

Resilience and risk management

Dahms argues that compliance against a universal set of rules reduces resilience.

PAPER ORIGINALLY PRESENTED AT THE 2009 EMERGENCY MANAGEMENT PUBLIC AFFAIRS CONFERENCE

ABSTRACT

This paper does not support the widely held view that the recent global financial crisis was caused by a failure of conventional risk management and that risk management be replaced by a new process called 'organisational resilience'. It argues that the failure is one of implementation, not the risk management process itself. Further, using complex adaptive theory the paper demonstrates that resilience and sound corporate governance are states of being resulting from the effective management of risk as set out in ISO 31000:2009, not processes. This paper is a revised extract from Dahms 2009¹.

Underpinning these issues is the reliance, at least in the United States, on guidance from the Committee of Sponsoring Organizations of the Treadway Commission's (COSO) ERM Framework². The shortcomings of COSO ERM include its: size and lack of clarity; focus on negative impacts, internal control and compliance, mostly financial; focus on reporting risks rather than managing them; and lack of practical guidance for implementation of an effective system of risk management³.

All of the above indicate that risk management as a concept has been profoundly misunderstood and misapplied rather than any failure of the concept itself. The current push by some for organisational resilience to replace risk management compounds this problem, and relies on an inaccurate definition of resilience.

This paper takes the view that any organisation with effective risk management practices will also have sound governance and be resilient.

In the following discussion where the word board is used it is meant as the governing body, which can be any private sector company board, a university council, a local government council, a statutory body board, a single person in charge of a public sector department and so on.

Introduction

Much public analysis and finger pointing has occurred in an attempt to identify the triggers for the recent global financial crisis. Two related but incorrect assertions have emerged from this process. One is that conventional risk management has failed. The second is that organisational resilience, supported by corporate governance and risk management, is the new assurance process for promoting business success.

It is clear from a majority of the public analysis that the causes of the global financial crisis are complex. Those relevant to this paper include failures in legislation, regulation and governance practices. Running through all of these issues is the failure to understand and apply sound risk management principles by legislators, regulators and those elected or paid handsomely to know better. Distillation of the public analysis provides a number of examples to support this view.

The focus of risk management was on funding risks rather than managing them. There was an increased reliance on computer modelling without sufficient attention to past events, the value of human judgement or allowance for future events. In some cases those charged with making critical decisions unquestioningly relied on the judgement of rating agencies, thus abrogating their fiduciary obligations.

Paradigms

The paper sets out 8 paradigms. In the first, complex adaptive theory is borrowed from evolutionary biology to present a definition of resilience that sees it as a state of being rather than a process. The paradigms that follow illustrate how risk management may be integrated and leveraged to achieve resilience. The clear message from the paradigms is that compliance with a set of rules will not deliver sound governance and resilience, and that everything is interconnected in a constantly changing environment.

Resilience

Resilience expresses the capability of an organisation or its parts to respond quickly to uncertainty. The following paradigm examines the complex nature of uncertainty, and the reasons driving this complexity, to form a new definition of resilience.

Paradigm 1: Resilience is a destination not a journey.

The claim that organisational resilience, supported by corporate governance and risk management, is the new assurance process for promoting business success is incorrect on two counts.

In the first instance resilience is a state of being arising from activities to address uncertainty. The process for addressing uncertainty is risk management as outlined by ISO 31000:2009. The key to understanding this proposition is the complex nature of uncertainty.

Uncertainty has a number of aspects. It is possible to anticipate some elements of uncertainty when developing risk registers against objectives. There remains uncertainty in the form of unexpected events that are either threats or opportunities, both having an upside and a down side. However, even those elements of uncertainty that can be anticipated are in themselves subject to uncertainty due to the complexity of relationships within and without an organisation, i.e. organisations operate in complex adaptive systems.

The literature and discussions on resilience tend to be linked with disasters and crisis management⁴ i.e. unpredictable, low likelihood, high consequence risks and is more akin to business continuity and disaster management. However, the definition of resilience has a much broader intent —

The adaptive capacity of an organisation in a complex and changing environment⁵.

This definition remains incomplete and a more informative definition of resilience, proposed in this paper, would be —

Resilience is an organisation's state of being resulting from the management of uncertainty in a complex adaptive system. An indicator of this state of being is an organisation's adaptive capacity.

The implication from this definition is that resilience is the outcome of the risk management process, i.e. managing uncertainty.

