

Institute of Insurance Economics



University of St.Gallen

# **RISK CULTURE: WHAT IT IS AND HOW IT AFFECTS AN INSURER'S RISK MANAGEMENT**

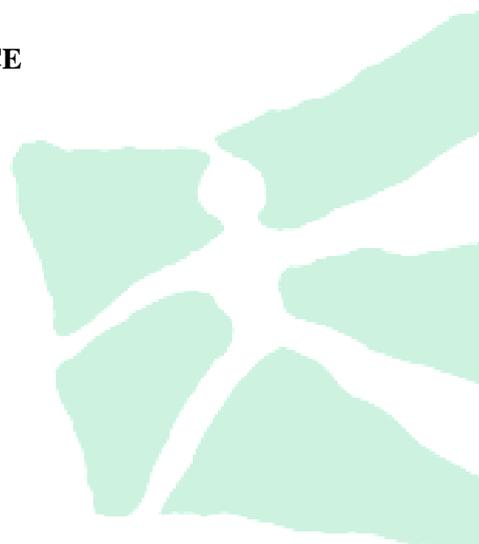
ANGELA ZEIER RÖSCHMANN

**WORKING PAPERS ON RISK MANAGEMENT AND INSURANCE NO. 142**

**EDITED BY HATO SCHMEISER**

**CHAIR FOR RISK MANAGEMENT AND INSURANCE**

**FEBRUARY 2014**



Risk Culture:  
What It Is and How It Affects an Insurer's Risk Management

This paper conceptualizes risk culture and sheds light on the role it plays in insurers' risk management frameworks. The paper follows a cognitive, dynamic approach, arguing that risk culture is the product of organizational learning about what has or has not worked for it in the past. Within their local context, the members of a group learn which of the typically centrally prescribed formal risk management policies and procedures and which espoused risk philosophies actually work in practice in the sense of behavior that is formally or informally encouraged or discouraged, rewarded or punished. While the formal risk management framework defines which processes to use, which limits to obey, and which values to aspire to, it is the risk culture that defines which rules and norms are perceived to be rational and important. The insurance literature commonly argues, and practice suggests, that it is necessary to achieve consistency in order to effectively embed risk management. Nevertheless, inconsistent basic assumptions as the deepest level of risk culture are a likely feature of local subgroups. However, what is rational and efficient to one subgroup might be random and dangerous for the organization as a whole.

Keywords: Risk Management, Organizational Culture, Risk Culture, Governance, Operational Risk, Insurance

## 1. INTRODUCTION

Risk management is accomplished by people, by what they perceive, think, say, and finally by what they do. While much work has gone into measuring and modeling credit, market, and underwriting risk, operational risk and governance (the two aspects most associated with culture and behavior) still seem to be least tangible. Power (2009), for example, argued that “rather than vague demands for improved risk culture and governance in financial institutions, risk appetite should be recognized as a dynamic construction involving values and the situational experience of a multitude of organizational agents” (p. 854). In a case study of European-based insurance companies Acharyya and Johnson (2006) found that the current Enterprise Risk Management (ERM) systems of the studied insurers take an overly deterministic, technical view, excluding most subjective issues. Consequently these companies exhibit difficulties incorporating cultural values in designing risk management policies and procedures, as a consequence of which these authors found, for example, “serious misunderstanding of what ‘all risks’ among staff from different disciplines” means (p. 11).

In the aftermath of the 2007–2009 financial crisis, many questioned how the sizes of losses experienced were possible in the face of sophisticated risk management systems and models. Whether risk was handled appropriately was argued to be more a matter of culture than of the specific deficiencies of the formal risk management framework, and the term “risk culture” emerged. Many institutions pointed to the need for (a better) risk culture. The Committee of European Insurance and Occupational Pensions and Supervisors (CEIOPS) emphasised, for example, that undertakings need to “ensure an organisational culture that enables and supports the effective operation of the system of governance [...] with the administrative or management body and senior management providing appropriate organisational values and

priorities” (2009, p. 10). Similarly, the International Institute of Finance (IIF) considered risk culture as a main enabling factor for effective risk management and recommended that a robust risk culture be developed that is “embedded in the way the firm operates, covering all areas and activities, with accountability for risk management being a priority for the whole institution” (2008, p. 9). Management consultants and industry institutions often point to culture as a potential operational risk and an important aspect of corporate governance (e.g., COSO, 2004; Deloitte Development LL, 2009; Institute of International Finance, 2009; Organisation for Economic Co-operation and Development, 2011).

Although the recognition of culture as an operational risk and the calls for a sound risk culture are frequent, what risk culture is and what role it plays in the risk management frameworks of insurers still remains rather vague. This gap prompted the research aims of this paper: to conceptualize risk culture and shed more light on its role in the risk management frameworks of insurers. This paper integrates insights from organizational culture with risk management research and practice. The argument is that the formal and informal elements of an organization’s risk management system interact. While the formal risk management framework of an organization defines the processes to use, the limits to obey and the values to aspire to, its risk culture determines, in essence, how risk management is actually lived. In the words of Schein (2010), “a set of values that becomes embodied in an ideology or organizational philosophy [...] serves as a guide and as a way of dealing with the uncertainty of intrinsically uncontrollable or difficult events” (p. 27). With culture being an abstraction that mostly operates outside of awareness, the absence of a better understanding limits the effectiveness of risk management frameworks. Power (2009) even argued that “we have fallen prey to a legitimacy-driven style of risk management which has been extensively institutionalized and globalized [...] and [...] the people side of risk appetite has become lost in the pro-

cedural detail of organizational-specific internal control, compliance and accounting systems” (p. 854).

The remainder of this paper is organized as follows. Section 2 reviews organizational culture in the ERM and insurance literature while Section 3 discusses how culture is used by the insurance and risk management industry. Section 4 takes a step toward conceptualizing risk culture through a matrix of findings from the research on organizational culture and elements of the 2004 risk management framework of the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The structure and role of risk culture within risk management frameworks are discussed. Section 5 focuses on subcultures and the costs and benefits of consistency. The concept of practical drift is applied to illustrate how a basic assumption of a subgroup impacts the implementation of a risk management rule. The paper concludes with a summary of the major findings and their practical application, significance, and limitations, in Section 6.

## **2. CULTURE IN THE ERM AND INSURANCE LITERATURE**

ERM is defined as the process by which “organizations assess, control, exploit, finance, and monitor risks from all sources for the purpose of increasing the organization’s short and long-term value to its stakeholders” (Casualty Actuarial Society, 2011, p. 1). Hoyt and Liebenberg (2011) found a positive relation between firm value and the use of ERM (p. 816) and argued that ERM promotes increased risk awareness and facilitates better operational and strategic decision-making and better allocation of resources in a risk-adjusted fashion. The goals and benefits of implementing a systematic risk management process are reducing the likelihood and impact of risks materializing, lower costs of capital, improved

compliance and enhanced decision-making (e.g. Beasley, Clune, and Hermanson, 2005; Hoyt and Liebenberg, 2011; AIRMIC, Alarm, and IRM, 2010). ERM encompasses all quantitative and qualitative exposures to risk: financial, operational, reporting, compliance, governance, strategic, reputational and others.

