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## Risk Management as Passionate Imitation: The Interconnections Among Emotions, Performance Metrics, and Risk in a Global Technology Firm

This paper traces the evolution of risk management practices in a global technology company between 2000 and 2015. We extend recent research that has highlighted the emotional aspects of riskwork. We detail how a passionate interest—‘we can do better at risk management’—emotionally ‘hooked’ the staff in the company’s Sourcing Unit. Risk management, emotion, and management controls were intertwined. When top management singled out one of the key metrics clearly as a risk-related metric for the Sourcing Unit, the employees felt a strong sense of relief, which gave rise to subsequent extensive risk measurement. We also contribute to the more general debate about accounting and its entanglement with emotions. Little is known about the ‘birth’ and the reasons for durability of passionate interests. Following Tarde (1903/2013), such ‘birth’ and endurance can be explained by analyzing how passionate imitation emerges as a result of a series of dislocal events—in our case a fire, new performance metrics, and natural disasters. These events triggered emotions that provided the necessary energy for three forms of passionate imitation: a) ‘we need to imitate our main competitor’ and risk mapping; b) ‘others in the organization are imitating us and our suppliers should imitate us’ and risk measurement; and c) ‘others in the organization (more specifically the Product Development Unit) should imitate us’ and proactive risk avoidance. This passionate imitation helped explain why the sourcing staff continued to be emotionally ‘hooked’ to risk management, that is, how the passionate interest endured and became vested.

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The aim of this paper is to analyze the interconnections among risk management, emotion, and performance metrics through a study of GlobeTech,<sup>1</sup> a global technology company. Early in 2000, a fire broke out in the factory of one of the company's suppliers. Prior to that point, GlobeTech had been the market leader, but as a result of its poor risk management routines, GlobeTech suffered severe component shortages following the fire. This paper explores the evolution of risk management practices in the company and analyzes the emotional riskwork (Power, 2016) involved in shaping this evolution.

Since the mid-1990s, risk management has been almost synonymous with the ideals of good management (Miller *et al.*, 2008). Over the past decade, risk management has emerged as a theme in the accounting literature (e.g., Arena *et al.*, 2010; Caldarelli *et al.*, 2016; Giovannoni *et al.*, 2016; Hall *et al.*, 2015; Jordan *et al.*, 2013; Meidell and Kaarbøe, 2017a; Mikes, 2009, 2011). As Power (2016, p. 8) argues, in order to understand the evolution of risk management practices, we need to analyze the 'outcome of varied forms of riskwork'. Structural aspects of riskwork involve the creation of formal roles, such as risk experts, risk managers, and internal auditors (e.g., Hall *et al.*, 2015; Jordan *et al.*, 2013; Palermo, 2014; Tekathen and Dechow, 2013; Woods, 2009). Political aspects include how actors build networks and alliances (Power, 2016), and how conflicts drive the evolution of risk management practices as actors compete over the role, boundaries, and framing of risk management (e.g., Giovannoni *et al.*, 2016; Hall *et al.*, 2015; Meidell and Kaarbøe, 2017b; Mikes, 2011; Vinnari and Skærbæk, 2014). Recent research has highlighted connections between accounting and emotions in general (see Baxter *et al.*, 2019; Boedker and Chua, 2013; Bourmistrov and Kaarbøe, 2013; Carlsson-Wall *et al.*, 2016; Chenhall *et al.*, 2017) and, more specifically, the *emotional aspects of riskwork* (Fischer and Ferlie, 2013; Guénin-Paracini *et al.*, 2014; Jordan *et al.*, 2013; Mikes, 2016; Vinnari and Skærbæk, 2014). As noted in a recent review by Power (2016), emotions, such as fear, anxiety, comfort, and blame, have come to permeate the concept of risk. In our paper, we seek to add to this recent work by exploring the connection between emotion and risk management.

This paper traces the development of GlobeTech's risk management practices in three phases between 2000 and 2015. Theoretically, we draw on the work of Gabriel Tarde (1899, 1903), and subsequent work by Latour (2010, 2013; Latour and Lépinay, 2009) and Baxter *et al.* (2019) to argue that the evolution of risk management may be viewed as a process of *passionate imitation*. As Tarde

<sup>1</sup> The name of the organization has been changed in accordance with our agreement to maintain the company's anonymity.

(1903/2013, p. 11) stressed, humans are essentially imitative and therefore ‘imitation plays a role in societies analogous to that of heredity in organic life or that of vibration among bodies’. Through the notion of passionate imitation, we explain how emotions such as guilt, fear, relief, and pride led GlobeTech’s sourcing staff to work towards satisfying a common desire to introduce more sophisticated risk management practices.

## THEORETICAL DEVELOPMENT

Power (2016, p. 3) suggests a need to analyze the evolution of risk management practices as the outcomes of varied forms of riskwork—‘the work related to the development and operationalisation of formal aspects of risk management’. Riskwork offers a ‘bottom-up’ approach to understanding risk management practices, as it is rooted in everyday practices and informed by analyses of the ways human actors make sense of risk in complex environments and events (Power, 2016). The following review is structured around three different forms of riskwork: structural, political, and emotional.

### *Literature Review: Structural, Political, and Emotional Aspects of Riskwork*

Over the last 20 years, formal risk management systems emerged rapidly in both private and public sector organizations (Arena *et al.*, 2010; Carlsson-Wall *et al.*, 2019; Power, 2007; Miller *et al.*, 2008). The *structural* aspects of riskwork include the rise of new roles within the field of risk management, such as that of chief risk officers (CROs) (e.g., Huber and Scheytt, 2013; Mikes, 2016; Power, 2005), as well as organizations’ development and use of formal risk management tools, such as risk maps, risk indicators, risk metrics, and risk-reporting frameworks (e.g., Hall *et al.*, 2015; Jordan *et al.*, 2013; Meidell and Kaarbøe, 2017a; Mikes, 2009). While the CRO typically heads a risk management unit staffed by risk management professionals (e.g., Hall *et al.*, 2015; Meidell and Kaarbøe, 2017a; Mikes, 2009), an organization can also appoint an internal auditor as its risk manager (Arena *et al.*, 2010; Spira and Page, 2003; Vinnari and Skærbæk, 2014; Woods, 2009). Previous work has detailed three ways of structuring the formal role of the risk manager. First, the risk management function is recognized as a specific function in the organizational hierarchy. Second, the people working in the risk management function typically have a professional background and/or professional training in risk management. Third, the risk management function has a mandate from top management or the board of directors to develop relevant practices and actively engage in risk management.

In addition to these structural considerations, the accounting literature on risk management stresses key *political* dimensions of riskwork, such as conflicts and competing interests that lead to network building and alliance construction, as important features in the evolution of risk management practices (Fischer and Ferlie, 2013; Meidell and Kaarbøe, 2017b; Power, 2016).

As multiple actors are typically involved in the development of risk management practices (Arena *et al.*, 2010), there is often competition between professional groups with overlapping responsibilities as they strive for executive-level visibility. Previous studies have detailed power struggles related to the structural positioning of the risk function (Giovannoni *et al.*, 2016; Hall *et al.*, 2015), especially with regard to how boundaries should be drawn for risk management (Mikes, 2011) and the manner in which risk management should be framed (Hall *et al.*, 2015; Meidell and Kaarbøe, 2017b; Vinnari and Skærbæk, 2014). Risk managers have not only created new risk management practices within their own territories but have also expanded the boundaries of risk management to new areas by moving into unoccupied areas and by taking over risk-related tasks from other functions (Mikes, 2011). Meidell and Kaarbøe (2017b), for instance, illustrate how different frames of risk management can lead to tensions and struggles between groups of actors. Relatedly, Hall *et al.* (2015) detail how the ‘new guard’ and ‘old guard’ of risk managers in a bank setting had different views of how risk management should be handled. The ‘new guard’ felt that risks should be divided into categories before aggregating them and quantifying the bank-wide exposure. In contrast, the ‘old guard’ focused on each individual loan, and used their own proprietary tools and previous experience to analyze and approve or reject loans.

