Cass Risk Leadership Programme
2018

Lost in Translation: Why are risk managers and decision makers still not speaking the same language?

Jonathan Blackhurst

Date of submission: 31 August 2018

Abstract

This dissertation looks to join an evolving conversation about the challenging nature of successfully integrating risk management into corporate decision-making. It explores the indicators of what is needed to add benefit to decision-making in general and then looks to challenge some of the accepted norms of risk management best practice. Collectively, the research within this study articulates the variable role of risk management in a strategic decision-making setting and the struggle to find a stable and permanent place in the corporate hierarchy.

Risk best practice often uses a positive lexicon about how it is vital for corporate leaders, but is there a gap in this being a reality? If there is a gap, why? And if we know why, what do we need to do about it?

This study looks to argue that if the risk management discipline wants the authority to sit as a cornerstone of the decision-making process, then the comfort factors of bottom-up risk reporting, risk registers, heat maps, and even the bastion of the audit and risk committee, all need a fundamental rethink. Ultimately, we should not be afraid to consign some elements of these to history.

If something is getting lost in translation, then the onus is on risk management – not business - to learn a new language.

Content

1. Introduction

Much has already been said across the risk management community about the failed resilience of markets, businesses or economies, as a whole, when uncertainty and crisis strike. At a very basic level of analysis, when you investigate crises such as the 2007/2008 economic crash, the collapse of Enron/Arthur Anderson or the product recall scandals of the 2000s,[1] to name but a few, you can see that many stakeholders were simply unaware and inadequately prepared to deal with major risks and failed to consider them in their corporate decisions. The large-scale media and public scrutiny of the impact of this lack of preparation has historically been most visible among financial institutions – with even the pages of *Vanity Fair* becoming dominated with news on the financial meltdown and scandal,[2] but post 2018, companies from all sectors have, over time, been hit hard by unforeseen events that have resulted in detriment to the company and, at their worst, the collapse of the company.

Some of the shortfall in preparedness, and I stress only some, can be explained by the challenge organisations face in being able to respond to 'black-swan'[3] events. By their very definition, these types of events must be outliers, beyond the realm of regular expectation because experience, analysis and existing data cannot point to their occurrence. There is little scope for those wishing to limit the impact of truly black swan events to use any meaningful risk analysis to influence their decision-making upfront. If we therefore leave analysis and lessons learnt from such events outside the scope of this paper, what else can be learnt from previous corporate and economic crises? Can we gain any valuable insight from understanding how risk models failed? Why had the oversight of risk become superficial? What stopped risk management information from being well integrated into a company's decision-making system? Why did they stop listening?

[1] Coca-Cola Dasani mineral water; Maclaren pushchair
[2] M. Lewis, 'Wall Street on the Tundra', *Vanity Fair*, April 2009. www.vanityfair.com/culture/2009/04/iceland200904, (accessed 12/04/2018). In *Vanity Fair*'s April 2009 issue, Michael Lewis examined the financial disaster in Iceland, winning Loeb and Overseas Press Club awards for his report.
[3] N. Taleb, *The Black Swan: The Impact of the Highly Improbable*, Random House, 2007.

Despite the huge losses experienced by organisations at the height of any crisis, the majority still survive. They cancel plans, make rapid and painful trade-offs to ensure immediate stability and, as the tide turns, these same companies resume their long-term strategies even if it took years. But with the benefit of lessons learnt, these organisations should surely now be better prepared for the next shock, whenever it comes. But how can this be guaranteed? Have there been tangible learnings taken to the heart of the boardroom or will there be continued vulnerabilities that will manifest themselves in the next risk perfect storm?[4]

One of the elements common in corporate crisis is that risk information does not flow freely from the business to the board to provide necessary insight to the decision-making process. Research by AIRMIC[5] points out that without the right flow of information and without risk information being viewed in the correct decision-making context, things might well be known within an organisation, but not necessarily amongst the decision-making leaders or their proxies. Problems will therefore flourish hidden from leaders' line of sight, where decision makers have '*tunnel vision*'[6] or live in a '*rose-tinted bubble*'[7] unaware of risk factors, which would be valuable information for influencing decisions. The '*Roads to Ruin'* research studies some strong examples that are indicative of how disregarding the decision-making value of clear risk communication can be disastrous:

> *"In the cases of Independent Insurance, Enron and AIG, there was poor internal communication about problems because of the hectoring and/or bullying behaviour of the leadership. This blocked internal routes to NEDs becoming aware of what was going on…*
>
> *…In the case of the Airbus A380 delays, middle managers kept the problem of non-matching aircraft sections from senior managers for six months. This seems to have resulted, at least in part, from a culture that did not allow the freedom to criticise – essentially a communication problem…*

[4] A combination of various Harvard Business School research indicates that 45% of 100 global banking crisis episodes recorded double dips that significantly impacted income and led to a much slower recovery
[5] AIRMIC, *Roads to Ruin. A Study of Major Risk Events*. CASS Business School, on behalf of AIRMIC. Sponsored by Crawford and Lockton. 2011
[6] Roffey Park, Annual Review 2010/2011, February 2012. www.roffeypark.com/wp-content/uploads2/annual-review-11.pdf, Page 7, (accessed 12/04/2018).
[7] A. Fitzsimmons, 'Do boards live in a rose-tinted bubble?', 19 January 2011. www.reputabilityblog.blogspot.com/2011/01/do-boards-live-in-rose-tinted-bubble.html. (accessed 04/07/2018)

> *…The background to the Texas City Refinery fire included poor vertical communication, which meant that there was no adequate early warning of problems and no means of understanding the growing problems on the site"*
>
> *AIRMIC*

In this paper, I will challenge the existing principles of risk management and make observations on areas we must focus on to make continuous improvement whilst also pointing out the more radical reinvention that is needed to make risk management available, coherent, relevant and valuable for decision-making.

2. Why should risk management be important to decision makers anyway?

The decision-making imperative

It is generally understood that decision-making (in many settings[8]) is a cognitive process that leads to the selection of a course of action from a set of established alternatives. Published analysis[9] of the business-centric decision-making process reveals a number of stages:

- The definition of the problem
- The gathering of information
- The identification and evaluation of alternatives
- The making of the actual decision
- The implementation of the decision
- The follow-up of considering if the decision has 'worked'.

