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Models of risk management in organisations

Key words: risk management, risk management in organisations, risk management models

Summary: The article concerns risk management in generally understood organisations. It contains a synthetic presentation of the risk management process and its most common methods. The summary outlines positive consequences of running the process of risk management by an organisation as well as problems connected with its practical implementation.

1. Introduction

All modern organisations operate in the conditions of risk. Risk arises out of both the environment and internal factors of a business entity. The environment generates threats directly connected with the financial and economic sphere of an organisation (interest rate, inflation, accessibility of loans, currency exchange rates, domestic and world economic situation, labour market, losses following catastrophes and natural disasters as well as other random incidents), strategic (clients and demand for a product/service plus competition, i.e. the generally understood situation in a given business area), organisational and operational position (organisational culture, management board, organisational changes, contracting parties), as well as legal situation (legislation and legal regulations governing the conditions of managing an organisation and its duties towards its employees or the state). Threats inside an organisation are, however, connected with conducting operations within the field of accountancy, cash flows, maintaining financial liquidity, the supply chain, IT systems, recruitment and employees, the entity's assets, products and services plus their technologies, research and development as well as intellectual capital (*Standard*…, 2003) and they arise out of decisions taken on specified levels within various time horizons.

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The necessity to take decisions is of fundamental importance in organisation strategic management and endangering it (i.e. exposing = exploration). The above-mentioned elements of the external and internal structure often determine the entity's future position by affecting its economic results, quality of products and services, including its competitive position and market share.

The results of risk performance and in particular the necessity of bearing its costs (Williams, Smith, Young, 2002, p. 41) are the main reason for implementing operations defined as risk management by business entities.

This study lists methods serving risk management in generally understood organisations. The aim of the article is to present the *risk management process* synthetically in a traditional and modern (integrated) approach as well as to demonstrate the basic problems connected with this issue.

2. Risk management

Risk management supports more effective management of an organisation because it helps to understand and assess the threatening risk. Conducting this process in an organisation allows undertaking operations which increase the probability of success and decrease the possibility of failure. The fact what kinds of risks are subject to management depends on the preference of the entity being analysed and may concern strategic, financial and operational risks or random incidents.

Risk management is a range of activities which an entity needs to undertake in order to allow only the amount of risk acceptable for the business operations which it conducts (Michalski, 2004, p. 42). This is a process of bringing risk under control and includes a range of activities connected with risk analysis, elimination, reduction and management in a given case (Monkiewicz, 2000, p. 40), but also a system of methods and actions aimed to reduce the level of risk impact on operations of a business entity and to take the optimum decisions for this purpose.

The theory of risk management by George L. Head and Stephen Horn distinguishes the five stages of risk management (Karlikowska, 2001, p. 41):
- stage I: identifying and analysis of ensuing losses;
- stage II: defining alternative methods of risk management;
- stage III: selection of the optimum method of risk management;
- stage IV: application of the selected method;
- stage V: monitoring results.

According to EU legislation 'risk management' means planned application of the policy, procedures and managerial practices within the framework of assignments concerning risk analysis, valuation and supervision (J. L. no. 108/4. art. 3.6).

At present several practices of risk management are used simultaneously, such as the American model applied in organisations; it also has a five-point system composed of task definition, risk and uncertainty assessment, risk control, risk financing and programme administration (cf.: Williams, Smith, Young, 2002, p. 61).

The basic stages of this process which are repeated in a number of models are: risk definition,[2] its analysis and assessment,[3] risk manipulation and its observation plus control.

The essence of risk management comes down to continuity of this process, because the exclusively continuous and constantly improved risk management process can help an organisation to reach its planned aims.

The above-mentioned process should not only refer to an entity's business operations, but also constitute part of a wider process, namely management of a whole unit (which means that it should refer to decisions taken by an organisation, particularly those of strategic character).

