ENABLING GLOBAL COMMUNICATIONS - FROM RISK TO REWARD: WHY MUST WE LEARN OUR OWN LESSONS BEFORE WE CHANGE RISK MANAGEMENT BEHAVIOUR?

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Abstract: Keith Schofield unpacks the decision processes leading to challenged decision-making, exploring how engineers, managers and investors can improve it. He proposes that risk management goes beyond pre-investment activity. Using specific examples after Hurricane Ivan and the Asian Tsunami, he demonstrates that team qualities define the quality of the outcome. From experiences in cable manufacturing, implementation, Cable & Wireless Operations and latterly at Dotdash Consulting, he lays down some principles for project risk management and proposes some persuasive strategies to make this attractive to those who really decide about cable investments. After all, *why learn from our own mistakes when we can learn from someone else's?*

1 WHO MAKES THE DECISIONS?

The trouble is, the people who make the *big* decisions, people here at SubOptic and people more interested in getting return for shareholders than in Enabling Global Submarine Communications, know least about the *detailed* problems. Through no fault of their own, they are furthest from understanding and mitigating the risks. So, decisions we later regret are made – despite the best of intentions. Step back for a moment and imagine that you are trying to explain submarine communications to your Granny. She will be mildly interested that you can get the entire contents of the local library down a hair-thin strand of glass in a couple of nanoseconds (I exaggerate for effect) but she won't have much of an idea of the twists and turns that make that amazing thing possible. Could the same problem afflict those who lack closeness to our industry?

Managers and Investors, whether they be accountants within our biggest companies, banks, venture capitalists, CEOs or wealthy private individuals, know little about the means but know a lot about the money. Our community here at SubOptic therefore has a job to do. It is to find a way of explaining how the industry, the technology, the services we know and love will make their business work better and their money work harder.

Together we're emerging into a very different world following the telecoms crash that had its roots in decisions made a decade ago. The rules have changed, some of the players have changed and the industry has metamorphosed into a new set of entities and relationships.

But somewhere in the middle of all that remains the core knowledge we all need to manage risk so we can access the reward. The clever organisations are the ones who connect the knowledge to the decision-making. If it's not in-house, they will pay to get it. The others could lose US$ Billions. Our industry did that once – why do it again?

And therein lays one of the big problems. To access that knowledge costs money, yet the case for accessing it only becomes compelling after the mistakes are already made.

But let's rewind a little and establish how large organisations make their decisions. Typically, in a large company, an engineer will need to get signoff for any expenditure from a manager, although on projects they may be able to commit the company to a figure of US$100k. The manager will have to go to a department head for expenditure up to US$1m, although this probably will have been previously approved by a director within a budget (see Fig 1).

Much above that and the regional or main board directors are approving spends of US$2-20m, with a main board resolution required for figures at the higher end. None of this is wrong, but let's take a look at the level of knowledge compared with the level of influence (see Fig 2).

So, we see that although organisations may have all the knowledge they need within them to make an informed technical, financial and business judgement in consideration of the risks in all these areas, there is a fundamental disconnect in professional capability, language, understanding, politics, sifting of risks and decision-making that means that organisations have a propensity to obsess about the wrong things. But surely we've been through the telecoms crash, done the burning and now the flames are out? Well, the evidence is that as an industry we will have to learn the same lessons all over again. And let's remind ourselves of what some of them were:

- **Invest without due diligence at your peril**. If you invest without checking out the risks (financial, business, organisational, environmental, socio-political), your shareholders may be lucky or they may suffer – but do *you* want to be the one to blame?
- **Find a way to get the practitioners to *communicate* to the decision-makers**. '*They* never talk to *us'* is no excuse. Explain the risks, quantify them from a business perspective, technically and financially, and move forward with a common understanding. You know it makes sense.
- **Get your engineers truly engaged in the approval, financial and risk management process.** Get your managers in front of your engineers to understand what they're buying – after all, who'd buy a car without first checking that it did what you wanted?

