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Exploring SMEs' Risk Management in Southern Germany

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2.1 Introduction

"Profiting in business without taking risk is trying to live without being born." This quotation by Raghavan (2005) clarifies that risk is an integral part of organizational processes. To achieve corporate goals requires dealing with corporate risks in a consequent and systematic way (Rautenstrauch and Wurm 2008). Because of the increasing complexity in the environment of an enterprise, the amount of corporate risks as well as their impact is increasing (Münzel and Jenny 2005).

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Small and medium-sized enterprises (SMEs) play an important role in the German industry and are therefore often called the "[b]ackbone of the German economy" (Britzelmaier et al. 2015; Schauf 2009; Fischer 2008; Dana 2006). Reasons for the high relevance of German SMEs are wide-ranging. Regarding the trend towards lean management in large companies, German SMEs represent niche suppliers that are often world market leaders on their subject (Behringer 2009; Khadjavi 2005). Furthermore, German SMEs are linked with higher innovation and employment dynamics. This can be proved by the high amount of patent applications (Khadjavi 2005; Mac an Bhaird 2010; Tappe 2009) or the high importance of labour as a production factor (Hamer 2006; Mac an Bhaird 2010). Another reason for the high relevance of SMEs in Germany is their promotion of effective competition. Whereas large companies often take up a monopolistic position, SMEs allow market access to competitors and therefore reduce efficiency deficits on the market (Hamer 2006).

There are external motivating factors as well as internal economic factors that demand the application of a risk management (RM) system in German SMEs. Above all, the protection of their existence is of central importance since German SMEs face insolvency more often than large companies do (Henschel 2010b). However, empirical studies on RM focus mainly on large companies. German SMEs are often disregarded when it comes to the necessity and implementation of RM systems (Henschel 2003). Based on literature review including previous studies in the field of RM, this paper tries to bridge existing research gaps.

The paper is organized as follows. The literature review about the concept of RM in SMEs is presented in the second section. The research methods and data collection are stated in the third section. Findings and discussions are presented in the fourth section. The final section deals with conclusions, limitations and future developments.

2.2 Literature Review

2.2.1 Small and Medium-Sized Enterprises (SMEs)

SMEs constitute an important reality for the economic system of several countries, as they represent key drivers for innovation, social integration and employment (European Central Bank 2013; Eurostat 2011). They are crucial in promoting economic growth at the international level and their vitality helps to reduce the unemployment rate (WTO 2013).

Small and medium-sized companies have always had little guidance on how best to manage risk or where to seek advice. Therefore, studying the topic of RM in SMEs in depth is essential for both practical and academic purposes. There is no uniform definition for German SMEs provided (Schröer 2007; Khadjavi 2005). Consequently, one needs to determine a clear differentiation of SMEs to distinguish them from other kinds of enterprises. Subsequently, there are quantitative and qualitative criteria introduced to develop a clear definition for SMEs in Germany.

Regarding quantitative criteria for differentiating German SMEs, the most appropriate key performance indicators are the number of employees, turnover and balance sheet total (HGB Art. 267; IfM Bonn, n.y., URL; Tappe 2009). Besides the definition of the qualitative criteria, it is also necessary to define thresholds for the differentiation of German SMEs. The Institute for SME Research in Bonn (IfM), the European Commission as well as the German Commercial Code (HGB) provide such thresholds for distinguishing between different enterprise sizes. Table 2.1 provides the categorization of the three quantitative criteria regarding micro, small, medium-sized and large enterprises.

Besides quantitative criteria there are qualitative criteria that need to be considered for an adequate differentiation of German SMEs. Qualitative criteria focus on the characteristics of an SME. The most appropriate features regarding the qualitative differentiation are the autonomy as well as the legal, company, organizational and financial structure of an SME (Tappe 2009; Kosmider 1994).

The European Competence Centre for Applied SME Research (EKAM; formerly Deloitte Mittelstandsinstitut) at the University of

Table 2.1 Quantitative criteria (IfM Bonn, n.y., European Commission 2006; HGB Art. 267)

Size of enterprise	Ø Number of employees			Turnover (Mio. €)			Balance sheet total (Mio. €)		
	IfM	EU	HGB	IfM	EU	HGB	IfM	EU	HGB
Micro enterprises	<10	<10	≤10	<2	<2	≤0,7	–	<2	≤0,35
Small enterprises	<10	<50	≤50	<10	<10	≤12	–	<10	≤6
Medium-sized enterprises	<500	<250	≤250	<50	<50	≤40	–	<43	≤20
Large enterprises	≥500	≥250	>250	≥50	≥50	>40	–	≥43	>20