However, this is rarely an explicit cycle of activities but iterations 'hidden' within other management practices undertaken in a decision-making setting. Priorities for senior management are stretched, with executive decision makers encouraged to embrace innovation and entrepreneurial development. In many cases, year on year, they are required to pursue challenging strategic objectives[10] and, with this expectation, comes the implicit obligation to be diligent on the organisation's decisions, and both source and utilise the right information.

Finding this right information is a constant challenge, made harder when the party typically relied upon to collect, collate and present the information is different to the decision maker and business area. Pivotal to overcoming this challenge is to provide the decision maker with alternatives and consequences, and rely on some corporately agreed preferences, rules and guidance.[11] The problem is that models on what these preferences, rules and guidance should look like is plentiful. Companies don't have to search far to obtain a lot of advice on how to make good decisions or find guidance on what decision-making disciplines actually

[8] J. Smyth, 'Why are the All Blacks so good?', *FT.com*, 23 June 2017. www.ft.com/content/b5afe588-560b-11e7-80b6-9bfa4c1f83d2 (accessed 26/07/2018). Research into the continual success of the All Black Rugby Union Team often points to their decision-making prowess as what sets them apart.
[9] D. Power, *Decision Support Systems: Concepts and Resources for Managers*. (Greenwood/Quorum Books, 2002.)
[10] M. Tonello, *Corporate Governance Handbook: Legal Standards and Board Practices*. (The Conference Board, 2009)
[11] Z. Shapira, *Organisational Decision-making*. (Cambridge University Press, 2002)

make a difference. And there is also all the other noise[12] that has the potential to strongly influence decision-making judgements.

So how do you distil all this noise, these messages and best practices into something that is manageable and works for you? And through this distilling process, can we identify if risk is really something that could add value?

The results of a McKinsey Survey in 2009[13] provides some comfort here, by categorising all these 'noisy' parts of the decision-making information mix into three analytical aims which emphasise that examining risk information plays a crucial role in decision-making analysis.

1. Look ahead
2. Pay attention to the risks, examined through a detailed model of the decision at hand
3. Accept that unlike external risks that accompany decision-making, the analysis, discussion and management of the internal threats lie entirely within the control of the decision maker.

If we overlay information about board oversight found in the Companies Act,[14] which emphasises the director's duty to regard the likely consequences of any decision, then, in my view, we can complete the circle showing why organisations must ensure their company's risk capabilities deliver quality insight into a decision-making setting.

[12] D. Kahneman et al., 'How to overcome the high, hidden cost of inconsistent decision making', *Harvard Business Review*. October 2016. www.hbr.org/2016/10/noise. (accessed 12/04/2018)
[13] McKinsey & Co. 'How companies make good decisions: McKinsey Global Survey Results'. 2009. www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-companies-make-good-decisions-mckinsey-global-survey-results. (accessed 12/04/2018)
[14] ICAEW, '*Companies Act 2006, ICAEW guide to the duties and responsibilities of directors*'. www.icaew.com/en/technical/business-resources/legal-regulatory-tax-governance/directors-duties/the-icaew-guide-to-the-duties-and-responsibilities-of-directors. (accessed 04/07/2018)

3. Changing the meaning of the basic principles of risk management

Risk management has long been lauded as a tool that provides clear transparent information for the running of an organisation. It is there in black and white in the risk management standards old and new, e.g. Clause 3, ISO31000:2009[15] Principles and Focused Framework in COSO ERM 2017.[16]

So, if best practice sources agree that risk management is central to corporate success and if the same sources say risk management is built on the principles of transparency and clarity that are equally as vital in decision-making, why is there still the level of variation, debate and uncertainty I have highlighted in the early parts of this paper?

In 2013, a survey[17] conducted by *Harvard Business Review* points us towards some of the reasons why the statements above still don't guarantee risk management engagement during the decision-making process at the top of any organisation. Accepting this is data nearly five years old, it is still worth noting that, at that point in time, 42% of 442 global executives didn't have confidence in the decisions being made, due to both the lack of access to/availability of data to inform decision-making and the questionable quality of the information. What this research challenges businesses to address is the need for up-to-date, honest, accurate and relevant data available in real time, backed up by clear analysis at a level that can easily be shared amongst peers and colleagues in order for them to collaborate on decision-making and instil confidence in the decisions being made.

But surely, once again, the outcome of this research is nothing new. Hasn't this been the claim from risk practitioners for some time?

---

[15] The International Organization for Standardization. '*Risk Management – Principles and Guidelines*. International Standard ISO 31000'. 2009

[16] Committee of Sponsoring Organizations of the Treadway Commission. *'Enterprise Risk Management—Integrating with Strategy and Performance. Executive Summary'*. 2017.

[17] B, Rossi. 'Corporate decision-making hampered by lack of confidence in data', *Information Age [Website*]. 4th December 2013. www.information-age.com/corporate-decision-making-hampered-by-lack-of-confidence-in-data-123457493/ . (accessed 16/07/2018)

Another brief look back to the financial crisis of 2008/2009 and economic conditions since shows us that many companies have (and had well before the crisis) risk identification processes in place. Often reported as strong and robust frameworks,[18] they have been used across businesses to ensure the risks facing the company are identified, consolidated and prioritised, and to demonstrate transparency and preparedness. Once a year in company annual reports, organisations generate analysis that lists their key risks and looks to demonstrate how this analysis was fed through to the top of the organisation from the internal process of qualitative and quantitative assessment of the probability and impact of each risk. So why then did these risk processes not raise relevant alarms to management in the lead-up to the financial crisis? Why were these processes not really delivering information to support how an organisation understands its business and makes strategic decisions suited to protecting the business?

I suggest a number of reasons:

- First, that despite trying to focus on principle risks, the bottom-up nature of assessment misses the company-wide risks, with those reporting not seeing the bigger picture.
- Second, these assessments do not look to the business drivers, reasons and strategies that have led to these risks.
- Third, these assessments fail to consider how multiple risks co-exist and multiply.
- And finally, these assessments are too focussed on risk registers.

As a result, these processes failed to generate the insight the decision makers could act upon.

So how do we shake up these processes and some of the long-standing basic principles of risk management in order to add value?

[18] Data collection and analysis of FTSE100 annual reports. See appendix A.

In introducing ISO 31000 in 2009 and enhancing the standard in 2018, the International Organization for Standardization (ISO) intended to provide a guide for the design, implementation and maintenance of risk management. But it is my claim that it is this precise type of systematic and logical process, designed to lead organisations through identifying, analysing and evaluating risk that is flawed. To this end, below I propose alternative interpretations of the steps set out by ISO 31000 (and most other risk framework processes).[19] However, my suggested rethink of the principles is not intended to prescribe specific risk practices, but rather offer a redirection for using the risk process to improve the substance and content of available decision-making information.

