

**University of West Hungary**  
**Faculty of Economics**

**STRATEGIC APPROACH OF RISK MANAGEMENT ON THE FIELD  
OF THE HUNGARIAN COMPANIES**

Theses of the doctoral (PhD) dissertation

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**Supporting sign of the Supervisor**

## **1. Basis of the research, defined targets**

The corporate strategic management concentrates on the main processing of the company (according to Porter's value chain model). The doctoral dissertation is presenting and analyzing its elements. These are the inbound logistics, the outbound logistics, and the whole value chain process with all connecting functional areas, primary activities.

The author is working first of all with companies with big production volume. They have high level of logistics, value chain and value creation costs, so it makes sense to target and achieve cost reductions by these points. Not only the production but all of the primary activities as quality management, logistic, distribution have big risks, regarding the possible damage value and the occurrence probability. These hazards are affecting the punctuality, flexibility, quality and sustainability.

The Supply Chain Management (SCM) is a key area of the corporate business. The biggest risks occur generally by those companies, which are functioning on more than one (production) sites and are working with many suppliers. These are mainly the biggest retail companies and the biggest companies of the automotive industry. These all have in common a sophisticated and complex logistic system. This contains the integrated risk management with its tools, processes and structure. The research focuses primarily on the big and medium Hungarian production companies. Although the survey and the analysis contain some smaller firms, so the author can present the differences resulting from the company's size, company's maturity and the corporate strategy. Multinational companies and their Hungarian subsidiaries and local owned companies are also listed hereby.

The companies are working generally with those risks, which are plannable, measurable and manageable. It was the main thesis, the author defined according to this the initial hypotheses, concentrating on the strategic management targets and the projects. The connected scientific areas and knowledge are the strategic management, the risk management, the project management, the quality management and the supply chain management.

It is an important question, how plannable and how measurable are the risks. This may be also influenced by the time frame and the quantification of these risks. After the risk evaluation and classification it is also an important question, how intensive and methodological can a company work, handle, prevent and manage these. The risks appear on strategic and on operative level, that's why they should be managed on two different levels but also in context. Although the risk management in itself is a supporting, subordinate management activity by the companies, it is worthy to ask: how far correlates the success of the corporate risk management with the success of the whole company. The companies have many different features: industry, size, owner background, targets, risk level resulting from the main and supporting activities, risk sensibility, allocated resources. These features should be analyzed in connection and in opposition with the corporate risk management activity. The corporate risk management and risk relation have also organizational and corporate culture aspects. However, many companies have projects, project organizations and related special risks and risk management requirements. It is also an interesting and relevant risk management issue.

The author defined five initial hypotheses and looked for evidences pro and contra with the help of literature and a survey. After that, he analyzed via in-depth interviews the hypotheses and their semi-aspects.

## **Hypotheses**

- H1: The Hungarian companies are managing mainly the plannable, measurable and manageable risks.
- H2: The managers of the Hungarian companies are generally not paying much attention to those risks, which are hardly plannable, measurable and manageable.
- H3: The success of the corporate strategical and operative management is correlating with the successful risk management activity.
- H4: The quantity and the combination of the allocated resources for risk management are depending mainly on the risk level of the corporate activity and the company's size.
- H5: If the risk management is a part of the corporate strategy, it affects the risk management of the corporate projects. If a company is concentrating on the project's (product development, technology, organizational development) risk management, the risk management goals have an important role in the corporate strategy.