Finally, in terms of the *emotional* aspects of riskwork, risk was historically perceived as a neutral term concerned solely with losses, gains, and probabilities (Fox, 1999). However, more recent work demonstrates that certain emotions now permeate the concept of risk, including fear, anxiety, comfort, blame, and blame avoidance (Lupton, 1999; Power, 2007, 2016). For instance, Guénin-Paracini *et al.* (2014, p. 266) suggest that ‘fear is the emotional experience of risk’. Recent work has found that risk experts may trigger emotions in organizations through their efforts to roll out specific risk management practices (e.g., Jordan *et al.*, 2013; Mikes, 2016; Vinnari and Skærbæk, 2014). For example, Mikes (2016) finds that CROs make emotional appeals to other organizational actors to engage them in new risk management practices. Relatedly, Vinnari and Skærbæk (2014) demonstrate that risk experts’ efforts to engage other actors may result in expressions of anger, scepticism, and discontent over the framing of risk management. Such studies have begun to analyze how risk management may cause particular emotions in organizational settings, such as fear, anger, and scepticism. However, while specific emotions have been investigated, prior accounting literature on risk management has rarely attempted to develop a more general theory of emotion.

In summary, the above review indicates that risk management and its entanglement with emotion is a developing area in accounting research. In this paper, therefore, we put emotions at the core of our analysis. To this end, we utilize the work of Tarde (1899, 1903), Latour (2010, 2013; Latour and Lépinay, 2009), and Baxter *et al.* (2019) to discuss the concepts of passionate interests and passionate imitation and their implications for the evolution of risk management practices.

*Passionate Imitation and the Evolution of Risk Management Practices*

Gabriel Tarde's work is becoming increasingly well known, generating debate not only in social theory but also among organizational theorists (see Czarniawska, 2009) and, more recently, in the accounting field (Baxter *et al.*, 2019). Tarde's 'economic anthropology' offers a novel reframing of people and their emotions. Tarde sees individuals not as 'isolated atoms' but as connected 'monads'. He explains:

Never, in any period of history, have a producer and a consumer, a seller and a buyer been in each other's presence without having first been united to another by some entirely, sentimental relation—being neighbours, sharing citizenship or religious communion, enjoying a community of civilisation—and second, without having been, respectively, escorted by an invisible cortege of associates, friends, and coreligionists ... Never ... did the worker appear free from every formal or moral commitment to his comrades. (Tarde, 1902, p. 631)

The concept of monads is significant because it reframes the relationship between the parts and the whole. Through monads, Tarde highlights that the individual element should no longer be seen as an isolated unit. Tarde's monadology emphasizes the associations that organize an individual as opposed to the characteristics and elements that make up the individual. Behind every individual are many other inherently related individuals, and it is these others that enable agency (Baxter *et al.*, 2019). Tarde (1902, p. 28) explains: 'In a society no individual may act socially without the collaboration of a vast number of other individuals most often ignored ... Left to itself, a monad is powerless'.

Furthermore, Tarde stresses that monads are emotionally connected to others. In this regard, he states: 'There is not a single aspect of social life in which one does not see passion grow and unfold together with intelligence ... So it is in the economic world, and nowhere, not even here, do I perceive traces of a refrigerating transformation of man in a less and less passionate and more and more rational direction' (1902/2007, p. 631). Latour (2013; Latour and Lépinay, 2009) and Baxter *et al.* (2019, p. 22) elaborate on this idea and label these attachments *passionate interests*—'matters that emotionally hook, attach, and bind actors to each other, albeit in different and changeable ways, and with varying degrees and forms of emotionality'. Thus, Tarde, Latour (2013; Latour and Lépinay, 2009), and Baxter *et al.* (2019) argue that an emotion, like anger, is not an object inside the self but rather a relation to others—a response to a situation and to the world at large. Emotion is not theorized as an 'intra' phenomenon but one that is 'inter' (i.e., *between* entities). As such, it is relational, rather than an individualized psychological phenomenon.<sup>2</sup>

<sup>2</sup> Reviews of emotion theories highlight that emotions may be studied more as individualized, biological states and that there is a significant amount of literature on emotions as human drives (basic, primary, secondary) (Gregg and Seigworth, 2010; Thrift, 2008). However, these concepts of emotion are not the focus of the present paper.

As discussed by Baxter *et al.* (2019), the concept of passionate interests has important implications for the ‘direction’ of the relationship between accounting (and risk management) and emotions. Risk management not only generates emotion (Fischer and Ferlie, 2013; Guénin-Paracini *et al.*, 2014; Jordan *et al.*, 2013; Mikes, 2016; Vinnari and Skærbæk, 2014), its significance can also be expected to be materially influenced by emotions. Baxter *et al.* (2019), studying a professional football club, found that anxiety about violent fan behaviour among club managers substantially affected budgeting as they systematically created budgetary slack as a buffer for lost ticket revenues if such fan behaviour were to occur. However, while previous research has established that emotion is likely to significantly influence the evolution of risk management, we know less of *how* such influence comes about. Focus has so far mostly been on deeply rooted passionate interests, such as winning the league and feeling of football family loyalty in football clubs (Baxter *et al.*, 2019; Carlsson-Wall *et al.*, 2016) and ensuring ‘rationality’ in fund management and investment processes (Taffler *et al.*, 2017). But what about the ‘birth’ of a passionate interest (such as ‘we can do better at risk management’)? And how do passionate interests *endure*? Baxter *et al.* (2019) highlight that the reasons for durability are an important matter for further theoretical and empirical analyses. And as noted by Baxter *et al.* (2019, p. 38), ‘we have not studied how temporal rhythms associated with different shared emotions inform accounting. Anger, for instance, tends to flare and then subside. Despair and feelings of insecurity, however, might endure for longer periods. How do these different temporal “structures” influence accounting work? How do they influence perceptions and the management of risk?’

In order to advance our understanding of the ‘birth’ and endurance of passionate interests, we extend Latour’s (2013; Latour and Lépinay, 2009) and Baxter *et al.*’s (2019) discussion of passionate interests by connecting it to *imitation*, a concept at the heart of Tarde’s account of society. For Tarde, imitation is the primary mechanism of society and the principal mode of binding people to each other. As Tarde (1899, p. 39) puts it: ‘I maintain that the relation between these two persons is the one essential element in the social life, and that it always consists, at bottom, in an imitation of one by the other’. Tarde’s ideas enable us to explain the sharing of emotions that occurs in groups, and they facilitate our understanding of how employees group together and come to share a common passionate interest. In our case, this passionate interest is a desire for more sophisticated risk management practices. With regard to humans, Tarde (1969, p. 53) notes: ‘their bond lies in their simultaneous conviction or passion and in their awareness of sharing at the same time an idea or a wish with a great number of men’. He prefers the term ‘imitation’ to ‘contagion’, as the latter evokes images of pathological viruses that pass from body to body. For Tarde, imitative behaviour results not from some mysterious process of osmosis or contamination, but from the emotional enrolment of actors in a ‘common idea’ or, in our terms, a passionate interest. As Tarde (1903, p. 157) explains: ‘What is imitated is

always an idea or a wish, a judgement or a plan, in which a certain amount of belief and desire are expressed'. Therefore, a cornerstone of his thinking on imitation is to move 'from the question of the subject of imitation to a question about what is imitated [*ce qui s'imité*], about the matter of the process considered from an impersonal point of view' (Karsenti, 2010, p. 57).

Tarde's understanding is that emotions should be analyzed as a force with agency (Tarde, 1903, p. 146) that drives imitative behaviour related to a particular passionate interest, which leads to his notion of *passionate imitation* (see also Barry and Thrift, 2007). Tarde (2012, p. 21) asks: 'Can it be denied that desire and belief are forces? These so-called products are forces to such an extent that they alone can produce societies, which many contemporary philosophers still maintain are true organisms'. For Tarde, the entire valence of human emotion is important—fear and anxiety, as well as positive emotions such as hope, joy, and love, all of which drive imitative behaviour (see Sampson, 2012). Emotions help to mobilize and engage people, inspiring them with visions of what could be built collectively. It is the energy of emotion that drives imitative behaviour, as attention is 'concentrated on a single point'—a particular passionate interest, such as risk management (Tarde, 1903, p. 80).<sup>3</sup>

For Tarde, therefore, an analysis of the 'birth' of a passionate interest would start with what triggers passionate imitation. Tarde's imitation theory questions the existence of external social structures that predate and restrain imitative processes. According to Tarde, the structures themselves emerge out of imitative behaviour and only then acquire a social impact. He thus explains that the 'birth' of a passionate interest is related to how imitative behaviour emerges as a result of *dislocal events*.<sup>4</sup> Tarde strongly rejects Durkheim's division of the social into macrolevel aggregates and microlevel individuals (Czarniawska, 2004). He is sometimes labelled a microsociologist, as his ideas form a counterpoise to the overweight of structuralist, macrosociological ways of thinking (Czarniawska, 2004). Sociology, according to Tarde, must devote

<sup>3</sup> For Tarde, passionate interests are not conceptualized as irrational, as they are different from 'rational', cognitive thought. Interests are always emoted. Or as Baxter *et al.* (2019, p. 22) put it: 'there are not passions and dispassionate, "rational" interests. There are "only" intersubjective passionate interests'.

