ENTERPRISE RISK MANAGEMENT WITH THE FOCUS ON SMALL AND MEDIUM ENTERPRISES

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Abstract
In the paper, the risk and risk management issues are discussed. We try to offer different definitions and characteristics of business risk together with categorisation of risk connected with the entrepreneurship. Specific risks in the SMEs sector are emphasized and some solutions for process-oriented risk management are offered.
Keywords: risk, risk management, SMEs

Introduction

Risk is present and all pervasive in any activity. It is more so in the business, particularly in small and medium enterprises (SMEs). The proof for this statement is the fact that a high proportion of small businesses fail within a few years of starting operations.

In the business, the risk can be viewed as a potentiality that both expected and unexpected events may have an adverse impact on the capital and earnings and consequently risk impacts the objectives of any business entity.

Therefore, managing risk is one of most important roles of the corporation's management. Risk management is an ongoing process that can help improve operations, prioritise resources, ensure regulatory compliance, achieve performance targets, improve financial stability and ultimately, prevent loss/damage to the entity.

The rest of the paper is divided into four main parts. First part defines risk in general and describes different approaches to risk definition. This part contains also one of many risk classification. In the second part the attention is paid to risks which are special for the segment of SMEs. Third part focuses on the process of risk management and introduces three models of the enterprise risk management and fourth part concludes.

1. Risk specification and risk structure

Risk is a concept that can be viewed from different angles. The most conceptual explanation of risk is to view it from the angle of volatility. Volatility can be explained as the dispersion of values around a certain mean value. The higher the dispersion around the mean, the higher the risk is considered. For instance, currency risk increases when the spread around the mean value of the

currency at a moment in the future increases. Because the concept of volatility is a statistical concept, it often does not align to the day-to-day judgmental processes of entrepreneurs and business people. Although in the core of the matter risk is nothing more or less than a volatility of values around a mean value, it is better to define risk in a more operational sense. Especially the field of international business gives a great number of explanations of the concept of risk. For instance Culp (2001), defines risk as: "any source of randomness that may have an adverse impact on a persona or corporation". This definition is aimed at randomness which implicitly suggests an incapability of managing it. After all, how is it possible to manage randomness? Olsson (2002) transfers the 'randomness' from the definition of Culp (2001) to 'uncertainty' and defines risk as: "the uncertainty of future outcomes". Aven (2003) uses a similar definition: "risk is uncertainty about the world". Although there is a difference between risk and uncertainty (Miller (1992) points at the term risk is used "to refer on the one hand to a general lack of predictability in performance outcomes, and on the other to the unpredictability of organisational and environmental variables which have an impact on performance predictability, or simply a lack of information concerning these variables". As discussed by Frank Knight (1921), there has to be made a distinction between risk and uncertainty to determine whether risk has to be measured from a statistical foundation or from a subjective judgement foundation.) the terms are used interchangeable. Because of the colloquial use of risk and uncertainty, this paper will not make a distinction between the different meanings of both terms.

Looking at the definitions presented so far, the sources of randomness are not defined but taken as a known fact. To overcome this definitional gap, it is clarifying to look at the COSO framework (2004). It elaborates on identifying these sources as events, which are "incidents or occurrences […] that could affect implementation of strategy or achievement of objectives".

So far, this overview explained that risk has to do with uncertainty of achieving objectives caused by events. To continue, White and Fan (2006) probably mention the most broad definition of risk as: "the possibility of an unanticipated event, or change in behaviour, which has a negative impact on a key performance indicator or on the achievement of some strategic objective, one sufficiently significant to justify a response by relevant decision makers". This definition combines the concept of uncertainty with the objectives of the organization and the performance indicators that express the extent into which company objectives are achieves. The added value of this definition is that it also includes a justification for the response decision makers design in order to manage the risk exposure. Wahler (2002) adds stakeholder value to the definition of risk; "Risk is the threat that an event or action will adversely affect an organisation's ability to maximise stakeholder value and achieve its business objectives and business strategies". Stakeholder value is an important concept for the explanation why risk management adds value to a company and has to do with the cost of financial distress (later more about that). But, probably the most operational explanations of the concept of risk are presented by organizations that stimulate

business in general or branches to implement risk management frameworks. The Committee of Sponsoring Organisations of the Treadway Commission (2004) (COSO) defined risk as "the possibility that an event will occur and adversely affect the achievement of objectives". The Casualty Actuarial Society (2003) (CAS) defined risk as "Conditions and events that represent material threats to the enterprise's achievement of its objectives or represent areas to exploit for competitive advantage". But the definition that is most often used in business is the one that is defined by the Basel Committee on Banking Supervision (2003): "The risk of loss resulting from inadequate or failed internal processes, people and systems or from external events". For the remaining part of this article we will use this definition when we mention risk.
Once the risk is defined, it is important to make a further subdivision of the different categories of risk. The most common way to systematize of risk is presented by James Lam (2003).

