

Research series

Why boards should be sensitive to risk culture



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Introduction

Lt. Colonel Arthur “Bud” Holland was Chief of the 92nd Bomb Wing’s Standardisation and Evaluation Section in the US Air Force. This means he was responsible for knowledge and enforcement of academic and in-flight standards. He was a gifted pilot with more than 5200 hours of flying time, flying B52s since the beginning of his career in 1971. He was considered by many to be possibly the best B52 pilot in the command.

Between 1991 and 1994 Holland began to display a pattern of poor airmanship and risk-taking. He began to regularly break flight safety and other rules, including numerous instances of flying below minimum altitudes, and exceeding bank angles and climb rates. There were seven well-documented instances where Holland broke the flight safety rules and even encouraged other more junior crew to assist him. These instances were often at airshows and clearly witnessed by senior leadership as well as the public.

This story (known as Czar 52) illustrates a number of factors related to what we might call risk culture. Risk culture as a topic has gathered increasing attention over the past couple of years and yet remains decidedly ill-defined and poorly understood. Risk culture is complex and ambiguous, yet at the same time tangible enough for regulators to link it directly to failures of risk management.

The point that is significant here is that regardless of whether risk culture is seen as a sub-set or super-set of risk management, it is assumed that it is a sufficiently tangible phenomenon that it can (with an appropriate methodology) be observed in some way, linked causally to real world events and therefore arguably measured. But what should be measured and what should directors be sensitive to?

Identifying factors in risk culture

Although the story of Czar 52 is not drawn from a corporate context, it includes a number of factors we will argue are crucial to understanding risk culture. The first of these relates to risk appetite. The risk appetite of the executive and senior leadership naturally affects the types of risks an organisation engages in. Beyond this, however, organisations will also host members who have individual risk appetites that are higher than the rest of the organisation. Most cases of failed risk management involve individuals whose risk appetite was not aligned with the rest of the organisation.

Nick Leeson and the Barings Bank disaster comes to mind, but the same can be said of Bud Holland in the story of Czar 52. These individuals are often high performers, well respected by superiors and sometimes quite charismatic in the way they justify their actions. In many circumstances these employees are likely to be the ones who sell more product and as a result are important to the performance of the organisation. These “stars”, through their charisma and performance, can become untouchable. In their eyes, the rules are there for others – not for them.

As a factor in risk culture, the number and nature of the “stars” in an organisation is important, but they are not actually a problem as long as they are “managed”. This does not mean more tightly bound rules and procedures. Managed here refers to strength of leadership. In the case of Czar 52 we identify an unwillingness or weakness on the part of the organisation’s leadership to adequately reprimand or manage the risks associated with Holland’s increasingly extreme behaviour.

In only three of these seven safety breaches was Holland taken aside and reprimanded by superiors. None of these reprimands resulted in documentation or formal

counselling that would have a material impact on his career. Furthermore, the nature of these reprimands was not shared among the leadership of the wing. The effect of this was compounded by high staff turnover among the senior leadership. During the three years over which this story occurred, the 92nd Bomb Wing had:

- Four wing commanders.
- Three vice wing commanders.
- Three deputy commanders (operations).
- Three assistant deputy commanders (operations).
- Five squadron commanders.

Each safety breach occurred on another person’s watch, obscuring the pattern of behaviour. Holland had a reputation as the best pilot in the wing, so there was an inclination to give him some leeway the first time. But without documentation of the previous incidents and continuous change of personnel, each instance became the “first time”, a situation that helped to maintain Holland’s reputation among the leadership. More concerning was that the magnitude of the risks he was taking was steadily increasing.

Managing “stars” requires strong leaders, as without this leadership “stars” will continuously stretch the limits of what is possible. As a factor in risk culture, however, strong leadership can be helped or hindered by other factors. In the case of Czar 52, high turnover played a crucial role. This is because risk culture does not occur as a point-in-time event but as patterns of decision making taking place over time.

The high turnover among the leadership meant that problematic patterns of behaviour were seen as individual unconnected events. Holland’s increasingly extreme behaviour was invisible to the leadership, as each event

was, for them, the first one. Each safety breach was reviewed against the context of his reputation as the best B52 pilot and his status as Chief of Standardisation and Evaluation; consequently, he was given the benefit of the doubt.