Bamberg combines quantitative and qualitative criteria with the aim of taking the specific characteristics of SMEs into account as adequately as possible. This integrative definition of SMEs is the basis of this study. According to Becker and Ulrich (2009), the definition of medium-sized companies is based on the family tradition. The concept therefore takes into account not only the number of employees and the annual turnover but also the ownership and governance structure of the company (Becker and Ulrich 2009). The latter is justified by the fact that even marginal changes in these structures can lead to noticeable changes in the "network of relationships between stakeholders" (Becker and Ulrich 2009; Hausch 2004). EKAM's definition includes all "owner-managed enterprises or family enterprises [as well as such] manager-managed enterprises up to a headcount of approx. 3,000 employees and/or a sales volume of approx. EUR 600 million and enterprises with both definition characteristics" (Becker et al. 2016a, b). The EKAM draws attention to the fact that the numerical values are approximate size criteria and, compared to the qualitative criteria, of subordinate importance. *Becker and Ulrich* (2009) distinguish between ownership structure and governance structure on the one hand and between companies with a family business tradition and companies owned by third parties on the other hand. The ownership structure is characterized by the types of individual, family and third-party ownership, while the governance structure is distinguished by the types of individual, family and third-party management (Becker and Ulrich 2009). EKAM thus assigns the five company types A to E to SMEs according to the definition, the identification of which is explained in the following paragraph.

If ownership and management are transferred to the same person, this corresponds to Type A, so-called owner companies. Type B includes companies in which the family has a direct influence on the ownership and management structure. In contrast to Type A, such family businesses require the influence of at least two family members. External managers can also be involved in the management as long as the strongest decision-making power is restricted to one member of the family. A medium-sized company and thus a Type C company belongs to the externally managed SME category if it is owned by an individual or a family, but the management is exclusively entrusted to external managers. Type D companies, so-called mixed-financed SMEs, are owned by third parties or are characterized by mezzanine financing. However, management continues to be carried out by the initial owner or persons from the entrepreneurial family. Type E companies, apart from their smaller size, do not have any distinguishing features from large listed companies. Becker and Ulrich emphasize that, in view of their proximity to the entrepreneurial family, type A and B still have a medium-sized character even if the quantitative limits of the number of employees and the annual turnover are "clearly" exceeded. Type C loses its character as a medium-sized company with increasing size. Despite the lack of a family allowance, type D and E can have similarities to type A and B with a limited company size and in these cases can also be classified as SMEs.

EKAM's definition approach not only provides a multifaceted insight into SME practice, but also leads to "a clear upward shift in the perspective of SMEs". In this way, an increased number of potential enterprises could be taken as a basis for the random sampling of the work at hand.

2.2.2 Risk Management

The topic of RM was first studied after World War II, in the period between 1955 and 1964 (Crockford 1982; Williams and Heins 1964; Harrington and Niehaus 2004). Recent developments show a general propensity to acknowledge the importance of social and cultural factors when considering risk. The shift towards constructivism and a social approach opens up opportunities for cross-disciplinary research as RM is a transversal process strategic to each company because it helps managers set and possibly achieve the objectives of their company.

Risk can be defined in a cause- or effect-related way. According to the cause-related definition, an information deficit is the reason for risk. On the contrary, the effect-related risk definition refers to a negative or positive deviation from a set objective (Wolf 2003). If risk is considered as an uninfluenceable hazard, it is defined as pure risk (Münzel and Jenny 2005). If the definition of risk is not limited to a negative development, but also involves chances or opportunities, it is described as speculative risk (Sellin 2007; Wolf 2003; Münzel and Jenny 2005).

RM is an integrative part of corporate governance (Wolf 2003; Sellin 2007). By applying RM, risk with a high extent of loss can be identified and assessed in an early stage (Wolf 2003). Furthermore, RM is defined as the steering and controlling of current or future risks in a company (Horváth et al. 2019; Henschel 2010a). These steps of identifying, assessing, steering and controlling risk are also known as the RM process or rather the RM system (e.g. Burger and Buchhart 2002; Reichling et al. 2007; Schröer 2007). It can be seen as a regulation loop which should be integrated into the corporate processes (Romeike and Hager 2009).

By integrating RM into the corporate processes, risk can be minimized while earnings opportunities can be maximized (Horváth et al. 2019; Henschel 2010a). With a target-oriented management of risk, corporate value can be increased and the continued existence of the company as a going concern can be ensured (Burger and Buchhart 2002). Internal motives and objectives cause the company to establish RM from within. At the heart of the internal motivation of any company is the intention to secure the company's long-term existence and success (Bodenmann 2005). External motives and objectives result primarily from legal requirements and regulations such as Basel II, III and IV, KonTraG (German Act on Control and Transparency in the Company Sector) and ISO certifications.