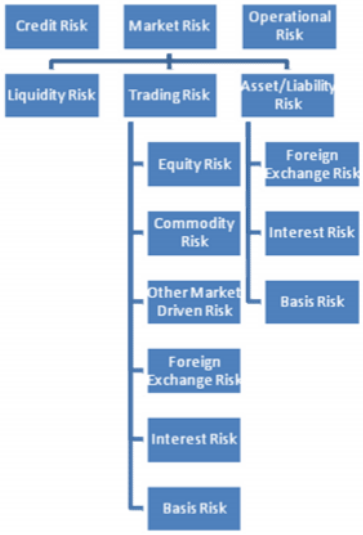

Fig. 1 Categorisation of risk

Source: Lam, 2003

As it is evident from the fig. 1, there are basically three types of risks: credit risk, market risk, and operational risk. While the credit risk is associated with the default of counterparty, market risk relates to unfavourable changes in the market prices and operational risk is the residual risk which does not directly relate to credit or market risk. Above mentioned risk categories are briefly explained in the table 1.

Table 1

Explanation of risk categories

Credit Risk	Customers that default on their payments
Interest Rate Risk	The Risk of financial loss due to interest rate volatility. Losses could result from changes in level or shape of the yield curve.
Foreign Exchange Risk	The risk of an adverse variation in return or cost resulting from changes in foreign exchange rates.
Commodity Risk	The risk of commodity price fluctuation.
Equity Risk	The risk of equity value fluctuations
Basis Risk	The risk of changes in the relative rates of two indices
Other Market Driven Risk	In addition to the most common risk types listed above, there are other market risks, such as option risk and exposures to other market prices
Operational Risk	The risk of direct or indirect loss resulting from inadequate or failed internal processes, people, and systems or from external events.

Source: Lam, 2003

These types of risk are general for every company, be it large, medium or small. However, the SME sectors are exposed to some specific risks, some of which are introduced below.

2. Risks specific to SMEs

There is no doubt that every business entity needs robust risk management system but the SMEs need much more than that. The reason is that they may not have wherewithal to manage and control risks due to their very size and several limitations. Large corporations do not face this problem since professional personnel take care of many aspects pertaining to risk.

In the case of SMEs, the list of specific business risks can contain following issues:

1. **General business risk stemming from the legal form of business entity.** The businesses under SME sector are mostly proprietorship and partnership concerns. Thus, the constitution itself may be considered to be risky due to lack of professionalism and overdependence on one or two key persons.
2. **Funding risk.** The nature of constitution of the business limits the funding opportunities including leverage. There is a limit up to which SMEs can raise capital and borrow. This affects their capacity to leverage on the capital structure.
3. **Competition pressure and inadequate margins.** Naturally, most of the SMEs are "small players" on the market and as such they constantly face the competition pressure from other small players and/or bigger players. As a consequence, the margins are limited as they can't raise their prices but have to absorb the high input costs.
4. **Credit risk.** There exists collection risk in the receivable portfolio of SME sector firms for the reason that SMEs are usually not able to dictate terms to

their customers. As they are at the receiving end, this may put strain on the liquidity position of the business entity.

5. **Technological risk.** With very little financial resources and lower ability for leveraging the financial structure, SMEs may not have the wherewithal to go for highly sophisticated technological advancement which would help them optimise their available resources in the best way.
6. **Employee risk.** As growth prospects are very limited in SME sector, it is prone to high degree of employee turnover and this may involve lot of wastage of manpower and additional cost in the form of training, affecting continuity and lowering productivity.
7. **Collateral security.** The existence of collateral is a kind of insurance to lenders and for the borrowers. It is a reflection of credit-worthiness to lenders and its much more important in case of SMEs in the following circumstances:
   - The enterprise is small (large companies have other attributes such as credit rating, cash flows, track record etc. that reduce the need for collateral.
   - The enterprise is new (if the entity come into existence recently, the lenders have no track record for analysis).
   - The enterprise did not establish good relationship with the bank yet (reputation, character and first-hand opinion is quite important in lending decisions).
8. **Reluctance of lending to SMEs.** The banks are often reluctant to lend to SMEs because of concerns about risk and in turn, the responsibilities of banks towards its stakeholders. Moreover, the banks do not regard it as its role to fund start up ventures, for which venture capitalists are expected to fund.

