Thesis

Overview on risk controlling in the car industry

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1 Introduction

The topic of risk management has undergone a significant change in the recent decade. OEMs have implemented own departments in its business units to cope with the threats of now and the future. Risk is not only a current thing, it is basically linked to any corner of a company. Moreover, it is not limited to larger companies. Risk management in general has no limit with regards to company size nor headcount. It is on every employee what amount of risk he takes in his daily work. Some of the carriers deal with risk according to their feeling. Most of the carrying companies in Europe have the attitude to more and more take larger risks upon board decision. To put it in a nutshell, there is no dedicated department, observing the risks in the company´s environment.

However, the threats that are going out of the customers are sometimes higher, than by the competition. Due to the immense cost pressure, OEMs tend to squeeze its suppliers and push them on the edge of bankruptcy, where many carriers suffer from and cannot cope anymore.

The literature supply on the risk topic seems endless, what is not surprise to the author, is it a field, where a lot of money can be and is burned. This thesis should give an insight on what the car industry and partly its suppliers have to cope with and some minor tools to analyse it.

1.1 Term definition of risk[1]

The term risk derives from an ancient Italian term and means literally translated: to dare. The current used definition of risk is often associated with a damage or with a potential loss (Wolke, 2008, S. 1). Any business activity or decision is necessarily not only connected with chances but also with risks. Risks can be understood as future developments or events that can influence the targeting of an enterprise negatively. Hence, risks can also be defined as reason for misconduct of

[1] Articles and other gender related subjects are meant to be gender neutral. The renunciations of a gendered differentiation shell improve the readability.

corporate targets. Therefore it is essential for the business continuity to know the own risk situation and to observe the external and internal threats constantly. In order to maintain a systematic risk analysis and risk controlling, it demands organisational rules and measurements (Franz & Kajüter, 2007, S. 471).

1.2 Risk controlling vs. risk management

Risk management is a core part of corporate management. The lack of risk awareness, which reflects the significant increase of insolvency of the past decade and has called for a more efficient risk management (Dr. Gladen, 2008, S. 293). The importance of risk management is also proved in the legal regulations. Stock listed companies are obliged to install and perform a risk management, what should avert, already in an early stage, any developments that endanger the continuity of the enterprise (Fiedler, 2010, S. 151). It is part of the fields of controlling and internal revision, that are responsible for the establishment and maintenance of such risk system (Schultz, 2010, S. 239).

Basically any business management is targeted on achieving goals and make profit. Risk management reflects the entrepreneurial acting under the constant threat of a potential loss, while risk management is focused on existence-threating deviation of set goals. A non-target of is to fully eliminate risk, because it would automatically be linked to an elimination of chances. Moreover the tasks of risk management are (Dr. Gladen, 2008, S. 294):

- Elevation of risk awareness and –culture
- Riskmonitoring
- Riskmanagmentprocess
- Processmonitoring

Risk management engages the disclosure, evaluation and the derivation of suitable measurements to treat risks properly. However, the risk management should

be seen as an integral part of a holistic controlling system. It can be therefore seen as a main part of risk controlling (Behr & Fischer, 2005, S. 142).

Contrary to the risk management the risk controlling is the transparency bringing factor in an enterprise and should optimize the chance-threatening-ratio (Czenskowsky, Schünemann, & Zdrowomyslaw, 2010, S. 244).

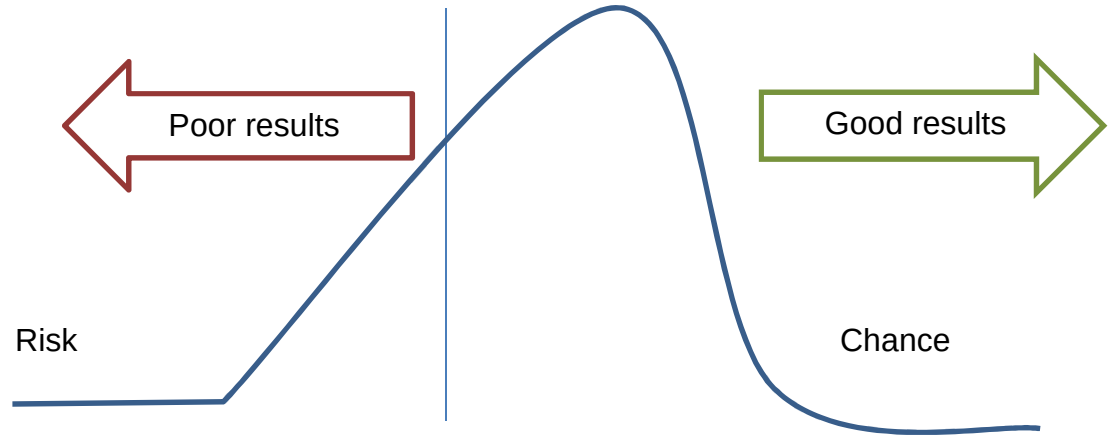

Fig.: 1: Risk and Chances

Risk controlling must not only be understood as checking. Moreover it should contribute to an open communication of a current risk situation, as in many enterprises bad news are not spread (Paff & Paff, 2008, S. 184). Risk controlling is making a threatening situation transparent, in order to identify risks already at an early stage, to introduce measurements in a good time in advance.

The basis for risk controlling mostly derives from the company´s corporate strategy and targets. This is fundamental as potential threats, that negatively influence the aim of goals, become transparent with the set of specific goals (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 2445).

The author Wolke defines risk controlling as a synonym term for risk management, that is a part of risk management (Wolke T. , 2008, S. 2).

Concluding it can be said, that the term risk controlling and risk management in theory are often defined differently. This thesis takes Behr and Fischer as an underlying basis where risk controlling is defined as a part of controlling. The risk management process is a core part of risk controlling, which is responsible to identify, evaluate, steer and observe the corporate risks (Behr & Fischer, 2005).

