DEVELOPMENT OF A RISK CULTURE FRAMEWORK FOR THE FINANCIAL MARKET

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Abstract: Many banks are seriously impacted by the financial crisis. Thus nowadays, they try to establish a sound risk culture. This paper analyzes the diverse risk culture concepts and develops a risk culture framework for the establishment of an adequate risk culture in financial institutions. Therefore, different concepts based on organizational theory, cultural theories as well as other psychological approaches are analyzed in detail. The comparison of the concepts deciphers the same attributes independently of the applied approach designate a sound risk culture.

Keywords: Risk culture, financial market, resource-based view, cultural theory

1 Introduction

As financial companies enter new markets, expand their trade relations and are confronted with increasing pressure from stakeholders to enhance transparency and disclosure, risk management becomes a board-level concern of financial institutions. The financial trade activities have changed. Financial markets deal with the expectation of possible financial streams and monetarized relationships. The fiscal transactions are no longer linked to material counterparts and production life cycles.[1] These developments have altered the focus of risk management from a loss avoidance approach to a key contributor to market advantage via improved corporate reputation and better recognition in the financial market. 30% of the companies in Germany consider the implementation of a sound risk culture as their main challenge.[2]

The financial crisis started with a sub-prime crisis in the United States. But the sub-prime crisis did not have only an impact on a small segment of sub-prime mortgages, it extended to the entire financial system. The implications of the sub-prime crisis have been a liquidity crunch, a dramatic impairment of credit notes, and finally an economic downturn with the risk of a strong economic recession.[3] Thus, the financial crisis, which is originated in the excessive risk-taking in the financial market, has straightened the debate of risk management.[4] The financial crisis forced the regulators to pass several laws and policies to regulate the risk management of the companies. In the financial sector, the regulatory requirements imposed by BASEL III result in further tightened measures to manage risks. The regulations of BASEL III have been transposed into national law in Germany in 2010. The amendments to pillar two are implemented in the MINIMUM REQUIREMENTS FOR RISK MANAGEMENT (MaRisk). The new compensation rules are enforced via the initiation of the REGULATION GOVERNING REMUNERATION AT INSTITUTIONS.[5] In addition, 65% of the seriously impacted banks increase their focus on a sound risk culture.[6] As shown in a research of ASHBY, PALERMO, and POWER the use of the term risk culture is raising from 2007 onwards.[7]

2 Definition of risk and risk culture

In accordance with IDW (Institute of Public Auditors in Germany) and GASB (German Accounting Standard Board) the following definition of risk will be applied in the paper: Risk is the possibility of a future negative impact on the economic position of a group. It is the negative discrepancy between the achieved and the expected result. Risk can but not necessarily has to result in a potential loss. Risk can occur in each organizational unit and is related to all activities of an entity.[8] The financial sector differentiates between credit risk, market risk, operational risk and other risks including liquidity risk.[9] As a result of the financial crisis a new risk category has arisen - systemic risk.[10]

Researchers such as BUNGARTZ, O´DONOVAN, as well as the IRM have defined criteria for sound risk culture. According to them an adequate risk culture can be described with the following characteristics: "A company has to possess a high integrity. The organization has to establish clear principles regarding risk management. These guidelines have to be promoted by the executives of the company. The senior management is accountable for the implementation of the risk culture. But each individual employee is responsible for the management of risk. There has to be a risk-awareness throughout the whole company. Risk appropriate behavior has to be encouraged and rewarded. The company has to promote an actively leaning culture to be able to survive by adapting to the new developments in the market."[11]

3 Overview of the state of research on risk culture

As the following sub-chapter illustrates, research regarding risk culture is a relatively new subject of applied science. The risk culture concepts are based on diverse theories such as organizational culture theory, cultural theory or other psychological approaches. The next section gives an overview of the existing risk culture studies and approaches.