You can see from this that what our largest organisations need is a free flow of relevant and meaningful information between people of different disciplines so that all can understand how their part of the process fits with the whole.

2 HOW DO WE ESTABLISH THE RISKS?

There are plenty of risk management models out there and it's beyond the remit of this paper to go into them in detail. However, let's assume that we have a free flow of communication and information across the different practitioners across your organisation. Here are some initial thoughts.

Most risk management schemes rank them in terms of severity, likelihood and consequences (Fig 3). Thinking in these terms helps set priorities.

- **Get the right team working together.** 'Organisations don't make mistakes, people do.' Select the team carefully. Give the team the correct level of authority, responsibility and accountability to evaluate risk and plan a successful outcome.
- **Get the communications lines right.** If there is a general risk management framework in your business, use it. Ensure that the risks you identify, document and communicate are appropriate and mean something to the people who will have to make decisions. Think hard about which risks to prioritise for escalation, how to avoid overlap and how you will propose to get the people who matter actually to *do* something about the risks you identify. Propose mitigation.
- **Don't be frightened to use the tools you have at your disposal to manage risks.** That may be as simple as a regular Excel spreadsheet to a risk management board or a company-wide database or project management system. The mechanics of the process are less important than ensuring its effectiveness. Find out how to draw the appropriate attention of decision makers to the critical risks.
- **Ensure *all* the stakeholders get a chance to contribute to the risk management process** (get your engineers talking to your accountants), and *review* the status of the risks at appropriate intervals. As things change, don't be frightened to re-categorise, remove or add risks as the investment process, project development and implementation give way to operation.

3 CASE STUDIES – RISK MANAGEMENT IN THE ASIAN TSUNAMI AND HURRICANE IVAN

In the case of the Asian Tsunami of December 26 2004, the author had a personal opportunity to witness the outstanding response by the main Telecom carrier in the Island nation of the Maldives, which was overrun by the wave with the loss of 82 lives (source: Wikipedia). Although comprehensive preparations had been made for just such an event, for the first critical hours after the event, for totally understandable safety and security reasons the Government prevented the movement of people and equipment, and the impact of this was hard to predict before it had happened. This hampered initial efforts to assess and limit the damage. However, after heroic efforts from local staff, much of the equipment was dried out and turned on, to restore service. Had it not been for the pre-existing disaster plan, such an effective response would never have been possible.

For the Maldives Government and the Telecoms provider, the risk-outcome of the Tsunami was the recommendation by the ADB in its joint report with the UN that:

"*Need for a risk management system.* The recent disaster has increased Government awareness to the risk exposure of Maldives and the measures needed to manage risk. The Government is starting preparation of a risk management system to reduce the human and economic impact of future disasters. The three pillars of a risk management strategy consist of risk information, risk mitigation, and risk transfer. (*source: ref 1)"*

What can we learn from the ADB approach? Clearly we can't get away from the fact that no matter how good the preparation, there were still lessons to draw from the experience. So, the clever thing is to find a way to learn from mistakes before they happen. We can use the ADB model to guide our thinking – there are many others – the specific model is less important than actually taking the process of risk management seriously.

Incidentally, since that time, The Maldives has planned and implemented not one but two Cable Systems in order to reduce its reliance on Microwave infrastructure – in this instance submarine cables are part of the risk management solution. This follows a similar pattern

experienced in the Caribbean following Hurricane Hugo, after which followed the Eastern Caribbean Fibre System ten years earlier.