2 Risks in the car industry

Risks are a serious challenge that affects all kinds of organisations. Hence, they are part of any corporate acting (Finke, Singh, & Rachev, 2010, S. 82).
There is the pervasive danger, that by certain events, the corporate targets cannot be achieved. Consequently there is the question of how do define risk (Hartel, 2009, S. 36).
Risk is then used as the source but also as the cause of an event. Therefore the term risk can be related to the same level of a cause and effect relation. In order to better understand ist can be compared to a strike, where the turnover suddenly drops, which is consequently leads to a lower profit. In this case the strike is the risk, where at the same time it is also the cause for less turnover and that goes in line with less profit (Meyer, 2008, S. 26).
A clear relation of a loss to a special risk event is in practice many times not possible. A certain risk rather represents a combination of events and causes. Single risk events that may be perceived as negligible can result in other risk events, like a domino effect and cause an existence threatening effect. (Romeike & Hager, 2009, S. 122)

In linguistic usage, uncertainty and risk are often used as synonym, are in reality two different situations. The term risk describes situations, where the objective probability is in relation to a possible result of an event. Uncertainties relate to situations, where the probability cannot be appraised. However, a clear borderline cannot be drawn. (Meyer, 2008, S. 26)

Corporate activities bring by nature ventures, where risk may occur. Nevertheless, without these ventures there would not be any chances, thus profits (Hartel, 2009, S. 36). Consequently, the overtaking of risks for profit oriented corporations is inevitable. A risk aversive strategy means also an aversion to chances (Kühne, 2010, S. 126). The chance is being used in general as a positive term and describes the possibility of a positive event. The chance is in this way the opposite of risk (Meyer, 2008, S. 27).

Risk and Chance are defined and interpreted differently in science. Technically speaking it is a matter of a reverse point of view on things. Football as an example, an attacking player constitutes an attack as an opportunity to get a goal, whilst the defender it is a risk. In business economics the term risk and its related impact in the context of the enterprise always targets the profit or the liquidity of an enterprise (Meyer, 2008, S. 28).

In the literature the term risk is defined that the development to reach corporate- and or group targets is perilous, awkward or even existence threatening development (Deutsche Gesellschaft für Risikomanagement, 2008, S. 80).

Important is that the fear of risk is not leading to a general strategy of risk aversion, as the purpose of any corporate activity is the use of chances. Riskless profits are there the exception. The optimum risk strategy for the enterprise should harmonize with the superior corporate strategy and can also be a part of it (Kühne, 2010, S. 120).

The basis for an effective risk handling is the attitude of the management and its employees. In order to support it is advisable, that the management is drafting, based on the company´s vision and mission statement, its risk political principles (Fiedler, 2010, S. 152).

2.1 Risk types

Companies in the car industry are reacting on market environmental changes dynamically. Through the deployment of various strategies, the single companies in the supply chain of the car industry attempt to pull customers and market shares on their side. Many times the complete overview gets lost or just not considered. Almost three-fourths of the companies in the car industry concentrate primarily on operational risks and neglect the strategic risks (Proff & Proff, 2008, S. 54f).

Risks are segmented in theory mostly in single- and aggregated risk. The single risk describes a situation, which emerges by a specific decision (Macharzina & Wolf, 2008, S. 670f). Another characteristic of a single risk is that the risk cannot be further disassembled. Corporate transactions automatically lead to many sin-

gle risks; whereby the individual risk situation is hardly assessable. The aggregated risk complies usually out of the single risks (Macharzina & Wolf, 2008, S. 670f). The essential factor in the aggregation phase of the risks is, to evaluate the dependencies of single risks to each other. Single risks can boost or compensate when join together. Therefore, adding single risks together without considering its coherences to evaluate the aggregated risk is not possible (Fischer & Pfeffel, 2010, S. 198f).

The classification of risks in companies in the car industry can be done in various ways. Basically it is evident that there are external and internal risks, whereby these can be divided into strategic and operational risks (Meyer, 2008, S. 35). In the following chapters describe the risk types in detail.

2.1.1 **Strategic risks**

Strategic risks result out of a decision of corporate targets and strategies. In addition, these may be potential threats for the long term success of the company. Especially the environments of companies as well as the communication with the stakeholders belong to this risk type (Müller, 2013, S. 77). The challenge for a company´s management is especially by the different influencing factors that affect the result of the analysis. In addition, another vital aspect is the complexity in dealing with such a risk. The perception with strategic risks is remarkably lower than with other risks. The definition of strategic risks lies in the hands of the management. They are responsible for the culture of the company and consequently also the risk of inflexibility (von Camphausen, 2006, S. 173).

- **Political, legal and social risks**

External risks emerge in the surrounding of the company and influence from extern. Those risks can hardly be manipulated. For the management this is a factor of great significance that must be realized at an early stage to initiate measure-

ments. For the company it is a central point, that the external strategic risks encompass all relevant business fields, markets, products and target groups. It must not be forgotten, that also potential fields are considered; as these are the risks that also offer chances (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 250).

Political risks became a central point for car carrying companies. The production locations of OEMs shifted further to the East. The political stability the enlargement of the EU and with it the economic opportunities opened new markets for carriers as well as manufacturers. Nevertheless, the shifted boundaries to the East also brought political risks closer to the West. The annexion of Crimea to Russia is an example of how quickly an emerging and promising market may collapse. The development strategies of OEMs and its outbound suppliers are heavily depending on an in-depth political and legal risk analysis. However, smaller car carrying suppliers are often forced to focus on contracts with huge OEMS and often only remain the choice to trust in the risk assessment of an OEM to follow into the countries of production.

- **Market risks**

The market risk is a central point relating to external risks and includes the current and the future success or failure of a company. Profit and losses can be affiliated to the market position of the enterprise. The market risk considers changes in the competition conditions, which on one hand are defined by general market conditions, like economic-, and socio-political ratio, the market potential, the conjuncture risk and the country risk (Schmitz & Wehrheim, 2006, S. 36) . On the other hand the competition conditions result out of the market participants. The most influencing members of the market count competitors, buyers and suppliers (Graumann, 2008, S. 577f).

An efficient concept to discover and to look at the need for action is the Porter´s Five Forces Model. According to Porter, the own competitive position is in the centre and the dependencies on five factors (Schmitz & Wehrheim, 2006, S. 36).