Culture is most often associated with operational risk and governance. The study by Acharyya and Johnson (2006) found that operational risk is a major issue for insurers. These authors argue that “operational risks are found to be context driven and embedded in management culture, organizational structure, and the desires of those who manage risk” (p. 16). The realization of operational risk can lead to large losses, for example loss of reputation and consequently policy holder trust, and often remains hidden because of a lack of effective communication (c.f. Power 2005). Many insurers only provide a standard definition of operational risk and do not demonstrate what operational risk means to their company and how they manage this risk category, as the Swiss Financial Market Supervisory Authority (FINMA) found in their qualitative assessment of Switzerland-based insurers (2010, 2013). In a recent assessment, FINMA found that “there is improvement in insurer approaches to operational risks but, relative to other risk categories, this remains an area with particular improvement potential, especially in terms of risk identification and reporting” (FINMA 2013, p. 10) . FINMA attributes part of this shortcoming to a lack of understanding of what operational risk is and how best to assess it. “Work appears needed on processes, controls and training. Some insurers that demonstrate having certain compliance policies and a proper code of conduct often do less well on showing that these policies are accompanied by specific processes for implementing them and by specific controls to determine if the policies are being followed and the processes are effective” (2010, p. 19). Similar, the solvency II directive requires that risk management and internal control systems properly blend into each other. The

functions that are to ensure effective governance typically include risk management, actuary, compliance and audit. A senior expert on solvency II at the European Insurance and Occupational Pensions Authority (EIOPA) argues that “critical to the success of solvency II is the impact that the legislation will have on the business culture of the undertakings” (Krasniewska 2011, p. 4).

Effective processes and structure, including culture, are to be ensured by good corporate governance. A number of empirical studies have focused on the effects of corporate governance measures on risk-taking behavior of insurance companies.<sup>1</sup> However, a general consensus has not emerged – with one reason being that corporate governance variables have different impacts depending on the risk measure used (e.g. Elyasiani and Jia, 2011). Moreover, most research on corporate governance has been concerned with the study and resolution of collective action problems (Boubakri, 2011). Driven by such an agency theory perspective, culture is equated with ethics and integrity that is to mitigate agency and governance problems that arise from conflicting interests that cannot be adequately resolved formally. This understanding of corporate governance and integrity also found its way into risk management practice. COSO (2009) argues that managers foster a control environment by setting the tone at the top. In this context, the control environment serves as a boundary of last resort in case the formal risk management system fails. However, such an understanding limits culture to a static boundary parameter and thereby neglects the dynamic interaction between the formal risk management framework and an organization’s or subunit’s culture.

---

<sup>1</sup> Boubakri (2011) provides a comprehensive overview.

In the ERM literature, a general argument gaining interest relates to the determinants and differences in adoption and implementation of an ERM system (e.g. Kleffner et al., 2003, Beasley et al., 2005, Acharyya and Johnson, 2006). Acharyya and Johnson (2006) examined the understanding, evolution, design, and performance of ERM in European-based insurance companies. The results of a survey showed that “risk communication (in the absence of a common risk language and a common risk culture) is identified as the key operational challenge” to effectively implement ERM (p. 10). The authors found significant differences in the understanding of ERM between and within companies, which they attribute to a subjective silo view of risk based on professional background or business line. A key criticism is that the overly strong focus on objective risk is too narrow, even risky, and does not live up to the holistic claim of ERM. Similarly, Goto (2007) points to the need to recognize subjective risk as “it is quite common when evaluating failures in risk management to find faulty risk-taking decision-making. Despite this, the standard practice is to assume objectivity in the process—or at least to ignore the probability of non-objectivity and its consequences” (p. 274).

While the field of risk management is still dominated by a technical and procedural view (Renn, 2008), behavioral economics has long recognized that the social context influences decision-making in regards to risk. The social context of risk perception is widely recognized (e.g., Kunreuther, 1995; Loewenstein, Weber, Hsee, & Welch, 2001; Sitkin and Pablo, 1992; Tversky and Kahneman, 1981). Tversky and Kahneman (1974; 1979), Camerer and Loewenstein (2004), Kunreuther (1995), and Slovic, Finucane, Peters, and MacGregor (2004) advanced elements of behavioral ideas in situations of decision-making under risk. What has not received much attention yet is the interaction between a control system such as risk management and the social context. One exception is the study by Jondle et al. (2013) which links cultural values to risk management using the ethical organizational culture

framework. They argue that ISO 31000 itself is based on implicit values such as a respect for the scientific method, respect for the past, personal and corporate responsibility for actions and consequences or a long-term time orientation (p. 42). As a consequence, these authors point out that “ISO values may align with espoused values” but not with values in action (p. 42).

In sum, although culture is mentioned as an operational risk and an important element of good corporate governance and the subjective element of taking risk decisions has been researched by social sciences, the meaning and role of organizational culture has not yet been studied in the context of the risk management frameworks of insurance companies.

### **3. CULTURE IN THE INSURANCE AND RISK MANAGEMENT INDUSTRY**

A bottom-up approach and a useful start to conceptualizing risk culture is to review the description and use of the term “risk culture” by the insurance industry. Table 1 provides an overview of selected statements.