<sup>4</sup> Tarde was one of the first sociologists to adopt a bottom-up perspective, that is, a perspective that consists of starting from the details of local events to explain imitative behaviour. Instead of starting, like his contemporaries Herbert Spencer and Emelie Durkheim, with what appears to transcend our interactions (whether under the form of a law, a principle, or a structure), Tarde insists that it is only in the local events (in the 'small', never in the 'big') that we can find the triggers for passionate imitation (Cooren and Fairhurst, 2009). But Tarde acknowledges that events are never completely local. Global structures may be relevant, but only when they are oriented in locally situated interactions. If a local actor orients in his/her discourse to a specific rule or procedure, or to specific status, social class, or gender of his/her interlocutor, these 'structures' will be considered relevant by the analyst at this specific moment of conversation. But as long as they are not problematized or characterized by participants, social analysts should not focus on them or even bother about them (Cooren and Fairhurst, 2009). Recently, therefore, researchers using Tarde have argued that a more appropriate term would be *dislocal events* (Cooren and Fairhurst, 2009, p. 123). It is always through a local interaction that something apparently more global can be said to 'do' something. Events never are purely local or purely global; they are dislocal.

itself to investigation of dislocal events, as these events play a decisive role in social processes of passionate imitation (Tarde, 2000, p. 91). Initially, passionate imitation is done by those actors that are closest to the dislocal event. Imitation may then radiate outward to more distant parts (Tarde, 1969, p. 29). For Tarde, therefore, an important aspect of passionate imitation is that it is triggered by dislocal events that bring about substantial changes without there being a centrally located, controlling agent. Given their contingent nature, it is not possible to determine in advance which dislocal events will trigger emotions and subsequent passionate imitation. They can only be recognized retrospectively on the basis of their emotional impact (Ratner, 2009).

But what about the endurance of a particular passionate interest? As Tarde (1903, p. 210) highlights: ‘the necessary weakening of that which is imitated ... fresh sources [new dislocal events] for imitation are therefore necessary for the timely reanimation of expiring social energy’. Thus, for Tarde, a particular passionate interest endures when passionate imitation is accumulated through a series of dislocal events (Tarde, 1903, pp. 247, 263). Over time, the passionate imitation can take various forms (Tarde, 1903, p. 23), such as imitation of other groups within an organization and imitation of competitors. Similar to the discussion above on which dislocal events will trigger passionate imitation, it is not possible to determine in advance what forms of passionate imitation will occur; they can only be recognized retrospectively (Tarde, 1903).

In summary, we believe that Tarde’s (1903) notion of passionate imitation provides a novel perspective for understanding how organizational groups develop coordinated actions that influence the evolution of risk management practices. Analytically, our focus is not on structural aspects and power struggles, but rather on intense emotions as reactions to dislocal events—emotions that drive imitative behaviour related to a particular passionate interest. Such analysis can help us explain the evolution of risk management as well as, more generally, the ‘birth’ and endurance of a particular passionate interest.

## RESEARCH METHODS

In order to enhance our understanding of the interconnections between risk management, emotion, and performance metrics, we conducted a single case study of GlobeTech. We utilized multiple data sources in the form of semi-structured interviews, and relevant internal (e.g., PowerPoint presentations, documents) and external (e.g., annual reports) documents. In total, we conducted 28 face-to-face interviews with 24 employees. We also included a foreign supplier. This gave us access to a broad range of views and experiences. The majority of the interviewees were experienced managers who had worked for the company for an extended period of time, some for more than 30 years. We focused primarily on the Sourcing Unit, which was the unit responsible for external suppliers and,



therefore, for the interruption in normal business activities that followed the fire in the supplier's factory. We interviewed a number of employees, including a chief financial officer, several component category managers, the head of sourcing, the sourcing director, several sourcing managers, the insurance manager, several purchasing managers, several purchasers, and two representatives of a foreign supplier. The questions were broadly structured as follows: personal information, involvement and role in risk management, and understanding of current risk management practices and the evolution of those practices over time. The average length of the interviews was around 65 minutes.

Our approach can be characterized as abductive (Lukka, 2014; Lukka and Modell, 2010), as it involved going back and forth between empirical findings and theoretical elements perceived to be of relevance. This means that our research process was similar to what Ahrens and Chapman (2006, p. 836) describe when they argue that '[p]roblem, theory and data influence each other throughout the research process. The process is one of iteratively seeking to generate a plausible fit between problem, theory and data'. No formal coding program was used for the data analysis. First, each interview transcript and pertinent documents were read by the researchers. Then empirical data were arranged chronologically and this analysis indicated that emotion was central to understanding the evolution of risk management practices in GlobeTech. This was our 'striking empirical observation', and as noted by Lukka (2014, p. 563): 'abductive reasoning typically starts from a striking empirical observation that begs an explanation, triggering the process of "making sense" to begin. However, as the observation is not perceived to exist in a theoretical vacuum, an abductive researcher then commences careful development of theoretical explanations with the help of everything he/she knows, both empirically and theoretically, on the examined issue ... The process of abductive reasoning can be paralleled to detective work as it collects clues, focuses on those that are most promising and attempts to put them into perspective with the conditions and other evidence at hand'. Thus, we needed theoretical concepts related to emotion and here the work of Tarde (1899, 1903), Latour (2010, 2013; Latour and Lépinay, 2009), and Baxter *et al.* (2019) was employed. This means our analysis of field material in relation to the theoretical concepts took place entirely after the data were collected (see, e.g., Ahrens and Chapman, 2004, pp. 285–86, for a similar discussion). As Ahrens and Chapman (2006, p. 836) put it: 'Theory helps the author structure the masses of data and communicate its significance at the same time as it helps construct that significance'. Empirical material was related to the theoretical concepts of the study (passionate interests, passionate imitation, dislocal events) to draw unique insights. Thus, through abductive reasoning, we combined empirical and theoretical elements to develop a plausible argument regarding the evolution of risk management (see Lukka, 2014, p. 564). Finally, the case analysis was written up where the emerging findings were compared to and contrasted with previous literature on accounting and risk management as well as the literature on accounting and emotions to determine the insights unique to our investigation.

We acknowledge that bias might arise from our reliance on retrospective views of past processes and events, which we primarily gathered through interviews. As noted by Hoholm and Araujo (2011, p. 935): ‘too often, the notion that things could have easily turned otherwise is lost in these retrospective accounts’. In our case, however, real-time observation was not possible because the risk management practices were already in place. Moreover, such real-time observation was forbidden by GlobeTech’s security policy. We tried to mitigate this bias by crosschecking the interview information with different actors, and by using internal and external company documents (Yang and Modell, 2015). Following Yang and Modell (2015), we also tried to mitigate this bias by focusing on the significant differences between events in time. However, we acknowledge that such ‘temporal bracketing’ is done at the cost of more detailed understanding of the phenomena in focus.

## THE EVOLUTION OF RISK MANAGEMENT AT GLOBETECH

### *Before the Fire: Little Attention Paid to Risk Management (Prior to 2000)*

GlobeTech is a large multinational company operating in more than 170 countries. The company has three major business units—technology infrastructure, service, and support—with the unit known as Technology Infrastructure (TI) being responsible for the greatest proportion of revenue. TI is structured according to departmental functions: Product Line (PL), Supply/Production, Sourcing, and the Product Development Unit (PDU) (see Figure 1 for an overview).