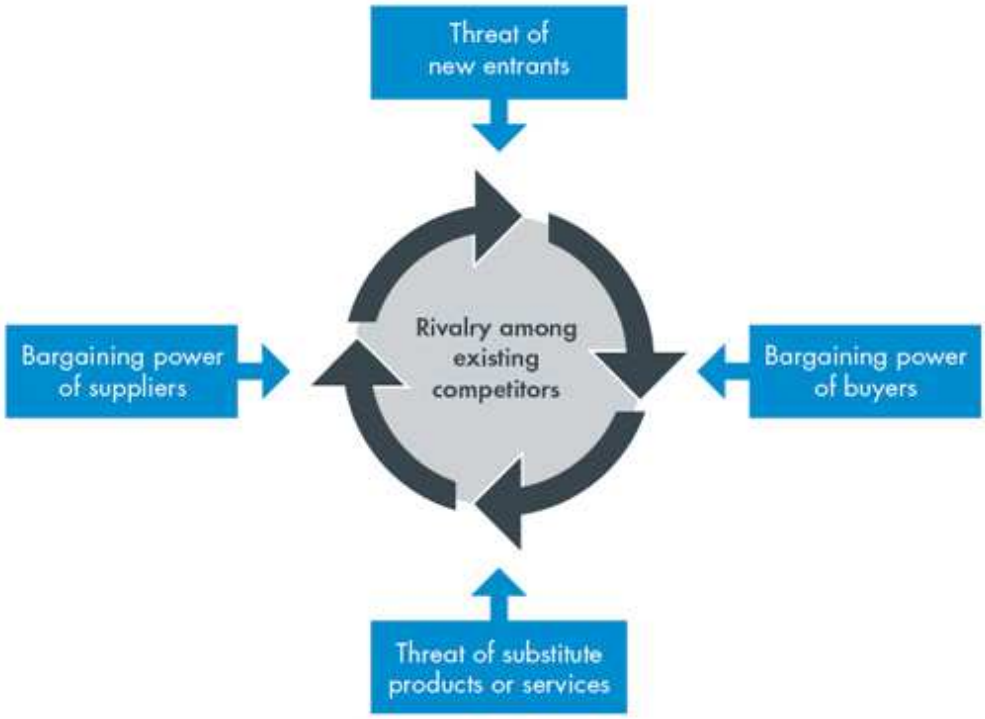

Fig.: 2: Porter´s 5 forces model

The number of market participants within an industry defines the intensity of competition, which is additionally influenced by four other competition factors. Within the car carrying industry it is observable that constantly new competitors from the East and Baltic countries push into the market and lower the price level in the industry and therefore the profitability. However, the entry barriers for new competition is significantly characterized by various factors (Appelfeller & Bucholz, 2011, S. 69). The fierce competition with low market rates gives purchasers of OEMs a strong negotiation position. The higher the negotiation power of the OEM, the lower the overall margins get. This is heavily depending on four basic influencing factors:

- Product value
- Degree of standardization
- Market transparency
- Number of suppliers

Many car carriers see the most important potential threats on the sales market. The harder the forecast on future sales of cars, the higher is the market risk for them. As the car industry is characterized by stagnant sales figures, the suppliers in the car carrying companies have to cope with the situation of a predatory competition.

The stronger profits were set out to volatility in the past, the harder the assessment of future profits are an even greater challenge. Nevertheless, companies that had a relatively stable business development may be affected by such volatility. The risk potential of a market can be assessed by the competitive forces such as (Gleißner, 2008, S. 76):

- Possibilities to differentiate
- Substitution of the own product
- Competition
- Market entry barriers
- Distribution of power between OEM, supplier, subcontractors/competitors

However, normally arise in this circle, as a result of price and quality variation between the suppliers, potential risks. A strong competition between the car carrying companies always strengthens the position of the OEM and let the procurement risk decrease. From an OEM´s point of view it is clear that the dependency on one supplier could lead to a narrowed profitability level and to a higher risk (Gleißner, 2008, S. 80f). The situation as car transporter and contract holder is similar to the one of an OEM. The use of subcontractors is part of many companies of their corporate risk strategy.
Therefore the following risk aspects should be considered by the risk controlling:

- Insolvency risk of the supplier and subcontractor; especially the failure to perform on a contracted route
- Quality risk, that the contracting party does not fulfil e.g. the required truck- and/or superstructure condition

- Supply Chain risk, that the transport and stock process of cars have influence on the amount, delivery reliability and quality
- Commodity price risk (e.g. Diesel price development)

2.1.2 **Financial risk**

The financial risk is independent of the industry and can be distinguished into two areas of risk (Schmitz & Wehrheim, 2006, S. 40):

- Direct financial risk
- Indirect financial risk

Part of the direct financial risks is the financial market risk and the risk that is linked to commercial papers, foreign currencies and derivate. The financial market risk relates to volatile prices on both the purchasing as well as on the sales markets. Especially by the volatility on the purchasing market it may lead to financial scarcity due to the substituted commodities. Speaking about the volatility on the stock- and foreign currency markets, companies not only in the logistics industry face huge risks. However, these risks often do not automatically lead to liquidity drain, but to profit and loss in the balance sheets and companies are forced to depreciations in their books (Schmitz & Wehrheim, 2006, S. 41).
In the car carrying industry, it signs of in the recent years, that more and more companies face financial difficulties. The low price level and pressure of the customer towards carriers with regards to higher service quality and accepting conditions beyond CMR rules. In case of bankruptcy of a carrier, the long term payment terms of OEMs lead directly to liquidity bottleneck of the carriers and its subs. This further leads to the degradation of the solvency of a carrier.

2.1.3 **Operational Risks**

Operational risks result out of shortcoming within the corporate business processes and its controlling systems, caused by employees, technology or the whole organisation. Operational risks are often also defined as performance risks (Gleißner, 2008, S. 93).

In dealing with operational risks, it is the target to act proactively. This minimizes the causes in case of an event, which can lead to a significant competitive advantage (Finke, Singh, & Rachev, 2010, S. 66).

An important risk for OEMs is the production or also process risk. The production strategy of an OEM is often led by fluctuating market demands in the countries and strategic management decisions. In addition, the lifecycle of a model, has been shortened within the last decades. To push many new vehicles into single markets has become a competitive strategy. This implies that car carriers are heavily depending on these risks and often are obliged to curb the ability of a manufacturer to handle strategic production volatility in the production planning.

2.1.4 **Other risks**

To go into the details of these risks, would go beyond the scope of this thesis. Therefore the author wants to focus on two essential risks:

- Personnel risks
- Compliance risks

Personnel risk

Human resources are a valuable and sensitive resource of a company in the car industry. The overall market cake has decreased but the market participants grew. The fight for market shares is tough. Employees of car carriers know the market and its participants well. The fluctuation of human capital can have a significant out-/influx of know how in the industry and can be seen as the individual

ability for future profits for a company. However, personnel risk needs to be considered as substantial nowadays.

Compliance risk

Compliance rules have become a hot topic in the industry and are underlying strict corporate guidelines and legal regulations. Compliance risks are potential damages that may occur when a company is not in line with legal regulations. The compliance risks have been underestimated in the past (Hermut, 2008, S. 223). The establishment of a program to handle corruption and to deal in compliance risks is the basis for international companies.

3 Risk controlling

This chapter is dealing with the basis of the risk controlling. In the first part the functions and the targets are explained. In a second step, the author gives an introduction into the legal and commercial necessity of risk controlling.

