

## **Total Exposure Management: Enterprise Risk Management, Organizational Resilience and Change Management**

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### **Abstract**

Two decades passed since the pioneering work embodied in the AS/NZS 4360 Risk Management Standard, and in spite of the refinements offered by the subsequent COSO and ISO 31000 frameworks the concept of enterprise-wide risk management remains an elusive target. Business organizations continue to hope to transform the historically cost containment-focused risk management efforts into a true source of competitive advantage, but obstacles remain. Key among those impediments is the continued fragmentation of organizational adversity abatement efforts, where known risks focused risk management, unknown threats oriented organizational resilience and self-imposed transformations minded change management continue to function as three stand-alone research disciplines and organizational practice areas. The research described here proposes that combining those three now-distinct disciplines into a single, Total Exposure Management framework, with the goal of moving toward transforming the practice of broadly defined organization-wide risk management into a source of competitive advantage.

**Keywords:** Enterprise-wide risk management; organizational resilience; risk management as competitive advantage; total exposure management; change management; risk assessment; ERM; DRR; BCM

**1. Managing Organizational Adversities: No One Approach Does it All** The notion of ‘risk’, as used in everyday business vernacular, communicates the possibility of adverse or otherwise undesirable events (ISO 31000, 2009; Moran, 2014). Given the desirability of proactively addressing potential adversities, business organizations rely on structured, systemic processes to manage their exposure to risk (DeLoach, 2000; Young, 2001). Known as risk management, those processes typically entail numerous activities that can be grouped into identification of distinct risks, assessment of each identifiable risk and selection of appropriate risk-specific responses (Lam, 2014; Marchetti, 2012).

Given its long history (see Figure 2 below), it is not surprise that the notion of ‘risk management’, as a subject of theoretical research and practical applications alike, can take on different, context-shaped meanings. For instance, business organizations routinely manage already-known risks, prepare for not-yet-known threats, attempt to adapt to changing trends and seek to take advantage of emerging business opportunities. Though all of those activities entail protecting organizational assets, in practice only some fall within the scope of organizational risk

management efforts (Bromiley et al., 2014; COSO, 2004; ISO 31000, 2009), while others are treated as stand-alone activities. In the course of the last couple of decades three distinct, threat abatement focused disciplines emerged: 1. risk management, focused on minimizing the impact of known risks; 2. organizational resilience, focused on reducing vulnerability to unknown (i.e., not estimable) threats; and 3. Change management, concerned primarily with maximizing the benefit of emerging opportunities.



Figure 1: Distinct Disciplines Focused on Organizational Exposure Management

Management activities that aim to bring about minimization of the impact of known risks are built around reduction, mitigation and transfer of those risks (Hampton, 2011; ISO 31000, 2009; Lam, 2014); those aiming to reduce vulnerabilities to unknown threats are built around training, contingency planning and response infrastructure development (Engemann & Henderson, 2012; Fleming, 2012; Sheffi, 2005); lastly, activities that support self-mandated and self-guided transformations are focused on balancing the dangers and the benefits of strategic and tactical transformations (Andersen, Garvey & Roggi, 2014; Clarke & Varma, 1999; Iverson, 2013; McPhee, 2014).

Does the three-pronged approach to managing the totality of organizational exposures, graphically illustrated in Figure 1, fulfil the promise of enterprise-wide risk management advocated by researchers (e.g., Duckert, 2011; Lam, 2014; Marchetti, 2012), industry associations (CAS, 2003; COSO, 2004), ratings and standards organizations (ISO 31000, 2009; Standard & Poor's, 2012), and business organizations themselves? Can the pursuit of the threepronged organizational adversities management strategy give rise to competitive advantage? The goal of the ensuing analysis is to address these important questions and make forward-looking recommendations, starting with a brief outline of the genesis and the scope of each of the three organizational adversity abatement focused disciplines.