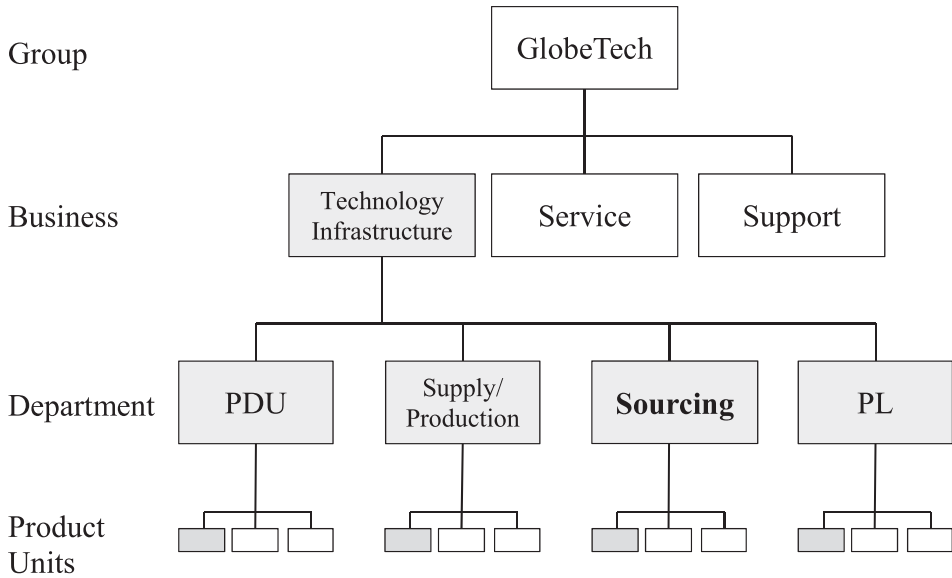
The main focus of this study is risk management in the Sourcing Unit, which is responsible for all contracts with external suppliers. In general, the importance of risk management is widely recognized and the sharing of risks along the supply chain is a firmly established principle, especially in industries with a large degree of outsourcing, such as the high-tech industry in which GlobeTech operates. However, at the end of the 20th century, these views were not widespread. At the time, GlobeTech had little formal risk management, and the sourcing staff mainly concentrated on securing competitive deals with suppliers. The risk that business could be interrupted was rarely, if ever, considered when signing supplier contracts. As one sourcing manager explained:

I must honestly say that before the fire [in 2000], risk management was not prioritized. It was not something that the people responsible for the suppliers felt to be important. We were focused on other issues, such as whether we had negotiated a good deal with a supplier.

Similarly, a manager from the Sourcing Unit said: ‘In a way, it is easy to say “we should have done this and that”, but the fact is that the issue of risk in the supply chain was not considered to be important before the fire. Of course, we now know that it should have been. With the increase in outsourcing, we were very exposed to business-interruption risks’. As this quote indicates, GlobeTech had outsourced

FIGURE 1

SIMPLIFIED ORGANIZATIONAL CHART



large parts of its assembly and production to suppliers around the world for many years. However, the failure to manage the risks in GlobeTech’s Sourcing Unit would soon be addressed.

*The Fire in a Supplier Factory: Guilt, Fear, and Extensive Risk Mapping (2000–2006)*

In early 2000, there was a fire in a production cell at a supplier’s plant. After the fire, three weeks passed before production was up and running again. As this plant was GlobeTech’s main source for an important component in one of its leading products, the company was unable to deliver that key product to its customers. GlobeTech lost many months of production and the costs of this interruption were high. GlobeTech’s marketing director for consumer goods commented on the fire in an interview with an international newspaper: ‘We did not have a Plan B’. Reflecting on this critical episode, two purchasers described the way the Sourcing Unit changed as a new passionate interest—‘we can do better at risk management’—was ‘born’ as it emotionally ‘hooked’ and bound the actors to each other:

It [the fire] really hurt us and the impact was so much bigger for us than for [the competitor]. [The competitor] was so much quicker to react than we were ... Then risk management became “the thing”—this idea of “we can do better at risk management”. There were definitely comparisons with [the main competitor] ...We

really needed to develop our risk management so we could react faster, at least as fast as [the main competitor]. (purchaser 1)

The disruption in the supply chain for that product hurt us quite a bit ... And the fact that [the main competitor] was so much faster than us. We discussed what [the main competitor] did in terms of risk management that we did not do ... We began to think about what we could do differently next time. What exposure did we have [for components]? Over a period of about one year, we began mapping [this and similar components], [considering] their production sites and how long it would take to deal with a disruption. I think it took us about a year to build a prototype model in Excel for the type of information we wanted to collect from our suppliers. This included information on the production site and how long it would take them [the suppliers] to get back on track after a serious crisis, such as an explosion or an earthquake. (purchaser 2)

When interviewees were asked to reflect on the dynamics of the company's risk management, the emotionality of the passionate interest in risk management was highly evident. A component category manager stated:

I think the main thing here is that because the emotions were so strong, we did not forget it [the interruption in business caused by the fire]. Often, when something happens—when the fire has been handled—you simply continue and do what you always have done, but not in this case. At first, there was a strong feeling of *guilt* that this had happened, and it was not good for our company at all. We were not prepared. This was not a nice feeling and it was felt for a long time. It really drove the work with risk management. We were unable to deliver to our customers and our customers did not accept that. They have such high expectations for service, delivery precision, etc ... Of course, the competitor dimension really increased the *guilt*. [Name of the main competitor] had better risk management than us. (emphasis added)

The employees in the Sourcing Unit experienced what Vuori and Huy (2016, p. 13) refer to as a 'negative past-focused emotion'—guilt. In this regard, a purchaser explained:

I can promise you that for the whole supply unit, this was a trauma that was so real. It affected so many. I cannot stress the emotions that we experienced in the wake of this catastrophe enough. We felt *guilt*: How could this [the business interruption following the fire] have happened? This event and what we felt were the main factors behind the development of risk management that we saw during that time ... We needed to do what [the main competitor] already had done in terms of risk management. (emphasis added)

Vuori and Huy (2016) point out that when people experience negative past-focused emotions, such as guilt, and then imagine a similar situation in the future, they often fear the same negative outcome. In other words, a negative past-focused emotion is followed by fear (i.e., a future-oriented negative emotion). This happened in GlobeTech, as one sourcing manager indicated:

Talk about trauma [following the fire]! We lost so much money. We did not react fast enough. We had no idea about the risk exposure in the supply chain. On the other hand, after the event, it was absolutely clear that we needed to work hard on risk management. We cannot only understand and manage risks internally—we need to manage the risks along the supply chain too. This *fear* of another business interruption is such a strong force. Everyone was on board. We needed to introduce risk management in relation to the supply chain. We needed to understand the risk exposure arising from the outsourcing to external suppliers ... This was what [the main competitor] already had done. [The main competitor] had done their homework, but we had not. (emphasis added)

Similarly, another sourcing manager explained:

A main driving force in this unit [after the fire] was *fear*—fear of not delivering [to GlobeTech’s customers] ... This fear had such a significant impact on how everyone acted ... and, therefore, it became all about risk management. We needed risk management in order to avoid another catastrophe of this kind. We needed to be able to deliver to our customers. (emphasis added)

As the above quotes illustrate, following the fire, a new passionate interest was ‘born’. The employees in the Sourcing Unit were emotionally attached to the passionate interest of ‘we can do better at risk management’. Risk management was to be prioritized. How could the company avoid another interruption in its business by implementing new risk management practices? This issue connected or ‘hooked’ actors emotionally, such that it became a passionate interest (Baxter *et al.*, 2019; Latour, 2013; Latour and Lépinay, 2009; Tarde, 1902). As an insurance manager put it: ‘All we talked about was one risk—that of a business interruption, whether caused by our own operations or by those of a critical supplier ... All of these emotions really made us unite to improve our risk management processes ... We needed to do what [the main competitor] had already done’. This quotation, as well as the other quotations above, highlight a particular form of passionate imitation, that of imitating the risk management work of the main competitor. The main competitor reacted much faster than GlobeTech and the explanation given by the interviewees was that this was due to the main competitor’s risk management work. The passionate interest of ‘we can do better at risk management’ was born and connected to a passionate imitative behaviour to work with risk management in the same way as the main competitor to be at least as good, and preferably better, on reacting to an incident such as a fire. Following Tarde (1903), an analysis of the ‘birth’ of a passionate interest would start with what triggered the passionate imitation. Triggered by a dislocal event (the fire), emotions—in this case a negative past-focused emotion (guilt) and a future-oriented negative emotion (fear)—were a strong force that drove the passionate imitation that united the Sourcing Unit’s employees in prioritizing the development of appropriate risk management practices. Over time, the Sourcing Unit introduced a more sophisticated initial supplier survey. For example, according to one purchaser, the survey was expanded to include questions about