3.1 Functions

In the risk controlling all cross-departmental functions get involved, whereby a service function for the management should be obtained. The risk controlling is oriented on single corporate targets, which feature a risk element. Thus, the management shall be supported with future oriented analysis, plans and controlling checks. The main task of risk controlling is the analysis of current risks of a company. The better the information on risks is, the better they can be evaluated and elaborated. Not only single risks are dealt with, but all risks in context related to the overall corporation are analysed. The identification and the analysis of existing risks, the reporting, the observation of existing risks as well as the assessment between risks taken and chances for profits builds the foundation of risk controlling. (Meyer, 2008, S. 48)

The management should constantly be informed with the latest status by the risk controlling. Important is that the information is always in time, problem oriented and in full conveyed to the management (Schmitz & Wehrheim, 2006, S. 143).

An effective risk controlling leads to cost reduction by measures introduced upfront the damage occurs. In addition the loss of corporate image is reduced.

3.2 Targets of risk controlling

Circumstances in the corporate environment and changes in the corporate culture contain a considerable danger. Every corporate activity, action and project is incident to risks.

The target of risk controlling is, to discover potential risks and to elaborate concepts to tackle them. Furthermore, it is not necessarily to avoid all risks, but to

create a scope of action. It must be considered, that risk controlling is not becoming an overkill and is then leading to undesirable limits (Fiedler, 2010, S. 152).

By an active handling of risk, employees are prepared preventively. Parallel uncertainty and fear should be reduced. Additionally by the appliance of a conscious handling of risks, the company´s value may be increased and the trust of the stakeholders gained. An indirect goal of risk controlling is, in the event of a risk, to keep the damage effect as low as possible. (von Camphausen, 2006, S. 29). Furthermore it must obtain the legal requirements and consequently the maintenance and the profitability of the company.

3.3 Legal necessity

The management must be monitored by the supervisory board and it is not sufficient, that the board is controlling past activities, but is obliged to also advise the management on future decisions (Bellavite-Hövermann, 2009, S. 16). According to law, when the entity got into financial troubles, and the insolvency is inevitable, that can be ascribed to a lack of risk management; the company can claim liability on the management. A personal liability is not excluded. Thus, a management board is well advised to implement a well-functioning risk management (Jung, Bruck, Quarg, & Kleine, 2008, S. 570). In addition it is the law, to introduce a corporate wide monitoring system that should include a risk management, an internal revision and a controlling (Preißner, 2010, S. 21).

3.3.1 **Legal obligation and transparency in the corporate division**

There is a clear legal regulation on risk monitoring to secure the stock company not only against losses and venture, but also warn at an early stage on substantial risks on assets and financial power. It contains potential threats resulting out of market development and/ or the quality of internal processes. Other business risks are also a part of it (Preißner, 2010, S. 21).

In addition it should increase the transparency and publicity of the company. Identified risks must be hedged organizationally by the executive board. The supervisory board has the task, to prove the early warning system.

The early warning system is responsible, to recognize a dangerous development at an early stage, that suitable measurements for a healthy continuity is set. The company is obliged to make statements on the risks and risk structure in their annual financial statement. Thereby, the risks and chances of future developments and planning must be explained transparently.

3.3.2 **Basel II + III**

The most important regulation must not be left out when it comes to risk. Basel II is a regulation that is engaged with the equity of credits of banks. This regulation leads, for a company´s point of view, to ensure internal measures to improve the solvency of a company (Preißner, 2010, S. 389). Depending on the risk of the debtor, the bank must boast an individual equity ratio (Preißner, 2010, S. 30).

The targets of Basel II are:

- Promotion of the soundness and security of finance concerns
- Equity base
- Improvement of competition equality
- Enhanced risk treatment
- Guideline to measure an appropriate equity base
- Applicability on banks with different complexity

The below chart illustrates the three columns of Basel II.

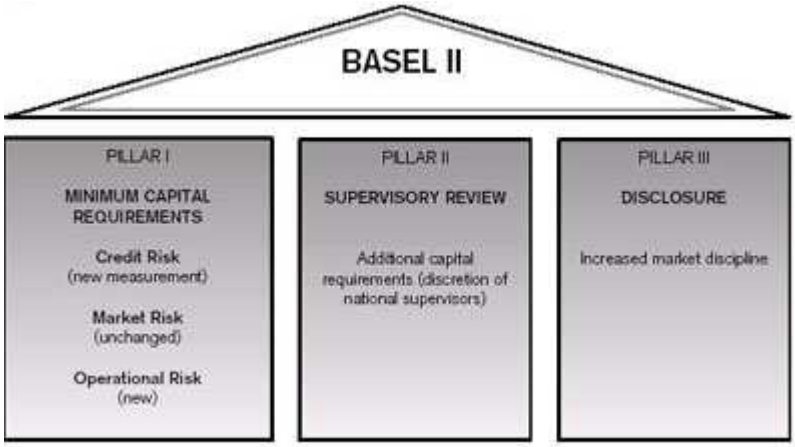

Fig.: 3: The three pillars of Basel II

The first pillar includes the minimum capital requirements, whereby financial institutes must measure the amount of equity, which is required for banking specific risks (Störmer, Matthes, & Weiss, 2010, S. 181).

The banking supervisory review process in the second pillar, should ensure, that the financial institute has enough equity, to cover all risks of venture business.

4 The risk management process

In times of a turbulent economy, the appliance of a risk management process becomes more important than ever. The process must be adapted to the individual company. As a result, companies should be protected against irretrievable losses (Simonian, 2011, S. 53).

The risk management process is there to recognize risks, to evaluate and to avoid them.

Fig.: 4: Riskmanagement Process; (Führer, Züger, & Rita, 2007)

The risk management process is in any industry according to this scheme. In a first step the corporate risk must be discovered. In a further process they are evaluated quantitatively or qualitatively – whichever dominates in the analysed process. Thereafter, the controlling of the single risks takes place. In the second last step, the implementation of the selected measurements takes place. In the last step cannot be seen as a unique process step, but is complimentary and is supervising the defined measurements.

Nevertheless, the risk culture, the risk awareness and the risk understanding have a significant influence on the success of the risk controlling activities. It goes without saying, that the employees are giving the directions of the overall risk controlling. Without their readiness and their active communication a risk management process cannot be successful.

4.1 Risk policy

Through the different point of views, risks are perceived differently. Therefore risk political principles' that are in line with corporate targets are fundamental for a successful risk controlling. Risk policy is the established risk philosophy of the corporate management and must orientate on the corporate targets and be easily understandable. The employees must know which role the risk management plays in the corporate strategy.

