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Taking a Closer Look at Enterprise Risk Management

by Kara L. Clark

This article is Part I of a two-part piece on Enterprise Risk Management. Part II will appear in the next edition of Health Section News.

Enterprise Risk Management (ERM) was named as one of the top 20 best new ideas related to management by the editors of *Harvard Business Review* in 2004, and yet it doesn't seem to factor significantly on the radar screens of most of the health actuaries I talk to in the course of my work.[1] As a staff member of the Society of Actuaries, my exposure to ERM has grown considerably over the past couple years. It's now a key element of the SOA's strategic direction—one we're working on in full partnership with our sister organization, the Casualty Actuarial Society (CAS). How is ERM different from and an improvement over traditional risk management? After all, banks and insurance companies have been managing risks in some incarnation for years; otherwise, they wouldn't be in business. Part of the answer to this question is addressed in this article.

The intention of this piece is to introduce the general premise of ERM to those of you who are just now starting to hear about it. We're likely all familiar with the Ruskin quote, "The work of science is to substitute facts for appearances and demonstrations for impressions." In this case, however, I'm going for the very unscientific "gist" of it.

What is Enterprise Risk Management?

As an evolving discipline, there is no one single definition of ERM. The CAS Committee on Enterprise Risk Management defined it as follows (the italics are mine):

"ERM is the discipline by which an organization in *any* industry assesses, controls, *exploits*, finances and monitors risks from *all* sources for the purpose of increasing the organization's short- and long-term value to its stakeholders."

There are three main take-aways from the CAS definition. The first is that ERM is about integration; that is, moving from a siloed view of risk to one that is holistic. It involves looking at the correlations between risks across the organization. Which risks get worse when they are combined, and where are there some natural hedges? The area of integration is one in which ERM takes "traditional" risk management to a new level.

The second is that it can involve opportunities related to risk. ERM is not only about minimizing or mitigating risk, although that more traditional view is certainly part of it. But if you don't seize strategic advantage from ERM, you are missing out on some of the benefits it can provide to your organization.

Finally, it is a discipline that can apply to any industry. In healthcare, actuaries tend to work for insurance companies, health plans and consulting firms. ERM provides us an opportunity to apply our skill sets to other stakeholders within healthcare, such as providers, pharmaceutical companies, medical device companies and other industry suppliers.

What are the Benefits of ERM?

At its core, ERM is about seeking and identifying better information to make better decisions. Dr. Shaun Wang, FCAS, ASA, highlights the following elements of ERM's value proposition in the March 2004 newsletter of the Risk Management Section[2]:

- Risk opportunities
- Robust risk intelligence information
- Alignment of incentives
- Cost reduction
- Better coordination

At the ERM Essentials Workshop in Chicago on May 1, I heard Prakash Shimpi, FSA, and David Ingram, FSA, talk about how the ERM process can provide "credible insights." That is, we can't anticipate and plan for every possible contingency, but if we plan for "enough," we can develop some credible insights that we can then draw upon when and if something "unlikely" does happen. One example would be the relatively recent New York City blackout. By and large, there was an absence of panic during that event, which may have been due in part to the new emergency procedures developed by NYC authorities as a result of the 9/11 attacks.

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[1] *Breakthrough Ideas for 2004: The HBR List. (2004)* Harvard Business Review. *Vol 82, Number 2: 13-37.*

[2] *Wang, Shaun (2004). Where is ERM Heading?* Risk Management *(newsletter of the SOA's Risk Management Section). Issue No. 1: 4-7.*

The ERM Movement

A few regulatory catalysts over the past several years have spurred the ERM movement in a few industrial pockets—primarily overseas and within the banking industry. How ERM has played out in those areas (for example, employing various ALM and other sophisticated financial techniques) may look different than it might within U.S. healthcare, which may be another one of the reasons why it seems to have a lesser foothold in our industry. Yet many of the newer regulations and catalysts apply to healthcare organizations as well—Sarbanes-Oxley, rating agency pressures and the general public demand for greater transparency—which suggests that ERM may well have a place in healthcare in the near future.

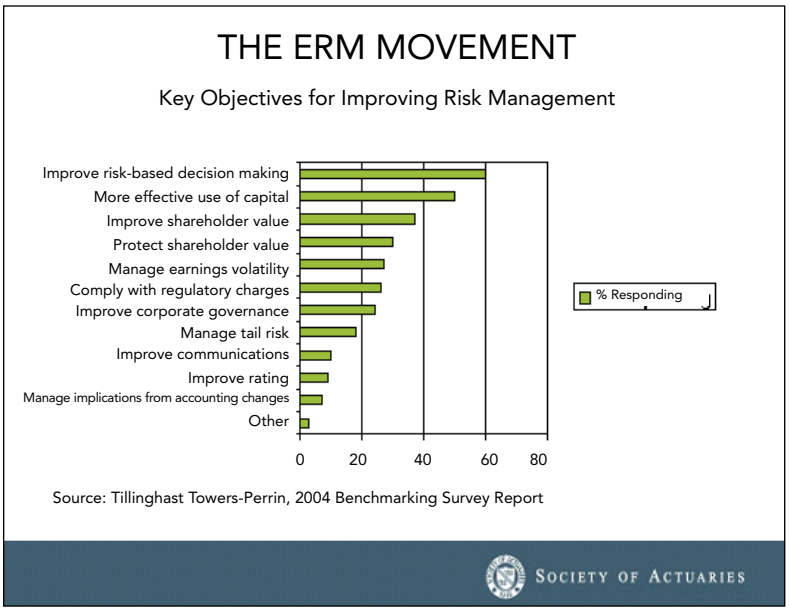
The Tillinghast 2004 Benchmarking Survey Report on risk management practices of senior executives of large insurance organizations around the world noted that "86 percent of respondents said that ERM is more of a priority today than it was a year ago." The graph from that survey illustrates the prior point about ERM's benefits. As you can see, the most common answer given as a "key objective for improving risk management" is about better decision-making, and the top three are really more about potential up-sides than defensive measures (compare "improve shareholder value" to "protect shareholder value").

