

Business Risk Management under Conditions of Knowledge Society Development

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Abstract The main purpose of this article is to analyze fundamental principles of Regional business risk information system (REGBRIS) formation, which is based on gathered and constantly updated information and new technologies. Theoretical aspects of the main stages – risk structuring and risk monitoring are presented.

Keywords - Knowledge society, Risk informative system, Risk structuring, Risk monitoring.

I. INTRODUCTION

Knowledge society development is the basic factor of economy development, working places creation and social welfare. This is in process under conditions of science researches development and practical activity, based on the knowledge and new technologies, integration into competitive business development.

Any business is inevitably related with risk. Risk could be stipulated by uncertainty of present activities' future as well as by possibly wrong business managers' decisions. Management of risk requires exceptionally good special knowledge about risk factors and ways of influence. Successful risk management leads to effective use of regions' resources as well as to connections with external partners. Under conditions of knowledge society development the requirements for business risk management effectiveness are growing, thus the base for modern means formation is gathered and constantly updated information and new technologies. One of these means is Regional business risk information system (REGBRIS).

This article presents the theoretical aspects of this system's main stages – risk structuring and risk monitoring formation.

II. TODAY'S REQUIREMENTS FOR BUSINESS RISK MANAGEMENT

Knowledge society era officially started in 2000, when during the meeting of the European Council in Lisbon, the Heads of State or Government launched a „Lisbon strategy“ aimed at making the European Union (EU) the most competitive economy in the world and achieving full employment by 2010. One of tree pillars, on which rests this strategy - an economic pillar preparing the ground for the transition to a competitive, dynamic, knowledge-based economy. Creating such economy the development of modern

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companies with the ultimate in technology is promoted as well as opportune environment for business and investment is formatted. Thus, regarding to the creation of opportune environment, effective and based on new technologies and knowledge means for risk management is needed.

The term “risk management” gained currency in the 1960s and 1970s by those interested in exploring broader options for managing “insurable risk“. Insurance has long been used by corporations to manage property, liability, and related risks. Insurable risks expose the company to volatility, but the volatility is all in one direction. Damage to property, or liability settlements, offer chance to loss, not of gain. The defining characteristic of such incurable risks is that they are downside in direction. Of course, insurable risk can be managed by insuring them. But the advent of risk management reflected recognition that this was not the only possible strategy [1]. Other decision: risk can be reduced or avoided. By investing in modern risk management means companies could reduce the expected value of losses. When the risk is managed properly, it could increase region financial or other resources effectiveness by 15-20 per cent [2].

The value and the importance of knowledge, information systems and communication technology have become increasingly decisive and ubiquitous in organizations' businesses for some decades. The rapid deployment of the internet and the corporate databases in the 1980s and 1990s accelerated this process of modifications to companies' behaviour [3]. As technology continues to extend its reach, information systems are become ever more crucial in the battle for competitive advantage in organizations [4]. This situation and its possible evolution provide new challenges to ability to design and deliver new means for effective risk management. Regional business risk informative system is one of these means. In order to create this system heuristic approach is needed: emphasizing correct formulations of system objects, operation principals and creation presumptions. However, before these steps the interaction between information and knowledge must be defined.

III. INTERACTION BETWEEN INFORMATION AND KNOWLEDGE

Successful and economically effective knowledge society development raises high requirements for information systems projects and its' implementation strategies. Against rapid knowledge society development the definitions of information, information system and knowledge require correction and development as well.

The concept of information is not perceived homogenously and this should be constantly improved by educing further its content and seeking that this category would become constructive instrument for systems' interaction research. At

the moment information category is objectified increasingly separating its content from simply entire data content. When separating information and data concepts' content, it's very important to consider qualities – knowledge (intelligence) of subject, which is using it. Perhaps the best way of depicting this process would be simple scheme (Fig 1) reflecting data collection, informativity development and knowledge widening and deepening necessity concept interaction. Herein information is perceived as tool, which converts data into knowledge and deepens the level of individual's knowing.