## **2. Contents, methods and verification of the research**

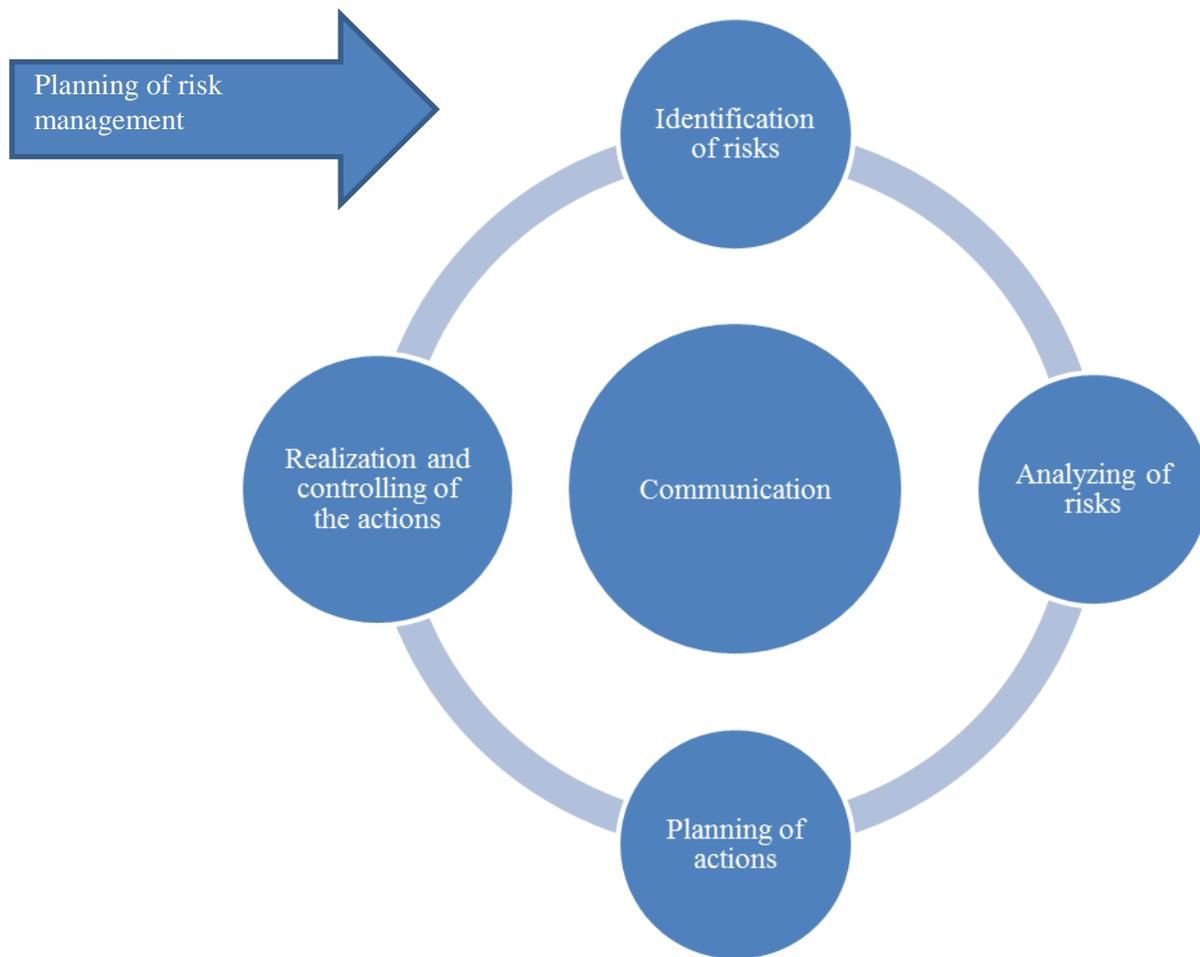
### **2.1. Contents, methods and verification of the secondary research**

The secondary research based on two main topics, the strategic management and the risk management. There are also supporting areas, the most important ones

were the quality management, the project management and the supply chain management.