Table 1: Selected statements about risk culture

Source	Statement / description of risk culture	
Professional institutions	Summary of Standard & Poor's Enterprise Risk Management Evaluation Process for Insurers (Standard & Poor's, 2007)	In a positive risk-management culture, risk and risk management are important considerations in the everyday aspects of corporate decision-making. To evaluate the strength of an insurer's risk management culture, we look at organisational and governance structures for the management of risks, and at communication of risk and risk management.
	Insurance Risk Management Response to the Financial Crisis (CRO Forum, 2009)	The chief risk officer must be given a powerful role in the organisation. This is essential both to maintain a comprehensive view of the company's risk landscape and to help establish a strong risk culture throughout the company, from the top down.
	OECD Guidelines on Insurer Governance (Organisation for Economic Co-operation and Development, 2011)	A risk culture should be internalised in all aspects of the organisation, both behavioural (including the most senior-level executives and other employees) and operational, thus enabling effective risk management across the firm at all levels.
	Culture and Internal Control (Chartered Institute of Internal Auditors, 2012)	The parameters that shape a control environment are integrity, ethical values, management philosophy, and operating style, organisational structure, and human resources policies and practices.
	Governance for strengthened risk management (Institute of International Finance, 2012)	An organisation's risk culture determines the way risks are identified, understood, discussed, and acted upon in the organisation. A strong risk culture is an essential building block for effective risk governance and is typically seen as heavily dependent on the tone at the top and clear and consistent actions by board members and senior management.
Regulatory bodies	Draft CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: System of Governance (CEIOPS, 2009)	It is important that undertakings ensure an organisational culture that enables and supports the effective operation of the system of governance. This requires an appropriate tone at the top with senior management providing appropriate organisational values and priorities.
	Can culture be regulated? (Hector Sants, Chief Executive, Financial Services Authority, 2010)	Risk culture encompasses the general awareness, attitude, and behaviour of an organisation's employees to risk and the management of risk within the organisation.
Insurer annual reports	AXA Group (2012)	As an integrated part of all business processes, Risk Management is responsible for the definition and the deployment of the Enterprise Risk Management (ERM) framework within AXA Group. This framework is based on five pillars, cemented by a strong risk culture.
	Swiss Re (2012)	One of the four guiding principles of the risk

		management framework is an open risk culture which is to be achieved by risk transparency, knowledge sharing and responsiveness to change as integral to the risk control process.
	Zurich Insurance Group (2012)	Corporate governance and risk culture are at the heart of the risk management framework. Through processes, responsibilities and policies, Zurich embeds a culture of disciplined risk taking across the Group.

The statements listed in Table 1 show that risk culture is associated with both psychological aspects – the general awareness and attitude toward risks, integrity, and ethics; behavioral aspects – the tone from the top, senior management actions; and organizational aspects – C-level position of risk managers or human resource policies. The common argument is that culture is an important building block of good governance because a positive risk culture is necessary to embed risk management in the daily business. Hence, risk culture is seen as an important driver of the effectiveness of a risk management framework. The selected insurer statements confirm the notion that culture is important to ensure the effective operation of risk management. Risk culture is to embed risk management policies and procedures and to strengthen oversight structures, the sense of responsibility and awareness as well as improve information sharing. What further stands out is frequent reference to “the tone at the top or a top down approach.” The inference is that the commitment and actions of the board and senior managers, along with a C-level position of risk managers, are powerful in shaping a positive risk culture. A positive risk culture is achieved by giving risk management high importance.

In sum, risk culture seems to be associated with both psychological aspects, behavioral aspects, and organizational aspects. While there are some common themes with regard to what risk culture is to achieve – i.e. embedding risk management to increase effectiveness –

or how a strong risk culture is developed – i.e. by the tone from the top – a common understanding of what risk culture is and how it affects the risk management frameworks of insurers is not apparent.

#### **4. TOWARD A CONCEPT OF RISK CULTURE**

Organizational researchers refer to culture as values, expectations, beliefs, collective programming of the human mind, a system of meaning, grown opinions and norms, or basic assumptions (Sackmann, 2002, p. 25). Despite the differing concepts, most researchers describe culture as manifesting in layers within an organization that differ in terms of their visibility and accessibility (e.g., Deal and Kennedy, 1982; Hofstede, 1980; Cooke and Rousseau, 1988; Schein, 1985). While rituals or artifacts are observable, basic assumptions are not easily accessible. Based on Smircich's (1983) categorization of different approaches to organizational culture, this paper views risk culture as something an organization has and is, hence as a dynamic concept. Viewing culture as a variable assumes that certain characteristics of risk culture are desirable in that they positively influence the management of risk. Hence, risk culture is something an organization *has*; it is an organizational feature that can be managed and changed. In addition to causality, this paper furthermore seeks to understand the influence of collective sense-making and coordinated action on risk management, hence viewing risk culture furthermore as something that an organization *is*. Schein (1990, 1992, 2009) took a cognitive, dynamic perspective on organizational culture that incorporates both of these aspects. This author's three-layer concept of organizational culture and leadership – now in its fourth edition (2010) – has found widespread acceptance (e.g., Chatman and Jehn, 1994; Detert, Schroeder, and Mauriel, 2000; Sitkin and Weingart, 1995; Soda and Zaheer, 2012).

In artifacts, espoused values, and basic assumptions, Schein (1990, 1992, 2010) identifies three interacting layers of culture. Artifacts include visible behavior, processes, and structures in an organization. To decipher the meaning of artifacts, Schein argues that one also needs to “analyze espoused values, norms, and rules that provide the day-to-day operating principles by which the members of the group guide their behavior” (Schein, 2010, p. 25). This leads to the next layer of culture: espoused values. Espoused values are the organization’s stated or desired cultural elements. Those espoused beliefs and values that work reliably for a group ultimately become basic assumptions, the deepest layer of organizational culture. Schein defines the culture of a group as “a pattern of shared basic assumptions learned by a group as it solved its problems of external adaptation and internal integration, which has worked well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems” (2010, p. 18).