It is necessary to distinguish between strategic and operational RM. Elements of strategic RM comprise the implementation of a risk culture, the development of risk strategy and risk objectives, the definition of a risk policy, the creation of a corresponding organizational structure and the monitoring and improvement of RM (Institute of Risk

Management 2018; Vanini 2012). Building on this, the RM process must deal systematically and consistently with the risk potential, taking into account the corporate strategy (Diederichs 2018; Ehrmann 2012). The operational process is regarded as a central element of RM (Wengert and Schittenhelm 2013). As with the strategic elements of RM, there are different views in the literature as to which steps the RM process should comprise. The literature, however, shows a consensus regarding the general functions (Diederichs 2018; Ebert 2013; Ehrmann 2012; Henkel et al. 2010; Hornung et al. 1999, Hunziker 2018; Wengert and Schittenhelm 2013; Wolke 2016). Diederichs' definition of RM is based on a feedback loop with four process steps (Diederichs 2018). Of central importance for the success of the RM process is the awareness that a constantly changing environment requires a dynamic process (Diederichs 2018). In addition to the four stages, Diederichs' model includes continuous and independent risk and process monitoring (Diederichs 2018), which is assigned to strategic RM in this work.

According to Diederichs (2018) the operative RM consists of the following steps:

- Risk identification
- Risk assessment
- Risk steering
- Risk recording and risk reporting

2.2.3 Risk Management in SME

So far SMEs have had only little guidance on how to manage risk and where to turn for advice. Over the past few years only some guidelines, representing conceptual frameworks, have been published. Some of them represent Corporate Governance Codes for Unlisted Companies (OECD 2006, 2015; ecoDa 2010) and in 2009 the International Organization for Standardization (ISO) elaborated ISO 31000:2009 about risk management and in 2016 ISO published a practical guide for SMEs about how to implement RM. The literature reveals that RM in SMEs is still in an early phase of development and is rather fragmented (Verbano and

Venturini 2013; Marcelino-Sádaba et al. 2014). Despite this, several national and international studies highlight the immaturity with which companies and, in particular, SMEs face risks (Britzelmaier et al. 2015).

Regardless of its outstanding economic role, the German SME sector has so far been given only scarce consideration in research, and in particular in risk management research (Glaser 2017). Due to the special characteristics of medium-sized companies, however, studies of large companies cannot be transferred without reflection (Becker et al. 2016a). In view of the fact that resources of SMEs are generally more limited than those of large corporations, the focus should be more on an economically viable and efficient risk management (Gleißner and Romeike 2012). SMEs have so far been much less subject to legal obligations. This increases the room for manoeuvre, which creates opportunities and risks for SMEs. Nevertheless, SMEs can no longer completely escape the effects of increasing mandatory requirements, which is why they are subject to the influence of external stakeholders. Another typical characteristic of medium-sized companies is that, compared with large companies, they have fewer well-developed standards and structures and prefer intuitive management guidance. In some cases, this may be the effect of fewer well-trained managers (Biel 2012; Pfohl and Arnold 2006).

Not least because of other company philosophies, cultures and business models, the instruments and processes designed for large-scale enterprises cannot be used by SMEs to a large extent. No new insights have been gained from such particularities. Welsh and White presented many of these arguments almost four decades ago in "A Small Business Is Not a Little Big Business", an article in the *Harvard Business Review*. When combined with the awareness of the vast current and future business and economic importance of the German SME sector, it seems that it is impossible to transfer it without concerns. The following discussion of the research development takes this into account primarily by drawing on studies specific to SMEs.

Köglmayer et al. conducted two company surveys in 2010. These revealed that SMEs still have some work to do in setting up and integrating a systematic RM. At the same time, the interviewed managers from SMEs indicated that risk and opportunity management was gaining importance. A study by Henschel, also published in 2010, used questionnaires and company interviews to investigate both the current status of RM in German SMEs and the barriers and challenges to its implementation. According to him, the process of RM in SMEs was very different at the time of the study. Although the first steps were taken in the risk assessment, the integration of the identified risks into company planning was lacking in all the SMEs involved at the time. Henschel identified a dependence between the quality of the RM and the size of the company. The study also suggested that companies with more complex technologies had already been tending to make greater efforts. As far as the companies studied had controlling departments, the RM process and its methods were much better established.

In 2011, the Bundesverband der deutschen Industrie e.V. and PricewaterhouseCoopers questioned managing directors, risk managers, controlling managers and commercial managers of medium-sized companies. In telephone interviews, 81% of the respondents rated the importance of RM as high to very high; 85% of the respondents saw the benefit of risk management in the improvement of operational management (turnover, profit, return on investment); and 82% found it useful for strategic direction and nearly three-quarters found it helpful in meeting legal and regulatory requirements.