This discussion isn't to suggest that ERM doesn't have its challenges. One of the most significant as an organization considers implementing ERM is being able to justify its expense. ERM will cost an organization in both hard and soft dollars. What kind of return might it generate for this investment? It can be challenging to identify and measure losses that didn't happen because an effective ERM process was in place. Exploited opportunities due to ERM present another measurement challenge. For example, how do you accurately or fully quantify the impact of your firm in being "first to market" instead of second? And even if you are able to quantify these avoided bad outcomes or capitalized opportunities, are you able to demonstrate that they are really the result of an effective ERM program? Despite these challenges, however, ERM appears to have a lot of momentum in the marketplace.

The ERM Process

I hope you're starting to get a feel for ERM. I'd like to go into a little more depth now and discuss the steps involved in the ERM process.

Risk is the product of two essential ingredients: uncertainty (both in likelihood and magnitude) and preferences. Preferences are key. Even with uncertainty, if we don't care which outcome happens, we don't have a problem. In the case of ERM, we are concerned about the preferences of the owners of the enterprise, who will care about the totality of the organization, over the preferences of any other group, who may have a more siloed, individual perspective.



ERM is an action-oriented process. And while it is creative, dynamic and proactive, it also requires the application of a consistent, disciplined framework. At a very high level, this framework involves three major steps:

- Risk identification and classification
- Risk measurement and prioritization
- Risk management and aggregation

An important tenet of the identification and classification step is to include all key exposures—even those that are extremely unlikely and/or those that are very hard to measure quantitatively. It can be easy to miss sources of risk; new sources are created or evolve constantly. The need to identify all sources of risk—and *quickly*—is one of the reasons why ERM requires a disciplined process.

Common risk categories that you'll often see described relative to an ERM framework include:

- Market risk - external factors that affect the entire economy and/or specific industries
- Credit/underwriting risk - selection and monitoring of counterparties
- Operational risk - process quality and control

The SOA's Health Risk Management Group has been focused on this "risk identification" step for the past year or two, and in the process, has developed a "risk mapping" document for health plans/health insurance organizations that can be used in support of this step. The risk categories defined in this document are grouped a bit differently from those previously outlined, in order to more readily illustrate relevance to the health insurance marketplace. The current version of the risk mapping document can be found at *http:// rmtf.soa.org /hrm_mapping_ hcr.doc.*

The next step, risk measurement, involves identifying unfavorable outcomes and the likelihood they will occur. It also involves identifying and understanding the relationship between the drivers and potential outcomes of a process or event. If those drivers change, how might the outcomes change? As you might know or can imagine, this risk measurement step is easier said than done. Some of the challenges involve (but are not necessarily limited to):

- A lack of data
- "Tail" data – or potential outcomes with very low probabilities, where we have even less data
- An ever-changing environment

Therefore, risk measurement can be described as both an art and a science. For some of the more nebulous risks (such as reputational risk), it might require the use of a 1/2/3- or High/Medium/Low-type scale. It's important that a risk not be ignored or discounted simply because it's difficult to precisely assess.

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Once individual risks are measured, you also want to aggregate them at the enterprise level. This step will involve taking into account and recognizing their correlations. Which few highly unlikely events have a manageable impact if they happen in isolation, but turn into the "perfect storm" if they happen at the same time? Are there any natural hedges that emerge once you look at risk exposures across the organization?

Finally, the ERM process involves risk management. Risk management requires first establishing the organization's risk-tolerance levels in order to set objectives and develop action plans relative to the risks that have been identified and measured. These action plans should allow the enterprise to operate within its risk boundaries while protecting key resources and satisfying external monitors.

Frequency	Severity	Method(s)
Low	Low	Self-Insure
Low	High	Insure
High	Low	Loss control; partial insurance
High	High	Avoid

There are various means for managing risk. From a financial perspective, some of the traditional ways include[3]:

New financial management techniques are emerging to offer a wider range of possible tactics for dealing with various risks. The management of other nonfinancial risks (operational, strategic, etc.) may involve contingency planning or conducting "fire drills". For example, an insurance policy may be available to protect a firm financially from product liability, but the negative impact to a firm's reputation because of a product failure can't be managed in the same way.

Recent Developments in ERM

As we've already seen through the results of the Tillinghast survey, there's a move in the market toward the idea that there is more to risk than buying insurance, and that a good risk management process can enhance value to an enterprise by reducing risk and increasing transparency.

In a broadcast on CNN's "The Money Gang," Prakash Shimpi discusses this aspect of the importance of enterprise risk management, as well as how an actuary's skills are well suited to this position of strategic importance.You can view the media clip of this interview on the SOA's Web site, at *http://www.soa.org/ccm/content/about-soa-member-directory/SOA-actuaries-in-action/*

In Part II of this article, we'll take a closer look at how the evolving discipline of ERM can be applied to healthcare organizations (referring to the health risk mapping document noted above), and finally, how you can start to incorporate ERM principles into your daily work. In the meantime, feel free to contact me with your experiences and questions about ERM. I'd appreciate hearing from you and learning more about how ERM is being discussed and applied by healthcare actuaries.

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[3] *Baranoff, Etti G. (2004). Mapping the Evolution of Risk Management.* Contingencies. *July/August 2004: 23-27.*