A risk policy should contain statements to the following issues:

- Decision criteria to consider profit and risk
- Upper limit for overall risks
- Boundary of risks in core- and side risks
- Limitation of single risks

In the course of strategic planning, the management must define their risk averseness. Together with the openness to risk the strategic goals must take the competition environment into account. For the corporate guidelines, also the risk bearing ability, -preference and – limit are determined. (von Camphausen, 2006, S. 33)
The risk policy should consequently also define risks, that are not explicitly elaborated and why they are not defined. After final definition, the risk policy should also be documented in written in a risk management handbook (Hab & Wagner, 2010, S. 135).

4.1.1 **Risk bearing ability**

The risk bearing ability of a company is the sum of equity and other liquid assets. Through the risk bearing ability, there is a limited possibility to bear losses. Corporations with a high equity ratio and additional liquidity reserves for a crisis situation, are able to take higher risks. The damage maximum, that a company can lift, is a function of profit stability, business perspective, finance structure and credit line. (von Camphausen, 2006, S. 33)

4.1.2 **Risk preference**

Additional to the risk bearing ability, the risk preference must be defined. Depending on the culture of the company, it can be distinguished between risk averted or venturesome. The price for a risk can be understood as risk preference. The expected profit and its risk can be put in a ratio.

4.1.3 **Risk strategy**

The risk strategy describes the handling with risks that result out of the corporate strategy and the ability of the company, to manage unforeseeable risks. The risk strategy is mostly predefined by the management. Hence, the single elements of the risk policy are broken down to the organisational levels and the responsibilities to implement the risk strategy nominated. By this, every single department may have its own risk strategy. The level of detail can differ from company to company. In practice, for core risk types and business units own boundaries are set. (Bellavite-Hövermann, 2009, S. 26)
Therefore the risk strategy is the framework of how to handle risks and is inevitable.

4.1.4 **Problems of a risk policy**

Difficulties in the implementation of a risk policy and the risk strategy often result out of the following reasons:

- There is only a description of the current condition without a clear target
- Lack of consistence between analysis, target planning and reporting
- No continuous controlling and reporting of the target tracking
- An enormous binding of resources in the first draft
- No link of the corporate strategy and the other partial strategies
- Contradiction between the strategies and the organisational guidelines
- The risk policy is not lived by the management

By the definition of the risk policy and – strategy, the company should be prepared for sudden risks. Is there an event of a threatening risk, the responsibility must not be passed on to the middle management (Finke, Singh, & Rachev, 2010, S. 82).

4.2 Risk identification

The identification and classification of risks are the first steps to a successful risk management process. Core parts in this phase are the recognition and analysis of potential disturbing factors as well as their effect on the company Thus, the risk identification is the complete, logical, systematic and continuous detection of all (potential-) risks, which relate to the company (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 246). In line, only those risks can be managed that are also discovered and identified.

The earlier risk identification takes place, the more effective it is. Risks that are at an early stage, are hardly recognizable and are then are not taken seriously. Risks that are not discovered at that stage may lead the company in a severe crisis situation soon. In practice, it is almost impossible to identify all risks. Nevertheless, the target in the identification phase is, to get a comprehensive overview on all relevant risks and to document them (Romeike & Hager, 2009, S. 122). For this purpose, to identify the key elements of a business process is vital for the continuation of business activities (Romeike & Hager, 2009, S. 122).

However, it must not be forgotten to not forget all parties concerned in the process. A neutral consultant in the identification phase might be of help. By the different point of views of more individuals, the objectivity of the risks gathered is ensured.

The relation of OEMs to their supplier gained in importance and a detailed supplier management system is therefore obligatory. This system should be used as risk prevention. Remarkable is, that it gets common, that OEMs do regular audits at their suppliers, to get a clearer picture on the suppliers processes. In order to minimize the risks in the interfaces, suppliers are often invited already in the iden-

tification phase. In addition to the potential negative deviations, risk managers must pay attention also to the chances.

The identification of risks can be from different perspectives. Depending on the company, risk may be identified on the level of types, processes or business areas. The risk management process can on only be said to be effective, when all company relevant risks are recognised and discovered. (Romeike & Hager, 2009, S. 121). Therefore it is necessary to have a good risk policy that shapes the risk culture. Only an open communication on chances and risks equally, enables, to set priorities correctly and to develop suitable risk management strategies. Then the necessary next steps can be set in time.

4.2.1 **Methods of risk identification**

The choice of the right methodology for risk identification is depending on the risk profile of an industry and the individual company. In practice, the car industry mostly a combination of single methods are in use (Romeike & Hager, 2009, S. 122).

In order to identify the risks, mostly companies have recourse on knowhow and experience. The following tools are auxiliary in the identification process (Denk, Exner-Merkelt, & Ruthner, 2008, S. 90ff):

- KPIs
- SWOT Analyse
- FMAE Analysis
- Productcycleanalysis
- Weak Signals

The listing shows examples out of a large portfolio of tools that can be used according to company´s profile and industry. A detailed explanation may go beyond the framework of this thesis.

4.2.1.1 Creativity techniques

Creativity techniques represent a possibility to support the identification of risks. They demand a composition of different participants in a group. By that, it is possible to elaborate various sources and complex coherences may be understood (Preißner, 2010, S. 436). The most represented creativity techniques are:

- Brainstorming
- Risk workshops
- Interviews
- Scenario technique

The listing shows examples out of a large portfolio of tools that can be used according to company´s profile and industry. A detailed explanation may go beyond the framework of this thesis.

4.2.2 **Problems in the risk identification**

The identification of risks contains significant problems. On one hand is a complete risk identification of a company neither possible nor economically meaningful. That’s because of the enormous range of risks that may occur and the interdependence among the individual risks. This would mean at the same time, that waiving to register insignificant risks, would automatically wave the identification and evaluation. By this, there is always the danger that crucial risks remain undiscovered. To roll up, if there is no red line in the company´s strategy and therefore its targets, the identification of relevant risks is hardly possible (Gleißner, 2008, S. 223).

4.3 Risk evaluation and analysis

The phase of evaluation and analysis, the discovered risks are described quantitatively described and in a further step the real risk scope determined by realistic figures (Gleißner, 2008, S. 101). The aim is to evaluate the meaning of the individual risks for the company. A decisive factor is the potential threat that they are constituting for the enterprise. The evaluation can be made by three questions (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 247):

- How high is the probability of occurrence of the discovered risk?
- What are the effects when the risk occurs?
- What are the influencing factors by the occurrence of the risk?