Principle 1: Establishing the scope, context, criteria.

Use risk management to advance dialogue around strategy. A winning corporate strategy is one that can exploit the areas in which the organisation excels relevant to its competitors. Risk management, and the context in which it is delivered, must therefore serve as a guidepost for when a new opportunity or significant risk emerges. Dialogue around this often turns to the phrase 'risk appetite', but this falls back into the trap of a risk language not necessarily aligned to a strategic conversation. The better focus should be on executive management and the board agreeing on the strategic, operational and financial parameters and drivers around their opportunity-seeking behaviour – all in 'business', not in risk, language. The resulting risk conversation (whether it is called risk appetite or not) then becomes a strategic level reminder of the thresholds in the strategy-setting process. The context of risk management is therefore realigned in order to call attention

[19] The stages of the ISO 31000:2018 are directly comparable to COSO ERM:2017; A Risk Management Standard – IRM/Alarm/AIRMIC 2002; OGC M_o_R: Guidance for Practitioners 2002.

to the level of risk the organisation is facing, directly corresponding to the decisions it is making in pursuit of value creation.

Continue the focus on strategy, but add line of sight to the external environment. A valuable decision-making approach via risk management should be designed to provide insights as to whether executive management's assumptions about markets, customers, competition, technology, regulations and other external factors remain valid. The dialogue about risk management should be on whether changes in these external environmental factors are expected and whether they could alter the fundamentals underlying the business strategy – in short, a highly valuable early warning capability.

Reinvigorate focus on critical and emerging risks. Most companies will be operating the list and classification of risk around the operational success of an organisation, looking to provide valuable assurance that exposures can be tracked and, over time, resolved. In this context, any sort of debate about risk can be positive, because at the very least, it gets the conversation out in the open. However, for risk management to add value in a core decision-making setting, the focus needs to be on the areas that will impact the core decision-making setting. The critical risks represent the exposures that can threaten the strategy, business model and the viability of the business, and should consequently warrant the most attention from decision makers. Senior management also need to be mindful of emerging trends triggered by unanticipated events of varying significance, ranging from catastrophic new events to existing risks accelerating in their impact.

If we can accept the redefining of this first principle, what does the change look like?

Join the dots with coherence and calibration across the business. Many examples of risk context are built from the bottom up, with each business unit naming and classifying things in its own context. Centrally, this will usually then be aggregated into something that will claim to resemble a company-wide context, in which risks that report to be of the same type will be forced into an aggregated statement. But in the reality of any organisation, as business units may not be using the same language, the ease of visualising the real risk context to the organisation at a corporate decision-making level is severely reduced as things can be missed or misunderstood. This can lead to risks being considered in the abstract, and not collectively, with links between them overlooked, leading to a business failing to recognise consistent and endemic points of weakness.

Honest, intelligent and informed contextualisation is also a challenge. As different risk contexts are calibrated from within the operational level of an organisation, how do decision makers successfully set some perspective? The need to develop a consistent and transparent context across seemingly different risks from widely different business areas is a challenge requiring significant insight into the day-to-day operating of the business. So is this really the best approach to contextualising risk in a decision-making setting, when there are so many moving parts and when it is reliant on a perfect alignment of several facets of analysis? In my view, it is half the answer, and the half that is missing is the part that is vital for establishing decision-making value. Such 'bottom-up' contextualisation can only influence decision-making if it is dovetailed into a strategic top-down context that goes beyond senior management lip service – the priority for 'establishing the context' must therefore be top down. The building blocks for changing the focus of risk context to top down include:

1. Establish risk context through dialogue amongst the senior management team. Creating this risk dialogue needs to be as simple as the corporate structure allows, with nothing more sophisticated than ensuring dedicated time in regular executive meetings. What is key is ensuring time is given front and centre to avoid the dialogue being crowded out by other corporate discussion points
2. Top-down risk context needs to focus on actionable debate. This is not the place to provide executive management with assurance that material risks are under control. The goal needs to be to set the context around the '*what actions do we need to take*' debate already in place amongst senior management as they run the business
3. Without getting too engrossed in a cottage industry around risk appetite/threshold/tolerances, top-down risk context needs an indicative understanding of the level of risk an organisation can afford to live with. Ideally, this needs to be contextualised around areas of strategy where the organisation

believes it has a competitive advantage, e.g. emerging technology risk where the company has strong R&D credentials.

Principles 2, 3 & 4: Risk assessment

Follow the full path of impact assessment. When it comes to assessing risk, it is common and very easy for organisations to just look at the high-level impacts and sensitivities (high level in terms of amount of detail). This is insufficient to add value in decision-making and therefore needs a rethink. Risk assessment in this context needs to consider not the short-term business-as-usual conditions affected by such things as market changes, but also the affect these have on the overarching strategic drivers in the company.

Tell the whole story. The bottom-up risk context mentioned above focusses assessment on the likelihood/frequency/probability of a potential risk and its impact. This is important. But it should not be the whole story for the decision-making process to fully embrace in seeking value from risk information. It is also key to answer the questions of how ready is the company to respond to the risk if it occurs, and how far ahead can the company forecast the risk event coming. These two concepts of preparedness and lead time are vital in order to turn the assessment of risk into a tool that supports decision-making.

Be brave and address ongoing business management risks on an outlier basis. Every business will face a myriad of operational risks (technology, financial, service delivery, HR, security and so on) and most of the effort and resource around assessment are focussed on these. The point is that the focus on these day-to-day risks is not the right one when it comes to decision-making. This area of assessment and board communication should not be at the heart of a company's risk methodology, but instead, things should be highlighted only by the escalation of unusual indicators (such as exceeding an established staff attrition limit).

Principle 5: Risk treatment

Focus risk treatment on the strategic big assumptions. As mentioned, the risks identified as high priority as a result of bottom-up assessment are not, in my opinion, the most valuable to a decision-making context. They are often self-evident along the lines of 'if a major supply disruption occurred, unfortunate things will follow in our own service delivery'. Focusing risk treatment on this obvious information only further undermines the decision-making value of risk information, because management treatment of these risks is seen as rubber stamping what is already known. A far more useful exercise for supporting decision makers is for risk treatment to play out the full scenario of the big strategic assumptions that the company depends upon. These risk-based scenarios are the conceivable descriptions of the future and are built so that decision makers can embrace uncertainty.