A benchmark study, also published in 2011 by Funk RMCE, Rödl & Partner and Weissman & Cie, came to the conclusion that the German SMEs at that time considered RM in practice to be a cost driver without any appropriate benefit at all in many cases (Löffler et al. 2011). External stakeholders such as legislators, investors and business partners often provided the impetus for dealing with the issue for the first time. Only one-fifth of the 343 participating SMEs from 14 sectors stated in the questionnaire that RM is part of the value-oriented business management in their company. In 2012, Montag conducted a survey of medium-sized companies on the subject of RM and compliance. More than 60% of the companies polled who had already set up an RM system rated the relevance of such a system as high or very high. For those who did not have an RM system so far, it was just under 50% (approx. 43%). The appraisal of the added value of an RM system for the management of companies with the size and legal form of their own company was diverse. Almost 58% of the companies asked with such a system rated the added value as at least high, while only every fourth company without an RM system shared this view.

A study published by Britzelmaier, Häberle and Landwehr in 2015 based on an empirical literature analysis and expert interviews came to similar conclusions. According to the study, German SMEs did not yet sufficiently recognize the advantages of a strategic RM at that time. This was due in particular to a lack of management skills and a lack of risk awareness. In order to promote awareness, the authors proposed further training for management, collaboration with external consultants and more consistent rules. In 2015, the auditing firm EY published an international study in which over 1000 companies from 63 countries used questionnaires to provide information on how they dealt with risks. Due to the international nature of the study and the lack of focus on SMEs, the results can only be used to a limited extent for the purposes of this work. The aim of EY was to investigate how companies deal with the shifting risk landscape and where weak points exist. The results of the study suggested that companies had recently initiated improvements in RM in order to do justice to the changed risk environment, but that there was still room for improvement. With the Gossler, Gobert & Wolters Group in 2016, a major insurance broker published a study on RM in German SMEs. A specification of the definition of SMEs is missing in the publication. The sample comprised 80 companies whose owners or managers took part in an online survey. Although the objective of the study was not explicitly stated, the revealed questions allowed some conclusions to be drawn. The focus was on the question of what contribution a strategically established RM makes to the analysis and control of risks.

A study published in 2017 by Vanini and Leschenko together with the Risk Management Association (RMA) was based on the self-disclosure of the members of the RMA. Participants were asked to complete the questionnaire designed for this purpose online in 2015 or at the association's annual conference held in 2015. A total of 64 questionnaires were accounted for in the analysis. According to the study's definition, 63% of the participants were large enterprises and only 25% were medium-sized enterprises. The aim of the study was to ascertain the maturity level of the integration of RM and risk control, and the implications. The study came to the conclusion that there was still some backlog in the integration process, but positive integration effects could already be observed, such as the reduction of double work. The modest number of publications currently dealing with RM in SMEs leads to the fact that little is known about the status quo. Nevertheless, the research cannot conceal the fact that the disparity between the aspirations and reality of RM in SMEs has been reported lately. Thus, the awareness of the advantages seems to be present, but the implementation still lags massively behind. Due to the aforementioned lack of transferability of the research results of large companies to medium-sized companies, an investigation of the current conditions of RM in medium-sized companies seems particularly necessary.

2.2.4 Research Questions

For the German-speaking countries, there is no up-to-date empirical study that addresses the three research fields of this work. Answering the questions on the basis of existing studies would be problematic for several reasons and would not meet the requirements of scholarly work. Last but not least, the heterogeneous understanding of what is meant by medium-sized enterprises limits the combination of results of different studies. The primary aim of this study is therefore to determine the current status of the RM in the SME sector by means of a qualitative analysis. The following are the main research areas:

– What are the motives and objectives of SMEs with regard to RM (initially, currently, in the future)?
– How do SMEs structure their RM system and RM process (initially, currently, in the future)?
– What experiences and challenges are there in SMEs (up to now, in the future)?

From the interviews' results recommendations for SMEs should be issued.

The study explores the question as to which motives and objectives initially, presently and in the future motivate SMEs to develop RM. Furthermore it examines how the design of RM looks for the prosecution of these aims and which development it has evolved in the course of time will probably gain. In addition, this study is dedicated to the previous experiences and future challenges in the implementation and realization of an operational RM. Recommendations for action for SMEs are to be derived from the findings.