In SMEs one can no longer afford to avoid measuring risk and managing its implications thereof. To the extent the SME entity takes risk consciously, anticipates adverse change and hedges accordingly, it becomes a source of competitive advantage as it can offer its products at a better price than its competitors. What can be measured can also be managed. It should be clearly understood that risk mitigation efforts are more important and vital than capital allocation against inadequate risk management system.

3. Risk management and risk management models

The question why risk management is important to a company is a very genuine one. After all, risk, which is about events that may occur in the future, are in contradiction with the need human beings have for certainty. Because of that, risk is often ignored or highly understated. Next to that, individuals own a certain amount of optimism that makes them sometimes ignore information and make the most obvious mistakes in judgment. Optimism is a good thing for individuals to survive in a world where uncertainty is numerous, but it also makes that they do not know when to stop or when to protect themselves from possible harm. In other words, the importance of risk management is against the intuition of human beings and, for that, need a clear, strong and persuasive explanation.

One of the most practical arguments that explain the relevance of risk management for a company is the one of the cost of financial distress. These are the costs that are caused because the financial situation of the company deteriorates. These situations, or events, can for instance be an increase of the default on customer credit, a competitive situation that worsens which the company did not anticipated on sufficiently, or a badly managed production process which results in high waste ratios, defects or even employee theft. Shimpi (2001) gives a short (but far not complete) overview of possible consequences of a company managed with poor decisions or struck by corporate disasters:

- Banks and other creditors might demand more collateral and charge higher interest rates on loans,
- Suppliers might reduce the size of shipments or require cash on delivery,
- Valued employees might leave the firm,
- Talent prospective employees might require compensation packages above industry norms in order for them to join the company,
- Clients might cancel or decline to renew long-term service contracts and
- The company's stock price might fall to a level that eliminates or sharply curtails its ability to raise additional funds through equity issuance.

As Shimpi (2001) concludes: "Being assured of a strong, secure capital base helps a company maintain credibility, which in the long run saves money".

In order to secure the capital base of the company, or, on an operational level, manage the events that can occur with a negative impact on the companies objectives, a number of process models are designed over the last 20 years. Because most models are in essence equal to each other, the enterprise risk management framework of the Committee of Sponsoring Organization of the Treadway Commission (COSO), the framework of the Casualty Actuarial Society (CAS) and the more academic framework from James Lam (2003) will be discussed. The model that is mostly used both by companies to manage their risk, but also by auditing firms as the basis for their annual audit plan, is developed by COSO. The definition they use for enterprise risk management is formulated as:
"Enterprise risk management is a process, effected by an entity's board of directors, management and other personnel, applied in strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objective".

The framework of COSO exists of three dimensions. The first dimension describes the process of enterprise risk management which contains of eight steps:

- Internal Environment ("encompasses the tone of an organization, and sets the basis for how risk is viewed")
- Objective Setting ("ERM ensures that management has in place a process to set objectives and that the chosen objectives support and align with the entity's mission and consistent with its risk appetite")

- Event Identification (" identify events affecting achievement of an entity's objectives")
- Risk Assessment ("likelihood and impact")
- Risk Response ("avoiding, accepting, reducing, or sharing")
- Control Activities ("policies and procedures (...) to help ensure the risk responses are effectively carried out")
- Information and communication ("relevant information (...) that enable people to carry out their responsibility's")
- Monitoring ("The entirety of enterprise risk management is monitored")

The second dimension involves the company objectives involved in enterprise risk management and contains four parts; strategic objectives, operational objectives, reporting objectives, and compliance objectives. The third dimension is the organizational dimension. Enterprise risk management is a process that is executed throughout the whole organization. The three dimensions are combined in a cubicle whereby it is expressed that the three dimensions are interrelated.