While the leadership may have been blind to the aggregated picture of risk created by Holland's actions, other members of the organisation were not. There is considerable evidence that more junior members of the bomb wing were concerned about Holland's behaviour. A quote from one junior crew member sums up the situation: "You could see it, hear it, feel it and smell it coming. We were all just trying to be somewhere else when it happened."

In studying risk culture, differences in views between leadership and the rest of the organisation is another important indicator that can be measured. However, it is not the presence of difference that is important – arguably this is normal and can in fact present a healthy diversity of view. What is more significant is what happens to those views. Are they acted upon? Are they suppressed? Or are they selectively modified to match the prevailing worldview of management? Furthermore, are differences in views increasing or decreasing?

Following a flight on May 10th 1994, several crew made official complaints to their superiors, demanding Holland be grounded. During the flight, Holland had repeatedly flown well below the 500-foot minimum altitude and on one run was less than 30 feet. The co-pilot on the mission was forced to intervene and pull back the yoke so the plane didn't impact a ridgeline. Ironically the flight was filmed for PR purposes, though after a couple of passes the cameramen stopped filming, fearing for their lives. Squadron Commander Mark McGeehan agreed with his aircrews that Holland should be grounded but this decision could only be made by more senior leadership.

Colonel William Pellerin listened to McGeehan's concerns and gave Holland a verbal reprimand, which was undocumented. But Pellerin allowed Holland to continue flying. Pellerin didn't watch the video of the flight, or consult

with previous wing commanders in relation to Holland's record. The next flight, call-sign Czar 52, took place on 17th June 1994, a practice for the Fairchild airshow. Holland was chosen to pilot the flight by Col. Pellerin.

The flight proceeded normally until, in preparation for landing, the crew was required to execute a missed approach because of another aircraft on the airstrip. Rather than make a long loop around the airport, Holland banked sharply to avoid flying over a nuclear munitions facility. Only a few hundred feet in the air, the B52 rapidly lost airspeed as Holland banked the plane past 90 degrees. The B52 stalled and crashed into the airfield, killing all on board.

While Colonel Pellerin's response to the crew members' allegations had been weak and inadequate, he was simply the link in the chain where a failure could be clearly identified. This ignores the broader patterns that were present. Many of the factors in risk culture, identified through the story of Czar 52, are relatively tangible and manageable. It is relatively easy, for example, to identify the "stars" in an organisation; it is manageable to pair them with strong leadership; it is possible to manage turnover among those people so that patterns of risk behaviour are visible. It is even possible to monitor differences in views between senior management and general staff. Organisations do these things all the time and it would be easy to conclude that measuring these factors would be enough. But these are not the only factors impacting risk culture and they are not the most important things to measure.

Although these factors can be shown to influence the risk culture of an organisation, they present very crude indicators of the assumptions that drive decision making. Without an understanding of the assumptions that drive decision making, it is not possible to make the assumptions conscious, and if they are not conscious they remain unquestioned. That these assumptions are often hard to see for those who are deep inside a particular situation is well known. However, the ongoing risk they present is relative to the amount of challenge that can be brought to them.

In search of assumptions

The collapse of HBOS in 2008 helps to illustrate the role of assumptions and the importance of making them conscious.

HBOS was created in 2001 through the merger of Halifax and the Bank of Scotland. Like many spectacular corporate collapses (e.g. Enron), HBOS was viewed as a significant success story. The company delivered double-digit growth in all but one of the years leading up to 2007. However, by 2008 the world had changed. Both Lehmann Brothers and Washington Mutual, of whom HBOS was an unsecured creditor, collapsed in September 2008 with an estimated impairment of £600 million. Shortly afterwards, on 1st October, HBOS sought emergency liquidity assistance (ELA) from the Bank of England, technically signalling the failure of the bank.