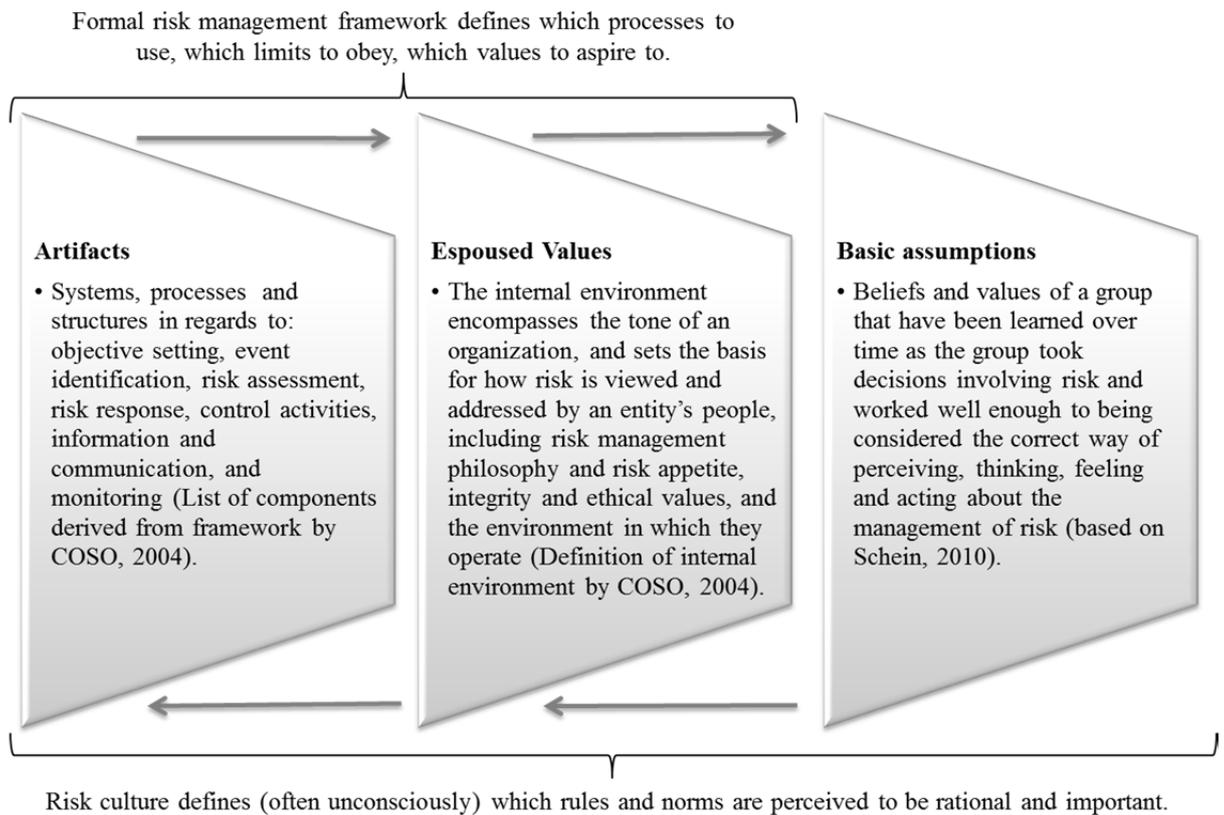
What stands out is that none of the reviewed statements by the insurance and risk management practice about risk culture (c.f. Table 1) include Schein’s element of learning and socialization. Furthermore, in contrast to some of the statements discussed, Schein’s definition of culture does not include any behavioral prescriptions. Rather, behavior is a consequence of perception, thoughts, and feelings. The power of culture comes from what people perceive as rational rather than from prescribed or espoused behavior. From a cognitive perspective, thought and action are linked. This distinction allows for a much broader view. Both micro elements on the individual level – perceiving, thinking, feeling – and macro elements at the group level – group membership and shared history – make up a group’s risk culture. Hence, although senior management role modeling is important, risk culture is shaped by much more than only the tone from the top. Risk culture in essence is the product of organizational learning about what has worked or not worked for a group over time. The members

of a group learn which of the formal risk management norms and rules actually work in practice in the sense of behavior that is formally or informally encouraged or discouraged, applauded or smiled at, rewarded or punished. At the core of risk culture are the shared basic assumptions of a group that have been learned over time as the group took decisions involving risk which worked well enough to be considered the correct way of perceiving, thinking, feeling, and acting with regard to the management of risk (based on Schein, 2010). This raises two important questions. First, what are examples of such basic assumptions concerning risk management and is culture equivalent to basic assumptions? Second, why refer to a group and not the organization as a whole? The first question will be discussed in the context of the structure and dynamics of risk culture, the second in the context of subcultures and consistency.

### ***Structure and dynamics of risk culture***

Schein's (2010) framework builds on the three layers of artifacts, espoused values, and basic assumptions. The beliefs and values that influence behavior relevant to risk management form the subset of organizational culture referred to in this paper as risk culture. Matrixing COSO's (2004) framework with Schein's concept of organizational culture provides an understanding of the structure of risk culture (figure 1).

Figure 1: Structure of risk culture (based on a matrix of COSO, 2004 and Schein, 2010)



The most visible layer of risk culture consists of artifacts, the formal processes and structures prescribing the ways in which members of the organization are to manage risk. To guide employees about how to put these processes and structures into practice, organizations issue risk philosophy or ethical statements. What COSO (2004) defines as control environment well depicts Schein's (2010) second layer of culture, espoused values or the organization's stated or desired cultural elements. What COSO's (2004) framework does not include is a notion of the basic assumptions that shape culture most and do not necessarily correspond to espoused values. Hence, COSO's (2004) framework describes artifacts and espoused values, in essence guiding which processes to use, which limits to obey and which values to aspire to. Risk culture goes beyond that. It defines which rules and norms members of the group have

learned over time to be rational and important, which hence are used and implemented with more or less understanding, conviction, or motivation.

The arrows in figure 1 indicate the existence of a dynamic relationship between the different layers and show that risk culture is not static. Of most interest is the interaction between espoused values and basic assumptions; hence, the difference between what employees say should be done and what employees really think is right or wrong, successful or unsuccessful behavior. In the words of COSO (2004), “official policies specify what the board and management want to happen. Corporate culture determines what actually happens, and which rules are obeyed, bent, or ignored” (p. 30). While policies and procedures as well as risk philosophy statements are typically centrally issued and communicated, basic assumptions develop over time through the shared social experiences of a group. These shared social experiences influence the perception of formal risk management norms and rules. The members of a group learn which of the norms and rules that are promulgated by the formal ERM framework actually are important in practice in the sense of behavior that makes sense to them in their context. Only those espoused values which continue to work eventually become transformed into basic assumptions. Argyris and Schön (1978, 1996) argued that if values are not based on prior learning, they may reflect desired behavior – what members of the organization say they do, which does not necessarily correspond to how they would actually behave. Employees, in other words, find it irrational to do something that contradicts their basic assumptions. For example, excessive internal competition can push employees to not share key information or not actively help to reduce risk exposures in other areas (Institute of International Finance, 2012). An official policy of open dialogue and teamwork will not change such behavior if employees have learned over time that sharing and cooperating are not successful strategies. Vice versa, risk managers should be aware that the risk management framework is influenced

by the basic assumptions of those writing the rules (c.f. Jondle et al. 2013). The arrows, as indicated in figure 1, point in both directions. Hence, risk culture is not equal to basic assumptions but is shaped by all three layers. The formal risk management framework shapes basic assumptions over time as rules and processes are enacted and at the same time basic assumptions influence the perception and daily implementation of the formal risk management framework.