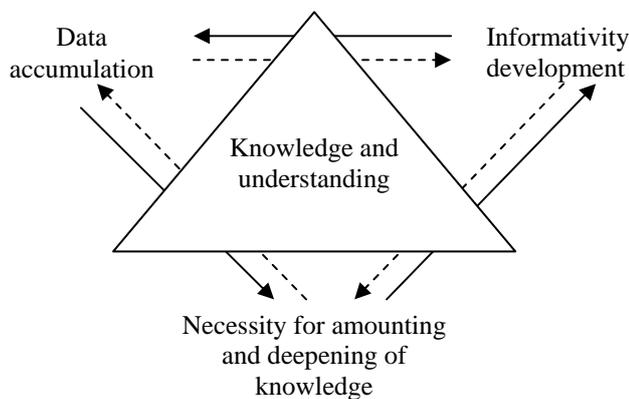


Fig. 1. Interaction between assistance of data, informativity development and standing of knowledge and understanding

Adequate requirements of information expansion and perception of regularities are necessary for the right information system development strategy preparation. Capability to convert internal and external data into knowledge, assure knowledge accumulation, create conditions for optimal decisions making are considered as exceptional qualities of information system.

Talking about business information systems, three systems' functions are usually emphasized: improvement of business operations' interaction; deepening of knowledge for decision-making process; amelioration of business competitiveness.

Risk structuring, as information required for risk management, and region's business risk monitoring is analyzed in more detail further.

IV. RISK STRUCTURING AS INFORMATION REQUIRED FOR RISK MANAGEMENT AND RISK MONITORING

The notion of risk has different meanings. The variety of risk concepts causes a need to study the basic aspects of that variety, in order to make risk management preparation assumptions [5]. There is a variety of views and descriptions of the processes that risk management involves. Using simple view of risk management mechanism (Tsohou A. et al., 2006) [5] the stage of risk structuring here is involved between initiation and monitoring stages (Fig. 2). The risk structuring scheme, which separates three risk aspects – physical risk, decision result risk and economic risk, can be used as a special tool of different risk aspects comparison.

In many cases a man bases his interests and benefit formation on economic information, and he also understands the mechanism of his interests' realization as a complex of

economic means oriented to that goal. That's why the risk of non-adequate economic and financial information directly and strongly influences human decisions risks, which in turn can influence the factors of the physical risk. Therefore, it is natural in most cases to call the financial or economic factors as the basic (initial) risk factors, even in such fields of activities as ecology, environment, etc.

The region risk monitoring is understood as identification of the basic risk exposed objects in the region, observation and evaluation risk level and risk scale in the region as well as evaluation the primary risk factors in the region. As a consequence of risk exposed objects identification and risk factors evaluation, regional risk management system could be organized (Fig. 2).

In the further discussion risk monitoring will be understood as a constant observation of risk and, first of all, as primary risk factors influence on region risk exposed objects. The main tasks of regional risk monitoring would be:

1. To distinguish basic risk objects in the region;
2. To distinguish basic risk factors in the region (firstly the primary ones);
3. To create analytical models, which would allow to observe and evaluate riskiness of different region objects by different risk factors;
4. To prepare and arrange the information, which would help to create the risk management strategy.

There is no doubt that one object in region can be influenced by several different risks. That's why it is not always easy to differ "the basic" risk factors. In addition, when the object is influenced by several risks at one time, it is difficult to evaluate their interactions effect, though it can be rather significant.

The data obtained from monitoring would be used to evaluate the riskiness of the region and forecast possible changes of the riskiness. It would be valuable information for investors, especially foreign investors, who often base their selves on very common facts and information. The information, which is got by observing region riskiness and changes, would be used for managing risk of different objects and the whole region risk management and for planning the long-term risk management means.

Regional business risk monitoring should be executed on the basis of complex monitoring system, which allows:

- to monitor the changes in a riskiness of the region and to analyze the reason of the changes, to perfect the models and methods designed for generation and ordering on information for decision making;
- to develop business risk management strategy which enables to maximize efficiency of that management in the whole region.

Practically the creation of complex or systemic regional business risk monitoring has to conclude:

- identification of primary risk factors;
- investigation of primary risk factors impact to the objects;
- identification of regional risk impact recipients;
- preparation of the system of risk management means and instruments;
- preparation of the risk management strategy.

Thus, on the complex monitoring concept basis, it would be expedient first of all to identify the primary (basic) region risk factors. The basic groups are (Fig 2):

1. Finances and business risk;
2. Physical risk;
3. Management risk.

Every of these risk factors group includes several actual primary risk factors. Primary (basic) factors are those ones, which practically do not depend on other factors. When, studying financial processes, such factors are rather hard to pick up in reality. Here as primary risk factors are threaten those, which predetermine other risk factors with respect to particular risk influenced objects or their groups.