Complex adaptive system theory (evolutionary theory) was developed in biology, but has application to organisations. It is currently being applied to economic theory and is the subject of book by Eric Beinhocker⁶ in which he says on page 187,

... evolution is a general-purpose and highly powerful recipe for finding innovative solutions to complex problems. It is a learning algorithm that adapts to changing environments and accumulates knowledge over time.

In contrast, there are contemporary views of corporate governance and risk management that mirror the earlier scientific view of the world as a linear space where the simple rules of cause and effect apply. In this space the universe and its parts (systems) were viewed as machines and it was thought that by understanding their component parts they would understand the whole. Additionally, by improving the performance of the parts they could improve the performance of the whole. This approach failed to achieve results and it became



Resilience relies upon the ability of an organisation to anticipate and manage uncertainty.

apparent that the systems were behaving according to a different set of rules. This set of rules is defined by complexity theory, which is

...based upon relationships, emergence, patterns and iterations. A theory that maintains the universe is full of systems, weather systems, immune systems, social systems etc and that these systems are complex and constantly adapting to their environment. Hence complex adaptive systems⁷.

A fuller discussion of the elements of complex adaptive theory is beyond the scope of this paper, but a concise account is given by Fryer (2009)⁸. Broadly speaking, organisations and parts thereof do not exist in isolation, but are part of an interconnected set of systems which are informed by feedback mechanisms. Such systems are aware or alert and learn by accumulating knowledge over time.

It follows that any conceptual view of governance, risk management and resilience that relies on linear theory is seriously unreliable. Compounding this is the application of tick and flick compliance programs to the linear theory. Certainly any system that restricts its view of control to internal financial control would be so woefully inadequate in addressing uncertainty as to be negligent (Paradigm 7).

In the second instance the process of corporate governance is risk management (Paradigm 8) and therefore resilience is the outcome of governance, not the reverse.

Achieving resilience is reliant upon the ability of an organisation to anticipate and manage uncertainty. The conceptual foundation for this rests on an awareness of the organisation's operating environment and its connections within that environment. Awareness is facilitated by: the effective integration of risk management; adopting a broad view of control; and developing an understanding corporate governance processes. The following paradigms address these matters and their underlying concepts.

Paradigm 2: Strategic plans and competitive advantage are transitory.

The intent of strategic plans is to present a blue print for an organisation's direction and competitive advantage over a five year period. However, the dynamic complexity of the environment renders them transitory and in constant need of renewal.

A new approach is required. Rather than trying to predict the future by developing a single strategic plan, it is more effective to build a set of competing business plans around the strategic plan that reflect the competition occurring outside in the market place. By creating options and keeping the tree of possibilities as bushy as possible an organisation can evolve into the future⁹.

In concert with this new planning process is the development of what Beinhocker calls "prepared minds". This sees planning as a learning exercise preparing people for the future rather developing an answer in the form of a single, focused five year plan based upon predictions of the future. Its process involves robust

analysis and debate around facts and environmental issues rather than opinions. The outcome from these new approaches to planning is awareness.

This is a leadership issue that provides resilience, variously referred to as adaptability or agility in resilience literature, at the head of the organisation. The creation of alternatives and developing "prepared minds" cascades throughout the organisation in the planning process creating an aware and resilient organisation.

Integration of risk management

Many recent initiatives have been aimed at making risk management a more integrated process. The iterations are variously labelled Enterprise Risk Management (ERM) and Enterprise Wide Risk Management. In the case of many organisations, particularly those that favoured the COSO ERM Framework, it has not proven to achieve full integration mostly because risk management has remained a discrete exercise without clear integration as part of normal business practice. Managers have therefore seen it as an additional financial and operational impost, which is not balanced by practical benefits.

The key to breaking this resistance is a set of paradigms that illustrate not only the intuitive nature of risk management, but also that effective risk management delivers cost effective performance, resilience and competitive advantage using existing business systems.

Paradigm 3: Risk is part of each objective

The aim of risk management is not the management of risk per se but the achievement of objectives, i.e. risk is part of each objective at all levels of the organisation. The linkage between risk and objectives is reflected in the definition of risk as – the effect of uncertainty on objectives (ISO 31000: 2009). This is the foundation paradigm from which all the others flow.

Paradigm 4: Uncertainty is an all encompassing concept

The current risk management landscape is fragmented by several standards and professional specialist areas such as Compliance, Business Continuity/Disaster Management, Security, Safety, Sustainable Development and Resilience.

By embracing the simple concept in Paradigm 3, risks and their treatments (which are also controls and strategies: Paradigm 6) cascade throughout the organisation with objectives and with the appropriate language for each level. This develops an integrated system and supports the view that none of the parts operate in isolation (complex adaptive systems theory). This also means that other management processes that focus on a particular type of risk such as Compliance, Business Continuity/Disaster Management, Security, Safety and Sustainable Development cascade throughout the organisation along with other risk areas such as finance, IT, HR etc and their focus is on achieving objectives.