What are examples of basic assumptions? Employees with the same professional background or other common experience often share basic assumptions. Basic assumptions develop, for example, about how truth is best derived, how control systems should be organized, what motivates employees or what the relevant time horizon is.<sup>2</sup> Truth may be derived from hard data, from personal experience and intuition or from scientific study (Detert, Schroeder, & Mauriel, 2000). Actuaries most likely assume that truth is best derived from science, extensive data collection, and analysis. However, while actuaries as a consequence feel most comfortable to take decisions based on rich data sets, underwriters – especially of low-probability risks – might rely more on qualitative information (c.f. Kunreuther, 1995). Acharyya and Johnson (2006) offer the criticism that “specialists such as actuaries, financial managers, etc. in contrast to generalists are often blinded by the perceived wisdom of their discipline and fail to realize the benefits of a broader perspective” (Acharyya and Johnson, 2006, p. 14). The challenging aspect is that different groups might not be aware of their own assumptions about how truth is best determined, and neither do they realize that other groups think differently. Another example of a cultural dimension around which assumptions evolve

---

<sup>2</sup> In their research on a framework for linking culture and improvement initiatives in organizations, Detert et al. (2000) derived eight dimensions of cultural assumptions from a review of the larger concepts of organizational culture developed by researchers over the past two decades.

over time is the concept of power distance. Power distance influences the degree to which distance is felt “between higher-ups and lower downs in the hierarchy” (Schein, 2010, p. 155) or whether “ideas can come from anyone at any time, whether subordinates are allowed to raise concerns or input ideas or how highly protocol is valued over informal approaches” (Schein, 2010, p. 152). Groups that value small power distance tend to be better at asking subordinates for initiative while groups that value large power distance tend to be better at pressing for discipline. Swiss Re (2010), for example, noted that “clear structures are vital, but recognition is needed of the cultural aspects of risk management that can help individuals act in a decisive and pre-emptive way, often against the prevailing wisdom” (p. 3). The challenge for risk managers is to find out which cultural context, which group, will find it easy or hard to think and act against the prevailing wisdom.

A matrix of the COSO risk management framework (2004) with Schein’s (2010) three-layer concept of organizational culture is a first step toward conceptualizing risk culture. The structure indicates how formal and informal aspects interact and shows that grasping risk culture requires an understanding of basic assumptions. As culture is the product of group learning over time, it is important to note that subgroups can hold distinct risk cultures in spite of the same corporate artifacts and espoused values. This leads to the issue of subcultures, which will be discussed next.

## **5. SUBCULTURES AND THE COSTS AND BENEFITS OF CONSISTENCY**

Camerer and Vepsalainen (1988) showed in their study of what makes an efficient organizational culture that a corporate culture that is consistent with formal rules is most economical regardless of the rules. They found that consistency reduces uncertainty “by specify-

ing broad, tacitly understood rules” for appropriate action under unspecified contingencies (Camerer and Vepsalainen, 1988, p. 115). As formal controls are too crude to encompass each detail or to preview various situations, culture saves communication and monitoring costs “if employees can accurately guess what they should do” (Camerer and Vepsalainen, 1998, p. 118). This seems to be the stream of thinking of the reviewed statements (c.f. Table 1). COSO (2004) argued that a well-developed, understood, and embraced risk management philosophy ensures an even application of risk management across business units, functions, or departments. At the core of achieving consistency, the IIF (2009) has recommended to formulate the organizations’ risk appetite and to ensure that the various members of the organization adopt it. Insurers need to be “able to show how their risk tolerance and risk limits have developed from an overall risk appetite reflecting their risk preferences” (Standard & Poor’s, 2007).

However, while consistency seems to be key, subgroups typically hold distinct assumptions that have helped to fulfil their specific, functional tasks over time. Moreover, the insurance industry is known for its “silos” (Altuntas, Berry-Stölzle, and Hoyt, 2011; Acharyya and Johnson, 2006). Catellani, El Hage, and Erdönmez (2004) found that insurers in comparison to banks or manufacturing companies scored relatively low on the dimensions of consistency and strategic orientation. These authors explained the low score of shared cultural norms and values driven by central integration, coordination, and control by a strong task-orientation. Hence, the existence of subgroup cultures within insurance companies is very likely and the ways in which risk management rules and processes are perceived and lived on a daily basis are likely to be inconsistent.

Subcultures share many of the assumptions of the total organization, but also – as has been discussed in the previous section – share distinct assumptions reflecting their functional

task, their common educational background, or other common experiences (Schein, 2010, p. 55). Soda and Zaheer (2012) found in a recent study on the interplay of formal and informal networks that consistency is valuable to improve performance for certain task characteristics but inconsistency is beneficial when multiple ways of access to resources, diverse information, or ideas are desirable. “When the coordination problem is complex, the different networks that individuals can draw upon are sources of differentiated resource access, and it is complementarity from inconsistency, rather than from fit in terms of alignment or coherence or consistency, that creates value” (p. 767). Hence, demanding full consistency is not only an impossible task from a cultural perspective, but is also an approach that is blind to the benefits that arise from differentiated perspectives. The goal of risk management should not be to eliminate subcultures but to understand the costs and benefits of different cultural lenses that subgroups apply and to understand how these lenses affect the implementation of different tasks. Identifying when and how subgroup cultures work against each other or against globally defined risk management rules should be part of the risk assessment process.

Working with operators, engineers, and executives, Schein (2010, pp. 58–67) identified three generic subcultures that can be found in any organization (Table 2). The basic assumptions formulated in Table 2 are statements with which these subgroups typically identify. The table has been expanded with insurer-specific functions. A hypothesis that emerged from discussions with insurers<sup>3</sup> is that risk management functions, along with compliance, audit, and the actuarial department, mostly associate themselves with the group of “engineers,” while underwriters, sales, and members of the operations departments perceive themselves to be “at the front.”

---

<sup>3</sup> Findings from informal discussions with risk managers of globally operating Switzerland-based insurance and reinsurance companies.

Table 2: Generic subcultures (based on Schein, 2010, pp. 58–67)

Subgroups	Their basic assumptions	Insurance Industry Context
Operators “The Front Line”	<ul style="list-style-type: none"> <li>- We run the place</li> <li>- The action of the organization is ultimately its people; the success of the enterprise therefore depends on our knowledge, skill, learning ability, and commitment.</li> <li>- No matter how carefully engineered the production process is or how carefully rules and routines are specified, we know that we will have to deal with unpredictable contingencies.</li> </ul>	Sales, Distribution, Underwriting, Operations
Engineering / Design “The Techs”	<ul style="list-style-type: none"> <li>- The ideal world is one of elegant machines and processes working in perfect precision and harmony without human intervention</li> <li>- People are the problem – they make mistakes and therefore should be designed out of the system wherever possible</li> <li>- Solutions must be based on science and available technology</li> </ul>	Risk management, Compliance, Audit, Actuarial
Executive “The Lone Hero”	<ul style="list-style-type: none"> <li>- Without financial survival and growth, there are no returns to shareholders or society</li> <li>- The economic environment is perpetually competitive and potentially hostile</li> <li>- Reliable information is difficult to obtain</li> </ul>	C-level, Senior management

Operators are those units that feel they “run the place” (Schein, 2010, p. 58). Typically, this includes customer-facing staff. Operators believe the success of the organization depends primarily on their knowledge, skill and dedication because no matter how well engineered the production process is or how detailed the rules and routines are specified, they are ultimately the ones who “*will* have to deal with unpredictable contingencies” (Schein, 2010, p. 58). It is important to risk management that operators will adapt the formal work process to the local situation as necessary. In contrast, the “techs” are those units that typically design processes and systems and write the rules. For designers, “the ideal world is one of elegant machines and processes working in perfect precision and harmony without human intervention” (Schein, 2010, p. 61). In their view, people are “the problem” because it is mostly humans that make mistakes. One important basic assumption of this group is that the best solu-

tions are those that are based on science, the latest technology, automation, and standardization. Finally, the small group of executives is concerned with the economic environment, which is perpetually competitive and potentially hostile. Their basic concerns are financial survival, growth, and returns. The basic assumptions of the executive group form around the preoccupations of boards, of investors, and of financial markets. A typical characteristic of this group is that members have to manage from a distance because they cannot manage all matters and people directly. This “forces them to develop and think in terms of control systems and routines, which become increasingly impersonal” (Schein, 2010, p. 64).