### 1.1 Risk Management

The efforts of manage risk in commercial setting have a long and distinguished history, going as far back as 2,000 BC. However, as graphically depicted in Figure 2, it was not until the 17<sup>th</sup> century that the contemporary notions of speculative risk transfer (Dionne, 2013; Groome, 2006; Lakdawalla & Zanjani, 2012) and risk pooling (Eynan & Fouque, 2003; Kang & Kim, 2012; Lee and Ligon, 2001) began to emerge, ultimately giving rise to insurance marketplace and alternative risk financing mechanisms. The modern practice of *risk management* began to take shape around the same time; originally focused on sea shipping, the management of risk expanded to property following the Great London Fire and then onto other aspects of commercial endeavour. Today, the theory and practice of risk management extend into natural disasters (Dilley, 2005), man-made crises (Regeher & Larkin, 2008) and liability (Gormley & Matsa, 2011; Hatlie, 1989), as well as endeavors, such as healthcare (Mansell, 2007; Young, 2001), banking and finance (Bessis, 2010; Hampton, 2011; Horcher, 2005), security and crisis management (Carrel, 2010; Nature, 2014), outdoor recreation (Jordan, 1996), project management (PMI, 2009), information infrastructure maintenance (Moran, 2014; Myerson, 1999), communication (Johnson, 2012), and numerous others. It is also not surprising that, from the standpoint of organizational risk management, the management of multiplicity of risks can be approached holistically, a practice that has come to be known as enterprise risk management (ERM) (COSO, 2004; ISO, 2009; Lam, 2014; Louisot, 2014; Taylor, 2014).

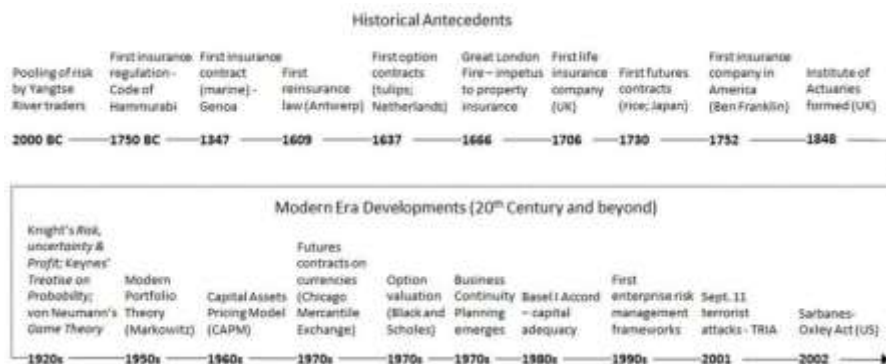


Figure 2, Risk Management Timeline

Historically, business organizations approached the management of risk as an expense minimization function, aiming to secure the greatest amount of risk protection for the lowest possible cost (Eckles, Hoyt & Miller, 2014). In fact, even the state-of-the-art ERM practices (Bromiley et al., 2014; Duckert, 2011) are still primarily focused on risk economics (Marchetti, 2012), which is best evidenced by leading ERM frameworks' emphasis of reduction, mitigation and transfer of known risks (COSO, 2004; ISO 31000, 2009; Tapiero, 2013). Although it is difficult to dispute the rationale of seeking cost savings, in the age of ever-greater volatility and rapidly proliferating risks (Kotler & Caslione, 2009; McPhee, 2014), such mindset may ultimately

diminish firms' competitiveness as it overemphasizes known downside risks, while largely sidestepping unknown threats and upside risks (Banasiewicz, 2014).

As the 'gold standard' in contemporary organizational risk management, ERM is built around a standard, stepwise process of identification, estimation, mapping and response (Banasiewicz, 2014), and it aims to enhance the efficiency and the efficacy of risk management decisioning through coordination of the management of multiple, diverse threats confronting the organization. However, as a subject of theoretical research, enterprise risk management is still in its infancy: Its earliest formal conceptualizations only date back to 1990s (AS/NZS 4360 Risk Management Standard, 1995; Banham, 1996; Berry & Phillips, 1998; Cannon, 1999), though the bulk of the formative work took place in the first decade of 2000s (CAS, 2003; COSO, 2004; DeLoach, 2000; Duckert, 2011; ISO 31000, 2010; Lam, 2014). Hence the very conception of ERM continues to evolve – some influential sources define risk independently of firm objectives (e.g., Standard & Poor's, 2012), while others define it as a by-product of firm objectives (e.g., COSO, 2004). Overall, as recently pointed out by Bromiley and his colleagues (Bromiley et al., 2014), the past decade of ERM-focused research is starting to yield some consensus, namely:

1. ERM assumes that managing a portfolio of risks is more efficient than managing each risk individually – it is like managing one's stock portfolio, where the goal is to maximize the total return on the overall portfolio;
2. ERM incorporates (traditionally) known risks, such as accidents or product liability, and unknown risks, such as product obsolescence or competitor actions; also, it encompasses downside as well as upside threats;
3. The goal of risk management is to exploit downside threats as well as upside threats and opportunities in a manner that makes positive contribution to the firm's competitiveness;

Still, in spite of its all-inclusive sounding label, the application of enterprise risk management has been limited to known risks with well-defined statistical properties (Bromiley et al., 2014), which leads to a systematic exclusion of a wide array of hard to quantify and emerging threats. Picking up the 'slack' created by risk management's selective focus, the disciplines of organizational resilience and change management emerged to help organizations deal with adversities that are not expressly included in the 'traditional' approach to risk management.

