

*Understanding The Risk
Management Universe –
Consensus and Controversy*

David Hillson

The chapters of this book have introduced us to the various dimensions of the risk management universe, with a variety of guides who are each expert in their own field of the discipline. After such a grand tour the reader may still be left wondering how to answer our opening question: ‘What is risk management?’, since we have been presented with a wide range of possible answers. And the true answer is not ‘either/or’ but ‘both/and’. Each chapter has presented a concise summary of how risk management can be applied in a particular way, and where chapters offer different approaches it is not because one is right or another is wrong. The risk management universe is broad and diverse, with many elements and dimensions.

Despite the breadth of this topic, it is nevertheless possible to discern some common themes and messages, and this is the purpose of the final chapter of our guided tour. Given the wide range of different types of risk management described in this book, where are the underlying commonalities and which differences are most significant? After considering these, this chapter concludes with some thoughts on the future of the risk management universe and charts a possible way ahead for future explorers.

Universal laws?

Each preceding chapter describing the various types of risk management has mentioned some principles which apply to all, and which are underlying and constant throughout the risk management universe. These might be considered as ‘laws of the risk management universe’:

1. The first law of risk management is that *risk is related to uncertainty*. While there are good philosophical and theoretical reasons for treating risk and uncertainty as inherently different, and even mathematicians view them as distinct, in practice most risk specialists would agree that risk can be viewed as a variety of uncertainty. In every application area, from strategic risk to counter-terrorism, a risk is something which might or might not occur – in other words it is *uncertain*.

This first characteristic may seem trivial, but it is vital to a proper understanding of risk, and to its effective management. Risks do not yet exist; indeed they may never exist at all. They are potential future events or sets of circumstances or conditions. As such, they are quite different from things which have happened in the past or which currently exist in the present. Past and present events can be analysed and measured, but future events can only be imagined or estimated. While some uncertainty may remain about what exactly happened in the past, there is usually no doubt that it actually did occur. Similarly present events and conditions are usually knowable and measurable. By contrast, a risk which may or may not exist in the future cannot be experienced directly unless or until it happens. This makes risks qualitatively different from issues, problems, concerns, constraints, etc. In every type of risk management described in the chapters of this book there is agreement that if risk exists at all, it exists in the future, which is inherently uncertain.

2. A second common theme which emerges from the various discussions of risk management is that *risk matters*. If they occur, risks will have *consequences* which make a difference in some way. It is not possible to have an inconsequential risk, by definition. While the various types of risk management focus on different sorts of consequence, all agree that a risk must affect something. One simple way to express this is that risks are inextricably linked to *objectives*. Wherever some field of human endeavour is attempting to achieve something, it is possible to identify uncertainties which might affect the chances of success. Whether the objectives are to

achieve good corporate governance, successful projects, business continuity or avoidance of fraud, risk management aims to identify those uncertainties which could influence achievement of the set objectives, and to enable the risks to be understood and managed effectively.

3. A third universal message repeated throughout the chapters is that *risk management is a process*. There are steps and stages to be followed, with varying degrees of rigour and definition, but all approaches to risk management provide a framework which is designed to maximize both efficiency and effectiveness. Although the details of the risk processes are different, each application area distinguishes two important parts: *analysis* and *action*. Before risk can be properly managed, it must first be identified, described, understood, assessed, etc. Analysis is a necessary prerequisite for what follows in the risk process. But analysis is not sufficient – it must be followed by action. A risk process which does not lead to implementation of actions to deal with identified risks is incomplete and useless. It is no accident that we speak about the ‘risk management universe’ and not the ‘risk analysis universe’, since the ultimate aim is to manage risk, not simply to analyse it.
4. Finally several chapter authors have emphasized the importance of the fact that *people perform risk management*. The *human aspects* of risk management are a vital contributor to its success and effectiveness. Most elements of the risk process are undertaken by people, though we may use machines to automate calculations, to record results, or to generate reports. People set risk thresholds, identify risks, assess the degree of uncertainty and extent of possible impact, propose appropriate responses and implement agreed actions. All of these require judgements, estimates and decisions to be made in the presence of uncertainty. And these judgements are subject to a range of influences, both explicit and hidden, which can significantly affect the outcome. Risk management at every level is exposed to sources of bias arising from overt and covert influences acting on individuals and groups who are trying to make risk-based decisions with imperfect or incomplete information.