The first risk culture study was accomplished by BOZEMAN and KINGSLEY in 1998. The authors focus on a multivariate measure of risk culture. Their research is based on the definition of risk culture as the willingness to take and manage risk. In their research they try to examine the correlation between risk and the following independent variables: sector, formalism, control, promotion, goal clarity and trust. They analyze risk culture and its corresponding leader-ship behavior via information from the National Administrative Studies Project in 1992. The authors use questionnaire data collected in a two stage sample of 365 top-level and middle-level managers from a variety of public and private organizations in New York. Their core hypothesis is that risk culture will differ between the public and private sector. The findings of BOZEMAN and KINGSLEY are that risk-taking behavior does not depend on the market sector. Most important is goal clarity for risk-taking, whereas red tape and formalism demoralize risk-taking behavior. Moreover, if risk-takers are rewarded, they are better informed and make better decisions. Their research result shows a positive correlation between the willingness of the leaders to trust their coworkers and the willingness of the coworkers to take calculated risk and to act more risk aware.[12]

The second study concentrating on risk and culture was accomplished by VAN VUUREN in the year 2000. He analyzes the cultural influence on risk and risk management. The research focuses on safety culture. The author divides the safety culture into three sub-categories: norms and rules for dealing with risk, safety attitudes, and reflexivity on safety practice. A risk management approach called PRISMA (Prevention and Recovery System for Monitoring and Analysis) is applied as data collection tool. The author uses incident information collected in the Dutch steel industry and medical domain. In the steel industry VAN VUUREN analyzes 78 incidents from two studies. In addition, four case studies in the medical domain are used to extend his research. The study shows that in the steel industry as well as in the medical domain about 30% of accidents are caused by the culture of the organization. Most of these accidents (about 70%) are caused because of the failing attitudes of the involved persons. VAN VUUREN'S conclusion is that the traditional focus

[1] Kessler 2011, p. 198.
[2] Herre / Tüllner 2011, p. 21.
[3] Bessis 2010, p. 3 et seqq.
[4] Hudson / Maioli 2010, p. 53 et seqq.
[5] Deutsche Bundesbank 2013.
[6] Ernst & Young 2012, p. 14.
[7] Ashby / Palermo / Power 2012, p. 8.
[8] Denk / Exner-Merkelt 2005, p. 28 et seqq.
[9] Bank for International Settlement 2005, p. 144.
[10] Bank for International Settlement 2011, p. 1 et seqq.
[11] Bungartz 2006, p. 171 et seqq.; O'Donovan 2011, p. 43 et seqq.; 64; AIRMIC / ALARM / IRM 2012, p. 6.
[12] Bozemann / Kingsley 1998, p. 109 et seqq.

on human error and technical crashes needs to be substituted by a method that concentrates on the organizational and cultural aspects of failure. The research shows a high cultural influence on risk behavior and risk management. The study supports the relevance of the topic of this paper.[13]

Other approaches of risk culture are based on the relevant findings of organizational culture especially on the approach of SCHEIN. He is the founder of the modern organizational psychology. He uses in depth analysis of organizational culture to examine the deep roots of organizational culture. In the 1980's he developed a theoretical concept, which findings are used as a core concept for many other culture analyses. Researchers such as BUNGARTZ[14] or FÜHRING[15] apply Schein's findings for their theoretical risk culture models.

BUNGARTZ' theoretical model is based on the approach of "cultural pragmatism", which means that the management of an organization is able to influence the company's culture as well as its risk culture. He develops a three step-model to adjust the risk culture of a company. BUNGARTZ' risk culture concept is based on a variety of diverse recent research findings from risk management and organizational culture.