The corporate strategic management is based on the corporate strategy and its connected targets. A risk is such a future event, which we can not foresee, and its affects are not explicitly plannable. In the common language, the synonym of risk is danger. It means those external effects, which are affecting persons, groups and organizations. (Rehner, 2009, 27.p.). Its results can be through a neutral interpretation both damages and advantages. (Wengert, 2013, 2.p.). Diderichs uses the following risk definition: a risk is a “danger, which means events, decisions, actions and discontinuation they hinder the company’s goal achievement and successful strategy realization” (Diderichs, 2012, 9.p.). The effect and weight of the risk is how much and how far it affects the organization’s target definition and achievement (Rehner, 2009, 28.p.).

The process of the risk management can be defined in several ways. It can be described as a chain (Brauweiler, 2014, 8.p.), where starting from the risk management targets, the following steps are the realization of risks, the identification of risks, the handling of risks and the risk controlling. The risk management process is supported by a complete communication and documentation. Wanner (Wanner, 2014, 19.p.) described the process of the risk management in a similar way. The initial step is the planning of risk management. After that comes the four-step risk management cycle: the identification of risks, the evaluation of risks (with quantitative and qualitative methods), the definition and the controlling of the corrective actions. The process is supported by a thorough communication, involving all of the relevant functional areas.

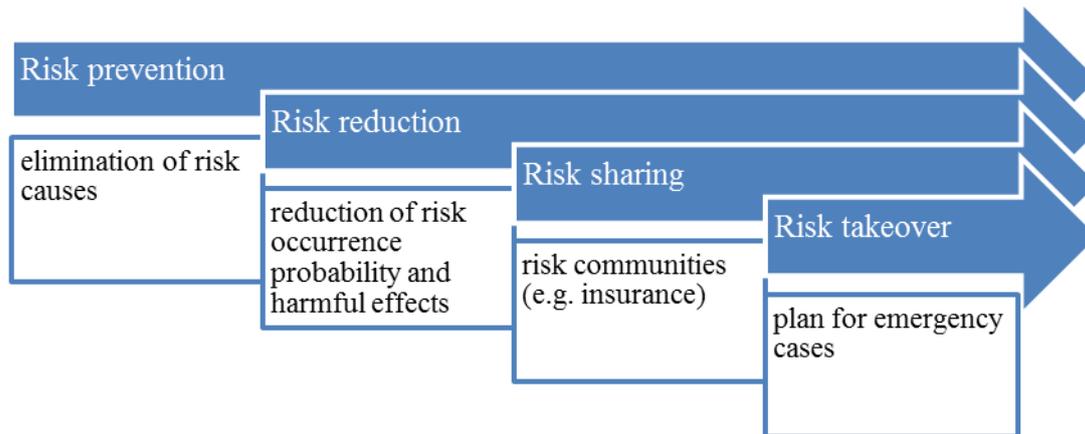


**The process of the risk management (Wanner, 2014, 19.p.)**

Risk management should be defined in a nowadays context as well: „The growing external value creation and globalization mean a challenging situation for the companies in the future. The addiction to the global network of suppliers is growing.” (Dust, 2014, 7.p.). The share of the company owned value creation is being decreased by global sourcing, just-in-time concepts and outsourcing. It means a more complex sourcing and supply chain situation, where the dependence from the suppliers is much higher. It means a significant increase of the risk level (Gabath, 2010, 32.p.). Risk management has a big importance in the field of the operative and strategic purchasing, these risks are threatening the success of the whole company (Gabath, 2010, 29.p.), including the ability to

supply (Gabath, 2011, 15.p.) and achieving the targeted level of the annual turnover.

Risk handling is realized on four levels in the praxis, these levels are the risk prevention, the risk reduction, the risk sharing and the risk takeover (Wanner, 2014, 81.p.).



**Steps of the risk handling (Wanner, 2014, 81.p.)**

## **2.2. Contents, methods and verification of the primary research**

The primary research contains a survey and in-depth interviews. The main target of the survey was analyzing the hypotheses according to the literature, including additional theses. The author wanted to realize a survey with relatively few participants but detailed questions, before starting the in-depth interviews. It prepares the in-depth interviews, the analysis of the hypotheses and on the other hand, it leads from the general statements to the defined implications. The author concentrated on the companies working on the Hungarian market, where they have a risky main activity and a connected risk management. He tried to get representatives from the domestic industrial and service companies, according to the Hungarian industry structure. By doing that, new conclusions came to light.