A decisive challenge is the statement to the probability of occurrence of the potential threat, as it is, depending on the risk type, often differently. For unique or rarely occurring risks are in most cases no historic data is available, thus only an evaluation according to experience can be made (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 247).

Although the evaluation of risks may contain some difficulties, it is a central point of a successful risk management process. By the quantification of individual risks a comparison with other risks is possible. Therefore it is essential, to define the extent of a risk and to calculate the consequences on the top priority company target. The aggregation of the evaluated individual risks reflects the corporate overall risk. Is the overall risk position clear, then there can be made propositions towards liquidity reserves and capital resources can be made (Gleißner, 2008, S. 102f).

In line with the risk identification mostly the classification of the risk is made according to relevance for the company. This is done by qualified employees. The risks are clustered in 5 classes; sorted by insignificant to threatening of existence. The target of the relevance classification is it to filter crucial risks for a in-depth quantitative analysis and to conduct a first ranking (Gleißner, 2008, S. 104).

4.3.1 Risk inventory and risk matrix

All risks are summarized in a risk inventory. The risks are a hierarchy pattern and organized according to a selected order. Additionally the risk priority of a company are elaborated and made visual. The conduction is simple, but does only allow a one dimensioned outline (Gleißner, 2008, S. 119). In order to have an overview of a company´s risk portfolio, to set up a risk matrix is suitable. In it, the risks are marked according to their probability of occurrence and effects. Hereby the demand for action is made clearly visible. When a risk is going beyond a boundary, a quick status report is generated. Below an example of a risk matrix:

		A	B	C	D	E
		Negligible	Minor	Moderate	Significant	Severe
E	Very Likely	Low Med	Medium	Med Hi	High	High
D	Likely	Low	Low Med	Medium	Med Hi	High
C	Possible	Low	Low Med	Medium	Med Hi	Med Hi
B	Unlikely	Low	Low Med	Low Med	Medium	Med Hi
A	Very Unlikely	Low	Low	Low Med	Medium	Medium

Fig.: 5: Example of a risk matrix

4.3.2 Problems of a risk evaluation

A point of criticism of the risk evaluation is that for certain risk factors no evaluation of their amount of damage and probability of occurance is possible. Highly affected are the strategic risks. Both are often based on subjective guess. Due to various risk preferences of individuals, it may lead to different risk approaches. Responsible persons are often biased to adjust parameters, especially when the risk capacity is peaked out. In addition a prioritisation of risks to compare the potential threats with each other, is complex; hence a consistent risk measurement is necessary (Gleißner, 2008, S. 224). As there is an instability between risk factors and company targets, permanent adjustments of the model should be made

but an inclusion of the interdependences among the risks is hardly possible. To get an overview on the risk situation of large companies like most OEMs, the single business units must be identified and evaluated risk then merged.

4.4 Risk mitigation

The controlling of risks is especially for industrial companies essential. The target is to influence the risk situation of the company positively (Hartel, 2009, S. 38). The preference order of the to be elaborated risks derives of the risk matrix. To find an adequate methodology, an orientation on the risk strategy is essential. As mentioned above, the risk strategy definition should already be made in the company´s mission statement. To control the risks there are made cause and effect related measurements.

Cause related measurements try to eliminate the cause of the risk. By that, a deviation into a negative zone should be avoided.
Effect related measurements reduce the effects when a negative deviation occurs. The information standard is then improved, to have a detailed description of the risk situation. This should be the basis for a proper and comprehensive evaluation of damages.

4.4.1 **Acceptance**

When it comes to acceptance, the company takes the risks on its own, and does not do hedging measurements. This method of risk controlling is for risks that are insignificant in their effects and only have a low probability of occurrence. Mostly this happens in daily acting. The avoidance or hedging would cost and is economically not sensual (Preißner, 2010, S. 441). Often there is no other choice but to take risks on its own. Strategic risks can hardly be transferred because when the company wants to be successful it must build up success potentials – therefore risk is inevitable.

4.4.2 **Prevention and limitation**

To avoid or limit risks is an cause related strategy. By that measurements are made which interfere in the risk development process, hence influence risk triggering factors. The target of prevention of risks, is that the events do not occur or that the probability is lowered (Hartel, 2009, S. 39). The application of risk prevention measurements is especially for additional services in the car carrier industry conceivable. So it is basically only an alternative when taking on a new business activity (Meyer, 2008, S. 355).

4.4.3 **Distribution and shifting**

The shift of risks is consciously taking on individual risks, whereby the overall risk for the company is diminished.

4.4.4 **Reduction**

The reduction of risks is one of the mostly used and also most effective methodologies. The target is, to not necessarily avoid risk biased decisions, to exploit the existing chances. The know how of the company is used to define risk minimizing measurements (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 248).

4.4.5 **Risk transfer**

The risk transfer is an effect related strategy, which is not aimed to change the risk. By contractual regulations, it is tried to convey possible damages to the perpetrator. This is on one hand possible by contractual clauses and insurances. On the other hand the risk can be conveyed by outsourcing of services or transfer to business partners and sub-contractors. This is a common strategy by both OEMs and car carriers. Nevertheless, the contract holding party is responsible for the consequences. The transfer to external entities, only the financial damage can be pushed onwards. The image damage, loss of trust or loss of the customer can

hardly be avoided. Hence, it is essential to only overtake risks that are chances at the same time.

4.4.6 **Risk controlling problems**

When it comes to practice, the controlling and reduction of risks is limited. The desired measurements to reduce do not exist in some cases or are not wanted in certain situations. Also the availability of measurements are limited and companies have economical limitations (Preißner, 2010, S. 441). When side risks that arise in supporting processes are outsourced, companies can take more risks in the setup of chances.

4.5 Risk review and monitoring

The fourth phase of the risk management process is to constantly observe the efficiency of the risk controlling. It contains the review and monitoring of risks as well as the reporting.

The monitoring is done continuously and without a timely limitation. The reason behind is a constant adaption of measurements to control the risks (Czenskowsky, Schünemann, & Zdrowomyslav, 2010, S. 249). The risk observation is regulated by law. The observation rotation and the scope must be clearly defined. It should give the company a conclusion, if a previous step of a process was done duly. In this step, there is also the current compared with the nominal situation and additionally proves if the risks occurred, hence the risk identification, was complete and successful.