Instead of reducing risk treatment to a single most likely outcome, these big assumption scenarios attempt to identify the major forces driving external change and the key uncertainties that lead to a wide range of possible outcomes. The parameters and boundaries of our uncertainties are mapped out and provide a risk-based context for treatment and evaluating future strategic options. Whilst this approach is not designed to implicitly remove hard decisions around risk treatment, and it certainly won't eliminate risk from crystallising, it does mean that decision makers can use the risk process with a broader understanding of the risk and rewards.

For example, if you are a non-domiciled military aircraft manufacturer selling into some of the largest importers of military equipment such as Saudi Arabia and UAE[20] or a domiciled manufacturer in Russia[21] then your principle risk treatment will look to cover materials, supply chain and manufacturing logistics. But the stronger insight, that a big assumption scenario risk treatment should note, is the strategic bet on the financial stability of the country funding the purchase and the parallel regional political uncertainties that are influencing the military spending decisions. The risk of the manufacturers' strategic risk focus is compounded in this scenario

[20] B.Sawe, 'World's Largest Importers Of Military Arms', World Atlas [Website]. April 2017. www.worldatlas.com/articles/world-s-largest-importers-of-military-arms.html. (accessed 04/07/2018). (Saudi Arabia ranked #2 and UAE ranked #4).

[21] N.Tian et al., '2018 Military Expenditure Fact Sheet'. *Stockholm International Peace Research Institute* (SIPRI) Fact Sheet. May 2018. (Russia ranked #4).

by the fact that the source countries for the demand for new military aircraft are also the countries whose economies are strongly correlated to the price of crude oil and the refined products, including jet fuel. And yet, the dependency on wealth from natural resources[22] is one of the reasons why some countries are set to experience a loss in their wealth, with the subsequent potential nosedive in the economic inclination to continue spending in this area,[23] but with the paradox of a political inclination to increase spending in order to defend their position in a political setting. In focussing risk treatment on a wider scenario, the company benefits from an increased richness of risk information in supporting its strategic decision-making.

[22] R. Hutt, 'Which economies are most reliant on oil?'. World Economic Forum. May 2016. www.weforum.org/agenda/2016/05/which-economies-are-most-reliant-on-oil/ (accessed 04/07/2018).
M. El-Erian. 'Saudi Arabia's attempt to reduce reliance on oil has the world rapt'. The Guardian. 16 May 2016. www.theguardian.com/business/2016/may/16/saudi-arabia-reduce-reliance-oil-vision-2030 (accessed 04/07/2018)
DailyForex. 'Is the United Arab Emirates Economy Still Dependent on Oil?'. DailyForex.com. www.dailyforex.com/forex-articles/2018/01/is-the-united-arab-emirates-economy-still-dependent-on-oil/89370. (accessed 04/07/2018)

[23] According to areas of research (*sipri 2018*) and news reporting (*Dickson 2018 & Holodny 2017*), from 2017 through 2019, Russian defence spending will be essentially frozen in nominal terms — and therefore declining in real terms. The fall of oil prices, impacting Russian state finances, has been highlighted as a key reason.

4. The reinvention of the risk reporting model

If the central principles of ISO 31000:2018 need a rethink, then I believe it is the encompassing elements of Monitoring & Review, Recording & Reporting and Communication & Consultation that need the most radical overhaul in order to provide more insightful value for decision-making.

All risk reporting, but specifically board risk reporting, has long been a topic of debate as directors challenge information that is often of too much volume to be actionable.[24] Simply stated, the goal for the reporting must be its transparency. But the level of transparency suited to insightful decision-making by the board is only achievable where the reporting process provides insightful, honest and well-synthesised information. A common area of challenge is stakeholders not actually understanding the expectations of the board with respect to risk information. But if other existing corporate metrics[25] can add value by the fact they prompt board action, then risk reporting needs to answer the question of "what are the responses needed from management in considering these risks?"

How is this done in practice?

A key question that will help structure the look and feel of a decision-making risk reporting style is "Am I at more risk today than I was yesterday?" In short, decision makers need to know whether the risk profile of their company performance has changed, and why and how might this affect the decisions in front of them. In such a highly competitive corporate landscape, with a constantly evolving economic environment, knowing how and why the levels of risk are fluctuating – or spotting the trends that hint how it is about to change – is a significant advantage.

What is needed is a change in the risk practitioner's mind-set, to move the aim away from considering distinct risk reporting to a model where the risk discussion is integral into broader management systems. By this, I

[24] Data collection and analysis of executive feedback. See appendix B
[25] Data collection and analysis of best practice recommendations for the "myriad of dashboard reports". See appendix C

mean that the existing myriad of dashboard reports[26] provided in organisations as an overview of consolidated business information should NOT include a section on risk. Instead, the information in an executive report should facilitate a combined discussion or focus where deviations from benchmarks are noted. The report should at this stage trigger a risk-based review and action amongst business leaders as they step back to review the bigger picture. This step back must be strategic and be based on the most important non-risk measures linked to the organisation's strategies, goals and business objectives, and it cannot introduce artificially manufactured metrics into the mix. Adding value in this setting is only gained if the point of risk debate is applied to the leading and lagging measurement indicators that already exist in the organisation – that are already aligned to the organisation's performance against its strategy.

[26] Data collection and analysis of best practice recommendations for the “myriad of dashboard reports". See appendix C

Conclusion

At the start of this paper, I asked why risk managers and decision makers are still not speaking the same language. During the course of my research and in piecing together areas that need changing, it became clear that the underlying tension is the fact risk managers and decision makers simply don't know they are speaking a different language. Challenging the accepted and basic principles of a risk methodology is a vital exercise that companies need to go through in order to identify the communication gap and make strides to closing down the differences. Among the many lessons learnt from reviewing corporate crises, it is clear that there is no magic pill for safeguarding the business. Companies have to figure that out for themselves – a task driven by the board by asking probing questions and engaging in productive discussions. But there is enough evidence in what I have outlined above that these questions and discussions can be more probing and more productive if risk elements are central.