There were enough examples available for analyses. The surveyed expert group had a high level of risk awareness and risk management knowledge. Each expert was equipped through the position and knowledge level to have insight into the company leadership, corporate strategy and corporate risk management activities. All survey participants have a job in a strategically important department and have a higher educational degree (mainly university level).

The author completed the survey from 5<sup>th</sup> May 2014 till 31<sup>th</sup> May 2014. From the 178 sent out questionnaires there were 73 answers, which means a 41,01% success rate. It is a suitable result and according to the defined targets. The survey was according to the Hungarian industrial structure and showed no extreme deviances. According to this, the significant industrial sectors are the automotive industry, the IT sector, trading, logistics, financial services and the construction industry.

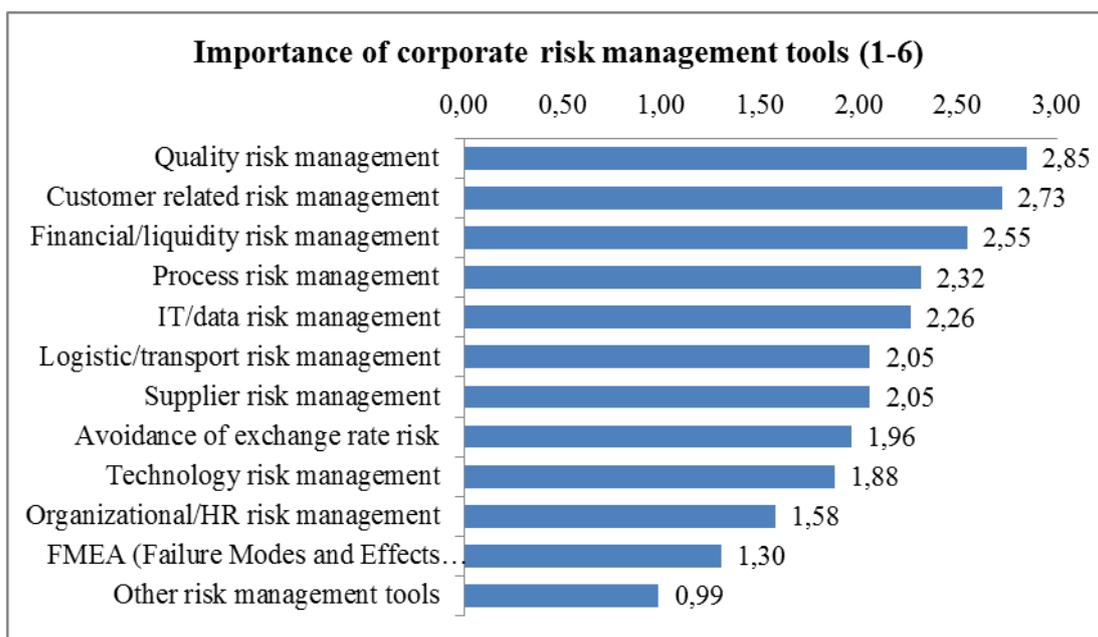
The author realized the in-depth interviews after the survey, between 31<sup>th</sup> May 2014 and 29<sup>th</sup> July 2014. Each in-depth interview had 5-7 questions, from which 3-4 questions were the same. The author concentrated by the survey on the quantitative connections and by the in-depth interviews on qualitative evidences.