FÜHRING uses an analytical method to develop a risk culture concept based on secondary research. His conceptual work is based on two dimensions. The first dimension is the degree of adequate risk behavior. The second dimension is the type of risk conviction. Remarkable regarding his concept is that the author does not only focus on the formal and technical aspects of a risk management system. He also considers organizational and psychological aspects. In the focus of his approach is the resource-based management approach. He combines this management approach with organizational theory and develops an optimal risk culture – the "resource-based risk culture". FÜHRING invents a risk culture typology, which is based on two dimensions. The one dimension is the "degree of risk-appropriate behavior" and the other dimension is the type of "risk conviction" of the company. The risk-appropriate behavior depends on the task / position of the employee and the business sector of the company. It should not be unidirectional – not only risk averse or risk affine. The adequate risk behavior depends on the probability of the occurrence of loss and the estimated loss amount. Prerequisites of an appropriate risk behavior are competency, motivation, and organization. Competency encompasses the capability of the employees to be aware of the consequences of their behavior in respect to the specific risk situation. Therefore, the employees need the intellectual, social and methodical skills to be aware of a sound risk behavior. Additionally, the employees have to be motivated to behave in the desired way. The motivation depends on intrinsic elements like morale but can also be influenced by extrinsic elements e.g. the reward of risk-aware behavior by the company. Moreover, the appropriate risk behavior has to be embedded in the organizational structure and procedures. The assignment and extent of responsibilities and accountability have to promote risk-aware behavior. In addition, the compensation and benefit strategy has to facilitate the desired risk attitude. In the second dimension FÜHRING differentiates between two kinds of risk conviction (internal & external). The internal risk conviction is based on proactive behavior. Each employee is certain to be able to influence the development and risk situation of the company. In contrast, if the company has an external risk conviction, the company observes risk as not influenceable. According to the opinion of these entities, the locus of control is embedded in the market. In consideration of the two dimensions, FÜHRING developed four risk typologies. Companies showing a "bureaucratic ignorance" have an internal risk conviction, but do not focus on potential risks. They occupy themselves with their internal processes and are not able to adjust to changing market conditions. The companies do not compass future risks in their business plans and do not take any countermeasures. Companies possessing a "reactive fatalism" have an external risk conviction and a low degree of appropriate risk behavior. They view market developments as not changeable. Thus, risk can occur or not. These companies only have reactive business continuity plans but do not develop a long-term risk management strategy. The third risk typology is described as "market-oriented risk management culture". The adequate exposure to risk is in the spotlight of the company. Adequate risk behavior will be rewarded. The risk conviction is external and focuses on external influencing variables. Such a risk culture can be observed in a risk management reporting focusing on market or exchange risks. Operational risk caused by the organizational structure and processes are not in the focus of the company. Such a culture promotes behavior patterns and capabilities to adapt promptly to the changing market conditions. The "resource-based risk management culture" is designated by a high degree of risk aware behavior and internal risk conviction. A responsible risk management is a core competency of the organization. FÜHRING defines resource-based risk management "as the entirety of organizational measures for risk identification and dealing with risk of business activities, which comprises a possible loss of the market demanded (core) competencies and the impossibility of the assembly of the respective entity resources". In addition to BARNEY´s resource-based concept, FÜHRING considers the organizational structure as a key resource for achieving a competitive advantage. From his point of view, valuable, rare and unique resources only create a competitive advantage if the organizational procedures, structure and culture promote the potential of these key resources.