In addition to the reinvention of the text book view of risk management, there are three broader considerations the decision makers and risk management stakeholders need to embrace:

1. **Keep it simple**. As a risk profession, we need to take this opportunity to rethink how we make risk central. We need to stop pushing the cottage industry of risk registers, heat maps and bottom-up, operational risk reporting as the answer. This does serve a valuable purpose in providing assurance to the running of a business but is not best placed for decision-making. Instead, we need to go back to some of the first lessons we were taught about risk management and keep it simple – building the corporate principles of risk management into existing business practices, metrics and debate, rather than pushing the agenda of things led by granular details of day-to-day operational risk.

2. **Challenge the relevance of the risk and audit committees.** Risk oversight is one of the core responsibilities of the board. The majority of FTSE100 boards[27] expect their members to take

[27] Data collection and analysis of FTSE100 annual reports. See appendix A.

responsibility for risk and announce their reliance on robust risk information in annual reports – so the reliance on risk information to support this intelligent and informed statement is huge. However, these same companies will state that the responsibility rests with the board's audit and/or risk committee and this is likely to be a mistake. This approach, often driven by a sense of regulatory best practice, stems from the underestimation of the value of risk information and it only results in adding a tick in a compliance-driven setting. The contrast will be for best-performing decision makers to be directly involved in the evaluation of risks and to do so during explicit full-board discussion on company performance with a risk layer. The circumstances of separate risk and audit committees are useful to ensure corporate governance alignment is in place, but at the end of the day, decision-making remains the responsibility of the full board and, therefore, so should the response to strong risk information.

3. **Address the flaws in culture.** The focus of my comments so far has been around practical risk management improvement and the need for a change in risk management context. However, it would be remiss of me not to mention, albeit briefly, the importance of the organisational culture around risk.[28] It is all too easy for decision makers to fall into behaviour traps that can lead to poor decision-making in situations where risk and reward have to be weighted, and where the information to base that decision on is poor. Such behaviours can become an inherent threat to an organisation when they become the norm and get ingrained in the company culture. Steps to eliminate the cultural flaws include:

1. Ensure the organisation resists risk information denial or avoidance, especially the flaws of:
    - Management installing a culture of the fear of bad news
    - Permitting overconfidence when things are working well and performance is exceeding expectations
    - Not allowing less senior challenge when surfacing risks

[28] Not a separate view of a 'risk culture', but the risk elements of the company culture. A subtle but important difference.

   - Deliberately working to beat or game the processes and systems in place

2. Set a tone that does not permit a laissez-faire attitude to the value of risk information, especially the flaws of:
   - Slow responses to the deep diving of risk information
   - Senior management indifference to the information
3. Educate the stakeholders involved in decision-making to avoid risk ambiguity, especially the flaws of:
   - Poor communications channels/systems/openness
   - Lack of detail in the meaning of the risk and reaction needed
   - Poor and/or technical 'language' that does not make sense to a wider audience

Whilst making the changes proposed in this paper opens up new opportunities for risk management, there is a great deal of work to be done. The changes might seem slight but it will take time to identify all the long-standing trends and preconceptions that need breaking. Risk managers need to develop the courage to clear the decks of old habits such as registers and heat-maps. These are background noise: necessary to have on, but only relevant to speak about if something is trending abnormally. Instead, risk managers need to do more translating – interpret chatter from across the business and shape the conversation to drive better foresight and build involvement at the heart of decision-making.

Bibliography

AIRMIC, *Roads to Ruin. A Study of Major Risk Events*. CASS Business School, on behalf of AIRMIC. Sponsored by Crawford and Lockton. 2011. Page 15.

Committee of Sponsoring Organizations of the Treadway Commission. 'Enterprise Risk Management—Integrating with Strategy and Performance. Executive Summary'. 2017. Page 6.

DailyForex. 'Is the United Arab Emirates Economy Still Dependent on Oil?'. DailyForex.com. www.dailyforex.com/forex-articles/2018/01/is-the-united-arab-emirates-economy-still-dependent-on-oil/89370. (accessed 04/07/2018)

Dickson, D., 'Russian military spending falls, could affect operations – think-tank'. *Reuters.com*. 1 May 2018. www.reuters.com/article/us-military-spending/russian-military-spending-falls-could-affect-operations-think-tank-idUSKBN1I24H8 (accessed 04/07/2018)

El-Erian, M. 'Saudi Arabia's attempt to reduce reliance on oil has the world rapt'. *The Guardian*. 16 May 2016. www.theguardian.com/business/2016/may/16/saudi-arabia-reduce-reliance-oil-vision-2030 (accessed 04/07/2018)

Fitzsimmons, A. 'Do boards live in a rose-tinted bubble?', 19 January 2011. www.reputabilityblog.blogspot.com/2011/01/do-boards-live-in-rose-tinted-bubble.html. (accessed 04/07/2018)

Holodny, E., 'Oil prices can tell you a lot about military spending'*. Business Insider UK*. www.uk.businessinsider.com/military-expenditure-correlated-with-global-oil-prices-2017-4?r=US&IR=T. 26 April 2017. (accessed 04/07/2018)

Hutt, R., 'Which economies are most reliant on oil?'. *World Economic Forum*. May 2016. www.weforum.org/agenda/2016/05/which-economies-are-most-reliant-on-oil/ (accessed 04/07/2018).

ICAEW, 'Companies Act 2006, ICAEW guide to the duties and responsibilities of directors'. www.icaew.com/en/technical/business-resources/legal-regulatory-tax-governance/directors-duties/the-icaew-guide-to-the-duties-and-responsibilities-of-directors. (accessed 04/07/2018)

Institute of Risk Management. 'A Risk Management Standard', IRM, 2002. Page 4.

Kahneman, D. et al., 'How to overcome the high, hidden cost of inconsistent decision making', *Harvard Business Review*. October 2016. www.hbr.org/2016/10/noise. (accessed 12/04/2018)

Lewis, M. 'Wall Street on the Tundra'. *Vanity Fair*, April 2009. www.vanityfair.com/culture/2009/04/iceland200904, (accessed 12/04/2018)

McKinsey & Co. 'How companies make good decisions: McKinsey Global Survey Results'. 2009. www.mckinsey.com/business-functions/strategy-and-corporate-finance/our-insights/how-companies-make-good-decisions-mckinsey-global-survey-results. (accessed 12/04/2018)

Office of Government Commerce. 'Management of Risk: Guidance for Practitioners. London TSO. 2002. Pages 17

Power, D., *Decision Support Systems: Concepts and Resources for Manager,* Westport C.T. Greenwood/Quorum Books,2002.