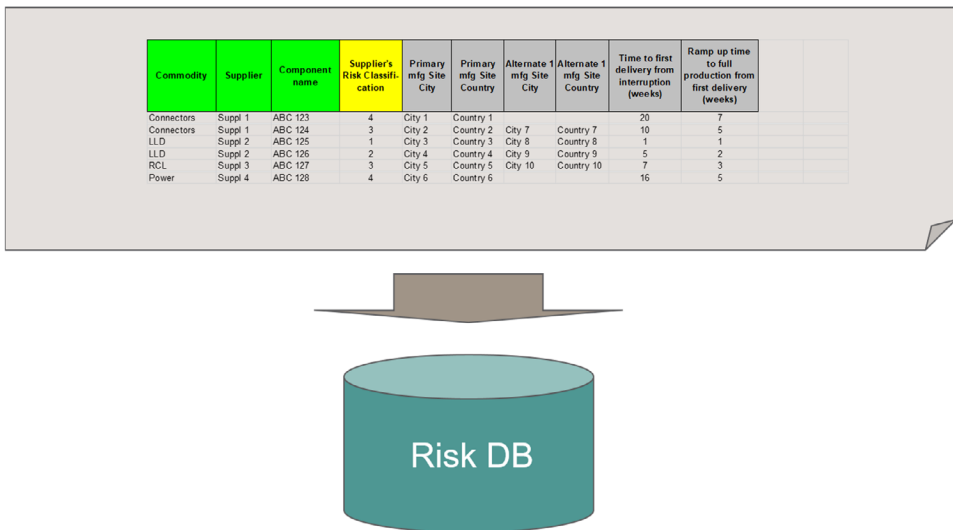
primary and secondary production sites. By 2006, GlobeTech had moved from only gathering data about certain critical components to gathering information on the majority of the direct material components. A purchaser explained:

When we got the answers back, some suppliers had said “Yes, we can split production to a second alternative site”, which made us realize that we should include that information in our model. What is your primary production site? What are your secondary production sites? Of course, we also asked suppliers about how long it would take to move production from one site to another. I think we were done with that in about 2004. In other words, by that time we had developed quite a database, so we could expand to other direct material components [the risk mapping of the latter was completed in 2006] ... We started to be confident that we had at least the same advanced risk management practices as [the main competitor], most likely more advanced.

Figure 2 illustrates the types of information collected from suppliers for each component. ‘Commodity’ describes the type of product in which the component is used. This is followed by information about the supplier, the component name, the city in which the component is manufactured, the country in which the city is located, whether alternative manufacturing sites exist, the number of weeks it takes from a disruption to deliveries, and the ramp-up time from first delivery to full production. The key issue in this extensive risk mapping exercise is the column

FIGURE 2

SUPPLY CHAIN RISK MAPPING AT GLOBETECH



labelled 'Supplier's Risk Classification'. In internal documents, this risk classification is described as follows:

Supplier's Risk Classification is based on the supplier's own assessment of risk and mainly related to the availability of manufacturing sites. The data are supplied in a RFI (request for information) by the supplier. The Supplier's Risk Classification is assigned to a specific component from that specific supplier as follows.

Risk Class 1: The product shipped to GlobeTech is currently manufactured at more than one approved manufacturing site, both at a primary manufacturing site and an Alternative 1 manufacturing site.

Risk Class 2: The product shipped to GlobeTech is currently manufactured at one approved manufacturing site. Backup sites with qualified processes and tools are available and can immediately replace the primary factory.

Risk Class 3: The product shipped to GlobeTech is currently manufactured at one approved manufacturing site. Backup sites exist but processes and tools need to be qualified before replacing the primary factory

Risk Class 4: The product shipped to GlobeTech is currently manufactured at one approved manufacturing site. No backup sites exist today.

The interviewees from the Sourcing Unit stressed that this mapping of all of the direct material meant that they had a good understanding of the risks in the supply chain by the end of 2006.

#### *New Performance Metrics: Relief and Extensive Risk Measurement (2007–2010)*

In late 2006 and 2007, GlobeTech made a number of acquisitions and introduced several product revisions. As a result, the supplier base 'exploded' according to the interviewees. The sourcing director described the situation as follows:

We had a number of product revisions and a number of acquisitions ... The supplier base exploded from maybe 100 suppliers to almost 1,000 or, alternatively, from 15,000 components to 40,000. When we considered the risk exposure with a very low proportion of multiple sourcing and a high proportion of single-source suppliers, then it was clear we needed to do something.

The extensive risk mapping proved to be useful for understanding the risk exposure arising from the acquisition of suppliers. The Sourcing Unit started to investigate how the explosion of the supplier base would affect the distribution among the four risk classes in the Supplier's Risk Classification. As one purchaser explained: 'We made histograms to see how the four risk classes were affected, and the results were not good at all. When we realized that a new sourcing strategy would have to be devised, we showed the histograms to top management to make them fully aware of the increased risk exposure in our supplier base'. In 2007, a new sourcing strategy was implemented, which was labelled 'manage risk, flexibility and scale at the right cost'. A sourcing director explained:

When we started in 2007, we had brought in so many companies and we suddenly had a very fragmented supplier base, which was not good. We needed to find more

systematic ways of thinking about it. A new strategy was implemented, with three pillars set in stone: pillar 1—work on reducing the number of suppliers; pillar 2—work on reducing product costs; and pillar 3—work on reducing the number of single-source suppliers.

The Sourcing Unit's employees indicated that the new strategy reinforced the previous years' hard work on risk mapping—risk management had become a top strategic priority also for senior managers outside the Sourcing Unit. As a component category manager said: 'When the new sourcing strategy came, it was such a *relief* for us. Such a confirmation of our work with risk management. We felt like we were the role models, others were looking at us when they needed guidance of how to work with risks' (emphasis added). The next step was to find a way to measure strategic progress using the three pillars. This measurement was labelled 'half-half-half', as the intention was to reduce the number of suppliers, product costs, and the number of single-source suppliers by 50%. These metrics were deemed important for taking risk management to the next level. In fact, top management only singled out three key metrics for the Sourcing Unit. One of these—to reduce the number of single-source suppliers by 50%—was intimately connected to the Sourcing Unit's work with risk management. As a component category manager described the situation:

Someone came up with the brilliant idea to set this in stone with specific metrics ... half-half-half ... So, the concept of risk was central in the new strategy. When we measured this way—half-half-half—it was really good for risk management. One of three key measures was directly linked to risk management. Talk about getting commitment, and this was 2007. It was a tangible target and everyone understood it. We needed to reduce the number of single-source suppliers.

As already illustrated in the quotation from the component category manager in the previous paragraph, the interviewees explained that the integration of risk management into the Sourcing Unit's key strategic performance measures created a shared feeling of relief that the risk management work that had been done was appreciated and now served as inspiration for how others at GlobeTech (outside the Sourcing Unit) could think and work with risk management. One purchasing manager explained:

It was such a *relief* for everyone. We had worked hard on risk mapping and we were planning for the next step. With these new performance metrics, one of which was directly related to risk, we knew we were on the right track ... Others looked at us when thinking about risks and risk management. What a strong endorsement. (emphasis added)

Similarly, a sourcing manager said:

What a relief for the whole group. We had been working so hard with our risk management approach and to get this confirmation that what we are doing is good,



that others look at us for inspiration. I think it is fair to say that this nice feeling was a real energy injection, and really spurred us to take the next step in our risk management efforts.