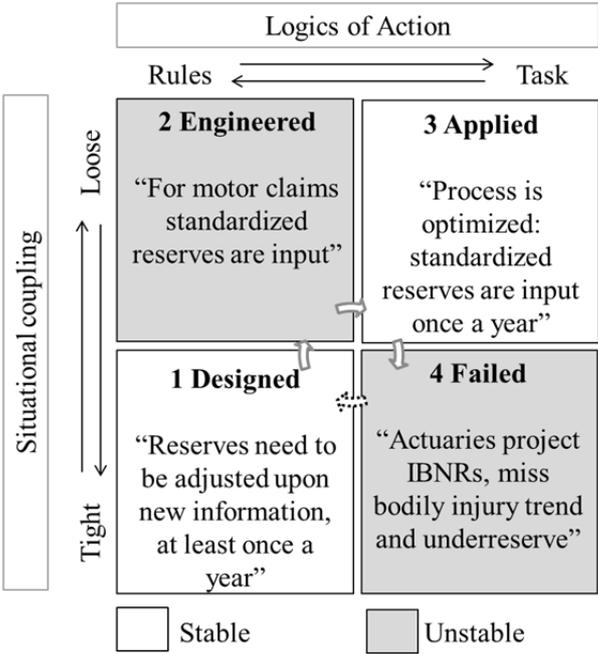
***Practical drift: How a subgroup adapts a formal rule***

How and to what extent operators at insurance companies hold different assumptions and possibly adapt global rules within their context is of significant interest to risk managers, because they typically want to know how the rules they write or oversee are implemented and potentially adapted in practice. The phenomenon in which operators develop separate value systems over time and as a consequence adapt formal rules has been studied in detail by Snook (2000). This author used behavioral and organizational theory to analyze the accidental shoot-down of two US Black Hawk helicopters over northern Iraq. He coined the term “practical drift”. Although at first sight a helicopter shoot-down does not seem to have much in common with risk management in an insurance company, his analysis offers important insights into how operators implement a risk management framework and adapt rules within their local rationality. Schein (2010) argued that “it is the basic reason why sociologists who study how work is actually done in organizations always find sufficient variations from the formally designated procedures to talk of the ‘informal organization’ and to point out that

without such innovative behavior on the part of employees, the organization might not be as effective” (p. 60).

The concept of “practical drift” is Snook’s (2000) major contribution: “the slow, steady uncoupling of local practice from written procedure” (p. 220). Figure 2 illustrates the emergence of practical drift in the context of a possible incident in an insurance company.<sup>4</sup> It is an example of how operational risk materializes when two groups with the same formal rules hold distinct assumptions. In this example, distinct basic assumptions about what relevant information is lead to risk management issues.

Figure 2: Concept of practical drift (based on Snook, 2000, p. 186) applied to an insurance-specific example



<sup>4</sup> The example is based on a discussion with a global head of risk and control of an international insurance company.

In a designed organization (1), members follow global rules in a tightly coupled world. For example, the rule may be that claims adjusters are to update reserves upon receipt of new information and at least once a year. This state of organization is the perspective of those writing the rules. The “designers” assume a rational fit: tightly coupled situations in which the organizational members – in the case of this example, the actions of the local claims adjusters and the actions of actuaries – would directly affect each other. However, in practice, reserve adjustments or non-adjustments by the claims department do not prompt closely linked action by the actuarial department. The rule to update reserves upon every instance of receiving material new information or at least once a year leaves a lot of room for interpretation. For example, what is material new information? For statistically trained actuaries, important information is information that affects reserve projections; for legally trained claims adjusters, important information is information that is evidenced. Hence, the designed state only exists in theory. In our example the shared understanding develops that updating motor claims frequently is overly controlling and an unreasonable burden. The rule develops within the claims department that for motor claims, standardized reserves are entered once a year. In the local context of the claims adjusters their reporting reflects the relevant data within a reasonable timeframe. As the incremental drifting does not meet resistance, it becomes reinforced over time and commonly accepted. This is when the organization moves into the third quadrant (3), which represents practical application: Local task-based logics become the rule in the phenomenon of practical drift. The issue in our example is not the practical drift itself but the fact that the actuaries have a different understanding of relevant data. Finally, organizing fails (4). In a rare stochastic fit, the system becomes tightly coupled. Snook (2000) introduced a stochastic element to account for those rare situations that later came to be called “unhappy circumstances.” “The local task-based logics don’t match the global demands of a tightly coupled situation. This is when friendly helicopters get shot down” (p. 189). Under-reserving of,

for example, bodily injury claims possibly occurs over years because actuaries are not able to detect trends based on the standardized figures entered once a year. Hence, the danger of practical drift materializes in those rare situations in which the actions of subunits become tightly coupled: The actuaries act upon the information of the claims adjusters and miss a major claims development. Actuaries and claims adjusters were not aware that they held different assumptions about “truth.” The distinct basic assumption about truth led to a different understanding of what relevant information is and the right timing to report it.

We applied the concept of practical drift to illustrate how the implementation of a formal, global rule by a subgroup led to risk management issues because of distinct assumptions about relevant information and reporting and because the actions of that subgroup affected the actions of another. There are two major insights from this example in regards to the role of risk culture for risk management. First, it is rational for local subgroups to adapt global rules, from their perspective they are not breaking the rules but implementing the global rule within their context and according to their assumptions about what relevant information is. Hence, underlying, unconscious basic assumptions can lead to organizational loss even though no individual employee is consciously breaking the rule. Secondly, the accident occurs on a group, not an individual, level: the group learned over time what has worked or not worked in their context. “The general phenomenon of adapting the formal work process to the local situation and then normalizing the new process by teaching it to newcomers is the practical drift” that operator subcultures are found to do (Schein, 2010, p. 60). Understanding how subgroup cultures work with each other or, at times, at cross purposes is an important aspect of understanding the role of risk culture and subcultures in risk management frameworks.