According to the survey, by the questioned companies the general management is the main forwarder of the risk management:

<b>Risk management areas</b>	<b>Number of mentions</b>
<b>Leadership/Management</b>	<b>50</b>
Finance	32
Product management/Marketing	24
Controlling	16
Strategic purchasing	13
Operative purchasing	10
SCM/Logistics	9
HR	9
Other administrative area	9

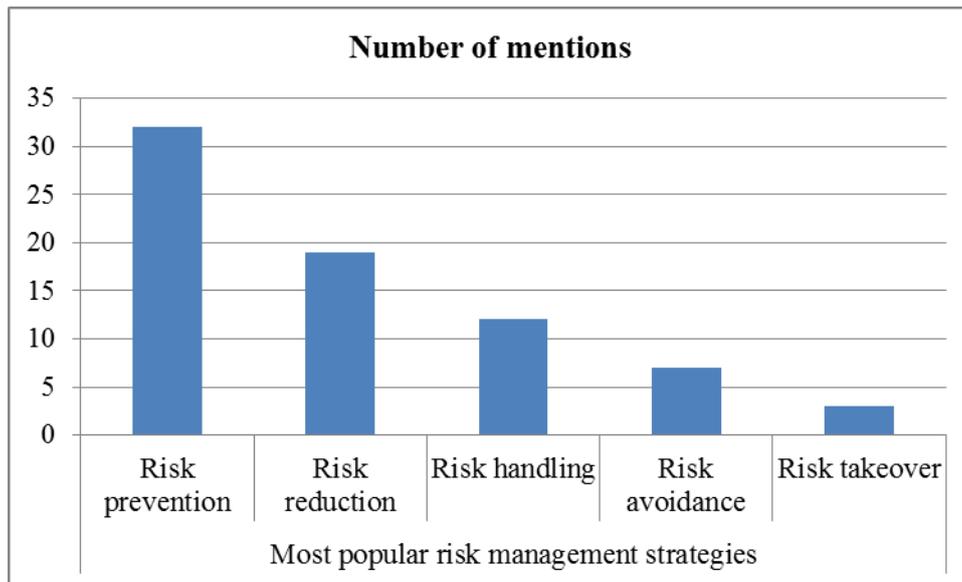
### **Most important areas of the corporate risk management**

At the Hungarian companies, the most important risk management tools are the quality risk management with an average of 2,85, the customer related risk management with 2,73, the financial/liquidity risk management with 2,55 (on a 1-6 scale, where 1 is the lowest and 6 the highest value). Mainly, the field of the financial risk management has big unexhausted potentials. The second risk management tool group regarding the importance is the following: process risk management (2,32), IT/data risk management (2,26), logistic/transport risk management and supplier risk management (2,05 each), avoidance of exchange rate risks (1,96) and the technology risk management (1,88). At last, the members of the last group regarding the relevance are the organizational/HR risk management, the FMEA (Failure Modes and Effects Analysis) and the other risk management tools.



### **Importance of the corporate risk management tools**

The priority of the surveyed companies is the risk prevention with 32 mentions. It is anyhow a positive direction, but it is rather a wanted but not a real risk management level. 43,8% of the participants are preferring the preventive risk management methods (53,4%, if we consider the risk avoidance as well), but the rest, bigger party manage their risks with reactive methods. The most popular reactive risk management method is the risk reduction. But the answers show us an equalized result, representing a conscious but not mature risk management attitude. The most popular corporate risk management solutions and strategies are listed in the following chart:



**Most popular corporate risk management solutions and strategies**

As additional information, the author asked the participants regarding the biggest risk management potentials as well. The most mentioned functional area was the HR, with the biggest improvement possibilities.

<b>risk area</b>	<b>number of mentions</b>
HR	8
purchasing/logistics	4
finance	4
technology	4
market/customers	4
other areas	3
<b>summarized</b>	<b>27</b>

**Which functional areas have the biggest potential regarding the risk management?**

### 3. The results of the research

#### 3.1. The general results of the research

*The first and the second hypotheses* in the dissertation were the predictability, the measurability and the handlability of the risks. Risks **should be more predictable, measurable and handleable** to reach a suitable risk management efficiency and target-orientation (focusing) level. The maturity and intensity level of the corporate risk management is connected to the success, transparency and measurability of this activity.