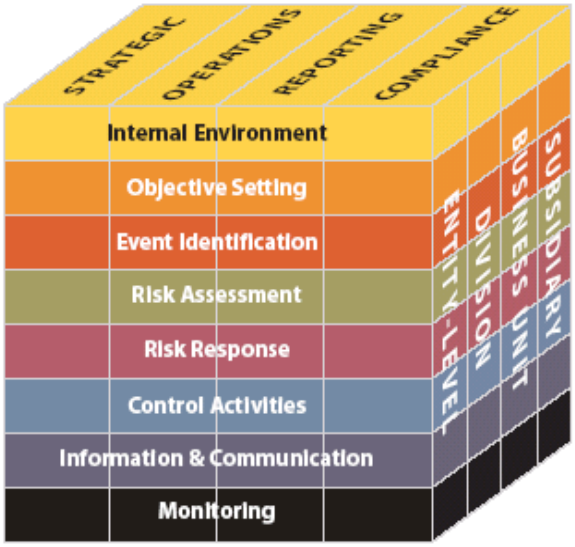

Fig. 2 Three dimensional model of risk management
Source: COSO report, 2004

The Causality Actuarial Society (CAS) wrote a paper in 2003 which gives an overview of enterprise risk management according to the Australian/New Zealand standards in risk management, the AS/NZS 4360. The framework distinguishes two dimensions; the dimension 'process' and the dimensions 'risk'. The dimension process contains four topics:

- Establish Context (external, internal and risk management context)

- Identify Risks ("conditions and events that represent material threats to the enterprise's achievement of its objectives")
- Analyze/Quantify Risks
- Integrate Risk ("expressing the results in terms of the impact on the enterprise's key performance indicators")
- Asses/Prioritize Risks ("determining the contribution of each risk to the aggregate risk profile")
- Treat/Exploit Risks ("avoid, retain, reduce, transfer, or exploit risk)
- Monitoring & Review ("continual gauging of the risk environment and the performance of the risk management strategies")

Fig. 3 Risk management process by CAS (2003)

The dimension 'risk' is sub divided in four areas; hazard risk, financial risk, operational risk, and strategic risk. Although the organizational dimensions is not in the framework, the CAS mentions that the "precise slotting of individual risk factors under each of these four categories is less important than the recognition that ERM covers all categories and all material risk factors that can influence the organization's value".

Lam (2003) divides risk into operational risk, market risk (which is subdivided into different categories of risk like mentioned before), and credit risk. The approach he presents on operational risk management consists of five elements:

1. Risk policy and organization
2. Risk identification and assessment
3. Capital allocation and performance measurement
4. Risk mitigation and control
5. Risk transfer and finance

4. Conclusions

In order to successively execute enterprise risk management, the first step that always should be taken is to organize a foundation that is fertile to build the enterprise risk management process on. Without establishing an organizational basis for enterprise risk management it is bound to fail or, at least, will never bring the full advantages aimed at.

Risk is not some vague concept statisticians' work with, but merely event that can have a negative impact on the company's objectives. In that sense, an operational definition of risk is very important to have in order to align the risk thinking within the organization.

Although the different models do not elaborate on it very thorough, companies need to determine a method to measure risk. Often seen is that risks are measured on a scale from low, medium, and high. The disadvantage of that is that words have a different meaning to different individuals which might cause two different people to make the same risk measurement but one labels it medium and the other one low. In order to overcome this problem, the field of decision analysis offers a wide range of methods to use in eliciting risk from a subjective perspective.

Companies do not need to have the illusion that every form of risk is a major threat and for that needs to be avoided. There are more methods for risk response available that need to be used in a strategic manner. The COSO framework (2004) mentions the strategies: avoiding, accepting, reducing, or sharing risk. These four strategies are aimed at categorizing risk response and might help to develop a broader view on how to deal with risk within the company. Because enterprise risk management is an organization wide process it is very important to organize it in an organization wide manner. This means the responsibilities and accountabilities need to be determined, the process needs to be described and assigned, and last but not least, a profound reporting structure needs to be developed in order to be able to communicate about risk and inform all the actors involved in the enterprise risk management process.

Risk management highlights the fact that the survival of a company depends mainly on its capabilities to anticipate and prepare for the change rather then waiting for the change and then react to it. It should be clearly understood that the objective of risk management is not to prevent or prohibit taking risk, but to ensure that the risks are consciously taken with complete knowledge and clear understanding so that it can be measured to help in mitigation. It is more so in the case of SMEs.

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