2.3 Research Method

This study follows an explorative research approach. Exploratory research can be likened to the activities of the traveller or explorer (Adams and Schvaneveldt 1991). Its great advantage is that it is flexible and adaptable to change. Adams and Schvaneveldt (1991) reinforce this point by arguing that the flexibility inherent in exploratory research does not mean absence of direction to the enquiry. What it does mean is that the focus is initially broad and becomes progressively narrower as the research progresses. The primary objective and at the same time the most important distinctive feature compared to quantitative analyses is the generation of new findings by describing and explaining individual, observed phenomena. In addition, qualitative research is characterized by open questions, closeness to the research object and the inherent risk of a lower objectivity of the researcher (Flick 2014). The counter-draft, a quantitative investigation, is to be rejected for this work, since it usually aims at the verification of findings based on a high number of respondents. The typical characteristics, the focus on numbers as well as closed questions guarantee a higher objectivity, but are less useful for the actual purpose of our research than a qualitative design (Bryman and Bell 2015). If a hypothesis derived from the theory is verified or falsified, this is a deductive procedure. If researchers aim to develop new theories based on data and observations, they use an inductive approach. While the deductive approach leads from theory to empirical research or from the general to the particular, the inductive approach corresponds to a movement in the opposite direction (Bryman and Bell 2015; Saunders et al. 2016). The research method chosen was semi-structured expert interviews. With the help of openly formulated questions, this technique facilitates a vast variety of answers to selected topics. Ideally, the analysis of the interviews reveals relationships without directing the interviewees in advance through possible answers in a certain direction and thus aborting objectivity (Schmidt 2014).

The authors selected German SMEs according to the EKAM definition of SMEs operating in the federal states of Baden-Württemberg and Bavaria as they represent the most productive areas in Germany and the export level is on average 20% of the overall turnover in 2018.[1] Furthermore, the target group only included companies in which risks are managed and risk practices, either formalized or not, are implemented. Nine companies were found that agreed to be interviewed. Table 2.2 shows the ownership structure, governance structure and company type according to the EKAM classification.

Table 2.2 Participating companies

Company	Owner structure	Governance structure	Company type
C1	Family	External management, with Number of employees <3000 Sales 2016 <600 Mio. Euro	Type C Externally managed SME
C2	Family	Family	Type B Family business
C3	Family	Combined management, chief executive: family member	Type B Family business
C4	Family	External management, with Number of employees <3000 Sales 2016 <600 Mio. Euro	Type C Externally managed SME
C5	Family	External management, with Number of employees <3000 Sales 2016 <600 Mio. Euro	Type C Externally managed SME
C6	Family	Combined management, chief executive: family member	Type B Family business
C7	Family	Combined management, chief executive: family member	Type B Family business
C8	Family	Family	Type B Family business
C9	Family	Combined management, chief executive: family member	Type B Family business

[1] Data are gathered from https://www.statistik-bw.de/Industrie/Konjunktur/monatsErg50plus.jsp

Based on guidelines semi-structured interviews were conducted and recorded. The recordings were then transcribed and sent to the interviewees for review and authorization with a one-week scrutiny period. After approval by the companies, the proper analysis of the interviews began, using qualitative content analysis. The aim of content analysis is to limit extensive data sets by coding. For use in expert interviews, suitable keywords are searched in a first step and the corresponding statements are assigned to a category in a second step. Since the purpose of data analysis is to gather and bundle information and to establish commonalities in the expert statements, qualitative content analysis of the expert interviews is predestined as the ideal approach. With this decision, the superior goal of the work could be achieved in the best feasible way. The extracted results were analysed followed by an interpretation.

The chosen research method is characterized by the combination of a theory- and rule-based approach with the objective of developing a deeper understanding of the underlying data. Qualitative content analysis is the only technique that detaches itself from the original text at an early stage and thus also serves as a content filter. Before the expert interviews were carried out, topics were determined with close reference to the objectives of the study that also influenced the development of the guideline. In the course of the study period, these topic areas were refined and modified on the basis of new findings. Accordingly, the categories are the result of a deductive and inductive classification of the text modules. For reasons of traceability and clarity, a colour scheme was designed to depict the analysis results. Table 2.3 shows the research fields and their main categories.

In the process of the interviews, it became apparent that the analysis of the second research question, in comparison to the other research questions, represents a very extensive field of research. For this reason, four subcategories were used to code the system and process design (Table 2.4).