Another research regarding the relationship between organizational culture and risk management system is done by KIMBROUGH and COMPONATION. They analyze whether it would be preferable to have mechanistic or an organic cultural environment for implementing an enterprise risk management system. Therefore, they use REIGLE'S "Organization Culture Assessment" (OCA), which is based on BURNS' and STALKER'S organic-mechanistic model. Additionally, they develop a risk management instrument to determine the risk management system. The questions of both instruments have been provided to 2000 internal audit executives via online survey. The study analyzes the differences between the implementation of a risk management system in an organic or mechanistic culture. A mechanistic culture possesses a strict hierarchy and according to BURNS and STALKER is favorable in stable conditions. In contrast, an organic culture is appropriate in a fast changing environment. In an organic culture the commitment of the employees is higher than in mechanistic culture. Decisions are made by the most informed and capable person. The research result of KIMBROUGH and COMPONATION is that an organic organizational culture supports the speedy implementation and effectives of a risk management system. According to the research five culture elements can be used to define the organizational culture type: language, artifacts and symbols, patterns of behavior, espoused values and beliefs and underlying assumptions. Typical culture elements of organic culture are symbols representing integration and support, continuous job improvement, open-door policy, and employees are observed as important assets. According to the approach, an appropriate risk culture can be defined as an on-going learning culture, which recognizes work accomplishments, values its employees and supports a positive and transparent communication style. In contrast, an inappropriate risk culture risk management is seen as something negative, responsibilities are neglected and the risk management is separated in silos and not regarded as duty of the entire organization. The result is that the more organic the culture, the more progress can be accomplished in implementing a risk management system. Employees working in an organic culture have positive perceptions of the risk management deployment speed and effectiveness. They regard the organizational culture as supportive. Companies, which installed a chief risk officer, are more satisfied regarding the implementation process than the company without such a key figure. These companies sense that the senior management does

[13] Van Vuuren 2000, p. 31 et seqq.
[14] Bungartz 2006, p. 170 et seqq.
[15] Führing 2009, p. 1 et seqq.

not support the implementation of a risk management system entirely.[16]

Prior to the explicit risk culture research and conceptual work, other authors have already generated theoretical models which partly consider the risk culture aspects. Such a framework is conducted by SMALLMAN. He investigates the link between risk management and organizational behavior via case studies. One aspect of his framework is the risk management culture. His conceptual work is based on diverse scientific concepts such as the work of MILES, SNOW, MEYER and COLEMAN. The aim of his work is to provide practitioners a tool for investigating their risk management system. SMALLMAN describes risk culture as the beliefs and values that influence the activities of individuals and groups who are in charge of risk management within the organization. SMALLMAN differentiates between a proactive and a reactive risk culture. In a reactive risk culture, organizations establish business models by experts which exactly define the risk tolerance. These models are converted into guidelines and quantified decision policies. Only well known risks or major threats are considered in the model. The parameters of the model are only changed, if a major unexpected negative event challenges the risk management model assumptions. This management approach is event driven. Therefore, the organization only reacts in accordance to the unexpected incident. The preferred risk management strategies are risk retention (accepting loss) or risk transfer. Both strategies imply a financial loss by accepting the outcomes of unfavorable events or insurance premium payments for transferring the risk. SMALLMAN labels this approach as fatalistic. The second risk management paradigm is driven by a proactive risk culture. In this approach the risk management strategies are driven by potential risks and not by events. Risk avoidance, risk prevention and risk reduction are the applied risk treatment strategies. Organizations with a proactive risk culture consider all risks and their interrelation. The risk culture implies organizational learning from internal and external events as well as framing of possible risk scenarios. By applying a proactive risk management approach organizations pay attention to so-called "weak" signals for example the company's culture itself. According to SMALLMAN, the proactive approach can also be called holistic risk management approach. SMALLMAN combines this approach with the typology of MILES, SNOW, MEYER and COLEMAN. They defined four different types of organization (Defender, Analyzers, Prospector and Reactor) which differ in their business strategy. The Reactor has no consistent strategy, structure, procedures or technology. The authors call this a form of strategic malfunction. According to SMALLMAN, the Reactors' risk culture is fatalistic. They do not look ahead. This group reacts to risk inadequately. Their risk management behavior is contradictory. Defender wants to establish a stable organization and protect its market domain. This organization uses strict control systems to achieve efficiency. It ignores market developments and is unable to adapt to changing market conditions. SMALLMAN states that Defender possess a reactive risk culture. This organization is not able to anticipate hazards. They only focus on known and well-identified risks. Their risk culture is more fatalistic than holistic. The third strategic group is called the Prospectors. They focus on the market environments and adapt to each new trend. The organization is very flexible and the procedures are characterized by a low degree of formalization, decentralized control, high coordination mechanism. The performance is measured against important competitors. They are not efficient in creating long-term commitment. They have a more proactive than reactive approach. They scan the environment regarding any emerging risk and can easily adapt to market changes. Their problem is that they might cause costly failure by disregarding risks due to unstructured or overly complex procedures. The fourth group is called Analyzer. This group tries to minimize the risk by maximizing performance. This organization combines the strengths of the Defender and the Prospector. This group has to establish an equilibrium between flexibility and stability to gain a competitive advantage. Therefore, they often use a matrix structure. According to SMALLMAN, this type of organization possesses the most proactive risk culture. On the one hand side this institution conducts a broad environmental scan, but its flexibility is balanced off by risk averseness and stable procedures.[17]

