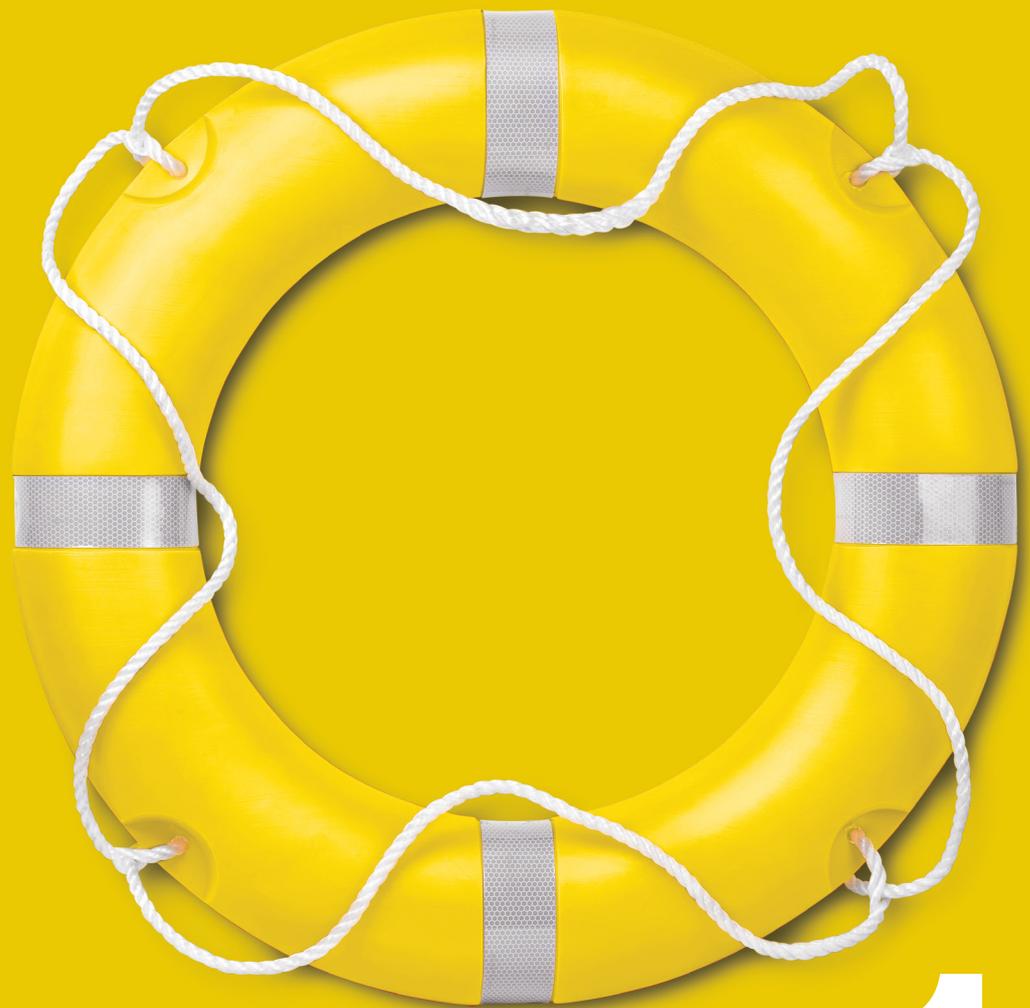


The Risk Cycle



1

The Importance of Managing Risk

Risk is commonly understood as a possible harm, hazard or danger that can be managed, if the likelihood of it occurring and the nature of its effect can be accurately anticipated.

Organizations often produce harms and hazards that endanger *others* – employees, other stakeholders or even society at large – when their activities generate significant financial, health or environmental risks. At the same time, organizations also expose themselves to regulatory, legal, reputational and operational risks through their activities.

Consequently, organizing risks by identifying them and deciding how to deal with them before, during and after they materialize is of critical importance to any organization. But is risk management, as it is currently conceived and applied, up to the task?

The Organizational Risk Cycle

A weakness in organizational research is the inability to give a *complete* picture of how organizations actually deal with risk. Specifically, research has failed to deal with the complexity of risk. Existing work on risk has developed in three almost entirely separate streams, each dealing with a single mode for organizing risk.

Focusing on a single mode, however, will not help organizations that need to organize risk across multiple modes. So we have developed an integrated framework encompassing the organizing of risk in three modes (Figure 1): Preparing (prospectively), Acting (in real time), and Investigating (retrospectively).

The first mode for organizing risk occurs **prospectively** by using formal techniques to predict and assess harms, hazards and dangers before they arise, with a view to preventing them.