Yet despite these fairly clear signals with regard to the state of the market, the “front office” of HBOS was reluctant to re-categorise loans from the “good book” to the “bad book”, or to acknowledge that distressed loans might result in losses. The senior management put their faith in the ability of their teams to implement “workout solutions”. In early October 2008, the Corporate Risk Function circulated a draft range for year-end impairment losses ranging from a “best case” £1.7 billion to a “worst case” £3.6 billion, recommending the Corporate Division plan for a mid-level £2.6 billion of losses.

An urgent meeting was called for 5th October 2008 (note this is after ELA was requested), attended by both Corporate and Group senior management, as well as the Corporate Risk Function. The Chief Risk Officer commented that the meeting was a one-way discussion, where “We were never challenged that perhaps our number was too low, we were always challenged that our number was too high.”

In contrast to the story of Czar 52, where it could be argued the nature of a military hierarchy may have limited alternative views reaching the top, the views of the HBOS Corporate Risk Function were either suppressed or modified to suit the views (assumptions) of senior management. In the lead-up to the October collapse, senior management maintained that most of the distressed assets would not result in losses, even though some of these exposures had failed to make payments for almost 12 months.

The outcome of the 5th October meeting was that the Corporate Division proceeded with a £1.7 billion forecast for year-end impairments. In other words, they would provision for the lowest possible amount, even though it was known, due to the speed with which the situation was deteriorating, that the amount was likely to be more. The Head of Group Credit Risk told the review he was “completely excluded” from all decisions about corporate impairments due to the concerns he had raised previously.

He was also informed that the usual quarterly ‘Key Credit Trends’ paper produced by his team would not be going to either the HBOS ExCo or the board. The reason given was “because of everything else going on”. This indicated that the ExCo and the board were not receiving a realistic picture of the likely losses – or requesting one.

An obvious question is where was the board while this was going on? In the 2015 AICD (Kay & Goldspink, 2015) study, we argued that a key role of the board was to provide a reflective capacity for the executive and in so doing challenge the assumptions of the executive. This capacity may be reduced through a lack of diversity of views – in all its forms. In the case of HBOS we see other factors that mitigated against a diversity of views.

HBOS had a large board by Australian standards, consisting of up to 17 members. This included a combination of executive and non-executive directors. The structure was typical of the UK banks at the time; however, the role of the Chair in HBOS was not standard. Unlike the Chairs at similar banks, Lord Stevenson *“played an active role in influencing the strategic direction of the Group and ensuring overall performance”*.



While ostensibly non-executive, his approach to the role and his remuneration package effectively meant he was not independent. He participated in the company’s long-term performance-related incentive plan, in addition to his base director’s fee. The Financial Conduct Authority (FCA) / Prudential Regulatory Authority (PRA) review of HBOS argued that due to his participation in the plan, the Chair’s interests were too closely aligned with those of the executive, thereby limiting his ability to challenge.

It is also worth noting that of the 12 NEDs who served on the board from 2001 to 2008, only one had a background in banking. A lack of banking experience was also common to both Group CEOs during the period in question. It could be argued this lack of experience may also have contributed to the board’s inability to effectively challenge the executive team and their responses to the GFC.

However, the NEDs, while lacking in banking experience, had all been very successful in other fields of industry. It could also be argued that a reasonable diversity of views was present on the board. So why (apart from the points noted above) was the challenge missing? The FCA/PRA review suggests the board relied on two executive directors with extensive banking experience on many occasions, who were also on the same remuneration plan as the Chair.

Remuneration and reward packages often come under scrutiny in the context of corporate disasters. However, they are only one factor among many. The composition of the KPIs that are used to generate them, and the assumptions that underpin those KPIs, are arguably more important. The ongoing assumption in HBOS that losses associated with impaired assets could be avoided through “workout solutions” was itself built upon the assumption that the market would keep growing. The good years of the early 2000s instilled considerable complacency that reduced the perceived need for tighter risk management.

There are potentially other reasons as well. In 2009, we conducted a study (Goldspink et al, 2010) that measured differences in approach to risk between different risk professionals. What that study showed was that different professional backgrounds had a significant effect on the way in which a risk was validated. In other words, determining if a risk was something that needed to be worried about depended on the way in which it was identified (e.g. through spreadsheet analysis for actuaries) and the extent to which it was consistent with past experience (particularly important for operational roles).