The conceptual model of Smallman is partly confirmed by the work of MIKES. She has accomplished a field-study and examined the risk management system of two 'leading edge' banks via 75 in-depth interviews from 2001 to 2003. The second source of her information is direct observation of risk management in action. The study explains differences between a risk management by numbers and a holistic risk management. The research is complemented by a second study between 2006 and 2010. In this study, MIKES conducted 53 in-depth interviews at five institutions. In her field study she differentiates between two types of risk cultures. She calls one of the risk culture "quantitative enthusiasm". Risk models are observed as robust and the adequate decision making tool in this culture. They are established by risk-counting experts. Another characteristic is that the organization uses risk-adjusted performance measures to control the risk management activities. But the risk managers do not influence key strategic decisions. They protect themselves by their autonomy and scientific know-how against criticism and blame. This culture has many attributes in common with the reactive risk management culture such as outcome specification, narrow participation, quantificationism or balemism. Two of these banks in MIKES' case study suffered a major loss in the financial crisis. The other calculative culture is called "quantitative skepticism". The members of this risk culture focus on the envisionment of decision-relevant risk and use quantitative as well as qualitative approaches. The risk experts under this culture view themselves as strategic advisors and regularly influence key strategic decisions. The risk culture is forward-looking and anticipates risk management developments. They observe risk figures as trend signals, which they use to learn from. This culture has predominantly the same risk culture attributes as the proactive risk management culture of SMALLMAN such as anticipationism, absolutionism, broader participation, complementarism, qualitativism and process specification.[18]

Other researchers apply cultural theory to analyze the risk behavior. Cultural theory states, that the view and behavior of an individual is shaped by the social group to which the individual belongs. Thus, attitudes and judgments about risk are formed in accordance to the cultural relationships. Cultural theory examines the social construction of risk.[19]

MAINELLI extends the cultural theory approach to the work environment. According to MAINELLI, risk culture is defined by the risk/reward-personalities of the people working in a company. People are the core of all risk/reward decisions. Hence, they determine the decisions of an organization. MAINELLI classifies the risk culture according to the risk behavior of the employees. The approach divides people on the horizontal axis into those who look at collective risk versus those who look at individual risks. The vertical axis represents the view of people regarding equality. At the top of the vertical axis are people following rules, even if unfair. Their life is dominated by a strict hierarchy. On the other side of the vertical axis are people who establish the rules themselves. Thus, four different characteristic risk culture types can be identified: Individualist, Egalitarian, Fatalist, Hierarchist. The findings of MAINELLI are amended by general risk management findings of DAKE, TANSEY and O'RIODRAN regarding the four culture groups. Fatalists view nature as unpredictable. They believe that they cannot influence nature. Thus, they take whatever happens. According to MAINELLI, most of the people belong to this group. In contrast to the other three groups, they can easily be moved to another quadrant. Moving this group is the easiest way to gain support for change.[20] According to DAKE, Fatalists are those

[16] Kimborough / Componation 2009, p. 20 et seqq.