Organizations also face imminent dangers when risks begin to materialize, often unexpectedly and unpredictably. The second mode for organizing risk occurs **in real-time** by implementing predetermined plans, scripts and protocols to control risk incidents and contain their consequences.

Finally, risk is also organized after an event **retrospectively** through inquiries, hearings, and post-hoc analyses of incidents where risks have materialized, with the intention of reviewing and revising approaches in order to improve how risk will be organized in the future.

Distinguishing features of each mode are shown in Figure 2.

Figure 1:
The Organizational Risk Cycle



The Prospective Mode

The prospective mode of organizing of risk **prepares** for risk. It anticipates future negative outcomes using sophisticated techniques such as quantitative modeling and scenario analysis. Based on the scientific discipline of risk analysis, this mode is a technical, mechanical one focusing on *what will happen* by identifying, measuring and evaluating possible outcomes.

The prospective mode for organizing risk is prominent in many industries, including finance and insurance, energy, chemicals and mining. However not all risks are suited to the precision and quantification of the prospective mode, as some of them are too complex for such a linear approach. Society now faces new ‘man-made’ risks on a global scale that cannot be calculated due to high levels of connectivity and systemic effects.

Figure 2:
Three Modes for Organizing Risk

Mode	Space and time	Focus	Goal	Practices	Knowledge
Prospective: Prepare	Distant, future	What will happen?	Predict, prevent	Calculate, model	Scientific, technical
Real time: Act	Immediate, present	What is happening?	Control, contain	Monitor, implement	Managerial, operational
Retrospective: Investigate	Distant, past	What did happen, and should have happened?	Review, revise	Investigate, recommend	Forensic, future

The sudden emergence of unexpected hazards shows that the prospective organizing of risk is never fully adequate, as the tsunami that swept over Fukushima, Japan in 2011 clearly shows. Other examples include the 2008 global financial crisis (GFC), 9/11, the Ebola crisis, and the SARS epidemic. In these cases, possible future risks that had been considered to be predictable and manageable were not.

When unpredictable, unmanageable risks like these begin to materialize in the here and now, another mode for organizing risk has to be employed. Organizations have to move into the next mode of organizing risk whether they like it or not.

The Real-Time Mode

The second mode for organizing risk occurs in real-time, as individuals are obliged to take **action**. It focuses on *what is happening* and involves enacting scripted responses, plans, and protocols to address risks as they are materializing. For example, when SARS broke out in Canada, a predetermined infection control procedure was put into place in hospitals, overruling usual hospital routines.

The prospective and real-time modes for organizing risk each apply knowledge derived from the past in order to manage the future and the present respectively (see Figure 2). However there are significant differences.

When taking action in the real-time mode, risks must be managed in a specific time and place in which the risk is materializing, rather than in a hypothetical future, as is the case with the prospective mode.

The immediacy of the materializing risk also means an individual assessing the risk may often end up being harmed by it. For example, in the case of the GFC, many managers who failed to accurately assess risks lost their jobs. In the case of Fukushima, employees at the nuclear facility put their lives on the line to contain the radiation. In contrast, the scientific or technical experts who calculate prospective risk typically are separated in space and time from possible harms and do not bear them.

As with the prospective mode, the real-time mode is often inadequate in controlling and containing risks. Once they start to materialize, risks may deviate from expected trajectories, sometimes with catastrophic consequences as described in the following examples of the 2008 GFC and the 2011 Fukushima disaster.

Example 1

In the GFC, subprime lending coupled with failure to accurately assess risk led to a global crisis with a negative impact of significant proportions. Assets were lost to the tune of US\$4 trillion and more than twice that was paid in bailouts. Reverberations were felt around the world in job losses and a recession affecting as many as 200 million people.

Example 2

In the Fukushima disaster, the risk of an earthquake had been anticipated, and only 230 lives were lost due to it. Yet the wall of water that shortly after swept over the Fukushima district, including the power plant, killed more than 15,000 people as no one had anticipated that a tsunami of such magnitude would occur and breach the inadequate, but regulatory compliant, fortifications.

In the case of the GFC, organizations failed to appreciate the risks associated with the ongoing sale of mortgage-backed securities. The negative effects escalated, taking on global proportions and affecting countries around the world. In the case of the Fukushima disaster, TEPCO's plans for dealing with a reactor meltdown in the case of a tsunami were clearly inadequate and failed to bring the nuclear plant under control. In the end, it was improvising by employees, including deviating from their training, which stabilized the situation. In both cases, prospective and real-time organizing proved to be totally inadequate to manage the risks.