Table 2.3 Research fields and main categories

Research field	No.	Main category and coding
1. Motives and objectives	1.1	Initial motives and objectives
	1.2	Current motives and objectives
	1.3	Future objectives
2.1 System design	2.1.1	Initial system design
	2.1.2	Current system design
	2.1.3	Future system design
2.2 Process design	2.2.1	Initial process design
	2.2.2	Current process design
	2.2.3	Future process design
3. Experiences and challenges	3.1	Experiences so far
	3.2	Future challenges

Table 2.4 Research fields and subcategories

Research field	Subcategory and coding
System design	Organization
	Risk culture
	Strategy; objectives, risk policy, risk-cover potential
	Control and improvement
	Not further specifiable
Process design	Risk identification
	Risk assessment
	Risk monitoring
	Risk recording; risk reporting
	Not further specifiable

2.4 Findings

2.4.1 Motives and Objectives

One-third of the participating companies have been involved in RM for at least ten years, and another third for less than ten years. The remaining participants were unable to provide any such information. The survey could not identify any specific, cross-company initiator. When asked about their current motivation, all participants gave both internal and external reasons. Seven participants in the study found out that the increasing external requirements were being used as an opportunity to drive RM forward. Six companies provided insights into the emerging dynamics of extended requirements from tax authorities and customers, which is consistent with the findings of other studies. In addition, the analysis suggests that all nine companies were already using certain RM elements out of business necessity without explicitly assigning them to RM. There are major differences in the reasons for dealing with RM. In addition to the direct management directive, RM came on the agenda in two cases due to a particular business event. As the risk situation became more critical over time, the importance of RM increasingly shifted to the forefront and strengthened companies in their long-term objective to see RM as a means that could satisfy the interests of stakeholders and as an instrument to secure success and existence. The analysis reflects the tenor that RM is primarily understood as a business management instrument to ensure the success and existence of the company. This creates the impression that even an RM that serves to satisfy stakeholders is finally aimed at achieving this objective. It is remarkable that all study participants reported directly or indirectly on the increasing motivation to deal with RM.

2.4.2 System and Process Design

It should be pointed out that the RM systems of the nine participants show large divergences. With regard to the risk culture, three groups emerged. According to the survey results, six companies, that is, a clear majority of the sample, had a practised risk culture at the time of the interview, whereby this was consciously driven forward in three companies, while it had established itself rather unconsciously in the remainder. For the remaining three companies, where there was currently no distinct risk culture, the results indicated that two would like to change this in the future. None of these three companies reported on the deliberate decision not to establish a risk culture.

The analysis results showed particularly apparent contrasts in terms of risk strategy, risk targets, risk policy and risk coverage potential within the sample. However, the significance of these results must be put into perspective because it can be assumed that the positioning of the interviewees in the RM system had a comparatively high influence on the statements on these categories. In seven companies, RM guidelines from management were apparent, whereby in the case of two there were indications of particularly precise instructions. In one company, the results of the analysis showed that there were no clear guidelines with regard to RM, while in another there were no sufficiently reliable findings. It seemed that companies were bypassing detailed plans for future action and behaviour and were instead pursuing a less academic but, at least in part, successful trial-and-error approach.

In terms of organizational structure, five companies followed a decentralized structure, four of which planned an additional central unit and thus the expansion into a matrix organization. Three companies in the study already had a matrix organization, while one company's RM was organized as a central unit. There was a high degree of consensus on the RM process organization. According to the results of the analysis, all nine companies followed the main features of the four-phase model presented in the literature review.

With regard to the monitoring and improvement of the RM, the results regarding the RM system and the RM process were different. As far as the RM system is concerned, four of the nine companies were engaged in strategic development at the time of the interview. On the RM process, on the other hand, all companies indicated that there would be further development steps. According to the findings of the study, four of the nine companies do not currently have an organizational unit that takes care of monitoring and improving the RM system. At two companies, this function is carried out by the internal audit department, at one by the management together with the controlling department or the head of the RM unit. At one company, the analysis could not generate any findings in this respect. With regard to the monitoring and improvement of the RM process, it could be seen that two of the companies had the intention of decentralizing self-control. At two of the companies, this is done by the central RM unit, the management in cooperation with the controlling or the head of the RM unit.

2.4.3 Experiences and Challenges

Four of the nine companies reported negative experience as a result of unpredictable employee layoffs. Causes included absences due to accidents or illness, dismissals by employees in combination with the reduction of remaining leave and overtime, and termination without notice by the company. The companies complained about their dependence on individual employees, the inadequate documentation of knowledge and processes, and the lack of established representational rules. Even the uncertainty of the workforce as to which tasks, competencies and responsibilities are assigned to the employee to be replaced could disrupt the proper flow of processes.

Four of the nine study participants explained that the shortage of skilled workers is already having a significant impact on the efficiency of the organization. As a direct consequence of the lack of specialist staff, C9 reported that it already had to reject orders or at least postpone customers to a later point in time because capacity limits had been reached. In addition to direct losses in sales and earnings, the company believes that there is a risk that it will no longer be able to meet obligations such as on-time delivery of contracts already entered into. Delays in project finalization could, for example, result in contractual penalties and loss of image. C5 also indicated that the shortage of skilled workers poses indirect risks to the company's success. The company stated that it "found employees over the timeline", but that this led to double working for permanent staff, who now had to "cope with growth and simultaneously integrate new employees".