As a consequence of risk management an organisation can:

– determine the catalogue of threats and opportunities (present and future) resulting from the analysis of peculiarity of the entity's business operations and information about the organisation's environment plus define their possible influence on performing the strategic objectives (in order to achieve it potential threats are identified and their seriousness—assessed[4] on the basis of the probability of threat appearance and generation, i.e. risk maps are construed);
– design activities and procedures making it possible to prepare an organisation to undertake the identified risks and appropriate emergency plans which should be taken into consideration in the organisation's strategy (the aim of these actions is to reduce and minimise consequences of dangerous risk execution by selecting an approach to the risk from among the strategies of avoiding, limiting, stopping, sharing and transferring it onto professional entities within this scope such as insurers or acceptance resulting in continuous control of risk and decisions being made).

One of the stages of risk management strategy preparation is also the appointment of people responsible for strategy preparation for individual risks of an organisation and defining their roles.[5] In this way a dispersed risk analysis is drawn up, made from the point of view of different risk areas and people called risk owners.

Nowadays companies can make use of computer systems of risk management which make it possible to reduce probable costs, assess the risk of new operations being undertaken, increase a company's competitiveness and secure themselves against stock exchange crises. These systems include e.g. Risk Manager by PBSG sp. z o.o. and also Smart Risk module in Smart software by the same company (*Analiza ryzyka*, 2010) or a software serving to manage risk by SAS Institute, used generally

[2] E.g. using the schemes of flow, brainstorm, SWOT or PESTLE analysis plus risk register.

[3] During risk analysis direct and indirect consequences of various occurrences are taken into account.

[4] Defined as the product of possible consequences and the probability of their occurrence.

[5] Appointing a risk management unit managed by a director or the Risk Management Team—RMT, including 12 people on average, in smaller organisations 6–8, in bigger ones 16 up to 25.

in the following business areas: banks, financial institutions, telecommunications,[6] power industry,[7] insurance associations[8] and also in the public sector and administration[9] (*Zarządzanie ryzykiem*, 2010). However, these solutions are still expensive due to the necessity of continuous monitoring and implementing increasingly new procedures arising out of changes in the organisation's environment and those inside it; therefore they are usually applied by big companies (private and state-owned).

Owing to the above-mentioned support of IT technology risk management allows organisations to achieve their fundamental objectives, including, among others: security and financial stability maintenance, protection of assets, operational activities, company's reputation and image, profit maximising, boosting an entity's susceptibility to ensuing random incidents and their consequences by faster 'handling' them as well as raising risk awareness among managers, management board and employees or improving organisational culture. Securing the possibility of achieving the above-mentioned aims translates eventually to reaching higher value and competitiveness by an organisation.

Efficient risk management is an elementary ingredient of efficient management of a modern business entity, because it actually increases the probability of reaching the planned targets and limits the influence of risk factors on the elements of business operations being run.

3. Risk management models

Enterprise Risk Management—ERM (business risk management, holistic risk management) covers all the risks which can occur in organisations. ERM ensures responding to identified risks and preventing their consequences which may prove very unfavourable from the point of view of current and future operations of a given entity. This kind of risk management is an element of corporate governance and, coupled with internal controlling and audit, guarantees that the organisation management's or board's attention is focused on the most serious risks and protection of the fundamental interests of the entity's shareholders.

The aim of risk management is to maximise the value of a covered entity. An efficiently working system of risk management, based on the 'risk awareness' culture, enables the management board to concentrate on building the strategy of company development, value and competitiveness. Risk management companies can, in a con-

[6] E.g. in the companies: Polska Telefonia Cyfrowa, Telekomunikacja Polska, Polkomtel, PTK Centertel.

[7] E.g. Alma Market, Indykpol SA, Koncern Energetyczny ENERGA SA, Polskie Linie Lotnicze LOT, Zakłady Azotowe Puławy SA.

[8] The solution is used by: PZU SA, PZU Życie, ING Nationale Nederlanden Polska, Allianz Polska, STU Ergo Hestia, TU Compensa, Link4 Towarzystwo Ubezpieczeń, UNIQA, AXA Ubezpieczenia.

[9] E.g. Polish Financial Supervision Authority, Civil Service of the Republic of Poland.

trolled way, undertake a higher risk than an average company from the same business area—i.e. achieve higher profits and be more competitive (Rudnicki, 2010). As it follows, ERM can be defined in the most general terms as a system of risk management on the whole company scale, which concerns the full range of risks (internal and external) and is a complex approach to risk management, supporting management and boards in maximising a company's value, generated by risk management experts.