The Author, while working in his previous company, clearly recalls debates between the engineering community and those authorising investment and complaints of the cost of so-called 'over-engineering.' This was particularly relevant in the building of upgraded buildings that were taking place prior to Hurricane Ivan in 2004. The reader will appreciate the next part – during the Hurricane, those allegedly 'over-engineered' buildings showed that they were fit for purpose (Fig. 5) and became a shelter not only protecting the communications

equipment for which they were designed, but becoming a shelter for Government departments, enabling rapid response not only for the carrier but for Government and population who had been displaced. These same 'over-engineered' buildings prevented the need to engage in what would have been much more expensive rebuilding of buildings built to a lesser standard. Following the Hurricane, there was a post Hurricane bounce in sales for the carrier that had prepared better and maintained service through the crisis. Risk Management works financially as well as operationally. For new projects, these points need to be made at investment stage, long before the crisis happens.

4 HOW DO WE MANAGE THE RISKS TO INFLUENCE THE OUTCOME?

Once a top quality team is in place, a good risk log, combined with the organisational clout to address the top priority risks, is the key factor. After all, if we don't collect, prioritise and action perceived and potential risks, how will they be managed? Together with well defined decision processes taking in front-line staff right through to CEO, we are on our way to addressing the problem.

As we see below, risks can be scored, ranked and prioritised in terms of the following:

Severity of Risk x Likelihood of Happening x Impact if it Happens = Priority

In its simplest form, this could be done on a low/medium/high basis, for instance:

Risk: Vulnerability of armoured shore-end cable to external damage

Severity is high if the cable is not part of a mesh network.

Likelihood is medium if a landing away from shipping/anchoring has been chosen

Impact is high if the cable is not in a restoration agreement, leading to an overall medium/high rating.

Mitigation could be to ensure that restoration arrangements are in place before the cable goes into service, and this could help to bring the risk down to manageable levels.

This approach enables the project team both to prioritise in objective terms, propose mitigation measures, and if the various project risks are reviewed over the life of the project and communicated to the people who need to hear it, we have the backbone of an effective risk management system.

5 HOW CAN WE FEED BACK WHAT WE'VE LEARNED TO THE DECISIONMAKERS?

That's the tricky bit. Even if they're here at SubOptic (or are interested in this topic), the key decision-makers have many conflicting draws on their time and anyone attempting to manage risk must ensure that the way in which they communicate with the decision-makers takes into consideration:-

- Cultural, International and organisational decision-making factors
- Management processes in your organisation
- The requirement to explain briefly and prioritise risks (so key risks are seen by decision-makers)
- The requirement to include risk mitigation and transfer strategies with information.
- The requirement to describe risk and consequences in terms that mean something to decision-makers (for instance including financial consequences with evaluated probability)

The critical factor is that whatever the organisational and cultural limitations in your organisation, it is important that the top decision-makers get to hear the top priorities for risk, together with severity, likelihood and impact, plus any costed plans for mitigation. This will help them make a more objective judgement on the recommendations made by the project team.

6 HOW DO WE COLLECT THE REWARD?

If you can't measure it, you can't manage it. So says at least one prominent figure in the Telecoms industry. The first step to collecting the reward for good risk management is to predict and measure the cost to the business and shareholders of not engaging in good risk management practice. Only then will the required investment in time, process and skill make sense. In a different industry, when safety dropped downwards in BP's list of priorities, the shareholders found this out to their cost in 2005 *(source ref 2: BP 2006 Annual Review online)*

This assessment of opportunity cost has to be much more than a wet finger in the air – it must be based on the most objective and appropriate set of assumptions that is possible within the business framework. Sometimes, for those investing in this for the first time, it will require paying out for external advice, but one advantage of the downturn of the last few years is that skilled and experienced resource is out there right now to help organisations do this. The most cost effective way of conducting risk management is to embed it into the processes of your organisation, however small or large. The rewards may not immediately be visible but undoubtedly they will be tangible.

7 CONCLUSION

We know we have or can acquire all the risk management and mitigation tools to help our businesses become great businesses. Being prepared to hear some difficult issues raised up front will enable them to be prioritised, escalated and managed to great beneficial effect – financially, technically and ultimately to the benefit of our most important stakeholders – our customers.

