Incorporating Strategic Risk into Enterprise Risk Management

Stephen GATES, Professeur

Audencia Nantes Ecole de Management

8, route de la Jonelière

BP 31222

44312 Nantes Cedex 3

sgates@audencia.com

02.40.37.34.91 téléphone

02.40.37.34.07 fax

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This paper explores the implications of a relatively recent organizational development, enterprise risk management (ERM), for the management of strategic risks. Since ERM has not been fully implemented in the majority of companies, little academic research exists about its drivers, obstacles, or impact, especially those processes that identify and mitigate risks to the company's strategy as well as the integration of different types of risks across the company into strategic planning. Which forces are behind this push for a more organized and integrated management of significant risks, including strategic? What obstacles are firms encountering as they implement ERM? How does ERM impact the company's ability to implement its strategy?

The study uses data collected from a survey of 271 risk and financial executives in North American and European companies as well as current examples of company practice to investigate why enterprise risk management has become a priority. Descriptive statistics identify what the drivers and challenges are in implementing ERM. Chi-square analyses pinpoint which benefits early ERM adopters are reporting, and which tools and techniques they prefer.

ERM is first defined and illustrated with specific examples of strategic risk management. Its prevalence and stages of implementation are documented. The primary drivers of ERM, ranked in order of importance, are shown to be as corporate governance requirements; gaining a greater understanding of strategic and operating risks; and regulatory pressures, including pressures from credit rating agencies. Case examples from BP and a round-table of board audit committee members illustrate how stronger corporate governance requires greater focus on risk management, including strategic risks. The most significant obstacles to implementing ERM, ranked in order of importance, are competing priorities, insufficient resources, and lack of consensus about ERM's benefits. Chi-square results show significantly less challenges for companies with advanced ERM systems than those with less advanced ERM systems, especially concerning the lack of consensus of ERM's benefits. Case examples from Bristol-Myers Squibb and Henkel illustrate how ERM can be integrated with other company-wide processes such as strategic planning.

The benefits of full ERM implementation, ranked in order of importance, are better-informed decisions, greater management consensus, increased management accountability, and smoother governance practices. Chi-square analyses show that these benefits were significantly higher for companies with fully implemented ERM systems than for those companies that did not yet complete ERM implementation. Two Canadian companies, Terasen and Hydro One, illustrate the benefits of having an ERM process completely in place. The tools and techniques to measure the impact of strategic risks were shown to differ depending on the stage of ERM implementation. For advanced ERM companies, the most frequently used tools and techniques were key risk indicators, individual self assessments, and scenario analysis.

This paper also identifies issues for ERM effectiveness depending on whether the process owner is an auditor, chief risk officer or strategic planner. It concludes with a research agenda to study how strategic risks will be incorporated into ERM and its impact on strategy implementation.

1. INTRODUCTION

Pressures for enhanced risk management have arisen from many sources: Sarbanes-Oxley, the Delaware court's landmark Caremark case, activist institutional investors, and rating agencies (The Economist, 2004; Risk Management Assessments, Moody's, 2004; PIMS, Standard & Poor's, 2005). Whereas traditional risk management concerned insurance, financial and legal risks, the enhanced approach, enterprise risk management (ERM), takes a company-wide perspective and explicitly incorporates strategic risks (Slywotzky and Drzik, 2005).

Endorsed by the Institute of Internal Auditors, the widely-accepted method for comprehensive risk management was established the COSO Treadway Commission (Committee of Sponsoring Organizations of the Treadway Commission, 2004). It defined ERM as: "A process, effected by an entity's board of directors, management and other personnel, applied in a strategy setting and across the enterprise, designed to identify potential events that may affect the entity, and manage risks to be within its risk appetite, to provide reasonable assurance regarding the achievement of entity objectives,"

Bob Anderson, Director of the Committee of Chief Risk Officers, explains the goal of ERM and how it adds value in practical terms: "… Ten years ago, risk management was mainly about the use of swaps and options to hedge interest rates and commodity prices. Back then, risk management was thought of as a pretty much decentralized, or compartmentalized, activity that could help the firm mainly by making modest contributions to the P&L. But the purview of today's risk manager is much broader; it encompasses all aspects of the corporation, including investment and operating decisions as well as financing – anything that affects the level and variability of cash flows going forward. It's about ensuring the company's access to capital and its ability to carry out its strategic plan – and, in this sense, it is a critical part of the business model." (Anderson, 2005).

Since ERM is a relatively recent activity and has not been fully implemented in the majority of companies, little academic research exists about its drivers, obstacles, or impact, especially those

processes that identify and mitigate risks to the company's strategy as well as the integration of different types of risks across the company into strategic planning. Which forces are behind this push for a more organized and integrated management of significant risks, including strategic? What obstacles are firms encountering as they implement ERM? Once fully in place, how does ERM impact the company's ability to implement its strategy?