Key differences

Despite the commonalities evident between the different types of risk management, including a focus on uncertainty and consequences, the

need for a process which results in action, and the importance of people in the process, our guided tour has indicated a number of areas where risk management differs between the various areas where it is applied.

One of the main differences lies in the definition of risk itself. In some applications (for example, fraud, counter-terrorism, reputation risk or business continuity), risk is viewed as always and exclusively a bad thing, since it is defined as an uncertainty which, if it occurred, would have a harmful, negative, adverse or unwelcome effect. In other areas, such as project risk management, environmental risk, technical risk or strategic risk management, risks are defined as uncertainties with the potential of either positive or negative effects on achievement of objectives. In these application areas, the term 'risk' is used to encompass both threat and opportunity. This is a fundamental difference in the use of the key concept, and its significance cannot be understated. It is a cause of much misunderstanding between risk practitioners from different areas, since the most basic term is interpreted in two mutually exclusive ways. The resolution for this problem is for practitioners on both sides of the definitional divide to recognize and respect their differences, accepting that the common word 'risk' means different things in different contexts. It is also necessary for all risk practitioners to make clear the way in which they are defining and using the term 'risk', to avoid misunderstanding or miscommunication.

Apart from this most basic of differences, there are of course many places where the approach to risk management differs in detail between the various application areas. Each dimension of the risk management universe has developed its own concepts, language, processes and techniques, and each specific area represents a coherent approach to management of the types of risk which arise in that context. It is probably not useful to delineate every small variation between the application areas, since in many cases these are simply different ways of saying or doing the same thing. Users of risk management should merely be aware that in each area where risk management is applied there exists a particular and specific way of doing things which may differ in detail from other areas, but with a large degree of underlying consistency.

One area where confusion may arise between different approaches to risk management lies in the placement of uncertainty in the risk equation. Two basic positions can be adopted. In the first, uncertainty is a characteristic of the event or set of circumstances or condition which is recognized as 'the risk', and if this risk occurs then there is a consequence. Under this approach a risk might be defined as 'an uncertain event which, if it occurs, has a consequence'. The second approach

attaches the uncertainty to the consequence, defining a risk as ‘an event with an uncertain consequence’. Again this is more than mere semantics, since it determines the focus of the risk process. A simple example might illustrate the dilemma. If a construction contractor is required to dig a hole where the ground conditions are not known, what is the risk? Is the risk the possibility that something unexpected might be found when the hole is dug (i.e. an uncertain event), or is it the act of digging of the hole (an event with an uncertain consequence)? The answer to this question might lead to different risk responses being adopted, depending on whether the contractor thinks that the dig itself is the risk or that the risk lies in what may be found.

Fortunately the main differences between the various applications of risk management described in this book fall into the areas outlined above, namely definition of terms, or details of process. While these differences can cause problems and confusion, the solutions are simple, namely clarity of thinking and practice, unambiguous communication of intent and content, and mutual recognition of variations.

The expanding universe

Although the scope of this book is broad, it is not comprehensive. There are other areas where risk management is being applied to assist in the achievement of some area of human endeavour. Indeed if this book were to attempt to cover all the many and diverse forms of risk management it would be a very weighty tome. Instead we have concentrated on the main areas of interest to most businesses and risk practitioners.

But, like the physical universe, the risk management universe is expanding. This is true in two distinct ways, with enhanced depth of analysis and increased breadth of application.

First is the *micro* dimension, where new advances in risk analysis are providing improved insights into the nature of risk, and developing new approaches for the effective management of risk and its impacts. Risk practitioners are committed to their profession, and it is not static. The high rate of publication of research papers and case studies, and the release of new techniques and support tools, provide evidence of a dynamic and developing discipline. Risk management has not settled but is continuing to develop and break new ground.

Progress is also being made on the *macro* level, with discovery of new dimensions to the risk management universe. The use of a structured approach to understanding and managing significant uncertainty

is proving valuable in hitherto unexpected areas. Several fields are adopting 'risk-based' approaches, including auditing, remuneration, social policy, communication, etc. It may only be a matter of time before these novel applications become full disciplines in their own right, adding new dimensions to the risk management universe.