We must become better at communicating to the people who need to hear it the consequences of *inaction.* The hard part about this is the sheer time and effort involved in achieving this in our largest organisations – the best part is that well organised risk management need not bankrupt any organisation and indeed it should pay for itself many times over.

After all, why learn from our own mistakes, when we can learn from someone else's?

8 REFERENCES

Ref 1: Maldives Tsunami: Impact and Recovery. Joint Needs Assessment by World Bank-ADB-UN System.

Ref 2: BP 2006 Annual Review online: http://www.bp.com/sectiongenericarticle.do?categoryId=9014639&contentId=7027630

9 ACKNOWLEDGEMENTS

Thanks to Dhiraagu plus Yahoo Images, Maldives Govt website and BBC News for the images used in this report.

10 FIGURES

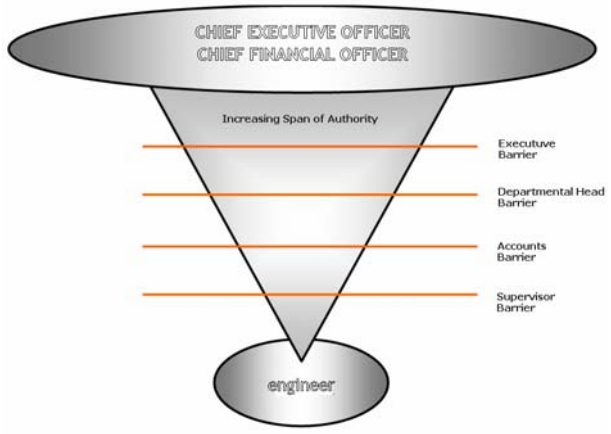

Fig 1. How Financial Authorisations drive Decision-making

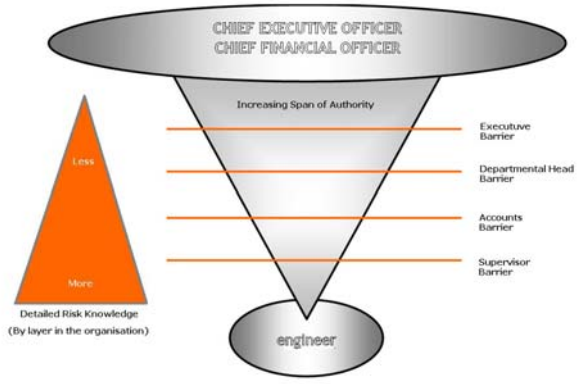

Fig 2. Financial Decision-making compared with Technical Risk Knowledge and Influence

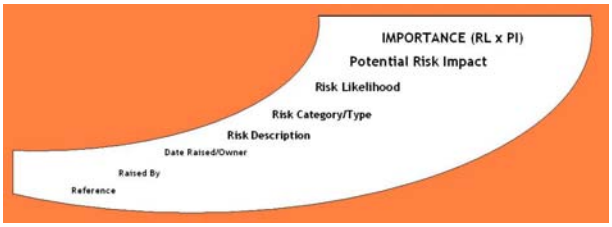

Fig 3. Risk Management Schemes – Severity, Likelihood and Consequences

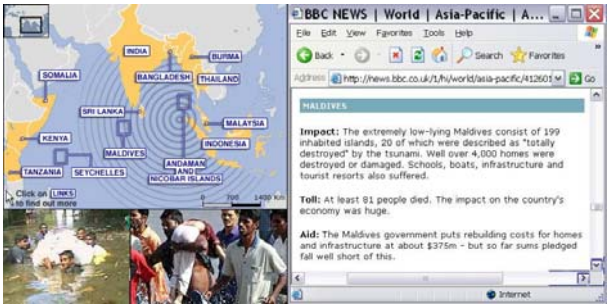

Fig 4. Financial Effects and resolution of the Asian Tsunami in the Maldives

Fig 5. Impact of Hurricane Ivan

Fig 6. Project Risk Management System