risk management. We are going to divide our discussion in three sections.

- Risk management information systems (RMIS)
- Intranet and risk management web sites
- Risk maps.

4.1. Risk Management Information Systems

Accurate and accessible data are the key concern of risk managers. Risk management information system (RMIS) is computerized database that enables risk manager to store and analyze risk management data and to use that data for forecasting and control future losses. RMIS can be of great help for making decision in risk management. RMIS are often offered by independent RMIS vendors

or they can be developed within the company. RMIS have a multiple usage. For property exposure management, database can provide list of company's assets (construction, occupancy, security, exposure etc.), insurance policy, reimbursement terms, track losses, fleet registry (including purchasing dates, travel orders, maintenance), etc. For liabilities management, database can include list of claims, specified claim status (open, deposited, in litigation, appeal or closed), significant claims, exposure basis (payroll, number of vehicles in the fleet, number of employers, etc), liabilities insurance covering and its terms. Organizations with big number of employers often refer to the RMIS as a great help in tracking employers, especially claims for compensation. In addition to compensation claims, Third-Party Administer (TPA) can provide detailed claims management system for the primary data to RMIS. Equipped with these data, risk manager can make numerous analyses, as study of injuries number in the defined geographical area, by the nature of injury or body part, job classification, worker's identification number. Risk manager can use output data from measurements of investment efficiency in loss control and for targeting further efforts in loss control.

4.2. Intranet And Risk Management Web Sites

Some risk management departments have established their own web sites. Additionally, some organization expanded their traditional risk management web site into risk management intranet. Intranet is the web site designed for limited, internal public with a search capability. Through intranet, employees can get list of tracking procedures (formulated by the risk management department) along with set of forms to be signed and completed before an event can take place.

4.3. Risk Maps

Some organizations are developed or they are developing sophisticated risk maps. Risk maps are nets of detailed potential frequencies and intensity of risk facing organizations. Risk manager must analyze every risk that organization is facing in order to define a risk map. Usage of risk maps vary from simple graphic presentation of exposures to risk to simulating analyses for estimating scenarios of probable losses. Additionally, other risks like property risk, liabilities risks, personnel risk, financial risks, and many more that pertain in enterprise risks, can be included in the risk maps.

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