The logical inference therefore is that there need only be one standard dealing with the management of risk and that is ISO 31000:2009 which covers uncertainty, i.e. all forms of risk. Specialist areas such as Compliance, Security, Safety etc would be best accommodated as supporting handbooks that deal with the application of the general risk management process to particular types of risk. This does not infer any reduced importance to these issues, but connects them under the uncertainty umbrella and with each other, while continuing to recognise the distinctive nature of their risks and strategies.

Paradigm 5: The management of risk is an intuitive process

Managing risk is an uncomplicated process used in everyday life to achieve objectives. Examples include getting to work on time and safely, meeting appointments and deadlines, driving, crossing the road and so on. The processes of setting the objective, identifying and understanding the risk and developing strategies (risk treatments) to achieve the objective are intuitive and occur unconsciously as part of normal activities. The focus is on the objectives and the strategies to achieve them, not the risks.

In contrast, some organisations have implemented an ERM process by developing a separate, resource-hungry risk management framework focused on the risks with tenuous linkages if any to objectives and strategies. This type of ERM process therefore unnecessarily duplicates the intuitive risk management activities in the standard business practices of planning and performance monitoring and works against resilience (Paradigm 6).

Paradigm 6: Risk management, planning and performance review are concomitant processes.

By applying the risk management process to objectives, risk treatments are at the same time controls and strategies. Consider that the objective is to cross the road and the risk is identified as being hit by a moving vehicle.

Assessment of the risk is a combination of likelihood of the event occurring and the consequence should the event occur. The consequences of being hit by a moving vehicle are assessed as high; the level of likelihood varies depending upon the density of the traffic as follows –

- If the traffic is light, the likelihood of significant consequences is assessed as low and the residual risk is rated as low. The action is to look right, left and right again and then proceed to cross the road when a safe gap in the traffic appears.
- If the traffic is heavy, the likelihood of significant consequences is assessed as high and the risk is rated as high. The action is to proceed down the footpath to a traffic light and push the "WALK" button. The traffic is stopped at a red light reducing the risk to an acceptable level allowing the road to be crossed safely.
- The act of looking right, left and right again or the pushing of a "WALK" button are risk treatment plans that reduce risk to an acceptable level allowing the objective to be achieved. The treatment plan is changed depending on the level of risk. The risk treatments are at the same time controls designed to ensure the objective will be achieved and also strategies for achieving the objective, i.e. risk treatment plans are controls and also strategies.



Boards or Senior Management can set discretionary rules that govern an organisation's size, purpose and operating environment.

- A number of significant outcomes arise from the above paradigms.
- the risk management process is effectively integrated throughout the organisation with objectives;
- responsibility and resources for the management of uncertainty can be clearly assigned thereby facilitating the assurance processes for accountability;
- risk registers arranged by objectives transform risk information into knowledge;
- resources used in duplicating the process as a separate compliance exercise can be redirected to more effective uses;
- the compilation and review of risk registers become part of the planning process;
- performance reviews against key performance indicators provide a real-time review of the effectiveness of the risk management system; and
- capability and commitment for the management of uncertainty are enhanced throughout the organisation (builds awareness and supports resilience).

Paradigm 7: Control is a broad concept.

The restrictive concept of internal financial control outlined in COSO ERM Framework and the ASX Corporate Governance Council's Supplementary Guidance to Principle 7 (Risk Management)¹⁰ ceased to be the overarching view of control more than a decade ago. This restricted view of control ignores significant non-financial and external risks and appreciably reduces resilience.

A more inclusive concept of control covers all activities after the strategic direction has been set and it includes external as well as internal factors. Control is defined as follows —

Control comprises those elements of an organisation (including its resources, systems, processes, culture, structure and tasks) that, taken together, support people in the achievement of the organisation's objectives¹¹.

This broader concept acknowledges that organisations operate in complex dynamic systems (Paradigm 1).

Risk and governance

Corporate governance is all about control assurance, which in turn is reliant on the effective management of uncertainty. The following paradigm develops the theme that risk management is the process of corporate governance, and examines how this relationship can be leveraged to promote resilience.

Paradigm 8: Corporate governance is an organisation's strategic response to uncertainty.