## **1.2 Organizational Resilience**

Another, though largely separate set of efforts addressing potential organizational adversities is the emerging discipline of *organizational resilience* (OR). The general notion of 'resilience' has its roots in ecology, where it is defined as the capacity of an ecosystem to respond to a disturbance by resisting damage and by recovering quickly (Guillaume & Nigel, 2011; Ungar, 2012). Hence in contrast to risk management which focuses on shielding organizations from known, undesirable events, organizational resilience is focused on developing capacity to absorb and 'bounce back' from adverse events (Engemann & Henderson, 2012; Sahebjamnia, Torabi & Mansouri, 2015). Stated differently, as graphically illustrated in Figure 1 above, OR is primarily

concerned with reducing organizational vulnerability to largely unknown – in the sense of estimability – threats, primarily natural and man-made crises, disasters and emergencies.

In contrast to risk management, which as discussed earlier evolved over multiple centuries, organizational resilience, as a research and applied area, is comparatively new. In fact, the discipline can be seen as an evolutionary amalgamation of two previously distinct disciplines of disaster risk reduction (DRR) and business continuity management (BCM) (Sahebjamnia, Torabi & Mansouri, 2015; Shaffi, 2005). Consider figures 3a and 3b, which show a high development timeline of DRR and BCM, respectively.



Figure 3a  
 Organizational Resilience Timeline: DRR Dimension



Figure 3b: Organizational Resilience Timeline: BCM Dimension

While disaster risk reduction, as a somewhat organized endeavour, emerged a few years prior to business continuity management, both DRR and BCM essentially came of age in the course of the past four decades. As suggested by figures 3a and 3b, the impetus for disaster risk reduction came out of the rise of global efforts to mitigate the impact of disasters and catastrophes (Carrel, 2010; Moran, 2014), while the growing dependence of businesses and governments on electronic communication and data infrastructure provided the motivation for business continuity management (Doefel, Chewning & Lai, 2013; Fleming, 2012; Kantur & Arzu, 2012).

### 1.3 Change Management

A still more recent discipline that addresses yet another dimension of managing organizational adversities is *change management* (CM), which first emerged in the 1980s as a consulting service helping large (i.e., Fortune 50) companies realize cost savings through more efficient implementation of new programs and technologies (Grote & Kunzler, 2000; Stare, 2011). Since then, the initially applied notion blossomed into an extensive body of intellectual work addressing a spectrum of topics dealing with the management of change in an organizational setting. The resultant theoretical work can be grouped into how-to comprehensive guides (e.g.,

Baca, 2005; Franklin, 2014; Green, 2007; Smith, 2015; Zavoina, 2006), conceptual overviews (e.g., Beerel, 2009; Liu, Akram & Bouguettaya, 2011), case illustrations (e.g., Bedell, 2010; Nannery, 2002; Franckeiss, 2012; Thomases, 2013; Tower Watson, 2012), ), impact assessment (Raineri, 2011) and new approaches and techniques (e.g., Garrow, 2012; Pearce & Osmond, 1996; Wiley, 2012; Wilson, 2012).

Endemic to the essence of managing change is that unlike risk management and organizational resilience, both of which are focused on diminishing the impact of undesirable events, the goal of change management is to maximize benefits presented by emerging or evolving trends and innovations (see Figure 1). Focused on intentional and directed organizational transformations, and considered a source of opportunity (rather than threat), CM is often considered tangential, but distinct from the traditionally-defined risk management efforts (Pearce & Osmond, 1996; Stare, 2011). However, considering that, under most circumstances self-imposed transformation disturbs organizational status quo, the impact of such transformation or change is conceptually similar to that of a crisis or a disaster. Thus although change can be ultimately beneficial to the organization, it also poses significant threats which need to be managed like all other organizational adversities (Lynch, 2008), which suggests that change management should be a part of a larger organizational danger abatement process.

## **2. Putting it All Together: Total Exposure Management**

More than two decades passed since the idea of jointly managing the totality of risks confronting organizations began to be implemented by forward-thinking business organizations; nowadays the compelling logic of enterprise-wide risk management is widely accepted by practitioners and theoreticians alike. That being the case, how does one explain the emergence and growth of three distinct disciplines focused on different aspects of organizational adversity: risk management, organizational resilience and change management? Even more importantly, is the embrace of such a three-pronged approach conducive to business organizations transforming their broadly defined adversity abatement efforts into a source of competitive advantage?