The impact of these differences was that while risks may be identified by one part of the organisation, unless the decision maker in another area believed the risk was real (regardless of the evidence presented), there was limited likelihood they would act on it. These decision-making filters were largely unconscious to the people interviewed.

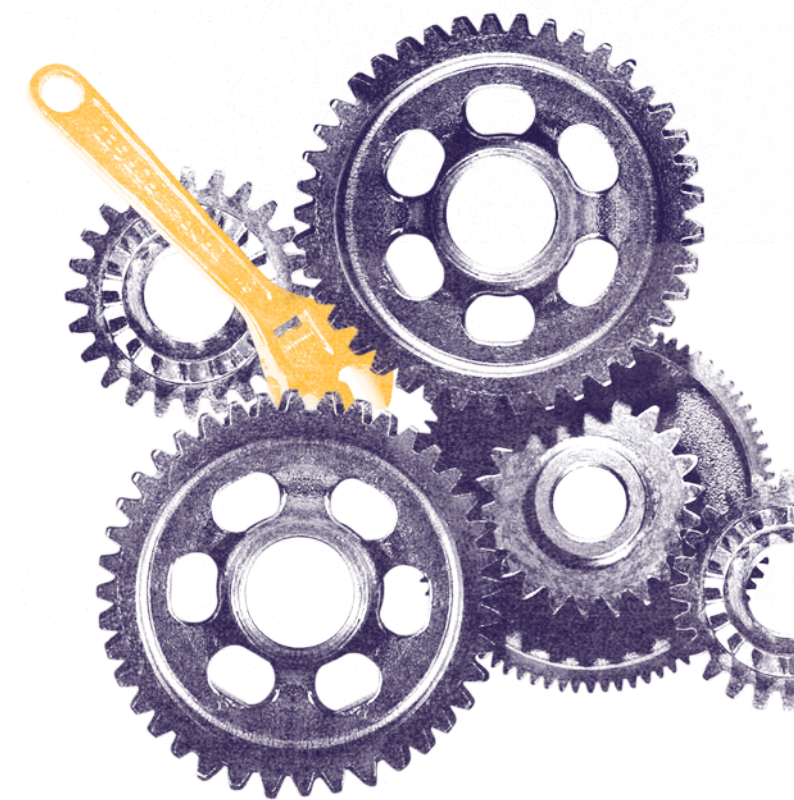
From assumptions to beliefs

The greatest risk associated with unquestioned assumptions is that over time they can eventually take the form of beliefs, and at this point it is very difficult to question them, as beliefs tend not to respond to rational debate. Whether the assumptions described in the HBOS case study had taken the form of beliefs or were simply a myopia of convenience, is difficult to say. However, in our third case study this problem was very real.

The Columbia disaster in 2003 was the second time NASA had lost a space shuttle, and the second time the risk culture of the organisation had come under the spotlight. Unlike the Challenger disaster, however, the crew of Columbia could potentially have been saved in space if the organisation's belief regarding the danger of "foam strikes" had not been so tightly held.

Space shuttle Columbia burnt up on re-entry into Earth's atmosphere on 1st February, 2003. The cause of the disaster was a piece of foam insulation that had broken off the shuttle's external fuel tank and impacted the left wing 82 seconds after launch. The foam damaged heat-resistant tiles, allowing hot gases to penetrate and destroy the wing during re-entry, leading to a loss of control and eventual break-up of the shuttle.

Focus on the foam as a potential cause of the disaster came early in the post-crash investigation, the rigor of which was extreme. Keen to get to the cause, literally hundreds of alternative scenarios were examined by NASA and the investigators. However, despite the willingness to examine all potential causes, NASA's managers resisted the idea that a "foam strike" could have been to blame. The reasons for this were neither rational nor scientific, but complex and cultural. Put simply, it had become a matter of faith within NASA that "foam strikes" (a known problem) could not cause mortal damage to the shuttle (Langewiesche 2003).



As the investigation into Columbia's crash continued, NASA's managers resisted calls from investigators to undertake a test where a piece of foam would be fired at some heat-resistant tiles, simulating as closely as possible the nature of the accident. The reasons given related in part to the expense of such a test, each tile costing more than US\$700,000, and the limited supply available. Sensing a cultural issue, the investigators decided the test was necessary and several were eventually conducted.