4.6 Risk reporting

The basis for an important risk controlling is a risk reporting. The reporting is part of the risk controlling and has the target to show the entire risks. In addition, the focus should be on the selected risk aspects that are relevant to the controlling of the company. Furthermore the report should be communicated to both external

and internal decision makers; depending on the reporting obligation. The preparation of decisive information is elementary. To observe and control risks means to pass on the right information, at the right time and to the right persons. There is no master solution for a proper reporting. It very much demands a vision, discipline and the right understanding. It basically can be distinguished between internal and external risk reporting.

4.6.1.1 Internal risk reporting

Aim is that a hierarchy spanning transparency of the corporate risks and threats. The reporting has the task, to provide all decision makers comprehensively and continuously with risk relevant information and external developments.

4.6.1.2 External risk reporting

Based on the internal reporting, the external reporting is set up as part of the external company communication. For customers and suppliers of the company the external reporting is of interest. Especially the customer, that has a certain dependency, has an eye on the company´s sustainable ability to supply. However, the supplier is interested if the enterprise can pay future invoices or if liquidity problems are in sight (Friedrich, 2007, S. 320).

5 Conclusion on the fundamental risks of the car industry

The fundamental risks are manifold. The following diagram is based on confidential data of a survey of an OEM´s risk management and prepared on its outcome data.

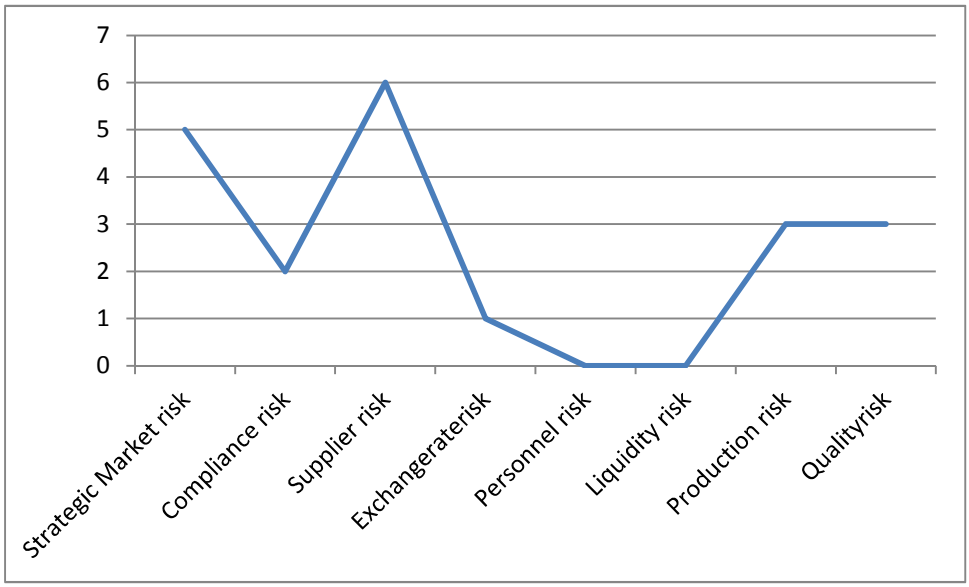

Fig.: 6: Risks of an OEM

The graph shows, that the strategic market risk as well as the supplier risk are the most significant ones in the car industry. The production and quality risk are another core risk group. The personnel as well as the liquidity risk are not of great importance to the OEMs.

Experts don't see the risk really in the sales market but in the sourcing. In many companies a high dependency is on the suppliers. When the supplier is not delivering in time and agreed quality standard, it has immediate effects on the production, quality of the products and therefore on the costs. In most cases a production stand still is inevitable.

Another risk factor that is valid for both in and outbound traffics is the transportation mode and route of the suppliers. For the car industry the uncontrollable environmental disasters become more of an issue. Severe weather conditions and political situations, like strike, riots and sudden boarder closures due to terror attacks, it often comes to transport stops. Overland transports are more and more

done by rail. Volkswagen is now conducting a complete new strategy on their outbound traffics, to increase the share on the rail transport mode by another 5%. The target is high, and the permanent risk of ununforeseeable strikes of European unions has had an enormous impact on the car carriers. The strategic market risk is also a substantial risk for companies. On the market are many forces that are hardly manageable. Therefore it is substantial for OEMs to evaluate and control these factors correctly. However, strategic failure cannot be redeemed by an operational performance.
Also the compliance risk gets a more important aspect in the risk management. Bribery and economic crime are topics that experts are warning.

The economic crisis had hit the car industry and its suppliers enormously. Turnover reduction and redundancy of personnel were the consequences. Nevertheless, the worst is behind and the latest figures show an ongoing positive sign of recovery. During the crisis, it was the biggest risk for companies, that the costs exceed and the results are not satisfying for the customers anymore. Strategic important partners and suppliers needed to support to manage the storm. The OEMs looked for a close relationship with their suppliers. Nevertheless, it was far easier for companies to swallow failures. Flexibility of suppliers experienced a boost during the crises. Suppliers were obliged to adapt their internal structures more flexible. The planning phase of projects was highly reduced due to the crisis. The flexibility of personnel employment, keyword interim staff, is still a topic

Concluding it can be said, that OEMs and its suppliers became sensitive on risks in the past years. The market has fully changed and the car carriers were made aware that the environment can change quickly. The still ongoing globalisation shows that it is not sufficient to be only in Europe. The race for the best production location has an enormous effect on the suppliers as they must go with their customers to new countries and continents. And if not, the danger to not slide down into a Tier 3 position and being then dependent on another supplier, is threatening the existence.

6 Literature

Appelfeller, W., & Bucholz, W. (2011). *Supplier Relationship Management. Strategie, Organisation und IT des modernen Beschaffungsmanagement.* Wiesbaden: Springer Fachmedien Verlag GmbH.

Behr, P., & Fischer, J. (2005). *Basel II und Controlling. Ein praxisorientiertes Konzept zur Basel II-konformen Unternehmenssteuerung.* Wiesbaden: GWV Fachverlage GmbH.

Behr, P., & Fischer, J. (2005). *Basel II und Controlling. Ein praxisorientiertes Konzept zur Basel II-konformen Unternehmenssteuerung.* Wiesbaden: GWV Fachverlage GmbH.

Bellavite-Hövermann, Y. (2009). Gesamtbankrisikosteuerung aus Sicht des Aufsichtsrats. In H.-W. Reavis Mary, & O. Everling, *Risk Performance Management: Chancen für ein besseres Rating.* Wiesbaden: GWV Fachverlage GmbH.

Campenhausen, C. (2007). Management von Strategierisiken in Industrieunternehmen. In T. Kaiser, *Wettbewerbsvorteil Risikomanagement: Erfolgreiche Steuerung der Strategie-, Reputations- und operationellen Risiken* (S. 119 - 132). Berlin: Erich Schmitd Verlag Gmbh.