Roffey Park, Annual Review 2010/2011, February 2012. www.roffeypark.com/wp-content/uploads2/annual-review-11.pdf, Page 7, (accessed 12/04/2018).

Rossi, B., 'Corporate decision-making hampered by lack of confidence in data', *Information Age [Website*]. 4th December 2013. www.information-age.com/corporate-decision-making-hampered-by-lack-of-confidence-in-data-123457493/ . (accessed 16/07/2018)

Sawe, B., 'World's Largest Importers Of Military Arms', World Atlas [Website]. April 2017. ww.worldatlas.com/articles/world-s-largest-importers-of-military-arms.html. (accessed 04/07/2018).

Shapira, Z., *Organisational Decision Making*. (Cambridge University Press, 2002)

SIPRI (for media), 'Global military spending remains high at $1.7 trillion', *Stockholm International Peace Research Institute* (SIPRI) 2nd May 2018

Smyth, J. 'Why are the All Blacks so good?', *FT.com*, 23 June 2017. www.ft.com/content/b5afe588-560b-11e7-80b6-9bfa4c1f83d2 (accessed 26/07/2018).

Taleb, N., *The Black Swan: The Impact of the Highly Improbable*, 1st ed. London: Random House.2007

The International Organization for Standardization. 'Risk Management – Guidelines. International Standard ISO 31000'.2018.

The International Organization for Standardization. 'Risk Management – Principles and Guidelines. International Standard ISO 31000'. First Edition 2009-11-15. Page vii

Tian, N. et al., '2018 Military Expenditure Fact Sheet' *Stockholm International Peace Research Institute* (SIPRI). May 2018.

Tonello, M., *Corporate Governance Handbook: Legal Standards and Board Practices* (3rd Edition). The Conference Board 2009, page 14.

Further Reading

Branson, B., 'Reporting Risk Information to the Board of Directors. Top Risk Executives Share Their Practices'. ERM Initiative, Poole College of Management, North Carolina State University, 2015.

Fadun, 'Risk Management and Risk Management Failure: Lessons for Business Enterprises'. *International Journal of Academic Research in Business and Social Sciences*. February 2013, Vol. 3, No. 2

Financial Reporting Council, 'Developments in corporate governance 2011: the impact and implementation of UK corporate governance and stewardship'. London: FRC 2011.

Hindson, A. 'Developing a risk culture', *Risk Management Professional*, December 2010 issue, pp 28-29

Institute of Risk Management. 'Risk Culture: Resources for Practitioners'. London: IRM 2012

Niemi, E et al. 'Decision-Making and Risk Management in Architecture Work'. Information Technology Research Institute, University of Jyväskylä. 2008.

Standard and Poor's. 'Methodology: Assessing management's commitment to and execution of enterprise risk management processes'. 2009

For appendix C:

Barned, J. 'Dashboard Reporting. A guide to improving management reporting in SMEs'. *CPA Australia LTD*. 2011. Pages 6-7

Hirt, M, Lund, F & Speilmann, N., "The Board Perspective: A collection of McKinsey insights focusing on boards of directors'. McKinsey & Co. August 2016. Pages 9, 15, 41 & 46

Starovic, D., 'Performance Reporting to Boards: A Guide to Good Practice', the Chartered Institute of Management Accountants. 2003. Page 13.

Appendix A

Data collection and analysis of FTSE100 (as of May and June 2018) annual report statements on risk make reference to a "strong and robust" framework. 64 included the explicit reference to a strong and robust framework for risk, 36 did not.

FTSE 100 Constituent	"Strong and Robust"	
3i Group Plc	Y	Integrity, rigour and accountability are central to our values and culture at 3i and are embedded in our approach to risk management
Admiral Group	Y	The Board, with support from the Group Risk Committee and the Group Risk Department, undertakes a regular and robust assessment of the principal risks
Anglo American	Y	We are committed to an effective, robust system of risk identification, and an effective response to such risks, in order to support the achievement of our objectives
Antofagasta Holdings	Y	The Board has carried out a robust assessment of its principal risks, which are set out below, together with the related mitigation techniques
Ashtead Group plc	Y	… It has developed a rigorous risk management framework designed to identify and assess the likelihood and consequences of risks and to manage the actions necessary to mitigate their impact
Associated British Foods plc	Y	…undertakes a robust annual assessment of the principal risks, including those that would threaten the business model, future performance, solvency or liquidity, together with the internal control procedures and resources devoted to them
AstraZeneca plc	N	Only reference is to "adequate risk processes"
Aviva plc	Y	Rigorous and consistent risk management is embedded across the Group through our Risk Management Framework
BAE Systems plc	Y	The Board has carried out a robust assessment of the principal risks facing the Company, including those that would threaten its business model, future performance, solvency and liquidity
Barclays plc	Y	Effective risk management and a strong risk culture
Barratt Developments plc	Y	It has undertaken a robust assessment of the principal risks in our business and has established the appropriate level of risk that is acceptable in the pursuit of our strategic objectives
Berkeley Group Holdings plc	N	Reference to a combined top-down, bottom-up assessment to create an effective model
BHP Billiton plc	N	Reference to risk being central to creating long-term shareholder value
BP Plc	N	Reference to the risk management system and policy being designed to be a consistent and clear framework
British American Tobacco plc	Y	During the year, the Directors have carried out a robust assessment of the principal risks and uncertainties facing the Group
British Land Co plc	Y	The Board has undertaken a robust assessment of the principal risks and uncertainties that the Group is exposed to
BT Group plc	N	Reference to Enterprise Risk Management framework giving reasonable (but cannot give absolute) assurance
Bunzl plc	N	Reference to a consistent process followed by every business
Burberry Group plc	N	Reference to a framework focussed on a broad range of risks and uncertainties
Carnival plc	N	No significant reference to risk management
Centrica plc	Y	The Board makes a robust assessment of these Principal Risks