[17] Smallman 1996, p. 21.
[18] Mikes 2009, p. 18 et seqq.; Mikes 2011, p. 226 et seqq.
[19] Tansey / O`Riodran 1999, p. 71.
[20] Mainelli 2004, p. 345 et seqq.

who cannot compete successfully in the market due to lack of resources or those who observe life as a lottery where no particular risk management might help to master the challenges of the market. The risk management strategy of Fatalists is "Why bother?". In the social relation Fatalists do not encounter the self-regulation pressure from the market. In addition, they do not possess high group solidarity.[21] From their point of view the complexity is steadily increasing and changes in consideration of risk management are not beneficial. They do not trust anybody else except for themselves.[22] In contrast, Individualists observe nature as innocent. They do not care about risk. Only major catastrophes influence their world. They do not consider the consequences of their decisions except for the return of their investments. According to MAINELLI, marketing professionals typically belong to this group.[23] Deregulation is the favored risk management approach of the Individualists. The term deregulation means that they prefer self-regulated networks with little external impact. From the Individualists point of view, everybody can gain so much wealth which will compensate for the taken risks, if no artificial market constraints exist. They favor individual risk management decisions instead of collective control.[24] Egalitarians view nature as transient. They are afraid that their world can be destroyed. They are the most active group. They desire risk management rules and regulations. They want to know who bears the risks if anything goes wrong. According to their self-conception, a company needs them to understand the risk the company faces.[25] They challenge top down risk management approaches and hierarchical risk management framework. They demand risk strategies that foster equality of outcomes. Their risk management issues are related to social and political dimensions. The group criticizes organizations responsible for risk management.[26] Egalitarians demand a structural change of the way the society deals with risks. The change should be enforced by democratic processes and public participation.[27] The fourth group contains the Hierarchists. They observe nature as stubborn. Their goal is to manage nature. Their system is stable under normal conditions. But extreme situations due to catastrophes destroy their designed world. Hierarchists are seen as power brokers. They are a natural bureaucrat and prefer decisions based on sound-thinking. They are in conflict with the risk management rules established by the Egalitarians. According to MAINELLI, they are the only type who values a cost/benefit analysis. Thus, they acknowledge the marketing concepts of the Individualists. MAINELLI believes that most of the finance directors belong to this group.[28] In accordance to DAKE, the risk strategy of hierarchical groups is formed by experts. Only they have the knowledge to develop strategies in accordance to the given boundaries. The commands of the experts are followed by the others of the group. There is a high compliance to risk management regulations in this group.[29] According to the hierarchical group, an on-going learning culture based on trial and errors as well as a transparent and fluent risk communication are crucial characteristics of an effective risk management system.[30]

According to ADAMS, these four risk perceptions are the reason why no common risk communication and behavior exists. Enterprises are led by entrepreneurs who belong to the group of Individualists. They focus more on the reward of risk than on the damage it may cause. Hierarchists try to balance the cost and benefits of risky business. Egalitarians complain about the profit-seeking activities of the entrepreneurs and the failure of the Hierarchists to protect them. On the contrary, the group of Individualists complains that Hierarchists over-regulate the business tasks. The rest of the society represents the Fatalists who do not care about risk management at all.[31]