ERM helps organisations to prepare not only for catastrophic occurrences such as a terrorist attack on World Trade Centre in New York on 11th September 2001, but, above all, for more predictable risks which companies and enterprises are faced with on a daily basis. On the one hand the system allows avoiding unfortunate investments, on the other hand it encourages to make investments which may seem excessively risky at first glance.

Observing ERM rules, every decision is assigned a given kind of risk. The only actual form of protection against the consequences of its execution is to cover it with the protection process. By linking every decision with the respective risk following taking the decision, an organisation is able to respond to complex conditionings, because, in fact, it never loses sight of the area of risks which it is supposed to manage. This appropriate balancing of risks becomes the only way to efficiently manage an enterprise in the complicated world of uncertainty and risk.

The above depiction of ERM includes the following premises (Berinato, 2005):

- an integrated view of risks;
- observing risks on the company scale as a whole;
- looking at the risk from the point of view of the financial result and risk director;
- treating risks as a continuous phenomenon which needs to be managed and controlled on a constant basis.

Individual stages of ERM are consistent with the risk management process, so, above all, they consist of (Berinato, 2005):

- defining the risk (the so-called brainstorming stage, during which the answer to the question of the type: 'what would happen if…' are being searched for; one of efficient and generally used research methods is surveying employees) and defining its importance for the organisation;
- risk assessment by attributing them with an appropriate level of threats by the categories: low, medium, high (e.g. in the coordinate system where the ordinates' axis is the probability of risk execution and the axis of abscissa is their potential impact on the basic objectives of an organisation—the map of risks is drawn up in this way);
- risk reduction (selection of minimising and reduction methods of the risks being diagnosed).

The most crucial differences between the traditional approach to the risk management process and ERM integrated process ERM are presented in Table 1.

Table 1

The main differences between the traditional and integrated approach to risk management in organisations

Traditional approach	Integrated approach
limited influence on strategy	influence/cooperation with an organisation's strategic business plans
risk perceived in organisational units, on operational levels (but not at managerial level)	commitment of the highest-ranking management
reluctance to risk taking; a passive approach to risk, static management	readiness to act, readiness for risk, an active approach to risk, pro-active management
a fragmentary view of risk, perceived only inside an organisation (from the perspective of different organisational levels)	an integrated, holistic view of risk, taking into account also its external aspects (from the perspective of an organisation as a whole, including its surroundings)
risk management as orientation to loss avoidance (preventive actions towards threats which can cause losses)	risk management as a process increasing an entity's value (activities oriented to seizing an opportunity, taking the chance of value growth)
random and accidental risk assessment and analysis (static process)	risk assessment as a continuous process (a dynamic process, reacting to changes and being improved)
non-distinction of risk in particular business processes	risk taken into account in business operations, presented for analysis and assessment
incoherent information system	coherent, consolidated information
lack of communication in an organisation within the scope of risk	open communication in the matter of risk management
lack of division of responsibilities and competences within the range of risk management and control	responsibility clearly connected with a given level of risk management (assigning individual risk types to the so-called risk owners being in charge of them)

Source: author's own study based on: *Creating value in a volatile economy, 2009*; Machowiak, Staniec, 2007, p. 14; Zastawa, 2007.

The following standards and norms apply to the field of risk management:

- Risk Management Standard—ISO 31000 (an international standard which presents the basic rules of implementing the risk management system and can be used in different periods of an organisation's life cycle within a wide scope of its business activities, in a number of economy branches and concern both decisions and operations in private and public enterprises, associations, independent entities or groups of organisations);
- BS 25999-2 Business Continuity Management—Part 2: Specification (the first standard in the world referring to operational continuity maintenance during a serious catastrophe or accident as well as any unwelcome event; it serves to minimise disturbances which occur in any area of an organisation);
- Risk Management Standard prepared on the basis of the British management model and trade organisations: The Institute of Risk Management—IRM, The

Association of Insurance and Risk Managers—AIRMIC and The National Forum for Risk Management in the Public Sector—ALARM, (*Standard*…, 2003) supported by the Federation of European Risk Management Associations—FERMA);