The last test, which most closely simulated the real event, fired a piece of foam at 545 miles per hour into a section

of tile, producing a significant hole large enough to fit your head through. The results came as a massive shock to the assembled engineers, who still didn't believe it was possible.

What is interesting about the Columbia investigation is that the power of the organisation's beliefs in relation to foam strikes, not only hindered its ability to manage risk, but significantly limited its ability to investigate the cause of the accident afterwards. NASA engineers are people who are used to the sober analysis of data in order to find logical, rational solutions. Yet when it came to "foam strikes" there was no need to look at the data or the evidence – they had belief. Rational, logical debate no longer plays a part in the decision-making process, as the belief has become an engrained element of the actor's worldview.

Worldviews are very difficult to change and typically only get questioned under considerable stress or as a result of some trauma. The trauma for NASA's engineers (apart from that obviously associated with the crash), was actually seeing the damage a "foam strike" could cause through a simulated test at the rocket range. Only then would some of them accept that the strike was the cause.

The three case studies discussed illustrate that risk culture is a deeply complex phenomenon. As a consequence, responses require similar levels of complexity in order to deal with it. Although it can be relatively easy, with hindsight, to identify the source of the problem, the retrospective coherence that makes this possible is very difficult to achieve before a failure.

This presents difficult challenges from a regulatory perspective, as there is often a temptation to assume nice neat causal relationships where in fact the problem is far more difficult to understand.



Current responses to risk culture

Current organisational responses tend to fall into one of two potential categories:

Category 1: Responses for those who want to “be seen” to be doing something about risk culture.

Category 2: Responses for those who actually want to “do” something about risk culture.

Although the above distinction may appear glib, it is important to understand which one your organisation is engaged in. In the current climate of increasing interest but limited available research, it is relatively easy for boards that are seeking Category 2 outcomes to undertake Category 1 actions.

Category 1 responses typically take the form of a survey of some description. Possibilities include staff engagement surveys undertaken to get a “pulse” on the state of the organisation’s culture; self-report surveys that may ask different areas of the organisation to respond to risk-related questions; or status reports that use crude proxy measures to provide a picture of the organisation’s risk culture, i.e. existence of a risk framework, number of meetings of the risk and audit committee, etc.

In many cases these are activities the organisation is already engaged in in some way and therefore it is easy and cost effective to repurpose something that is already happening (i.e. a staff engagement survey) to try and look at a new problem. These types of activities, while easily embarked upon, present little danger of having any impact on the organisation, or arguably informing decision makers of anything useful with regard to the risk culture. They do, however, provide evidence of a response to the issue.

Category 2 responses are more difficult to encapsulate, primarily because they will likely be bespoke to the organisation, reflecting the nature of the risks involved in that business, particular to and cognisant of the organisation’s size, risk appetite and maturity. Rather than just reporting on risk culture, a Category 2 response will actually support the organisation’s ability to effectively manage risk particular to that culture.

The bespoke nature of Category 2 responses also means they are difficult to compare. For example, key points of difference will be largely philosophical. Some will suggest that it is possible to benchmark risk culture between organisations, some will say it is not possible because the differences between organisations make such comparisons meaningless.

To a degree, both perspectives are correct. Comparability of risk culture will depend on the specific variables that are in focus. Some aspects of risk culture may be comparable between organisations that have very similar characteristics or in relation to specific products. However, meaningful comparison between organisations of different sizes in different industries is difficult to envisage.

Category 2 responses will involve different sets of tools, used in combination to map the critical relationships between the different factors driving risk culture. Again, the combinations used should vary from organisation to organisation but arguably will always involve a combination of qualitative and quantitative approaches. As a result, Category 2 responses require a higher level of sophistication on the part of the organisation undertaking the response, and a deeper understanding of the problem they are trying to solve. Generally speaking, few organisations appear to have this understanding.

Is there a **role for the board?**

[Chair 02]: the culture strongly dictates the behaviour and the way companies operate, and it's very very important to the achievement of performance. You have external parameters of course ... and general economic features. But things that you can control are greatly influenced by culture, and ... it starts with the board.