Finally there is the question of 'dark matter'. Astronomers have realized that there is more to the physical universe than meets the eye or than can be detected using current instrumentation technology. They have been driven to postulate the existence of 'dark matter' to make their equations add up. This mysterious substance evades detection but its presence can be deduced from its effects. In the same way, the ever present 'unknown unknowns' pervade the risk management universe, with hidden risk making its effects known while remaining undetected. In the same way that astronomers and physicists are committed to exposing the nature of dark matter so that it can be understood, so risk practitioners should be relentless in their pursuit of hitherto undiscovered risk. Our understanding of the risk management universe will remain incomplete for as long as we passively accept the existence of unknown unknowns. And, since understanding is an essential prerequisite for effective action, risk management can never be fully effective unless and until this final barrier is broken.

One final thought in this regard is to remember that some astronomers believe that ours is not the only universe, and it may exist alongside a number of other parallel universes, some of which may be strange and exotic with many dimensions currently unknown to us (and possibly unimaginable by us). In the same way, it is clear that the risk management universe is not the only one in existence. There are many others which exist in parallel to ours, each with their own set of laws and dimensions, some of which may appear very strange to us in the risk management universe. We should keep an open mind about how these various universes might interact, and we must be alert to opportunities to learn from others outside our own field of experience. Indeed we would be wise to proactively seek 'close encounters' since it is clear that 'we are not alone'.

Towards a grand unified theory

Following Albert Einstein's failed attempts over several decades to develop one 'theory of everything' (or TOE), physicists have for many years sought to formulate a Grand Unified Theory (or GUT) to unify

the various fundamental forces (weak, strong, electromagnetic and gravitational) and offer a more elegant understanding of the organization of the universe and the nature of matter, energy, space and time. While at the time of writing this remains elusive, due to the failure to confirm the existence of some crucial missing elements such as the Higgs particle, efforts are continuing. The drive towards a GUT is rooted in the conviction that everything in the universe is interconnected and interdependent, and that it must therefore be possible to describe this mathematically.

The possibility of a 'risk GUT' has also proved attractive to some, who seek an underlying paradigm or 'theory of everything' for risk. This has led to development of enterprise-wide risk management (sometimes called ERM), which aims to integrate the various elements of risk management into a cohesive whole. ERM takes the dimensions detailed in the various chapters of this book and provides a unifying and unitary framework within which they can each operate, specializing in addressing the different types of risk, but communicating with and supporting each other, recognizing that they are both interconnected and interdependent.

One way of thinking about ERM is to construct a 'hierarchy of objectives', for example, seeing a business as a set of overarching objectives defined in the vision or mission statement. This is then implemented through various lower-level structures such as departments and functions, each with their own set of objectives, where the sum of the lower-level objectives fully describes the top set. Further decomposition is possible, for example, implementing operational objectives via a hierarchy of portfolios, programmes, projects and tasks, each with objectives at an increasing level of detail. Since risk is defined as uncertainty which can affect achievement of objectives, it is also possible to construct a hierarchical risk management framework to match the set of objectives. Risk management can then be applied in a cohesive and integrated manner from top to bottom across the hierarchy of objectives. This approach might serve as a Grand Unifying Theory for application of risk management within an organization, drawing together all the various applications of risk management into a single framework.

The idea of a 'risk GUT' has also found favour among the standards-setting bodies. Chapter 1 discussed the existence of a wide range of professional standards and guidelines covering different types of risk management (see Table 1.2). Although there is some consensus and convergence over the content of these standards, there is currently no

single ‘theory of everything’ which can be applied across all dimensions of the risk management universe. It is not yet clear whether one ‘universal risk management standard’ might be developed to which all other standards will be subservient, or whether the best that can be achieved is a family of risk standards each covering one or more specialist areas but with a consistent and coherent underlying philosophy.