The Retrospective Mode

Precisely because the prospective and real-time organizing of risk is never fully adequate, risk must also be organized retrospectively. After damage, losses or disasters have occurred, individuals are typically brought in to **investigate**: to establish and adjudicate what has happened and who was responsible, as well as to identify corrective actions for organizing risk more effectively in the future. Typically, adjudicators construct a single, coherent narrative with the help of experts, even if witnesses' accounts of do not agree, in order to satisfy diverse stakeholders. These stories serve to calm fears by explaining *what did happen* and to attribute responsibility and blame by describing *what should have happened*.

Unfortunately, even though such reviews are supposed to be a means of learning about risks and their management, they rarely result in fundamental change, because true learning requires owning up to past mistakes and questioning existing systems in a fundamental way. As a result, systems are rarely radically changed and past mistakes are likely to be repeated in the future.

Avoiding Failure in the Risk Cycle

The risk cycle can easily become one of failure – failure to prepare for risk prospectively leads to risks materializing. The failure to act effectively in real-time and contain risks as they materialize leads to the need to organize risks retrospectively. Finally, the failure to learn means that mistakes of the past are repeated, as the following examples show.

Example 3

The Financial Crisis Inquiry Commission (FCIC) was set up to investigate the causes of the crisis in order “to understand how the crisis could have been avoided”, and to bring Wall Street to account – it was “an attempt to record history, not to... allow it to be rewritten” (FCIC, 2011: xv). Despite concluding that “the captains of finance and the public stewards of our financial system ignored warnings and failed to question,

understand, and manage evolving risks”, little changed. Two years after: “the federal government intervened in an unprecedented manner in our financial markets, our... financial system is, in many respects, still unchanged from what existed on the eve of the crisis. Indeed... the US financial sector is now more concentrated than ever in the hands of a few large, systemically significant institutions” (FCIC, 2011: xxvii).

Example 4

The parliamentary inquiry established to examine the Fukushima disaster blamed the company, regulators and the government. The workers who helped prevent a meltdown – the ‘Fukushima 50’ – waited more than 18 months for the government to acknowledge them. Even then, many refused to give their names – some because of fear of stigmatization for having been involved in the disaster and others because of muzzling by TEPCO. Despite nuclear reactors being taken off-line after the accident, Japan still plans to return to nuclear power despite critics saying it is not well prepared to manage the risks.

Many of the economic problems caused by the GFC have been compounded by financial institutions that treated the resulting recession as ‘normal’; while the immediate backlash against nuclear power after the Fukushima disaster was short-lived and the expansion of nuclear power has reappeared on the political agenda, despite evidence that the country is not well positioned to manage the associated risks. In neither case is there much evidence of systemic change to avoid risks in the future.



Organizing a Robust Risk Cycle

In summary, common difficulties arise for leaders and managers in all three modes:

When organizing risk prospectively, it is difficult to address unfamiliar risks where information is unavailable, uncertain and ambiguous, as well as systemic risks where information is complex, contingent and contradictory.

When organizing risk in real-time, it is difficult to deal with risks that materialize unpredictably and deviate from expected scenarios.

When organizing risk retrospectively, it is difficult to produce significant changes to future organizing of risk when there is pressure to conform.

Effective risk management is more important today than ever before. The key is not doing more of the same, because over-confidence in and over-reliance upon prevailing risk assessment and management practices actually fuel failure in the risk cycle

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For further information and references, please see: ‘Organizing Risk: Discourse, Power and Riskification’ by C. Hardy & S. Maguire, *Academy of Management Review*, 41(1): 80–108, 2016.

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FCIC, 2011: *Final report of the national commission on the causes of the financial and economic crisis in the United States*. Washington, DC: U.S. Government Printing Office.

Learning points

Here are six suggestions for making risk management in your organization more robust and integrated:

1. Recognize that there are three modes for organizing risk – prospectively, in real-time and retrospectively – and that *each* is important.
2. Identify and monitor the various risks to which your organization is exposed: what is the appropriate mode for organizing each of them? Do you have measures in place to allow you to prepare *and act and investigate*?
3. Avoid being too confident in the ability of existing risk knowledge to address all risks effectively. Recognize that this knowledge is always limited and that the risks that your organization needs to manage will not always be familiar ones or ones that materialize predictably.

4. Consider whether the prospective mode is receiving most of your managers’ attention and resources. Are you so locked into strategies to avoid risk that your organization would not be able to adapt if a risk materialized unexpectedly? If so, how can you ensure that your organization is flexible enough to adapt to a materializing risk?

5. When a risk incident does arise, convert it into an opportunity. Carry out a thorough review. Make sure you investigate it with a critical eye. Be prepared to make transformational change to your organization in how it organizes risk. Develop processes that will apply the lessons learned from investigating risk into new ways of preparing for risk to ensure your organization can transition into a new and more effective risk cycle.

6. Recognize the need to continually question the information and protocols that you use to identify and manage risks and be prepared to make fundamental changes to your organization’s approach to risk management when necessary.