As illustrated by the quotations from the purchasing and sourcing managers, there was a perception that other GlobeTech groups, including top management, started to imitate the Sourcing Unit’s focus on and work with risk management. In line with Tarde’s (1903) reasoning, the passionate interest endured and became vested as the passionate imitation was accomplished through a series of dislocal events. The second dislocal event, the new sourcing strategy, and the accompanying new performance metric triggered a positive past-oriented emotion of relief that was shared by the Sourcing Unit employees and united them. The passionate imitation (Tarde, 1903), now in the form of ‘others in the organization are imitating us’, meant that the people engaged in sourcing took the next step in the evolution of risk management within the unit. When discussing the new metric and the relief related to the appreciation of the risk management work, one component category manager stated: ‘This really gave risk management some energy ... Of course, this drives actions—it really pushed the development of risk management forward’. This second dislocal event was what Tarde (1903, p. 210) called a ‘fresh source ... necessary for the timely reanimation of expiring social energy’. The people in the Sourcing Unit remained emotionally attached to the passionate interest of ‘we can do better at risk management’. The previous phase of risk mapping was extended to include extensive risk measurement. Three key risk metrics were developed: Supplier’s Aggregated Risk (SAR), Commercial Aggregated Risk (CAR), and Technical Aggregated Risk (TAR). These are explained in Figures 3, 4, and 5, respectively, which are adapted from GlobeTech’s internal presentation material.

The idea behind these risk metrics was not only to increase GlobeTech’s internal knowledge of its risk exposure and to consider the actions the company

FIGURE 3

SUPPLIER’S AGGREGATED RISK METRIC AT GLOBETECH

**Supplier’s Aggregated Risk (SAR)** is based on the **Supplier’s own assessment** (RFI) of recovery time (i.e. how long after stoppage deliveries can be resumed) and Supplier inventory. The aggregation is done by GlobeTech using the following algorithm:

**Aggregated Recovery Time (weeks) = Recovery Time (weeks) – Supplier inventory finished goods (weeks) – Supplier inventory semi finished goods (weeks)**

**SAR** is assigned to a **specific component** from a **specific Supplier**.

Supplier’s Aggregated Risk (SAR)	Criteria
Risk Class 1	If Aggregated Recovery Time is 0 - 2 weeks
Risk Class 2	If Aggregated Recovery Time is > 2-10 weeks
Risk Class 3	If Aggregated Recovery Time is > 10-20 weeks
Risk Class 4	If Aggregated Recovery Time is > 20 weeks

FIGURE 4

COMMERCIAL AGGREGATED RISK METRIC AT GLOBETECH

**Commercial Aggregated Risk (CAR)** is based on commercial agreements. The number of Suppliers in CONTRACT is considered, i.e. the number of Suppliers with purchase agreement.

**CAR** is assigned to a GlobeTech **Product Number**.

Commercial Aggregated Risk (CAR)	Criteria
Risk Class 1	if 2 or more Suppliers in CONTRACT or <b>Supplier's Aggregated Risk = 1</b>
Risk Class 2	If 1 Supplier in CONTRACT and that <b>Supplier's Aggregated Risk Class = 2</b>
Risk Class 3	If 1 Supplier in CONTRACT and that <b>Supplier's Aggregated Risk Class = 3</b>
Risk Class 4	If 1 Supplier in CONTRACT and that <b>Supplier's Aggregated Risk Class = 4</b>

FIGURE 5

TECHNICAL AGGREGATED RISK METRIC AT GLOBETECH

**Technical Aggregated Risk (TAR)** is based on technical approval. The number of Suppliers in GlobeTech's internal database is considered, i.e. the number of Suppliers with Manufacturing Code 'Approved' (MC=1)

**TAR** is assigned to a GlobeTech **Product Number**

Technical Aggregated Risk	Criteria
Risk Class 1	if 2 or more Suppliers in database or <b>Supplier's Aggregated Risk = 1</b>
Risk Class 2	If 1 Supplier in database and that <b>Supplier's Aggregated Risk = 2</b>
Risk Class 3	If 1 Supplier in database and that <b>Supplier's Aggregated Risk = 3</b>
Risk Class 4	If 1 Supplier in database and that <b>Supplier's Aggregated Risk = 4</b>

should take, but also to proactively use them to encourage suppliers to work systematically to manage risk. As a sourcing manager explained:

The main thing to understand here is that, previously, we [GlobeTech] had done all important work related to risk management and we mapped the risks. Now the suppliers needed to work with this as well. Therefore, we were proactive in a new way. The suppliers needed to have buffers, they needed to think about parallel supply chains, etc ... Our SAR, CAR, and TAR calculations really helped us in making these issues concrete for the suppliers ... I think we succeeded in explaining that we had prioritized this issue and that we expected our suppliers to do the same.

A purchaser said: ‘We had so many suppliers, so it was not possible to keep track of them. We needed a deeper understanding of our suppliers and the risks ... Risk mapping was not enough ... We needed to be able to influence the suppliers and work proactively with them to handle risks. For this we needed SAR, CAR, and TAR’. A representative of a foreign supplier acknowledged GlobeTech’s proactive approach:

[GlobeTech] frequently talked to us about risk management. I can give you an example of how we think about these issues now and how this is related to how customers such as [GlobeTech] interacted with us. In the past, we only kept our products at the factory where they were produced. However, we have now had a central warehouse in Japan and another warehouse in Europe for five to 10 years. Therefore, we are spreading out our inventory of the different products. This is completely driven by our customers being engaged in proactive risk management.

In summary, following the introduction of the new sourcing strategy and the half-half-half measures, the employees in the Sourcing Unit experienced a shared feeling of relief and they remained emotionally attached to the passionate interest of ‘we can do better at risk management’. The passionate imitation that started with ‘we need to imitate our main competitor’ and risk mapping continued to now be about ‘others in the organization are imitating us and our suppliers should imitate us’ and risk measurement. GlobeTech’s Sourcing Unit engaged in what it labelled proactive risk management, in which it systematically tried to influence suppliers to actively work with risk management. Still, everything was handled by the Sourcing Unit, including all contracts with external suppliers. The SAR, CAR, and TAR risk metrics were calculated and used by the Sourcing Unit in its interactions with suppliers.

*Natural Disasters in Asia: Guilt, Pride, and Proactive Risk Avoidance (2011–2015)*

By 2011, GlobeTech’s sourcing strategy had delivered. As the sourcing director explained: ‘We had achieved our three main targets: half-half-half’. Extensive risk mapping and risk measurements were in place. At this point in time, two natural disasters occurred—one in Japan and one in China. GlobeTech had suppliers operating in both countries, but it experienced only minimal business interruptions. Employees in the Sourcing Unit described this as a success for their risk management work. As the sourcing director put it:

The Japanese disaster confirmed that what we had done in terms of risk management worked well. We had such a good grasp of the situation that we could quickly identify what products might be in danger ... We contacted the suppliers 48 hours before any other competitor. We got what we needed and, at the end of the day, business was not interrupted.

The two natural disasters triggered a positive past-oriented emotion in the form of pride among GlobeTech’s Sourcing Unit staff. As one purchaser explained:

When it comes to risk management, I have never felt that anyone has worked against us in our development of risk management. However, you need energy to continue and take the next step. What can we improve in the next step and so on? This comes from specific events, such as the success in handling the business-interruption risks associated with the Japanese tsunami in 2011. Within hours, we were addressing our component delivery issues. What happened to our suppliers? Who are the alternative suppliers? This crisis hardly affected us at all. It was a success. We were *proud*. (emphasis added)

Similarly, a sourcing manager said:

We really demonstrated a good ability to perform during a major crisis. We were *proud* of this, and this feeling should not be underestimated. It is very strong and pushes us to move forward. (emphasis added)

Importantly, the Sourcing Unit's staff also emphasized that the feeling of pride was intensified because it could be compared to the strong feeling of guilt about the business interruption in 2000. As the sourcing director stated:

The feeling of guilt related to the fire in the production factory and the fact that [the main competitor] was so much better at risk management—that feeling was extremely strong at the time. More than 10 years later, it was still there. Many of us clearly remembered and still felt guilty ... This was why the feeling of relief was so strong. This time we did better than [the main competitor].

The past-oriented positive emotion of pride boosted the confidence of the sourcing staff. They remained emotionally attached to the passionate interest of 'we can do better at risk management'. The passionate imitation continued and everyone agreed that there was a need to expand the systematic way of looking at risks in the supplier base to other parts of the company, especially those at the core of the business, including product development. The Product Development Unit had high status in the company, and it was expected to focus more on technical content and timing issues than on risk-associated matters. As a sourcing manager explained:

We also need to introduce this kind of risk thinking to other areas of the company. Most other units just want to talk about risks if those risks are 100% relevant for them right now. However, if you try to discuss the risk associated with a certain component in five years, they do not care. They worry about whether they can keep their job for the coming month. Therefore, risk is not highly prioritized in other units. Often there is no awareness of the risks their actions produce.