FTSE 100 Constituent		"Strong and Robust"
Coca-Cola HBC AG	Y	Leveraging our robust risk management programme, we are constantly vigilant to uncertainty in our operating environments
Compass Group plc	Y	… sets out the principal risks and uncertainties facing the business at the date of this Report. These have been subject to robust assessment and review.
CRH plc	N	Reference to risk management processes operating to ensure a comprehensive evaluation of risks is performed
Croda International plc	Y	The Board has carried out a robust assessment of these key risks
DCC plc	N	Reference to an embedded process
Diageo plc	Y	… a robust assessment of the principal risks facing the company…
Direct Line Insurance Group plc	Y	Our risk culture underpins our business and decision-making, and helps us embed a robust approach to managing risk
easyJet plc	Y	The Board has carried out a robust assessment of the principal risks facing the Group
Evraz plc	Y	In 2017, management carried out a robust reassessment of the principal risks facing the Group
Experian Plc	Y	The Board has put in place a framework of controls and delegated authorities, which enables the Group to appraise and manage risk effectively, through clear and robust procedures
Ferguson plc	N	Reference to a top-down/bottom-up assessment in order to produce an overall risk profile report for the Group
Fresnillo	N	Reference to a process that is continually evaluated, improved and enhanced in line with best practice
GlaxoSmithKline plc	N	Presentation of risk information dominated by the actual articulation of principle risks
Glencore plc	N	Reference to policies and procedures not having a material mitigating effect on the negative impacts of the occurrence of a particular event
GVC Holdings plc	Y	To manage these risks, the Group conducts a continuous and robust risk management process
Halma plc	Y	During the year, the Board performed a robust assessment of the Principal Risks
Hargreaves Lansdown plc	Y	The Board has performed a robust assessment of the principal risks facing the Group through a process of continual review
HSBC Holdings plc	N	Reference to a comprehensive programme of risk management
Imperial Brands Group	Y	On the basis of this robust assessment of the principal risks facing the Group
Informa plc	Y	This overall approach enables the Board to form a robust assessment of the principal risks
InterContinental Hotels Group plc	Y	We continue to play a vital role in maintaining IHG's robust corporate governance framework
International Consolidated Airlines Group SA	Y	This policy sets the framework for a comprehensive risk management process and methodology ensuring a robust assessment of the principal risks facing the Group
Intertek Group plc	N	Reference to reasonable expectation
ITV plc	Y	Ensures a robust and appropriate risk management framework is in place
Johnson Matthey Plc	Y	Our strategy is underpinned by a robust risk management framework
Just Eat plc	Y	Rigorous risk management is a key driver to sustainable success. The Board carries out robust assessments of the principal risks facing the Group
Kingfisher	N	Reference to a necessary framework to ensure that it has sufficient visibility of the principal risk

FTSE 100 Constituent		"Strong and Robust"
Land Securities Group plc	N	Reference to a risk management framework that enables us to effectively identify, evaluate and manage our principal and emerging risks
Legal & General Group plc	Y	The directors confirm that they have carried out a robust assessment of the principal risks
Lloyds Banking Group plc	Y	Maintains a robust control framework, identifying and escalating emerging risks and supporting sustainable growth
London Stock Exchange Group plc	Y	Adopt robust risk management processes
Marks & Spencer Group plc	Y	Ongoing robust debate around risk, including risk tolerance and factors contributing to any re-evaluation of the severity of particular risks
Melrose Industries plc	N	Reference to a risk management and internal controls framework is in place within the Group to ensure that such risks and uncertainties can be identified and, where possible, managed suitably
Micro Focus International plc	Y	During the year the board continued to enhance the risk management process to ensure that it is robust
Mondi Plc	Y	The Boards have conducted a robust assessment of the principal risks
Morrison (Wm) Supermarkets	Y	The Audit Committee supports the Board in maintaining a robust risk management framework by approving the risk management process and reviewing the Group's principal risks and key risk indicator reporting on a regular basis
National Grid	Y	This includes financial forecasting, a robust risk management assessment, regular budget reviews and scenario planning incorporating industry trends and economic conditions
Next plc	Y	The directors confirm that they have carried out a robust assessment of the principle risks and uncertainties facing the Group
NMC Health Plc	N	Reference to using both a bottom up and top down assessment of business and strategic risk
Ocado Group plc	Y	…have carried out a robust assessment of the principal risks facing the group, including those that would threaten its business model, future performance, solvency or liquidity
Paddy Power Betfair plc	Y	…overseeing the Group's internal control and risk management process ensuring appropriate and robust systems of internal control and risk management are in place to identify, manage and mitigate the risks to the overall viability of the Group
Pearson plc	Y	All business functions continued to maintain their own risk map, with the spotlight in 2017 on the robustness of the mitigation plans
Persimmon plc	Y	The Directors have carried out a robust assessment of the principal risks facing the Group
Prudential plc	Y	the Directors perform a robust assessment of the principal risks facing the Company through the Group‑wide risk identification process
Randgold Resources	N	Reference to prompt and regular risk assessment across the operations of the business. In line with COSO
Reckitt Benckiser Group Plc	Y	Strong early progress on the recently implemented Safety, Quality, Regulatory and Compliance (SQRC) governance structure
RELX plc	Y	The Directors confirm this process is robust and includes consideration of risks, including long-term systemic risks and risks arising from the impact the Group has on external parties
Rentokil Initial Plc	N	Reference to the identification and management of risk being fully integrated into the development of the Group's strategy
Rightmove plc	N	Reference to risk management being reinforced by the Group's continuous process to design and embed strong internal controls across the business
Rio Tinto plc	N	Reference to risk management being aimed at embedding a risk-aware culture in all decision-making, and a commitment to managing risk in a proactive and effective manner
Rolls Royce Holdings Plc	Y	Has carried out a robust assessment of the principal risks facing the Group