The research regarding the *third hypothesis* showed that success of the corporate risk management correlates with a successful corporate strategy. The **operative efficiency** and the **strategical basement** lead together to the **sustainable success of the company**. Its most important elements are the corporate strategy, including the strategic risk management targets, tools, organization and process background.

The proving of the *fourth hypothesis* leads to important results as well. The big enterprises have the financial background and competence for realizing a high level risk management. Although industrial specialties and tendencies are also found regarding the whole corporate risk management and its areas. The **high risk level corporate activity** (chemical industry, medical industry, innovative industries and companies) **needs a comprehensive risk management with high intensity level**. Other areas (risk management of supply chain risks, project risk management, technology risk management) are then relevant regarding the risk management, if these areas have a high risk level and these risks have high relevancy according to the whole company. The riskier the company's activity and the bigger the company is, the more improved is the connected risk management activity.

The *fifth hypothesis*, the project risk management is depending on the weight of the projects in the company and on the risk level of these projects. It has been proved, that **companies with mature risk management strategies** have a **focused project risk management** as well. On the other hand, projects with high risk level might have a more improved risk management than the company generally has. From the other direction, a simplified, operative, on the project targets concentrating method is also possible.

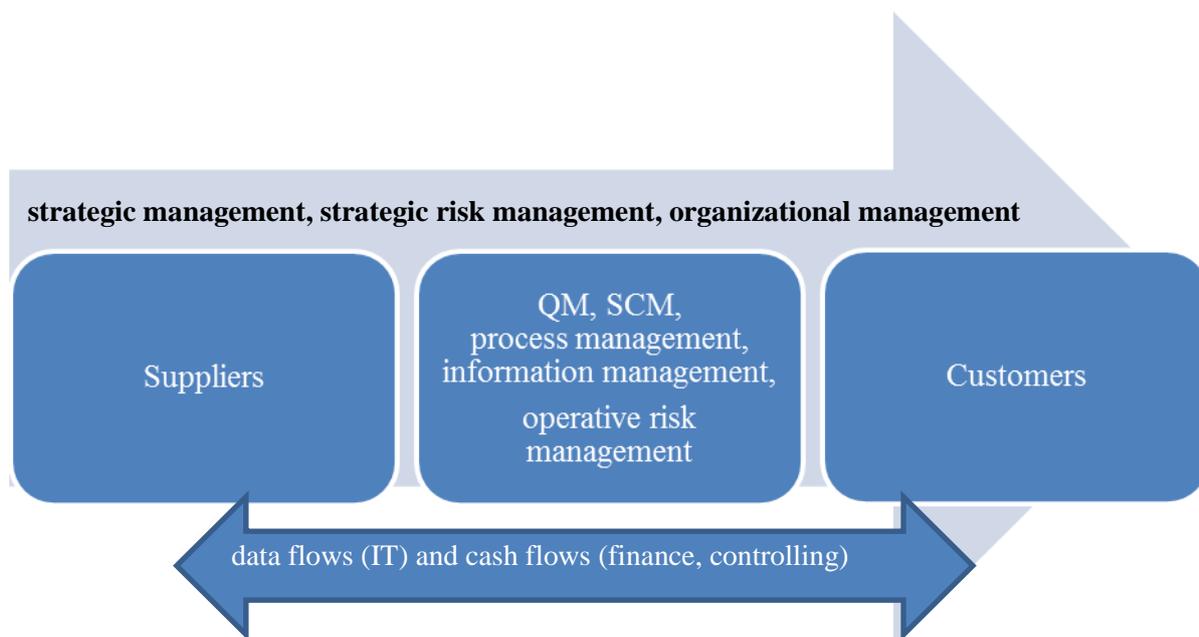
Summarizing the hypothesis evaluation, the **success and the sustainability of the corporate strategy is closely connected to the strategic risk management and the operative risk management of the corporate functional areas.**