## 6. CONCLUSION

Although risk culture is a recognized building block of corporate governance and a potential operational risk, what risk culture is and what role it plays in the risk management frameworks of insurers still remain vague. We argue that this lack of understanding limits the effectiveness of risk management. By integrating research into organizational culture and risk management research and practice, we take a step toward conceptualizing risk culture and shed more light on its structure and role within insurers' risk management frameworks. Although the importance of senior management role modeling is often emphasized, risk culture is shaped by much more than just the tone from the top. Risk culture is the product of organizational and group learning about what has or has not worked in the past. The members of a group learn within their local context which of the typically centrally prescribed formal risk management norms and rules actually work in practice in the sense of behavior that makes sense in light of their goals and which is encouraged or discouraged, applauded or condoned, rewarded or punished. Hence risk culture is a cognitive, dynamic concept with formal and informal aspects as well as thought and action interacting. The formal risk management framework shapes basic assumptions over time as rules and processes are executed. At the same time, basic assumptions influence the perception and daily implementation of the formal risk management framework. In essence, the formal risk management framework defines which processes to use, which limits to obey, and which values to aspire to, while risk culture defines which rules and norms are perceived to be rational and important.

Despite having the same formal risk management framework, subgroups are likely to have distinct risk cultures derived from their educational backgrounds or other common experiences. We argue that an approach that demands full consistency is not only culturally

impossible but also blind to the benefits arising from differentiated perspectives. Differentiated access to risk identification and control may be beneficial with regard to complex or emerging risks. The difficulty in grasping and deciphering a group or subgroup's risk culture is that the basic assumptions at the deepest level of culture are typically invisible and subconscious. Nevertheless, risk culture guides how risk-relevant information is provided, understood, and used and how global rules are enacted within the context of local realities. Thus, identifying subgroup assumptions is a valuable starting point within the risk management process. The risk identification process should involve diagnosing the differences in interpretation and application of global rules as a consequence of the cultural context. For example, risk appetite statements tend to be written on a strategic level but must be implemented by the business in the field. We applied the concept of practical drift to illustrate, for example, how over time subgroups develop their own definitions of relevant information and the appropriate reporting time frame. However, what one group views as rational and efficient might be random and dangerous to the organization as a whole.

This paper aims to shed light on what risk culture means to insurers and what role it plays in risk management. A number of assumptions, such as the existence of subgroup cultures, need to be validated. Thus, more work is now needed to empirically substantiate the concept of risk culture and its impact on risk management. Understanding the structure and role of risk culture forms the basis of future research into the content of risk culture and thus into what interests risk managers most: identifying those dimensions of basic assumptions that most impact the management of risk and identifying those aspects of risk culture that support risk management goals or are a sign of trouble.

## REFERENCES

- Acharyya, M., and J. Johnson. 2006. "Investigating the Development of Enterprise Risk Management in the Insurance Industry: An Empirical Study of Four Major European Insurers." *The Geneva Papers on Risk and Insurance*.
- AIRMIC, Alarm, and IRM. 2010. "A Structured Approach to Enterprise Risk Management (ERM) and the Requirements of ISO 31000 Contents." *Risk Management*.
- Altuntas, M., T. R. Berry-Stölzle, and R. E. Hoyt. 2011. "Implementation of Enterprise Risk Management: Evidence from the German Property-Liability Insurance Industry." *The Geneva Papers on Risk and Insurance Issues and Practice* 36 (3): 414–439.
- Argyris, C., and D. Schön. 1978. *Organizational Learning*. Reading, MA: Addison-Wesley.
- . 1996. *Organizational Learning II*. Reading, MA: Addison-Wesley.
- AXA Group. 2012. "Annual Financial Report 2012."
- Beasley, M., R. Clune, and D. Hermanson. 2005. "Enterprise Risk Management: An Empirical Analysis of Factors Associated with the Extent of Implementation." *Journal of Accounting and Public Policy* 24 (6) (November): 521–531.
- Boubakri, N. 2011. "Corporate Governance and Issues From the Insurance Industry." *Journal of Risk and Insurance* 78 (3) (July 25): 501–518.
- Camerer, C. F., and G. Loewenstein. 2004. "Behavioral Economics: Past, Present, Future." In *Advances in Behavioral Economics*, edited by C. F. Camerer, Loewenstein G., and Rabin M., 3–52. Princeton, NJ: Princeton University Press, 2004.

- Camerer, C. F., and A. Vepsäläinen. 1988. "The Economic Efficiency of Corporate Culture." *Strategic Management Journal* 9: 115–126.
- Casualty Actuarial Society. 2011. "ERM Definition and Framework." <http://www.casact.org/research/erm/frame.pdf>. (accessed February 12, 2012)
- Catellani, B., B. El Hage, and M. Erdönmez. 2004. *Branchenkultur Assekuranz: Der Unsichtbare Motor Des Erfolgs?* St. Gallen: Institut für Versicherungswirtschaft der Universität St. Gallen.
- Chartered Institute of Internal Auditors. 2012. "Culture and Internal Control." [http://www.iaa.org.uk/en/Knowledge\\_Centre/open-courses/culture\\_and\\_control\\_section2.cfm#Activity3](http://www.iaa.org.uk/en/Knowledge_Centre/open-courses/culture_and_control_section2.cfm#Activity3). (accessed June 20, 2012)
- Chatman, J. A., and K. A. Jehn. 1994. "Assessing the Relationship Between Industry Characteristics and Organizational Culture: How Different Can You Be?" *The Academy of Management Journal* 37 (3): 522–553.
- Committee of European Insurance and Occupational Pensions and Supervisors. 2009. "Draft CEIOPS' Advice for Level 2 Implementing Measures on Solvency II: System of Governance (March)."
- Cooke, R. A., and D. M. Rousseau. 1988. "Behavioral Norms and Expectations: A Quantitative Approach To the Assessment of Organizational Culture." *Group & Organization Management* 13 (3): 245–273.
- COSO. 2004. *Enterprise Risk Management — Integrated Framework*. Durham: Committee of Sponsoring Organizations of the Treadway Commission.

CRO Forum. 2009. "Insurance Risk Management Response to the Financial Crisis (April)."

Deal, T. E., and A. A. Kennedy. 1982. *Corporate Culture: Rites and Rituals of Corporate Life*. Reading MA: Addison-Wesley.