Moreover, the level of attention that Sarbanes-Oxley brought to overall risk management made many general auditors (and audit committees) the source of impetus for ERM. However, once the company achieves a certain level of ERM sophistication, risk oversight is often moved to an independent status such as a "chief risk officer" or even to another area such as strategic planning, since there are inherent conflicts in having audit establish ERM objectives and then use these same standards to evaluate ERM process efficiency and determine operating managers' performance (The Conference Board, 2005: 29). Does who "owns" ERM matter to the successful mitigation of strategic risks?

This paper explores the implications of a relatively recent organizational development, ERM, for for the management of strategic risks. The study uses data collected from a survey of 271 risk and financial executives as well as current examples of company practice to explain why enterprise risk management has become a priority. It analyzes what the challenges are in implementing ERM and which benefits early adopters are reporting. It also raises plausible issues based on the role of the process "owner", whether auditor, chief risk officer or strategic planner. Based on these exploratory results, it provides a potential research agenda for studying the impact of the ERM process, under board supervision, that encourages strategic risks to be identified, reviewed, and mitigated in an integrated framework.

2. EXPLORATORY LITERATURE

After the wave of corporate scandals and the Sarbanes-Oxley Act of 2002, board audit committees, rating agencies, and shareholders are more frequently asking senior management, "What are your company's top risks and how will you manage them?" Sarbanes-Oxley strengthened the demand for integrated risk management that was already underway. To cite two

earlier examples: the fiduciary duty of board members of Canadian companies now entails more than oversight of strategy and risk understanding: a board should be actively involved in planning and risk management (Toronto Stock Exchange Joint Committee on Corporate Governance, 2001). In the US, the Caremark case established a legal precedent for board members to put in place policies and procedures to manage and mitigate the company's most important risks, including those derived from its strategy (Caremark International, 1996).

Funston (2004) investigated how top executives identify top risks and manage them. He analyzed the types of risk encountered by the 100 companies with the biggest losses (stock sell-offs) over the past 10 years, and discovered that 37 experienced financial risks, while 66 percent suffered strategic risks. The author explained that strategic risks tend to be rarer and harder for companies to predict and prepare for, so senior management tends to focus on those risks that are most likely to happen. He also pointed out that companies with the biggest losses had been hit by two or more risks that were interrelated. He observed that top management overlooks the way that risk management is compartmentalized by department or function into silos.

Slywotzky and Drzik (2005) argue that while companies are becoming more adept at managing financial, operational and hazard risks, few managers have yet systematically addressed the strategic risks that may be a more serious cause of value destruction. In support of the heightened need for strategic risk management, the authors cite that low quality stocks rose from 35 to 73 percent of the total in one US stock index, the S&P 3,000, from 1985 to 2003.

The authors claim that the key to surviving strategic risks is to know how to assess and respond to them. In the chart below, they cite seven major classes of strategic risks with counter-measures that could mitigate their impact.

Strategic risk	*Counter-measures*
Industry margin squeeze	Shift the compete/collaborate ratio
Technology shift	Double bet
Brand erosion	Redefine the scope of brand investment Reallocate brand investment
One-of-a-kind competitor	Create a new, non-overlapping business design

Customer priority shift	Create and analyze proprietary information Conduct quick and cheap market experiments
New project failure	Engage in smart sequencing Develop excess options Employ the stepping-stone method
Market stagnation	Generate "demand-innovation"

Eric H. Larson, Chief Risk Officer, Bonneville Power Administration, was quoted in support of these authors' view (The Conference Board, 2005: 11), "Risk management helps identify which strategic objectives face a threat—and from which specific, identified risks. By maintaining a discipline of questioning the context for identified risks, we can be attentive to those uncertainties that impact our important strategies and ultimately have the most impact on value creation."

In addition to identifying these strategic risks and preparing counter-measures, Slywotzky and Drzik maintain that companies should not only adjust their capital allocation decisions by applying a higher cost of capital to riskier projects, but also they should adjust their capital structure in response to the volatility of their competitive environment.

Smithson and Simkins (2005) reviewed thirty years of academic research to determine whether risk management adds value. They determined that contrary to CAPM theory, financial sector firms are sensitive to interest rate risk, as industrial firms are to currency risk. The authors concluded that managing these risks can allow companies not to pass up valuable investment opportunities, an important aspect of strategy implementation.

The focus on financial risks has been the prevalent approach in academic studies of strategic risk (with the notable exception of Slywotzky and Drzik). For example, Miller and Bromiley (1990) reviewed many studies that investigated strategic risk and corporate performance. They defined risks in three categories: income stream, stock returns, and strategic risks. As for strategic risks, they measured debt-to-equity ratio, capital intensity and R&D intensity. They discovered that although it makes sense that optimal levels of debt and equity, capital intensity and R&D intensity exist within an industry, it is difficult to accept that such a level has validity across

industries. The authors concluded that the influence of strategic risk, as they narrowly defined it, depends on the industry and performance levels, and called for more research in these areas.