First and foremost, all three disciplines described here are ultimately focused on assuring the well-being of organizational assets; however, each of the disciplines plays a noticeably different role in that overall effort. Risk management, including ERM, is focused on identifiable and estimable events that can adversely impact organizational assets or its well-being; as shown in Figure 1, its goal is to choose a response option that will minimize the impact of those events. Within that context, the idea of enterprise-wide risk management is thus effectively limited to events that exhibit mathematically-sufficient recurrence and impact characteristics. Organizational resilience, on the other hand, is focused on identifying and remedying vulnerabilities to events that are principally unknown, or highly uncertain, in the sense of likelihood of occurrence and/or the severity of impact. Thus although risk management and organizational resilience both can be conceptualized as mechanisms for protecting organizational assets against potentially adverse, speculative events, the role of the former is to act as a 'shield' that can deflect undesirable consequences, while the role of the latter is to create a 'buffer' capable of absorbing potential shocks, as graphically shown in Figure 4.

The role of the last of the three organizational adversity-focused disciplines – change management – is noticeably different in terms of its end objectives (although it shares the same core objective of assuring organizational well-being). To use sports analogy, to the degree to which risk management and organizational resilience can be seen as ‘defensive’ endeavours, change management can be seen as an ‘offensive’ function. That is because the driving force behind self-imposed organizational transformations, which are the typical focal points of change management efforts, is the desire to realize cost savings and/or revenue gains through adaption of cutting edge practices and technologies.



Figure 4: Total Exposure Management: Roles and Responsibilities of Component Disciplines

At the same time, however, organizational transformations disturb the structure and the inner-workings of organizations, creating potential for adverse consequences, not unlike natural disasters or man-made crises. All considered, to manage the *totality* of potentially adverse events and developments in the manner contemplated, though not yet fully delivered by enterprise-wide risk management efforts organizations need to amalgamate the three prongs of their assetprotecting efforts, depicted in Figure 4, into a singular *total exposure management* framework. Doing so will enable firms to coordinate their adversity-abetment efforts to more effectively and efficiently respond to know risks, prepare to absorb the impact of unknown threats and better manage self-mandated organizational transformations.

## 2.2 The Evolutionary Perspective

The rationale underlying the Total Exposure Management (TEM) conceptualization described here can be seen as an evolutionary consequence of the successively broader and

progressively more interconnected sets of activities focused on protecting organizational wellbeing, graphically depicted in Figure 5.

From the standpoint of a ‘typical’ business organization, the period before, and immediately following World War II was characterized by sporadic risk management activities, where some risks were managed on as-needed basis. The growing realization of the importance of protecting at least the key organizational assets resulted in the shift to programmatic management of risk, along with the emergence of two new disciplines of DRR and BCM. Realizing the inefficiency of silo-minder risk management yielded the next evolutionary changes: the emergence of ERM, the amalgamation of DRR and BCM into a broader, organizational resilience framework, and the emergence of yet another, organizational wellbeing focused discipline: change management. The next step in this evolutionary march is that of combining of enterprise risk management, organizational resilience and change management into a single framework of Total Exposure Management, proposed in this research.

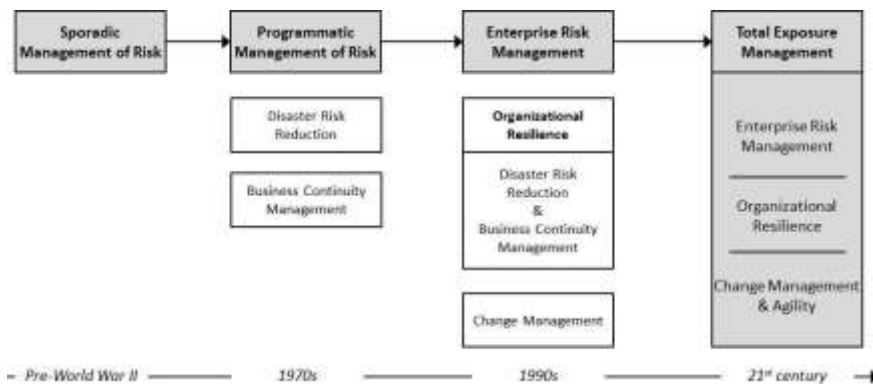


Figure 5: Total Exposure Management: The Evolutionary Perspective

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