Analysing the expert interviews, eight of the nine companies found that there were fundamental differences between the externally communicated RM and the internally practised RM. C3 commented as follows: "It is expected we need to convince the auditors that we have a good risk management system. So that they can sign it off, so to speak. My experience is that this often has little to do with the way it is practiced." The interviewee in C2 speculated that there were also companies among the study participants that wanted to do exclusive justice to external requirements. "A great deal is certainly only done because it is driven externally, but does not necessarily bring economic benefits."

Another experience, which has been reported by several companies, concerns the way in which management is led, an area that is related to strategic RM. The study indicates that there is a link between successful employee leadership and successful RM. A balance between management's demands on and support of the workforce maximizes employee commitment and fosters an effective RM. For example, C3 reports that "a status report alone, without a process and regular meetings, […] would not work". C5 stated that "a system […] is of course only accepted if […] it is fun to work with it". In addition to clear rules and the demand for certain workflows, C5 expressed in the interview that it must "demand more self-confidence" and at the same time "tolerate mistakes". Based on its experience so far, C5 concludes that only "with this management model" would the set-up "programs have a chance". The company stressed that it was the management's task "to turn the workforce from a combination of [risk-happy] adventurers and risk-averse guardians of the Grail" into a good organization, which then "ensures that opportunities and risks are balanced".

The discussion of future challenges can be divided into three groups according to the results of the analysis. The interview statements covered the future hurdles for the implementation and further development of the RM system, the RM process and future key risks for the companies. Two of the nine companies described the problem that it is impossible for a single member of the organization to keep an eye on a given company's risks. The variety of risk aspects, such as the risk types specific to the business areas or the worldwide locations of the companies, require a company-wide RM organizational structure. However, this conflicts with the scarce human and financial resources in SMEs. When configuring the RM organization, the balancing act between moderate effort and competent risk assessment must be mastered. Two other companies in the study indicated that they were under increasing pressure from external requirements for due diligence. Three of the nine companies expected that the increasing external requirements would result in further bureaucratic work for the company in the future. In particular, the requirements of customers for certification and the legislator for management reporting place a strain on the scarce resources of SMEs without contributing to the effectiveness of the RM system. C5 described the relationship between these challenges in an interview as follows: "The medium-sized companies get […] requirements, what they have to sign, so that the group boss can sleep more quietly above. But then, of course, the small and medium-sized executives sleep worse and worse. Today it is almost impossible to master the complexity. And the poor managing director can't know everything, but is liable for everything. So, he has to create an organisation, and he can't do that anymore, which will secure him."

Two companies in the sample see considerable potential for improvement in the context of implementing the necessary measures. Those companies believe that the need for further efforts is particularly evident in the area of controlling measures. Also, in two interviews, the interviewees emphasized the fundamental challenge of keeping the introduced RM process alive in the long term. To achieve this, the participants need to be constantly challenged and encouraged. If this does not succeed, there is a danger that the process will come to a standstill in the long term.

During the interview, three companies talked about the problem of increasing risks. In addition to the increasing diversity and complexity of risks, they expect completely new risk areas to emerge. This is in particular due to their entry into new markets, such as developing countries, which offer not only potential opportunities but also enormous risk potential. Another three participants in the study emphasized that their business model's dependence on the combustion engine against the backdrop of increasing displacement by alternative technologies confronts them with forward-looking decision-making situations. Uncertainty about which technology will prevail and by when leads to the question as to what extent and for how long they should continue to exploit the high sales potential of combustion-engine-heavy customer groups, or if they should already be targeting new sales sectors today in view of the end of the combustion engine era. According to the findings of the analysis, the successful design of the "technology bridge" can become a key risk for SMEs.

Three other study participants explained future challenges in dealing with risks whose origin can be found in the management and organization of the company. In order to create an effective RM system, further efforts of convincing at all hierarchical levels are required. In order to establish such a mindset, a risk culture must be created. Against the background of demographic change in the workforce of many companies, this requires a certain degree of sensitivity. In three interviews it was revealed that the further increase in the shortage of skilled workers required a further development of recruiting. The challenges of dealing with the company's dependence on individual employees were mentioned in those interviews. Two companies identified a problem in dealing with future potential but hardly foreseeable political risks. The potential of political actors to influence the success of the company should not be underestimated.

2.5 Conclusions and Outlook

2.5.1 Conclusions

The results of the study showed that the majority of participating companies have been addressing the issue for at least five years. At the same time, it suggested that none of the nine companies had yet considered the design of their RM system and RM process to be complete. The assessment of the degree of maturity also showed that none of the participants in the study had reached the leading stage and therefore none of them had exploited the full potential as an "integral component of strategic corporate management". Two-thirds of the companies surveyed have only a first- or second-stage RM. The creation of an RM system tailored to the organization and the implementation of an RM process integrated into the business processes therefore take time. The limited length of the current good financial and economic situation and the increasing cross-sectoral dynamics of the risk landscape should—if not already done—without further delay give SMEs a reason to see RM as a worthwhile investment in future viability.