The future of the universe

Experts who study the physical universe hold a variety of views about where it is heading. While there is no doubt that the universe is currently expanding, there is no consensus about what might happen next. One camp holds that the universe will continue expanding indefinitely, while another believes that expansion will eventually reach a maximum and will be followed by a collapse, possibly reversing all the way to a ‘Big Crunch’. A third view adopts a cyclic position, seeing repeating iterations of expansion and collapse. One thing on which all cosmologists seem to agree is that the universe we inhabit is not in a ‘steady state’.

Each of these different positions finds echoes among observers of the risk management universe.

Some believe that the scope of risk management will continue to expand and include more and more elements of personal, business and social life, until ‘Everything is just risk management’. Their vision is of a risk-based world where all decisions are taken in the light of the identification and assessment of relevant uncertainty. Like their cosmologist counterparts, some even detect an accelerating rate of growth as more and more space becomes occupied by risk management. This expansionist view is exemplified by some project risk management practitioners whose slogan is ‘Manage the risk = manage the project’. This implies that normal planned activity needs no special attention, and all that is required is management of variations from the plan. By looking ahead to identify potential variations, both positive and negative, and focusing management attention on addressing just these aspects, proponents of this position claim that success is ensured. Managers should allow non-risky elements to continue without intervention, but concentrate on proactive management of risk.

While expansionism serves to emphasize the importance of risk management in the overall scheme of things, it is an extreme position whose adoption denies the reality of much normal work. For example, in the project management arena there are many required tasks which

are not risk-based, including performing the actual technical work to produce the project deliverables. Much of project management may be about managing risk, but project work is more than project management. Similar comments apply equally to other fields of endeavour, where the risk element is not the whole picture, and concentrating wholly on managing risk to the exclusion of other aspects would be detrimental and counter-productive.

Nevertheless, it is probably true that the scope and influence of risk management will continue to expand, at least in the short term, as more areas of application are found for risk-based approaches. The question is whether such expansion is limitless, or whether some critical point might be reached when further growth is unsustainable, to be followed by a collapse and eventual 'Big Crunch'. It is possible that risk management might just be the latest management fad, although admittedly it is already rather more long-lasting than most. The recent emphasis on risk management started in the 1970s, and though it shows little sign of reducing, it is conceivable that future society and business might place less emphasis on risk than their forebears. If risk management goes the way of other fads, it could disappear from the scene very quickly, becoming just a memory or a footnote in the annals of management history.

There is another way in which risk management might disappear, rather than fading away into oblivion. If risk management becomes all-pervasive to the point where it is absorbed into the nature of business at all levels, it could become invisible as a result. The statement of Roman philosopher Seneca the Younger '*Nusquam est qui ubique est*' ('He who is everywhere is nowhere') could equally be applied to risk management. If everyone naturally and habitually 'thinks risk' and manages it as a normal part of daily life, then it might no longer be necessary to have a separate discipline called 'risk management', since this would be accepted and practised by all. Risk management could vanish as a result of its own success, leaving risk specialists and practitioners as outdated purveyors of a universally recognized self-evident truth.

A third option for the future of risk management is possible, combining expansionism and catastrophism. Maybe the size of the risk management universe might vary cyclically, increasing for a time then contracting. A review of the broader story of risk management across the span of human history reveals periods when it was more prominent than others. Social commentators suggest that advances in technology, law and religion can be seen as human responses to uncertainty, seeking to make sense of the ineffable, and attempting to impose control

wherever possible. If this is true then the major changes in civilizations might be interpreted as cycles of risk management, though not within the same process-driven framework we see in modern business. And maybe the expansion we are witnessing today is merely part of the latest cycle.

Only time will tell whether the risk management universe is expanding indefinitely until it encompasses everything, or whether a turning-point might be reached to be followed by collapse to a 'Big Crunch' where risk management disappears, or whether some cycle of growth and decline might occur. What is certain is that, like our physical universe, risk management is not in steady state. The reason that risk management is such a fascinating topic is precisely because it is constantly changing. The guided tour of the risk management universe offered in this book presents a view from today's perspective, but this is almost guaranteed to change with time as new approaches and application areas emerge, new dimensions of risk management are discovered, and new insights into the meaning of risk are revealed. Explorers of this intriguing universe can be sure of an exciting journey as the future of risk management unfolds before them in novel and unexpected ways, challenging them 'to boldly go where no man has gone before' in their continuing exploration of risk management.