- standards concerning implementation of risk management systems in case of units of the public finance sectors, defined in the publication entitled: "Risk management in the public sector—a manual of risk management system implementation in the public administration in Poland" or the "Orange Book—risk management—rules and concepts", modelled on the British pattern (*Bezpieczeństwo finansowe*, 2010) (they present a danger for operational efficiency of public administration and public services posed by financial crises, terrorism, viral epidemics, frauds and corruption);
- standards more regional, such as the Australian and New Zealand standard of conduct in risk management AS/NZS 4360, prepared by Joint Standards Australia/Standards New Zealand Committee OB-007, American COSO II (The Committee of Sponsoring Organizations of the Tradeway Commission)—ERM Framework: internal control model enriched with the rules of corporate risk management, Management of Risk (MoR) presented by the English organisation Office of Government Commerce in 2002 and modified in 2007, Canadian COCO or the South African King II (based on: *PBSG Library*, 2010; Zastawa, 2007; Okuniewski, 2007, p. 2).

4. Conclusion

Efficient risk management is a process and constitutes a component of a holistic process of managing an organisation. It covers all the departments, functions and processes of an enterprise and its success is determined by cooperation of all elements. An appropriate attitude of an organisation's management within the area of risk and uncertainty allows its continuous development. What is significant here is the management's attitude to risk and its perception, because they determine the changes made in enterprises and condition an increase or decrease in productivity. An approach to risk can be expressed with a positive stance towards risk (love for risk), neutral (neutrality towards risk) or negative (aversion towards risk). However, running business operations without taking risks can be far more dangerous for organisations, because development, achieving profits and maintaining a position on the market is then impossible. It is not worth aiming at maximum risk reduction and subordinating excessively all decisions of an organisation to it, because these efforts do not ensure success on the market at all.

A significant element in the management process are also employees who are expected to be committed and behave in a responsible way in situations of risk exposure. Their motivation, cooperation, understanding of the essence of risk and threats plus their support for the management's actions aimed at reduction and control of dangerous situations determine the quality of work being performed and eventually—a company's success. An employee's attitude to work plays a very important role in strategic management.

It is worth stressing the fact that risk management is strictly connected with the value of a managed entity as a whole which is composed of several elements. Their good financial condition and development constitute an organisation's strategic aims. Owing to risk management these aims can be achieved, ensuring a business entity's value maintenance and its growth. As it follows, risk management is a very important part of organisation management, the priority aim of which is an increase in its value.

In practice, however, efficient implementation of processes of risk management in an organisation is a difficult task, mainly due to lack of skills and experience of managers or their insufficient knowledge, the necessity of changes in the way of thinking and those in the organisational culture (communication between employees and people in charge of risk management breaks down most often), a requirement for acceptance and active support for management by a company's board of directors as well as incurring costs connected with risk management. Research into risk level and risk management in different organisations, cited in a report published in the summer of 2009 by a panel of Grant Thornton consultants (an auditing company from the USA) shows that out of 700 organisations being analysed over 60% noticed that the level of risk has significantly risen over the past 5 years, but, despite that 44% of them did not implement the process of risk management nor planned to introduce this system. 53% of them explained that it resulted from risk monitoring in their enterprises, in a different way outside ERM, nearly 30% did not record the necessity to change their approach to risk management, approximately a quarter had more urgent needs which did not allow initiating ERM, whereas 18% did not notice the benefits which would have predominated the costs of system implementation (*Creating value*…, 2009). As it follows, the system of risk management poses a huge challenge for organisations and their management.

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Modele zarządzania ryzykiem w organizacjach

S t r e s z c z e n i e: Artykuł dotyczy zarządzania ryzykiem w szeroko pojętych organizacjach. W syntetycznym ujęciu przedstawiono proces zarządzania ryzykiem oraz jego najpowszechniejsze metody. W podsumowaniu zarysowano pozytywne skutki prowadzenia przez organizacje procesu zarządzania ryzykiem oraz problemy związane z jego wdrożeniem w praktyce.

S ł o w a k l u c z o w e: zarządzanie ryzykiem, zarządzanie ryzykiem w organizacjach, modele zarządzania ryzykiem