Deloitte. 2009. "Risk Intelligent Governance. A Practical Guide for Boards." *Risk Intelligence Series Issue No. 16*. [http://www.deloitte.com/assets/dcom-unitedstates/local/assets/documents/us\\_risk\\_riskintelligentgovernance091609.pdf](http://www.deloitte.com/assets/dcom-unitedstates/local/assets/documents/us_risk_riskintelligentgovernance091609.pdf). (accessed May 12, 2012)

Detert, J. R., R. G. Schroeder, and J. J. Mauriel. 2000. "A Framework For Linking Culture And Improvement Initiatives In Organizations." *Academy of Management Journal* 25 (4): 850–863.

Elyasiani, E., and J. Jia. 2011. "Institutional Ownership Stability and Risk Taking: Evidence from the Life-Health Insurance Industry." *Journal of Risk and Insurance* 78 (3): 609–641.

FINMA, Swiss Financial Market Supervisory Authority. 2010. "Corporate Governance , Risikomanagement Und Internes Kontrollsystem Bei Schweizerischen Versicherungsunternehmen - Erkenntnisse Aus Dem Ersten Swiss Qualitative Assessment". Vol. 41 [http://www.finma.ch/d/finma/publikationen/Lists/ListMitteilungen/Attachments/43/beilage\\_finma-mitteilung-5-2010\\_bericht-sqa-20100201-d.pdf](http://www.finma.ch/d/finma/publikationen/Lists/ListMitteilungen/Attachments/43/beilage_finma-mitteilung-5-2010_bericht-sqa-20100201-d.pdf). (accessed November 28, 2013)

———. 2013. "Governance , Risk Management and Internal Control Systems at Swiss Insurers. Observations from the Second Swiss Qualitative Assessment ( SQA II )". Vol. 41.

<http://www.finma.ch/e/finma/publikationen/Lists/ListMitteilungen/Attachments/57/beilage-finma-mitteilung-46-2013-e.pdf>. (accessed November 28, 2013)

Goto, S. 2007. "The Bounds of Classical Risk Management and the Importance of a Behavioral Approach." *Risk Management and Insurance Review* 10 (2): 267–282.

Hector Sants, Chief Executive, Financial Services Authority. 2010. "Can Culture Be Regulated?" In *Speech Given at Mansion House Conference on Values and Trust on October, 4, 2010*.

[http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/1004\\_hs.shtml](http://www.fsa.gov.uk/pages/Library/Communication/Speeches/2010/1004_hs.shtml). (accessed July 9, 2013)

Hofstede, G. J. 1980. *Culture's Consequences: International Differences in Work-Related Values*. London: SAGE Publications.

Hoyt, R. E., and A. P. Liebenberg. 2011. "The Value of Enterprise Risk Management." *Journal of Risk and Insurance* 78 (4) (April): 795–822.

Institute of International Finance. 2008. "Final Report of the IIF Committee on Market Best Practices: Principles of Conduct and Best Practice Recommendations (July)." *Practice*.

———. 2009. "Risk Culture. Reform in the Financial Services Industry: Strengthening Practices for a More Stable System (December)."

———. 2012. "Governance for Strengthened Risk Management (October)."

Jondle, D., T. D. Maines, M. R. Burke, and P. Young. 2013. "Modern Risk Management through the Lens of the Ethical Organizational Culture." *Risk Management* 15 (1) (February): 32–49.

- Kahneman, D. , and A. Tversky. 1979. "Prospect Theory: An Analysis of Decision Under Risk." *Econometrica* 47 (2): 263–292.
- Kleffner, A. E., R. B. Lee, and B. McGannon. 2003. "The Effect of Corporate Governance on the Use of Enterprise Risk Management: Evidence from Canada." *Risk Management and Insurance Review* 6 (1) (February): 53–73.
- Krasniewska, I. 2011. "Qualitative Requirements Under Solvency II." *I.VW-HSG Trendmonitor* 3 (33): 3–8.
- Kunreuther, H. 1995. "Ambiguity and Underwriter Decision Processes." *Journal of Economic Behavior & Organization* 26 (3) (May): 337–352.
- Loewenstein, G., E. Weber, C. Hsee, and N. Welch. 2001. "Risk as Feelings." *Psychological Bulletin* 127 (2): 267–286.
- Organisation for Economic Co-operation and Development. 2011. "OECD Guidelines on Insurer Governance (May)."
- Power, M. 2005. "The Invention of Operational Risk." *Review of International Political Economy* 12 (4) (October): 577–599.
- . 2009. "The Risk Management of Nothing." *Accounting, Organizations and Society* 34 (6-7) (August): 849–855.
- Renn, O. 2008. *Risk Governance: Coping with Uncertainty in a Complex World*. London: earthscan.

- Sackmann, S. A. 2002. *Unternehmenskultur: Analysieren - Entwickeln - Verändern*. Neuwied: Luchterhand.
- Schein, E. 1985. *Organizational Culture and Leadership: A Dynamic Perspective*. San Francisco: Jossey-Bass.
- . 1990. "Organizational Culture." *American Psychologist* 45 (2): 109–119.
- . 2009. *The Corporate Culture Survival Guide*. 2nd ed. San Francisco: Jossey-Bass.
- . 2010. *Organizational Culture and Leadership*. 4th ed. San Francisco: Jossey-Bass.
- Sitkin, S., and A. Pablo. 1992. "Reconceptualizing the Determinants of Risk Behavior." *Academy of Management Review* 17 (1): 9–38.
- Sitkin, S., and L. Weingart. 1995. "Determinants of Risky Decision-Making Behavior: a Test of the Mediating Role of Risk Perceptions and Propensity." *Academy of Management Journal* 38 (6) (December): 1573–1592.
- Slovic, P., M. L. Finucane, E. Peters, and D. G. MacGregor. 2004. "Risk as Analysis and Risk as Feelings: Some Thoughts About Affect, Reason, Risk, and Rationality." *Risk Analysis* 24 (April): 311–322.
- Smircich, L. 1983. "Concepts of Culture and Organizational Analysis." *Administrative Science Quarterly* 28 (3): 339–358.
- Snook, S. 2000. *Friendly Fire*. Princeton, NJ: Princeton University Press.

Soda, G., and A. Zaheer. 2012. "A Network Perspective on Organizational Architecture: Performance Effects of the Interplay of Formal and Informal Organization." *Strategic Management Journal* 33: 751–771.

Standard & Poor's. 2007. "Summary Of Standard & Poor's Enterprise Risk Management Evaluation Process For Insurers (November)."

Swiss Reinsurance Company Ltd. 2010. "Establishing a Pro-Active Risk Management Culture (June)."

———. 2012. "2012 Financial Report."

Tversky, A., and D. Kahneman. 1974. "Judgment Under Uncertainty: Heuristics and Biases." *Science* 185 (4157): 1124–1131.

———. 1981. "The Framing of Decisions and the Psychology of Choice." *Science* 211 (4481): 453–458.

Zurich Insurance Group. 2012. "Annual Report 2012."