In contrast to the above mentioned researchers, MARS invents an approach which analyzes the risk management behavior based on the organizational structure of jobs and not from the perception point of view of the diverse groups. His opinion is that if he can identify how a job is organized, he can determine how workers execute risk management tasks. Therefore, he also applies the cultural theory concept and the two social dimensions. He labels them as the degree of classificatory constraints and degree of incorporation (grid dimension). He analyzes whether the employees face high or low autonomy and work in tight bounded groups or isolated (group dimension). This distinction leads to four different organized work clusters: Individualism, Fatalism, Enclave, Hierarchy. The group of Individualists has a high degree of autonomy and works in loose group relations (low group strength and low constraints). The group consists of highly skilled and independent professionals. A lack of organizational procedures and guidelines exists. The group dislikes critics and does not accept any control mechanism neither form their supervisor nor workmates. The Individualists have a short-term perspective and do not possess a long-term loyalty to any specific employer. They prefer short-term personal advantage over long-term corporate success. They belong to a cosmopolitan network and do not feel aligned to their local job environment. The communication in such a job organization is informal and individualized. Ad hoc solutions are often applied. The job environment allows them to cheat on time and to break rules. The group owns a high risk appetite. Jobs in the category of Fatalism are marked by a low autonomy and a high isolation (low group strength – high constraints). Typically, these jobs are embossed by high routine tasks according to fixed timetables in specific environments. These jobs are characterized by a high employee turnover, high absenteeism and sickness rate. The isolation and lack of group control can have a negative impact towards the employees work attitude. These jobs are endangering negligence of risk management and facing a high potential for sabotage. Jobs which are determined by high group strength and high constraints are called Hierarchists. This group of employees works in diverse job areas, which complement each other to accomplish a larger overall task. The jobs are classified by expertise, seniority and / or job specialty. This group owns a strong sense of group identification and controls its members. Breaking group norms is sanctioned. The group focuses on long-term success and calls attention to strategy. The jobs are distinguished by strong control mechanism and well-established processes. Their risk management system is endangered by their slow adoption to a fast changing environment and their over-confidence in their procedures and information system. According to Mars, the fourth group is called "Enclaves" and shows high group strengths but low constraints. The group is formed of same skill / same specialty workers such as a maintenance pointer team. The compensation system is similar for the whole group. They have the same supervisor. In this group many conflicts arise due to undirected competition. Alliances and pacts are used to negotiate and arbitrate problems. The group is very unstable and rejects authority.[32]

4 Development of a risk culture model for the financial market

Although MARS uses a different point of origin for his cluster the results and categorization of the habits of the work groups are very similar to the other researchers mentioned above. In consideration of the research, the two job organizations who try to manage risk are the Individualists and the Hierarchists. While the Individualists prefer ad hoc solutions and show high risk preference, the Hierarchists are more long-term focused and favor well implemented structures. An ideal structure would be a hierarchic structure for the successful implementation of a long-term risk management strategy. Additionally, the organization

[21] Dake 1992, p. 29 et seq.
[22] Tansey / O´Riodran 1999, p. 86.
[23] Mainelli 2004, p. 345 et seqq.
[24] Dake 1992, p. 29.
[25] Mainelli 2004, p. 345 et seqq.
[26] Dake 1992, p. 29.
[27] Tansey / O´Riodran 1999, p. 87.
[28] Mainelli 2004, p. 345 et seqq.
[29] Dake 1992, p. 28 et seq.
[30] Tansey / O´Riodran 1999, p. 86.
[31] Adams 2009, p. 7 et seqq.
[32] Mars 1996, p. 10 et seq.

should integrate a small number of Individualists. The function of these high professional experts is to observe the market environment for changes and to challenge the existing risk management structure. They could give hindsight to protect the company and its resources from any new risk arising. These hints can be used by Hierarchists to make a cost/ benefit analysis and to gain a sustainable competitive advantage.

By comparing the risk management approach based on cultural theory and the resource-based risk management approach, it is in evidence that these two approaches originate from different points of view. Cultural norms are in the focus of cultural theory, which form the risk perception of the group. This risk perception leads to diverse risk behavior and risk management strategies. In contrast, the behavior of the organizations is in the focus of the resource-based risk management approach. From this behavior, FÜHRING deduces different risk management strategies and risk perceptions. Thus, these theories have a contrary point of origin. But, both theories define four groups and some of the groups are identical regarding their risk perception and behavior. Both theories have identified a group called "Fatalist". This group is reactive and does not believe that they can influence their environment. Thus, they do not establish a risk management system. In addition, the Individualists exhibit a very similar behavior as the organizations applying a bureaucratic ignorance. In both theories these groups do not care about external risk. They are occupied with their own rules and regulations. From these findings, it can be reasoned that groups with an individual orientation possess a less risk aware behavior. A reason for the behavior might be that individual oriented groups do not look at the whole picture. They just focus on themselves. In contrast to the before mentioned groups, a clear mapping of the two other groups is not possible. The Egalitarians do not fit into the concept of FÜHRING. Possible institutions which fit to this role are organizations, which want to apply rules to protect a fair market and to establish equilibrium in the market such as banking supervision or shareholder organizations. The group of Hierarchists wants to manage risk. Like market-oriented or resource-based institutions they have a high risk awareness.