2.5.2 Implications for Practice

The results of the study highlighted the direct connection between the functionality of an RM and a risk culture that is rooted and lived throughout the company. The increasing demands of external stakeholders, the development of specialist knowledge and the use of modern instruments and methods undoubtedly make important contributions to the professionalization of RM in SMEs. However, the impact of such investments often falls short of their potential without the necessary commitment of an organization convinced of the benefits of RM. Risk-conscious and forward-thinking people form the core of an effective RM. The establishment of such a mindset is a central element of system design and is therefore the responsibility of management. While small and medium-sized businesses can be disadvantaged in many areas compared to large corporations due to limited financial and personnel resources, one of their essential characteristics is of great advantage to them: the interdependencies between ownership and management that can be found in large parts of SMEs ensure that personal owner interests are incorporated into the decision-making processes of management. In many SMEs, RM has thus—consciously or unconsciously—gone from paying lip service to "keep the regulators smiling" and become a management mentality in practice. The reason for the desire for long-term success and consistency is not least the sense of responsibility towards company and family members of the present and future generation. As a result, the strategic concept of security is regularly the focus of corporate management, rather than the short-term pursuit of profitability typical of the group. The knowledge of internal and external interest groups about this creates trust in the management and shows that they too can benefit from an RM.

In addition to a consistent exemplary manner of the desired behaviour and an ongoing communication of goals and intentions, the development of a risk culture requires above all one thing: personnel management competence. This begins with the selection of suitable specialists and managers and continues with the constant challenging and promoting of employees in all areas of the company. The provision of information at internal meetings or the publication of risk policy principles as well as the transfer of knowledge in training courses, workshops or meetings make the advantages of an RM more tangible for employees. The regular exchange of information strengthens risk awareness, promotes the personal responsibility of the function owners and motivates them to pursue common goals.

Neither the management nor individual employees entrusted with the RM are in a position to pursue the goal of securing success and existence on their own. RM is a holistic discipline, which requires the cooperation of all members of the organization in order to build, develop and implement it. For the identification, assessment and control of risk potentials, the decentralized functional areas are generally more suitable than any other in the company as experts in their field.

Although the risk culture represents an important and effective foundation, the functional capability of the RM must be decoupled from the will and action of individual organizational members. In the sense of active risk prevention, this ultimately applies to all business processes. The documentation of knowledge and processes as well as the establishment of fixed substitution solutions can represent important preventive measures for the avoidance of a lockout as a result of an unforeseeable loss of key personnel. In addition to process assurance and the output of the process, companies should also pay attention to the extent to which the results are actually used. Whether and to what extent the risk information is processed in management decisions depends to a large extent on the degree to which RM is integrated into corporate management. As long as something cannot be measured, it cannot form the basis for management decisions. Therefore, wherever possible, the process results must be operationalized. Only in this way can a leading RM be targeted that is characterized by risk-adjusted performance measures and early warning signals that can promote the robustness of the company.

It is recommendable—using a metaphor of shipping—to build a durable, robust and resistant ship. A ship that not only shines in bright sunshine in the safe harbour during the current economic phase, but one that is also excellently protected in times of continuing bad weather warnings and raging storms on the high seas. In order for RM to make a lasting contribution to the long-term success and existence of the company, continuous efforts are required. Although RM will not be able to eradicate the uncertainties of the future, it will make it easier to deal with the presented risk map. In many cases, the delta between the current status quo of design and future objectives could have far-reaching implications for the future institutional anchoring of RM and the role of controlling. This is to be understood as a central finding for the perspective of RM in SMEs and at the same time provides indications as to what potential the research field still has to offer in the future in the border area between the operational RM and corporate management.

2.5.3 Limitations and Further Research

It should be stressed that the available results are not representative due to the qualitative research approach and the small sample size. Nevertheless, they provide a good insight into key aspects of the topic, as it is found today in SMEs. An extension of the sample could serve to develop a theory on the subject, which could then be verified or falsified by quantitative research. Thus, the awareness for the advantages seems to have been reached, but the implementation still lags behind. Therefore, action research would probably be helpful to fill in the gap and to strengthen the relationship between academia and the real world. Moreover, the authors aim to further the empirical analysis by carrying out cross-country comparative case studies, and by highlighting the causal relationship between those elements of the RM process that can have a huge impact on the business management of SMEs, also in terms of performance measurement.

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