The Sourcing Unit labelled the next step in the evolution of risk management 'proactive risk avoidance'. As the sourcing director said, 'risk management focuses on the long term, but short-term budget pressure is the reality in the individual units. Tensions [exist] all the time. How can we find motivation for risk

management in a world of constant resource scarcity? We need to be proactive or nothing will happen in the short term. Where sourcing is concerned, we are dependent on other parts of the company'. There was a need for a risk management initiative that heightened awareness of the risks at the core of the company. Proactive risk avoidance was meant to serve that purpose. As one purchaser explained: 'Now we talk about proactive risk avoidance for our own organization as well. Previously, we focused on the suppliers and their activities, but now we also focus on what we do in, for example, the Product Development Unit. For us, proactive risk avoidance is the controlling of new product development through the component library'.

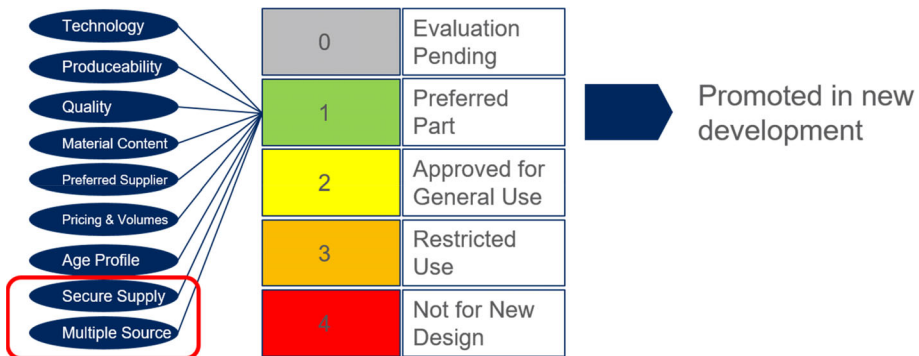
The component library (see Figure 6) was considered one of the 'bibles' in GlobeTech. It covered all components approved for use in the development of, for instance, new products. When the component library was redesigned, the two risk avoidance parameters—secure supply and the use of multiple sources—had a major impact on the new component classification system. If a component was classified as '1', it was strongly recommended for use in new product development. Components classified '0', '2', and '3' were more time-consuming to use in developing new products, as their use required certain formal approvals. Components classified as '4' could not be used in new product development.

When discussing the component library, a manager from Sourcing said the following:

It is about working with product development to ensure that we reduce the number of components for which we have risks ... We are the gatekeeper for all components used in product development. We do not include a new component in the product library unless we understand the risks. Component library management first and product development second—two steps. What is included in the component library [is decided by the Sourcing Unit]. How the components in the library should be used [is decided by the Product Development Unit].

FIGURE 6

COMPONENT LIBRARY FOR NEW PRODUCT DEVELOPMENT



Thus, through the component library, the Sourcing Unit's way of thinking about risk management also influenced the Product Development Unit. This did not involve a holistic view of risk management with cross-functional interactions and discussions. Instead, it took place through the component library, in which important risk parameters identified by the Sourcing Unit indirectly influenced another unit's freedom of choice when it came to new product development.

To summarize, once again the passionate interest endured and became vested as the third dislocal event, the natural disasters, triggered a positive emotion of pride that was shared by the Sourcing Unit employees and united them. The passionate imitation that started with 'we need to imitate our main competitor' and risk mapping, continued with 'others in the organization are imitating us and our suppliers should imitate us' and risk measurement, now in the form of 'others in the organization [more specifically the Product Development Unit] should imitate us', and proactive risk avoidance. The people engaged in sourcing took the next step in the evolution of risk management and this third dislocal event was necessary for the timely reanimation of expiring social energy (Tarde (1903, p. 210). The people in the Sourcing Unit remained emotionally attached to the passionate interest of 'we can do better at risk management'.

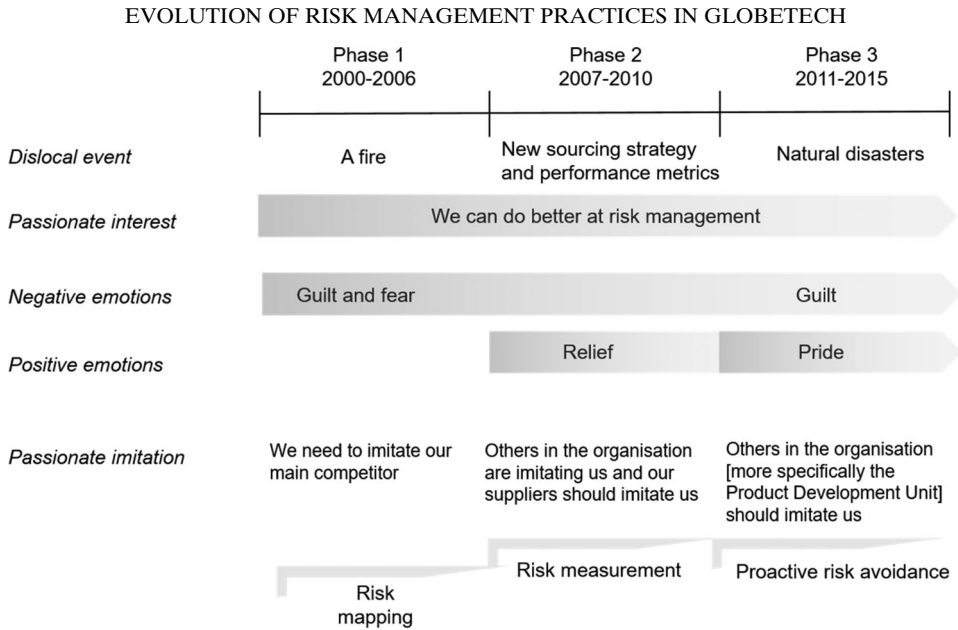
## CONCLUDING DISCUSSION

This paper traces the development of GlobeTech's risk management in three phases between 2000 and 2015. Figure 7 summarizes our main findings.

We use the work of Tarde (1903) and work by Latour (2010, 2013; Latour and Lépinay, 2009) and Baxter *et al.* (2019) to argue that the evolution of risk management may be analyzed as a process of *passionate imitation*. In this regard, our analytical attention is not focused on structural aspects and power struggles, but rather on intense emotions as reactions to a series of dislocal events (Tarde, 1903). Emotions are to be analyzed as a force with agency (Tarde, 1903, p. 146) that drives imitative behaviour related to a particular passionate interest, in our case a desire for more sophisticated risk management practices.

In the first phase, the dislocal event was a fire in a supplier's factory, which triggered negative emotions of guilt (past-focused) and, subsequently, fear (future-oriented) among GlobeTech employees. Our findings from this phase suggest the emergence of passionate imitation in the form of 'we need to imitate our competitor' and extensive risk mapping of all direct material related to suppliers. In the second phase, the introduction of a new sourcing strategy and a related key performance metric (i.e., reduce the number of single-source suppliers by 50%) was the dislocal event that triggered a shared feeling of relief that the risk management work was appreciated. In other words, a positive past-oriented emotion was shared in this phase and passionate imitation in the form of 'others in the organization are imitating us and our suppliers should imitate us' united the Sourcing Unit's employees, encouraging them to develop new risk management practices focused on extensive risk measurement. Finally, in the third phase, the

FIGURE 7



dislocat event was two natural disasters in Asia that triggered a positive emotion among GlobeTech’s staff—a strong feeling of pride. Here, the passionate imitation took the form of ‘others in the organization [more specifically the Product Development Unit] should imitate us’ and a change in risk management from risk measurement to proactive risk avoidance. Risk became an important factor when selecting components for new product development projects. Notably, however, the distinction of these developments into three phases is a simplification—relief and pride (phases 2 and 3) do not serve as a substitute for guilt (phase 1). As detailed in our empirical narrative, the feeling of guilt that the main competitor had been better at risk management continued over the three phases. Moreover, when GlobeTech subsequently performed better than their main competitor during the natural disasters in Asia, the feeling of pride was very strong because many employees still felt guilty from the component shortages caused by the 2000 fire. The pride of outperforming their competitor in the aftermath of the natural disasters in Asia thus created energy needed to further develop risk management.