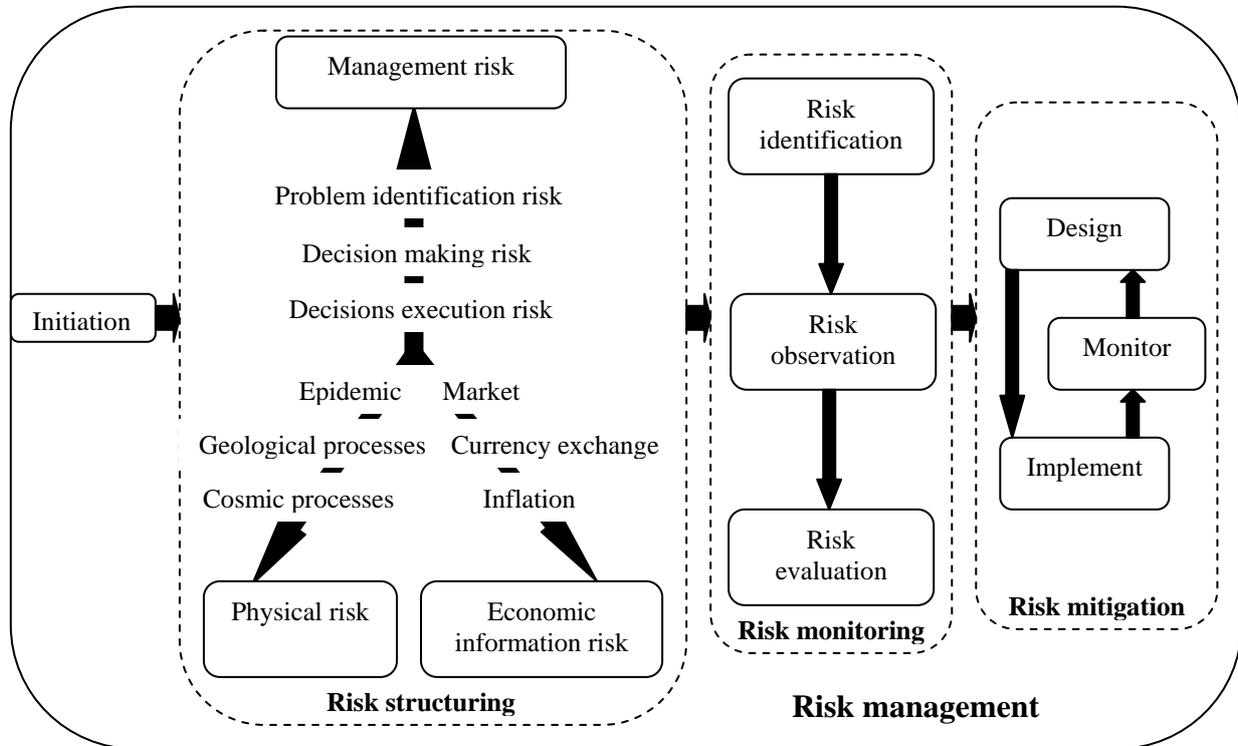


Fig. 2. The risk management mechanism

Investigating financial and business risks, primary risk factors are:

- exchange rate risk,
- interest rate risk,
- inflation risk,
- market risk,
- capital expenditure risk.

Investigating physical risks, primary risk factors are:

- natural disasters risk,
- environmental changes,
- human and fauna genetic properties changes risk.

Investigating management risks, primary risk factors are:

- technological risk,
- managerial decisions risk,
- political decisions risk.

After the identification of primary risk factors one need to study the main risk exposures objects in the region. It could be distinguished such objects of risk influence in the region:

1. Financial instruments;
2. Subjects of economics;
3. Functions of state business management;
4. Region resources.

These risk exposures groups can be detailed as follows:

1. Financial instruments include: currency, debt means, investment means, financial transactions;
2. Subjects of economics include: financial institutions (country's, foreign countries' and common);
3. Subjects of other activity (country's, foreign countries' and common);
4. Functions of state business management include: budget, internal debt, foreign debt, balance of payments, social stability;
5. Region resources include: natural resources, people and their assets created by them.

V. CONCLUSIONS

Under condition of knowledge society development the new strategies and means for effective business risk management has become relevant in order to increase the competitiveness of regions' business.

The management of risks as a non clear-cut structured system is especially complex and demanding new conception basis and absolutely new methods of information management. One of the means is REGBRIS, which process is based on gathered and constantly updated information and new technologies.

Regional monitoring of business risk, understood as a system of observation of risk influence, evaluation of consequences of risk emergency and collection of information, which is needed for decision making, should become the source of risk informative system which in its order is understood as informative and management system.

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