

## 2007-05 Managing Risks

## How do we inform management on risks?

*"You can lead a horse to water, but you cannot make him drink"*

### Introduction:

For many years I have done the day-to-day tasks of risk management, both for my own businesses and for clients. Increasingly I see companies claiming to be in the risk management space, but when queried, most of them don't seem to be able to address even the simplest questions about the subject or answer my simplest questions. So I took some time and thought about it, read through some of the more astute papers I could find, reviewed some of the old game theory and decision theory texts, and concluded that this is poorly explained. So here is my attempt to explain it.

### Definitions first

The first area of disagreement in risk management circles comes with the definition of risks and the problems of managing them. I don't propose to argue it here, rather I will define risk and risk management as follows:

*Risk refers to the uncertainty that surrounds future events and outcomes.*

*Risk management is a systematic approach to taking informed courses of action under uncertainty by understanding risk-related issues and integrating that understanding into the decision-making process.*

### How do we manage risks?

In order to effectively manage risks, it is incumbent on organizations of all sizes and sorts to rationalize systematic decision-making processes. This implies the application of metrics and optimization at some level. Many vendors supply simplistic calculators to allow multiplication of a likelihood or event realization rate by an expected average loss to generate an expected loss. Some vendors supply some capabilities for characterizing lists of events, but no product today or in the foreseeable future has or will have the capacity to do the hard work necessary to substantially facilitate a process that can take business issues effectively into account to make sound business decisions.

The challenge is really quite fundamental and quite simple. If risk management is to be effective, managers who make the decisions about addressing risks must be informed. That is the real goal of risk management.

Management must wish to be informed or the effort is wasted. Motivating management is highly context driven and is a psychological and communications problem. If the information provided is not informative or oriented toward the interest of management, they will not drink in much of it or return often for more of it.

While appeals to the non-existent "best practices" work on some, and the compelling simplicity of probabilistic risk analysis appeals to others, at the end of the day, anything that better informs management about the implications of their actions on the future will be useful. But the question of what constitutes "better" remains unsolved. And at the end of the day, regardless of any and all information provided, it must be recognized that risk management is largely about a "gut check". In formal circles, this is called the tolerance of management to risk. But it is really just the judgment by management that their concerns have been met and their fears allayed.

How then do we characterize the uncertain future and the effects of management decisions on that future with clarity and sincerity? The best way is to be reasonably sure ourselves. And that means that we have to do the same gut checks. Have we gone far enough? Have we gone about it in a way we really believe in? And what way is that?

### One way forward

From my view, the fundamental thing lacking in most of today's risk management is modeling and simulation. While many in financial industries and high risk government circles have long used these approaches to help management better understand risks, most in industry have not. Of course this subject area is not a simple one and cannot be reasonably covered here. But look for more on it in future issues.

### Conclusions:

Risk management is about people making decisions based on their own feelings and thoughts. It is our hope that better informed decision-makers will make better decisions, but we cannot prove it is true. How do we get the best information to these decision-makers? By engaging them in meaningful discussions and gaining their focus of attention so they will think through the issues and be inquiring and considerate of risks.

## Fraud of the month

Every month, we take an example from "*Frauds, Spies and Lies and How to Defeat Them*" and describe a recent example. From page 23, section 2.3.6.10 we present the easy as slices of pie:

### "Alter checks on their way to the printer"

*"By attacking the network, the print file [is] altered [on the way to the printer]."*

This very thing was done by a British subject some years back and the extra money was used to pay for his University tuition. He kept track of the money and some years later, after the statute of limitations had expired, sent the company a check for the amount taken plus interest and a note describing how he had done it, so they could fix it for the future.

Section 6.1.4.8.6 (page 178), "Check verification technologies" tells us:

*"[Check alterations] can be largely eliminated by ... [transmitting] all of the information on checks to the bank..."*

It doesn't matter what you print if the bank won't cash it unless it matches. But this is only a partial solution. It turns out that if you can intercept the checks on the way to the printer, you might also be able to intercept the check verification information on its way to the bank. Check verification is a great idea, but like all such technologies it has its limits.

## Chet's Corner

April is tax month in the USA. And after the April tax showers, come the May flowers. Spring hath sprung or so the saying goes. Take time to smell the flowers.

For those of us with allergies,  
flowers bring the urge to sneeze,  
we grin and bear it,  
we tear and share it,  
and feint emotion – our spouses to please.

In chasing risks we all need to take some time to think about why we do it. I think we do it because it's the right thing to do – for us.

## Service Summary

Every month we feature one of our services and give an example of how it benefited one of our clients. This month it's our risk management practice:

As you read above, our view on risk management is that its about decision-makers make well informed decisions. We help facilitate this process by doing studies for clients that seek to systematically identify realistic future event sequences with potentially serious negative consequences. Typically:

- Identifying known threats and threat types with the capabilities and intents to cause the identified harm to the client
- Identifying harmful classes of events and event sequences realizable by those threats based on historical data.
- Sorting by consequence and presenting by representative scenarios.
- Identifying potential courses of action at the strategic level and differentiating easily solved challenges from harder ones.
- Suggesting courses of action and time frames for risk acceptance, transfer, avoidance, and mitigation.
- Associating proper authorities to decisions.

Our clients tell us that these results and the way we present them are meaningful to decision-makers. And since our goal is to inform decision-makers to help them make better decisions, that's exactly what we are aiming for.

## Mollie gets the last word in

I have a love hate relationship with my computer. It hates me no matter how much I try to be loving toward it.

I feed it power  
It always asks for more.  
I tell it my thoughts and emotions  
It never tells me more.  
I care for it gently  
It gets all hot and cranky.

It's not really all that different from my boyfriend now that I think about it.