### 3.2. New scientific results

The results of the research can be summarized in the following statements:

The surveyed companies are **undermanaging the general risks**, first of all the **IT and HR risks**. A solution can be the **strategical approach from the company's leadership regarding IT risks and the operative risk management of the IT department**. In the HR, the right solution can be a risk-known **organization- and knowledge-management**. It is a general point also, that the companies need to **manage the process and quality risks**, defining the qualitative targets as well. The corporate risk management should be implemented **thorough, transparent, customer-oriented and sustainable, based on the main activities and projects of the company.**

Based on the results of the research, a general **risk management process** can be defined, see below:



### **The possible process of the corporate risk management (own work)**

Summarizing the corporate strategic and operative risk management process:

- The risk management process should be defined parallel to **the corporate value creation** and flows (**material flow, cash flow, data flow**).
- **All of the management functions and areas** should be integrated into the risk analysis.
- The strategic and operative risk management levels can not be separated from each other. The effective corporate risk management is based on their parallelism. But the **leading role has the strategic management**.
- The risk management focuses on the **customers and the customer's demands**, the **targets** should be defined according to these.
- The **strategically important and strategically risky areas** should be identified: the strategic risk management should concentrate on these.

Summarizing the results of the survey and the in-depth-interviews, the **intensity level of the strategic risk management** and the **size of the company** are **correlating** with each other. The bigger the company is, the more improved and more emphasized are the risk management strategy and activities of the company. But there is a **local-owned and in traditional industries active mid-size company group**, where the **intensity level of the risk management is much lower than expected and calculated**. Although these companies face **global expectations and global competition**. The intensity and integrity level of their strategic and operative risk management is still not competitive enough. Its reasons come from diverse areas. Such an area is the **management activity** (first of the entire strategic management tool box) and its **lack of maturity level** measured on an **international competitive level**. The **lack of resources, competences, network system and expertise** (first of all in the fields of HR, IT and SCM) are also relevant hindrances.

The risk management is influenced by many factors. The author listed *five* important points by summarizing his research results, based on the experiences coming from the survey and from the in-depth interviews. The **industrial background** is very important, it defines special requirements, directions, targets and scope. The **cultural background** and the relationship to risks, the **risk-avoiding and the risk-seeking behavior** are also very important. It depends on the focus industry and the owner background of the company, but the strategic management is the definer and driver of it. The two additional factors, which are connected to each other, are the **maturity level of organization and processes**. These are defining the acceptance process of the additional costs due to risk management, and also the **flexibility, efficiency and sustainability** of the risk management. The fifth point is the **communication**, supported by the definition, allocation and follow-up of the risk management targets. The strategic risk management focuses on the **future and the**

**sustainability of the company, and the achievement of its strategic targets, including the company's future risk management approach.**

#### **4. Conclusions and suggestions**

In conclusion, all companies are managing those risks first, which are in the focus of their main activities. For example, if it is the technical area, they are concentrating on it, if it is the product quality, than on that, if it is the supply chain management, than on that. It is also an important point, that the corporate risk management is only in that case reasonable and useful, if the company has a long-term strategical planning. Risks should be managed on a long-term basis, on strategical level. The short-term risk management is only a trouble shooting approach. The quality risks are also an important risk management dimension, regarding the operation of the company and the customers. Based on the in-depth interviews, we can talk about IT data risks, availability, quickness, stability and flexibility. They can be a basis for further analyses.

The risk management activity focuses many times only on diverse elements and not on the whole company. A partial risk management might be seen on a functional and basic level, regarding for example the customer-related, distributor-related and quality management-related risk management separated from each other. But the future, the sustainable risk management direction means something else, most of all by the researched areas and by the whole company in itself. An integrated and process-oriented risk management is necessary. Its emphasized elements contain general points and concentrate on the process management, on the IT and date risks, on the HR risks, on the financial risks (including the exchange rate risks, too). The last from these, the financial risk management includes the analysis of more than a company, it is

influenced by a macro and global view. A company can not only consider direct risks related to itself, but should also consider the indirect or country related risks, such as for example the political, legislative, geographic risks of its Asian or South-American distributors. All in all, companies should consider every relevant risk regarding its activities and its supply chain.