The AICD study conducted in 2014/15 was focused on the relationship between governance and performance. In that context, approximately 53 per cent of the Chairs interviewed discussed the role of culture in some way and its relationship to the board. The above quote of Chair 02 is consistent with many of their comments.

The capacity to notice threats, anomalies or aberrations relies on the capacity to see the organisation and its emerging context through different lenses. How these are brought together and used to constructive, rather than destructive, ends is fundamental. Many of the factors in risk culture that were described in relation to the Czar 52 case study, such as management turnover, hiring individuals with high-risk appetites ("stars"), and monitoring differences in views between senior management and junior staff, are operational in nature and arguably should be managed by the executive.

The concerns with regard to assumptions and beliefs, described through the HBOS and Columbia stories, would appear to sit more comfortably with the board. Executives are often selected for their decisiveness and willingness to back themselves. This easily translates as a tendency to back the assumptions upon which they base their judgments.

In its role of providing a reflective capacity to the executive, the board needs to ensure that no single worldview dominates the others but that the executive is able to mobilise a range of approaches to dealing with uncertainty that are appropriate to the circumstances. This includes the board remaining sensitive to the assumptions and beliefs that underpin executive decision making, and a capacity, through the quality of its relationship with the executive, to constructively challenge these.



This suggests that the board has a very important role to play and forms an integral part of the risk culture of the organisation. As such, it is not surprising the question of director liability for risk culture has become a topic of hot debate. This aspect of the subject is not the focus of this paper, and other more qualified people have discussed the matter in depth (see for example Colvin and Argent, 2016). However, as the case studies in this paper illustrate, a great degree of retrospective coherence can be applied to explain failures of risk management.

This perspective can give the impression of relatively simple and straightforward causality between the decisions of individuals (possibly members of the board), risk culture and adverse events. However, the ability to explain the role of risk culture posteriori is quite different to the ability to influence an event a priori. It is simply not possible to draw a straight line between the decisions and actions of people in one part of an organisation and the decisions and actions of another group in another part of an organisation, as culture is an emergent property of all these activities.

A useful analogy here is the “butterfly effect” described within Chaos theory. The “butterfly effect”, coined by Edward Lorenz (1972), describes the way small changes in one part of a complex system (like an organisation) can have significant and unpredictable effects in another part of the system.

Technically known as sensitive dependence on initial conditions, Lorenz described the concept with the metaphor of a butterfly flapping its wings in one country and influencing the eventual size and path of a hurricane in another several weeks later. While this form of emergence can be modelled in a computer and it can be argued the butterfly is involved in the eventual outcome, it is a more challenging task to see how the butterfly could be found liable among all the other contributing factors in the event. There are thousands of factors that come into play, and risk culture, as an emergent property of a complex social system, has many of these characteristics.



Conclusion

This paper has attempted to paint a picture of the complexity involved in understanding and managing risk culture in organisations. What should be clear from the case studies is that the risk culture of an organisation cannot only lead to increased numbers of realised risks, but threaten the existence of the organisation overall. While it may appear nebulous to some degree, it is possible to identify key factors that consistently influence the state of the risk culture, and provide a starting point from which to measure it and to manage it.

As external regulatory pressure grows, the temptation to adopt Category 1 responses will also grow. The danger of these approaches is that they may lead regulators and boards into a false sense of security. The difficulty of perceiving, measuring and managing the worldview-

related risks inherent to the case studies, provides a key role for the board. The three lines of defence², common to organisations such as financial service organisations (e.g. HBOS), appear unable to deal with these aspects of risk culture. Until quality evidence, provided through a combination of qualitative and quantitative measures of risk culture is available, the board will provide the last line of internal defence against inappropriate approaches to managing uncertainty.

So while better measures of risk culture can and should be developed to provide a broad diagnostic, even with these better tools the emergent nature of risk culture will continue to present challenges. The board's role, of providing the reflective capacity for the organisation, will therefore remain significant.

² First line of defence – front line staff; Second line of defence – risk management, independent review; Third line of defence – internal/external audit

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