Dahms (2008)¹² clarified this concept by arguing that corporate governance is in essence risk management on the premise that corporate governance is

essentially a set of common management practices that address higher level risks. These management practices include: strategic and operational planning; designing the corporate structure and populating this with capable and committed people; matching responsibility with authority and resources; setting the ethical standards; implementing a quality information system; monitoring performance, compliance and the operating environment; and finally reporting to provide accountability and assurance.

The management practices are in essence high level control activities addressing high level risks and can be universally applied to any organisation. Addressing control activities to develop capable and committed Directors, senior officers and employees who have a clear understanding of organisational and personal purpose establishes inherent controls. Because inherent controls are developed by refining and aligning existing management practices, their implementation is both uncomplicated and cost effective. For the same reason inherent controls are proactive, self sustaining, and promote awareness and resilience.

Conclusion

Risk management as outlined in ISO 31000:2009 is the process for managing uncertainty and achieving objectives.

Uncertainty, and its relationship to the achievement of objectives, is the concept linking risk management, corporate governance and resilience. In essence, an organisation that effectively manages uncertainty will also have sound governance and be resilient.

Resilience is the ability of an organisation to anticipate and respond to uncertainty in a complex adaptive environment, i.e. its adaptive capacity. It is a state of being or outcome and the underlying process is risk management.

It is clear therefore that just relying on a new, repackaged process called 'organisational resilience' will not address the fundamental problems that caused risk management to fail in so many organisations. None of these failures relate to the nature of the risk management process; all relate to how it was implemented and integrated into decision making.

The development of a resilient organisation therefore requires that —

- The conventional linear, compliance method for addressing the management of uncertainty and corporate governance be abandoned in favour of complex adaptive theory, which more accurately reflects the nature of an organisation's operating environment.
- A simple change in the focus of risk management from the management of risk to the achievement of objectives be adopted. This change not only terminates the silo treatment of risk management within the organisation, but also the silo stratification

of risks into strategic and operational. Carrying this one step further it brings Compliance, Business Continuity/Disaster Management, Security, Safety and Sustainable Development under the uncertainty umbrella. Removal of all the silos mentioned above develops connections, promotes synergy and enhances resilience.

About the author

Dr. Ted Dahms has been reviewing governance and risk management systems since 1989 as a Queensland Audit Office auditor and continues this role as Principal Consultant with Plum Concepts & Solutions <http://www.plumcon.com.au/>.

His professional research skills and understanding of systems theory apply an uncomplicated approach to corporate governance and risk management. The evolution of this conceptual view can be seen in Ted's speeches, <http://www.plumcon.com.au/Publications/Publications.html> papers and two significant publications (QAO Audit Report N0.7 for 1998-99 and Standards Australia's HB 254-2005).

He can be contacted at Ted.dahms@plumcon.com.au

(Endnotes)

1. **Ted Dahms**, 2009. *The Road to Resilience is paved with sound risk management. New paradigms for risk professionals.* <http://www.plumcon.com.au/Publications/Publications.html>

2. **Enterprise Risk Management – Integrated Framework.** Committee of Sponsoring Organisations of the Treadway Commission, 2010. <http://www.coso.org/ERM-IntegratedFramework.htm>

3. **Michael Rasmussen**, Jan. 2007. *AS/NZS 4360 – A Practical Choice over COSO ERM. Best Practices* www.forester.com.

4. **Arjen Boin and Allan McConnell**, 2007. *Preparing for Critical Infrastructure Breakdowns: The Limits of Crisis Management and the Need for Resilience.* *Journal of Contingencies and Crisis Management*, 15(1) 51-58.

5. **ISO guide 73:2009.**

6. **Eric D Beinhocker**, 2006. *The Origin of Wealth. Evolution, Complexity, and the Radical Remaking of Economics.* Harvard Business School Press 2006.

7. **Peter Fryer**, 2009. *A brief Description of Complex Adaptive Systems and Adaptive Theory.* www.trojanmice.com/articles/complexadaptivesystems.htm

8. **Peter Fryer**, 2009 *Ibidem.*

9. **Eric D Beinhocker**, 2006. *The Origin of Wealth. Evolution, Complexity, and the Radical Remaking of Economics.* Harvard Business School Press 2006.

10. **Revised Guide to Principle 7, Recognise and Manage Risk.** ASX Corporate Governance Council 2008 http://www.asx.com.au/supervision/pdf/asx_cgc_revised_supplementary_guidance_to_principle_7.pdf

11. **Control and Governance, - Number 1.** *Guidance on Control. The Canadian Institute of Chartered Accountants November 1995.*

12. **Ted Dahms**, 2008. *Risk Management and Corporate Governance are they the same?* www.plumcon.com.au/Publications/Publications.html