Czenskowsky, T., Schünemann, G., & Zdrowomyslav, N. (2010). *Grundzüge des Controlling. Lehrbuch der Controlling Konzepte und Instrumente.* Gernsbach: Deutscher Betriebswirte Verlag GmbH.

Czenskowsky, T., Schünemann, G., & Zdrowomyslaw, N. (2010). *Grundzüge des Controlling. Lehrbuch der Controlling-Konzepte und Instrumente.* Gernsbach: Deutscher Betriebswirte Verlag GmbH.

Denk, R., Exner-Merkelt, K., & Ruthner, R. (2008). *Corporate Risk Management: Unternehmensweites Risikomanagement als Führungsaufgabe.* Wien: Linde Verlag.

Deutsche Gesellschaft für Risikomanagement, e. (2008). *Risikoaggregation in der Praxis. Beispiele und Verfahren aus dem Risikomanagement von Unternehmen.* Heidelberg: Springer-Verlag.

Dr. Gladen, W. (2008). *Performance Measurement als Methode der Unternehmenssteuerung, [in] Das neue Lexikon der Betriebswirtschaftslehre.* München: Oldenbourg.

Fiedler, R. (2010). *Controllling von Projekten. Mit konkreten Beispielen aus der Unternehmenspraxis – Alle Aspekte der Projektplanung, Projektsteuerung und Projektkontrolle.* Wiesbaden: GWV Fachverlage GmbH.

Finke, G., Singh, M., & Rachev, S. (2010). Operational risk quatification: a risk flow approach. *Journal of operational risk*, S. 65-89.

Fischer, J., & Pfeffel, F. (2010). *Systematische Problemlösung in Unternehmen: Ein Ansatz zur strukturierten Analyse und Lösungsentwicklung.* Wiesbaden: Springer Gabler Verlag.

Franz, K.-P., & Kajüter, P. (2007). *Kostenmanagement; [in] Betriebswirtschaft für Führungskräfte* (Bd. 3. Auflage). Stuttgart.

Friedrich, N. (2007). *Die Rolle von Analysten bei der Bewertung von am Kapitalmarkt.* Köln: Josef EUL Verlag GmbH.

Führer, A., Züger, & Rita. (2007). *ProjektmanagementManagement-Basiskompetenz: Theoretische Grundlagen und Methoden mit Beispielen, Repetitionsfragen und Antworte.* Zürich: Compendio Bildungsmedien AG.

Gleißner, W. (2008). *Grundlagen des Risikomanagements im Unternehmen: Controlling, Unternehmensstrategie und wertorientiertes Management.* München: Franz Vahlen GmbH.

Graumann, M. (2008). *Controlling – Begriffe, Elemente, Methoden und Schnittstellen.* Düsseldorf: IDW Verlag.

Hab, G., & Wagner, R. (2010). *Projektmanagement in der Automobilindustrie. Effizientes Management von Fahrzeugprojekten entlang der Wertschöpfungskette.* Wiesbaden: Gabler Verlag.

Hartel, D. (2009). *Consulting und Projektmanagement in Industrieunternehmen - Praxisleitfaden mit Fallstudien.* München: Oldenbourg Wissenschaftsverlag GmbH.

Hermut, K. (2008). *Beiräte in der Verantwortung. Aufsicht und Rat in Familienunternehmen.* Berlin: Springer Verlag GmbH.

Jung, R., Bruck, J., Quarg, S., & Kleine, M. (2008). *Allgemeine Managementlehre. Lehrbuch für die angewandte Unternehmens- und Personalführung.* Berlin: Erich Schmidt Verlag GmbH & Co.

Kühne, J. (2010). Anforderungen an das Risikomanagement und Risikocontrolling. In R. Eller, M. Heinrich, R. Perrot, & M. Reif, *Management von Rohstoffrisiken: Strategien, Märkte und Produkte* (S. 460). Gabler Verlag.

Macharzina, K., & Wolf, J. (2008). *Unternehmensführung: Das internationale Managementwissen Konzepte - Methoden - Praxis.* Wiesbaden: Gabler Verlag.

Meyer, R. (2008). *Die Entwicklung des betriebswirtschaftlichen Risiko- und Chancenmanagements. In: Kalwait, R., Meyer, R., Romeike, F., Schellenberger, O., Erben, R.F. (Hrsg.). Risikomanagement in der Unternehmensführung. Wertgenerierung durch Chancen- und kompetenzorienti.* Weinheim: Wiley-VCH Verlag.

Müller, H.-E. (2013). *Unternehmensführung: Strategien-Konzepte-Praxisbeispiele.* München: Oldenbourg Wissenschaftsverlag Gmbh.

Paff, G., & Paff, D. (2008). *Controlling - Wichtigste Methoden und Techniken.* Zürich: Versus Verlag AG.

Preißner, A. (2010). *Praxiswissen Controlling. Grundlagen, Werkzeuge, Anwendungen.* München: Carl Hanser Verlag München.

Proff, H., & Proff, H. (2008). *Dynamisches Automobilmanagement: Strategien für Hersteller und Zulieferer im internationalen Wettbewerb.* Wiesbaden: Gabler Verlag.

Romeike, F., & Hager, P. (2009). *Erfolgsfaktor Risiko-Management 2.0. Methoden, Beispiel, Checklisten Praxishandbuch für Industrie und Handel.* Wiesbaden: GWV Fachverlage GmbH.

Schmitz, T., & Wehrheim, M. (2006). *Risikomanagement. Grundlagen – Theorie-Praxis.* Stuttgart: Kohlhammer GmbH.

Schultz, V. (2010). *Basiswissen Controlling: Instrumente für die Praxis.* München: Deutscher Taschenbuch Verlag GmbH & Co. KG.

Simonian, J. (24.. February 2011). Mind the tails! Anticipatory risk management for target-date strategies. *The journal of risk*, S. 45-54.

Störmer, O., Matthes, U., & Weiss, T. (2010). *Controlling Handbuch: Ein Praxisbegleiter.* Darmstadt: Refa Bundesverband e.V.

von Camphausen, C. (2006). *Risikomanagement. Was der Manager wissen muss.* Zürich: Orell Füssli Verlag AG.

Wolke, T. (2008). *Risikomanagement.* München: Oldenbourg Wissenschaftsverlag.

Wolke, T. (2008). *Risikomanagement.* Oldenburg: Wissenschaftsverlag GmbH.