In the praxis of risk management mainly two-dimensional matrixes are used, but it is wise to think in three dimensions, so risks can be listed and analyzed in a complex context. By a two-dimensional matrix the X axis is mostly for loss, while the Y axis shows the possible occurrence. This solution can be used in the operative risk management area. But on the strategic risk management field a different analyses should be made - according to the author. The strategic importance can be shown on the X axis (regarding to the connection and relevancy of the corporate strategy). While the Y axis can show the mentioning frequency and the connection to other strategically important fields (to one or more fields). So it is visible in two dimensions what results has a risk or an event for the whole company or in addition for its functional elements. This way the strategic management can be connected to the risk management.

<b>by risk effected areas</b>	the whole company				
	5 or more areas				
	3-4 areas				
	2-3 areas				
	1 area				
		not marginal	significant	significant	very significant
				extremely significant	

**Strategical risk management matrix example (own work)**

By creating a risk management strategy and handling the risk management system decisions should be made. Such a decision or question is for example from which direction the strategy should be built. Are we starting by the general points followed by the specified, area-related, functional points or are we taking the other way round from the specified to the general. As an offer it can be said that a thorough, central direction is defining in an optimal case. But if partial, successfully working risk management elements have already existed, then starting by and based on these, a successful corporate risk management on strategical and operative level might also be possible. The (time)frames of implementation should be defined at the beginning of creating a risk management system. Resources should be allocated, while targets and the strategy have to be defined. It is important to define the affected areas and the group of experts. By creating a corporate risk management system it should be defined if the operative or the strategic risk management should be more emphasized. These should be evaluated according to their context, complexity and in their target system. The timeframe and the methodology for the eventual monitoring should also be defined. Coordination and communication are very important points too, regarding the project risk management or the further everyday operation.

## **The publications of the author according to the topic of the dissertation**

Bácsi Judit, Herczeg László: Minőségorientált ellátási lánc menedzsment – a vállalati stratégia sikerének és versenyképességének kulcsa; Minőség és Megbízhatóság (ISSN: 0580-4485); 2015/5

Herczeg László, Herczeg István: Purchasing strategies in the praxis; Science for Sustainability (ISBN 978-963-334-103-2) 284-288.o.; 2013

Bácsi Judit, Herczeg László: Effective small and medium enterprises risk management solutions; Annals of the Polish Association of Agricultural and Agribusiness Economists (ISSN: 1508-3535); 2013/4

Herczeg László: Az Incoterms 2010 és kapcsolódó kockázatkezelési stratégiák; Gazdaság és Társadalom Különszám (ISSN 0865 7823); 54-64.o.; 2012

Herczeg László: Változtatásmenedzsment és folyamatoptimalizálás a vállalati stratégia tükrében; Virtuális Intézet Közép-Európa Kutatására Közleményei 10 (ISSN 2062-1396); 207-213.o.; 2012

Boga-Pohl Patricia, Herczeg László: Változásmenedzsment a vállalkozások szolgálatában, különös tekintettel a projektek során felmerülő kihívásokra Doktoranduszok Országos Szövetsége, Konferenciakötet (ISBN:978-615-501-33-8); 35-44.o.; 2011

Herczeg László: Quality risk management in the strategic purchasing; Economics, Management and Tourism; Neofit Rilsky, SWU (ISSN 1314-3557); 228-231.o.; 2011

Herczeg László: Minőségi rizikók a beszerzés területén - a rizikómenedzsment egy aspektusa Doktoranduszok Országos Szövetsége, Konferenciakötet (ISBN:978-615-501-33-8); 167-172.o.; 2011