Our study makes two contributions to the accounting literature. First, we build on and extend recent research that highlights the emotional aspects of riskwork (Fischer and Ferlie, 2013; Guénin-Paracini *et al.*, 2014; Jordan *et al.*, 2013; Mikes, 2016; Power, 2016; Vinnari and Skærbæk, 2014). We add to this discussion by analyzing the trajectory of risk management practices as a process of passionate imitation. As noted by Tarde (1903), it is not possible to determine in advance

what forms of passionate imitation will occur; they can only be recognized retrospectively. We found three forms of passionate imitation: it started in the form of ‘we need to imitate our main competitor’ and risk mapping, then continued in the form of ‘others in the organization are imitating us and our suppliers should imitate us’ and risk measurement, and then continued in the form of ‘others in the organization [more specifically the Product Development Unit] should imitate us’ and proactive risk avoidance. Emotion becomes a focal point of analysis in our attempt to understand the imitative behaviour. Our findings suggest that emotions, like guilt and fear in the first phase, relief in the second phase, and pride in the third phase, united GlobeTech’s sourcing staff and linked them to a particular passionate interest—the desire for more sophisticated risk management practices. Triggered by dislocal events in the form of the fire, natural disasters, and new performance metrics, emotions served as strong forces that provided energy to the whole group during the imitative risk management process, thereby influencing its outcomes. Interestingly, as suggested by Tarde, the force of negative emotions (in the first phase) was as powerful as the force of positive emotions (in the second and third phases), while the strength of past-focused emotions (guilt, relief, and pride) was as powerful as the future-oriented emotion (fear). Risk management, emotion, and management controls were intertwined as performance measures played a key role in the series of dislocal events. This ties into the discussion of whether risk technologies are developed as stand-alone technologies or as part of management controls (see Tekathen, 2019). Previous studies have found examples of risk management being integrated with budgeting practices (Arena *et al.*, 2010; Giovannoni *et al.*, 2016); planning, performance measurement, and economic capital allocation (Giovannoni *et al.*, 2016; Mikes, 2009); scenario analyses (Hall *et al.*, 2015; Mikes, 2009; Tekathen and Dechow, 2013); and project management (Jordan *et al.*, 2013). Such research points to various explanations of why risk management and management controls may—or may not—connect, but it does not encompass emotions within those explanations. In our study, when one of the three key metrics top management singled out for the Sourcing Unit—reducing the number of single-source suppliers by 50%—was clearly a risk-related metric, the employees felt a strong sense of relief, which gave rise to a desire to develop new risk management practices that included extensive risk measurement. In this regard, the analysis of performance metrics in connection with emotions and passionate imitation also enhances our understanding of the interactions between risk management technologies and management controls, as called for by numerous scholars (see Arena *et al.*, 2010; Bhimani, 2009; Mikes, 2009; Soim and Collier, 2013; Van der Stede, 2011).

Our second contribution goes beyond the domain of ‘accounting and risk management’ as it relates to the more general debate about accounting and its entanglement with emotions. Some field research has begun to analyze the connection between accounting and emotion as an organizational (rather than an individualized) phenomenon (Baxter *et al.*, 2019; Boedker and Chua, 2013; Bourmistrov and Kaarbøe, 2013; Carlsson-Wall *et al.*, 2016; Chenhall *et al.*, 2017; Taffler *et al.*, 2017). However, the focus has mostly been on deeply rooted



passionate interests, such as winning the league and preserving the football family in football clubs (Baxter *et al.*, 2019; Carlsson-Wall *et al.*, 2016), ensuring ‘rationality’ in fund management and investment processes (Taffler *et al.*, 2017), and meeting the needs of beneficiaries (Chenhall *et al.*, 2017). As noted by Baxter *et al.* (2019, p. 38), less is known about the ‘birth’ of a particular passionate interest and the reasons for durability of passionate interests. In our GlobeTech case, we detail the ‘birth’ and endurance of the passionate interest ‘we can do better at risk management’. Following Tarde (1903), the ‘birth’ can be explained by analyzing how imitative behaviour is triggered by a dislocal event. The birth of the passionate interest was explained by a dislocal event (the fire) triggering emotions—in this case a negative past-focused emotion (guilt) and a future-oriented negative emotion (fear)—which drove the passionate imitation that united the Sourcing Unit’s employees in prioritizing the development of appropriate risk management practices. As demonstrated in our study, there was imitative behaviour to work with risk management in the same way as the main competitor to be at least as good (fast), and preferably better (faster), in reacting to an incident such as a fire. The endurance of a passionate interest can be explained by analyzing how imitative behaviour emerges as a result of a series of dislocal events (Tarde, 1903). The second dislocal event, the new sourcing strategy and the accompanying new risk-oriented performance metric, triggered a positive past-oriented emotion of relief that was shared by the Sourcing Unit employees and united them. The passionate imitation, now in the form of ‘others in the organization are imitating us’, meant that the people engaged in sourcing took the next step in the evolution of risk management within the unit. This second dislocal event was what Tarde (1903, p. 210) called a ‘fresh source ... necessary for the timely reanimation of expiring social energy’. The passionate interest of ‘we can do better at risk management’ endured. Thereafter, the third dislocal event, the natural disasters, triggered a positive emotion of pride that was shared by the Sourcing Unit employees and united them. The passionate imitation now in the form of ‘others in the organization [more specifically the Product Development Unit] should imitate us’ made the people engaged in sourcing to take the next step in the evolution of risk management. Once again, the necessary social energy (Tarde, 1903) was created and the people in the Sourcing Unit remained emotionally attached to the passionate interest of ‘we can do better at risk management’.

In terms of future research, we see a need for studies that further analyze the connections among emotions, performance metrics, and risk management practices. In GlobeTech, interviewees emphasized emotions. As such, they may have downplayed the structural and political aspects of riskwork. Hence, a deeper, more holistic understanding of the evolution of risk management practices would require a joint investigation of how the structural, political, and emotional aspects of riskwork combine in various ways as risk management practices evolve. In addition, more research is needed on the interconnections between risk management and management control tools. Our findings highlight the key role played by the Sourcing Unit’s performance measurement system. Other

management controls are likely to be important in other settings. For instance, the link between capital budgeting techniques, such as net present value analyses and internal rate of return calculations, and riskwork warrants further investigation. Our study also has important implications for the study of management accounting change in general. Andon *et al.* (2007) divide the ongoing research agenda into studies exploring the preconditions, processes, and organizational consequences of accounting change. But emotions are often not at the core of such analysis. What are the passionate interests in the organizations that are subject to accounting change? What are the imitative behaviours? How is the 'birth' and endurance of passionate interests linked to accounting change? Here the work of Tarde (1899, 1903) may continue to play an important role for further theorizing the emotional aspects of accounting change.

Future studies could also try to overcome some of the methodological limitations of the current study, which is an *ex-post* reconstitution of the evolution of risk management practices over an extended period of time that is primarily based on interviews. This study had a known outcome (i.e., proactive risk avoidance) and could focus on retrospectively tracing the patterns that led to that outcome. As noted by Hoholm and Araujo (2011, p. 935), 'an altogether different challenge is to ride the waves of history without the foggiest idea of where they may be heading. In summary, multi-finality (the possibility of multiple endings) is always a concern for the embedded, real-time researcher'. Even though we crosschecked our findings by comparing interviews from a large number of actors and complementing them with information found in internal and external documents, there is a risk of *ex-post* rationalization and, therefore, an overly linear and narrow view of the evolution of risk management. As such, there is significant potential for future studies to contribute to our knowledge about risk management and its entanglement with emotions, possibly by employing real-time ethnographic tools. We also had access mainly to those people in the Sourcing Unit at GlobeTech who were confronted with risk. No doubt other managers at GlobeTech, for instance the top management, also reacted strongly to the fire and had opinions on risk management. The interviewees from the Sourcing Unit did not refer to such reactions during our conversations but it would be interesting for future studies to take a broader perspective on emotional riskwork and include perspectives from: a) those directly confronted with risk management; b) those more distant from the dislocal event; and c) top managers with a broader and more holistic view of the organization.

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