According to OSTRANDER, organizations based on a hierarchical system can be identified by five tendencies:

1) They view society as part of nature.
2) Hierarchical relationships are valued positively.
3) Routine symbolic actions are embedded in the company.
4) Group-oriented goals of symbolic action are deeply rooted.
5) The company possesses a highly elaborated symbolic system.[33]

Thus, Hierarchists have implemented many risk artifacts in their organizations like companies with a market-oriented or resource-based approach. A differentiation between external or internal risk convictions is not applied in the risk management approach of cultural theory. Concluding, the risk management approach of cultural theory and the approach of FÜHRING complement each other.

The risk management dilemma can also be transferred to organizations especially banks. The board, CRO and risk management department take the role of the Hierarchists, the sales and trade department or shareholder act like the Individualists and the audit department, union or other stakeholders like minor shareholder alliance behave like Egalitarians.

Additionally, the proactive and reactive risk culture respectively the "Defender" or "Analyzer" possess similar attributes as the groups clustered in cultural theory or in the resource-based view. The characteristics of the "Analyzers" are very similar to the risk culture of Hierarchists. Both groups value a cost / benefit analysis and want to maximize profits by minimizing risks. Like the resource-based culture the proactive risk culture posses a holistic risk management and a future-oriented time horizon. They believe, that they can influence and change the risk position of a company. Therefore, they implement an open communication and on-going learning environment. Contrariwise, "Defenders" or reactive risk culture groups are very similar in their behavioral pattern to groups possessing a bureaucratic ignorance. They perform reactively and are too occupied with their established procedures. Thus, they do not have an adequate risk-awareness. They are not able to identify emerging risk early and cannot adapt to major changes fast enough.

Moreover, business units according to the tentative risk culture model and the approach of SMALLMAN can be compared. Too risk adverse business units act like "Defenders" whereas too risky business units act like "Prospectors". The business units which operate in accordance to their risk appetite in consideration of the bandwidth model act like "Analyzers". They show the adequate risk culture according to the definition of O´DONOVAN or BUNGARTZ.

Moreover, the research of MIKES has shown that a reactive approach can lead to problems in fast changing environments. According to the description of MIKES, reactive banks can be classified as Defender. The proactive banks can be defined as Analyzer. On the one hand side they always challenge the strategic decision, but on the other hand side they use the environmental scan only as an indicator of a change and do not take the results for granted. In addition to MIKES' research, the concept of FÜHRING builds a supporting framework for the analysis and establishment of a strong risk culture. As mentioned before, the core functionality of a resource-based risk management is to implement a risk culture which supports adequate treatment of risk. If a new risk emerges, financial institutions applying a "resource-based risk management approach" will have a competitive advantage. Due to their well implemented risk instruments, their perfect organizational structure, the fast information flow and their competent and motivated staff, the companies are able to react as one of the first companies in the market. They can use the first mover advantage to take appropriate action prior to all other market players. Thus, the bank will face no or only a minor loss.

According to the findings above, it is obvious that the results of the different risk culture concepts do not vary significantly. Even if the points of origin and applied theoretical concepts vary, all of them differentiate between a more proactive, sound, and risk aware culture in contrast to an inadequate risk culture characterized by reactivity or too risky and selfish behavior.

For the analytic research of risk cultures of financial institutions especially the frameworks based on organizational theory have to be considered. These approaches embody an appropriate frame of reference to develop a risk culture concept for banks.

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Primary Paper Section: A

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