FTSE 100 Constituent		"Strong and Robust"
Royal Bank of Scotland Group plc	Y	On the basis of this robust assessment of the principal risks facing the bank
Royal Dutch Shell Plc	Y	That there is a robust process for identifying, evaluating and managing the principal risks
Royal Mail Plc	N	Reference to a sound system of internal control that depends on a thorough and regular evaluation of the nature and extent to which the Group is exposed to risk
RSA Insurance Group	N	Reference is made to ensuring the approach to risk is best in class and fully embedded
Sage Group plc	Y	The Boards have conducted a robust assessment of the principal risks
Sainsbury (J) plc	N	Reference is made to a risk management process that is embedded at the Operating Board level and supported by bottom-up risk processes
Schroders plc	N	Reference is made to risks that have been assessed in light of the current environment, taking into consideration the views of subject matter experts and risk owners within the firm
Scottish Mortgage Investment Trust	Y	The Directors have carried out a robust assessment of the principal risks facing the Company
Segro Plc	N	Reference to active risk management that is at the heart of our decision making
Severn Trent Plc	Y	The Directors have carried out a robust assessment of the principal risks facing the Company
Shire plc	Y	Management and internal control systems. During the past year the Board conducted a robust assessment of the principal risks facing the Company
Sky plc	Y	…conducts a robust assessment of the Group's principal risks, including those that would threaten its business model, future performance, solvency or liquidity, and their mitigation
Smith & Nephew plc	N	Reference to an holistic approach to risk management, leveraging the best risk identification and risk treatments already in place throughout our Business Areas and Product Groups
Smith (DS)	Y	We believe that robust risk management drives better commercial decisions, contributes to our strong growth and provides a platform for all our businesses to become more resilient and sustainable
Smiths Group Plc	Y	We have a strong governance framework and robust approach to risk management and financial control
Smurfit Kappa Group Plc	N	Reference to manage rather than eliminate the risk of failure to achieve business objectives
SSE plc	N	Reference to how to support the achievement of these objectives over the past 12 months and how the Board has sought to further mature and embed the Risk Management Framework
St James's Place Plc	Y	The risk management environment in St. James's Place is built upon a strong control culture
Standard Chartered plc	N	Reference to risk management as a dynamic process
Standard Life Aberdeen Plc	Y	Strong risk management will enable delivery of our strategy and allow us to manage business headwinds
Taylor Wimpey plc	Y	The Group's control environment was further enhanced through a robust risk assessment
Tesco plc	Y	Principle risk and uncertainties. A robust review
TUI AG	N	Reference to the application of a consistent risk management process across the business
Unilever plc	N	Reference to an embedded approach to risk management which puts risk and opportunity assessment at the core of the Board agenda
United Utilities Group Plc	N	Reference to a framework that supports assessment of the extent of risk we are willing to take based on obligations, stakeholders' requirements and the company's capacity and capability to manage risk

FTSE 100 Constituent	"Strong and Robust"	
Vodafone Group plc	Y	Ensuring that they have strong and robust corporate governance at the heart of everything they do
Whitbread plc	Y	The Board carried out a robust assessment of the principal risks and uncertainties facing the Group
WPP plc	Y	Carried out a robust assessment of the principal risks facing the Group

Appendix B

Data collection and analysis of discussion with a collection of senior executives in response to the question "what elements of risk reporting don't work for you?"

Responses:

Common flaws	One-off areas of concern
- Too many pages - These aren't the issues we talk about in other strategic meetings - Not pointing me towards the key information that I need to know - Too much "for your information" - Not pointing me towards things that need some action - Too much specialist risk language that we don't use in other discussions - No joining of the dots. Far too siloed and specialist in reporting topics - Lots of risk insight information, but where is the data to back some of this up? - Top 5 risks! What about number 6 onwards? - I know much of this already from other forums. It would be better to learn about my blind spots - Must align to my business structure, or at least be flexible enough for me understand how it all fits together	- Everything seems to be under control/have a plan. But is there a head in the sand mentality? - Whose red is the red rating? - The reporting doesn't collate well, far too many disparate messages - Periodic reporting centred on formal meetings and reports rarely gives me the information when I actually need it - Too much of this is after-the-fact information - Modelling of these risks appears to rely heavily on historic data. But everything is changing so is this 'right'? - If I do need to fire-fight, I need to know where the mess has come from

Appendix C

Data collection and analysis of best practice recommendations for the "myriad of dashboard reports".

1. CPA Australia examples of types of information that could be included in dashboard reports

Sales	- Sales for the period (weekly, monthly, quarterly, annually - Comparison of sales for the same period previous year - Comparison against budgeted sales - Cumulative sales for the period - Total discounts applied - Total discounts as a percentage of sales - Number of sales - Percentage of sales that are cash - Percentage of sales that are credit - Sales by employee - Sales by item - Top selling items - Sales growth rate - Number of new customers
Work in progress	- Number of orders taken - Orders in progress - Orders competed, not invoiced - Outstanding deliveries - Production issues
Gross profit	- Stock purchases for the period - Stock on hand - Stock ageing - Stock on order - Gross profit value - Gross profit margin - Mark-up
Net profit	- Total amount of variable expenses - Variable expenses against sales as a percentage - Total amount of fixed expenses - Fixed expenses against sales as a percentage - Monitoring variations to individual expense items from previous periods by setting appropriate trigger points such as an increase by 5% or by value - Net profit value - Net profit margin - Breakeven calculation
Business efficiency	- Debtors days - Creditors days - Inventory days - Work in progress days - Stock turnover - Stock on hand to total assets - Aged debtors report - Aged creditors report
Cash flow / liquidity	- Cash balances, including investments - Financial facilities, including amounts drawn, available term and interest charges - Cash flow forecasts - Working capital available - Current ratio - Quick ratio - Leverage ratio - Debt to asset ration

Balance sheet	- Total sales to total assets - Return on assets - Return on investments
Business planning	Key metrics developed to monitor business performance against business strategy.
Other	Other key performance indicators dependent on the nature of the business, the goals of the business, business drivers and risks.

2. The Chartered Institute of Management Accountants good practice on performance reporting to Boards

Executive summary	All key issues identified in an introductory executive summary with a synopsis of performance provided by key indicators. Supporting documentation and appendices clearly referenced.
Action plan	Corrective action specified with contingencies and sensitivity analysis showing best and worst case scenarios.
Profit and loss	P&L account showing period and cumulative positions with highlighted variances against budget. Major variances highlighted and adequately explained. Trend analysis shown graphically. Full year projections updated.
Projected outturn	Projected outturns recalculated on the basis of actual performance and actions plans.
Cash flow	Profiled cash flow summarising actual and projected receipts, payments and balances on a regular basis to year end.
Capital programme	Analysis of progress of major capital schemes showing percentage completion, current and projected expenditure, completion cost and timescales.
Balance sheet	Indication of working capital position presented in tabular form or using performance indicators e.g. debtor and creditor days.

3. The Board Perspective: A collection of McKinsey insights focussing on boards of directors August 2016

Fiduciary	- Annual accounts - Annual budget directives - Next year's budget - Auditors report - Audit planning approach - Audit committee reviews
Strategy	- Framework for the year - Broad options - Outline/selected options - Review of strategic position - Review of competitive position - Key performance indicators
Investment	- Ongoing review of investment proposals
Clear picture on IT	- Impact of technology on core business activities - Value generated from most important IT projects - Speed with which new features are developed and launched - Efficiency of IT organisation - Next-generation skills embedded in IT function
Marketing	- Customer engagement - Social media - Potential for brand-changing events