Moreover, Collins and Ruefli (1992) note that the complexity of the concept of strategic risk suggests that no one measure will prove satisfactory in all strategic situations. They developed a unique ordinal measure of strategic risk, as opposed to most other measures which are cardinal. This reflects the problem in risk management that risks that can be precisely quantified receive inordinate attention, while "soft risks" that can not be easily quantified do not receive adequate mitigation effort despite being highly significant (PricewaterhouseCoopers and Economist Intelligence Unit, 2004).

Strategic risks and their measurement in the context of an integrated risk management process have not received extensive academic attention. The next section explains the exploratory methodology utilized to gain an understanding of how widespread ERM is today; its drivers, benefits and obstacles.

3. EXPLORATORY METHODOLOGY

An exploratory survey of ERM practices was designed with input from professionals from Mercer Oliver Wyman, and pre-tested with five risk executives for clarity and consistency. During spring and summer of 2004, 1000 surveys were sent to financial and risk executives in member companies of The Conference Board, a non-profit business research organization. With a second mailing and telephone follow-up, 271 surveys were received. Interviews were conducted with survey respondents, and case examples from their experience are cited here to illustrate current practice.

The distribution of the sample by geography, size, number of employees, and industry is presented in the tables below.

Geography	*%*	*Size*	*%*	*Employees*	*%*
North America	64	> $ 20 bn	16	> 25,000	34
UK	8	< $ 20 bn & > $ 5 bn	30	< 25,000 & > 10,000	19
Europe less UK	28	< $ 5 bn & > $ 1 bn	37	< 10,000 & > 1,000	40
		< $ 1 bn	17	< 1,000	7

Industry	*%*	*Industry*	*%*
Manufacturing	28	Healthcare	7
Financial services	16	Energy	6
Business & professional services	14	Other service industries	19
Wholesale/retail trade	10		

The definition of enterprise risk management used in the survey was that determined by the COSO and cited earlier in this paper.

4. EXPLORATORY RESULTS

Survey results illustrated that although only 11 percent of companies have fully implemented comprehensive ERM, 22 percent are actively engaged in the process, while 23 percent are in the planning and preparation phase. A majority of companies have launched the ERM process.

Table 1: A majority of companies are preparing, implementing or monitoring enterprise risk management practices	
N = 271	percent

Pre-contemplation (never considered ERM)	4.5
Nay-sayers (considered ERM and rejected it or between contemplation and rejection)	9.3
Positively-disposed (becoming aware of need for ERM or between contemplation and preparing for action)	30.5
Preparers	23.0
Developers/Implementors	21.9
Monitors of implemented ERM systems	10.8

However, these results indicate that ERM efforts are still in their infancy. Depending on the company, it takes three to five years to fully integrate and operationalize advanced risk practices. Furthermore, the cost of developing and building an ERM framework is not insubstantial. The upside is that once ERM is part of normal day-to-day operations and business units are identifying and managing risks as a matter of course, corporate oversight of ERM is often reduced.

Barton, Shenkir, and Walker (2002) advise companies that are in this initial risk identification phase that:

- A cookbook recipe for implementing ERM is not feasible because so much depends on the culture of the company and the change agents who lead the effort.
- Risks should be ranked on a scale that captures their importance, severity, or dollar amount and that registers their scale of frequency or probability.

Table 2: ERM is seen as an increasingly important responsibility

	percent reporting how important they consider ERM		
degree of importance	very high	significant	somewhat or less
Board	29	36	35
CEO	39	29	32
CFO	46	38	16
Internal audit	50	30	20

Two-thirds of respondents reported that they believe their board members consider ERM to be significant or very highly significant. This reflects a growing awareness that board members have a fiduciary duty to review policies and planning for managing the significant risks affecting the company.

Case example 1

Guidelines for the chief risk officer to help the audit committee with risk management

During a panel discussion of the role of the audit committee and the board concerning risk, the following guidelines were cited for an enterprise risk director to help the audit committee of the board (The Conference Board, 2005: 8):

1. Understanding the perspective of the audit committee Although the entire board's risk management responsibility to the shareholders is to oversee economic value (cash flow and risk), the audit committee has additional responsibilities to:

- identify the critical processes and related risks that should be monitored by the company's audit committee;
- prioritize and focus internal audit resources; and
- investigate the risks related to legal and regulatory compliance issues.

2. Educating audit committee members about the risks faced by the company.

3. Providing an analytical approach to risk management, which makes the assumptions behind decisions very visible and allows the audit committee to discuss them.

4. Preparing the CEO and CFO for discussions about the audit committee chairman or chairwoman's oversight role.

5. Educating the external auditor on the company's risk management processes.

Case example 2

BP provides guidelines to help its board and top management prioritize and integrate risks

1. Explain the integrative and interactive nature of the risks facing the company to the board. Board committees can then structure their annual agenda around the risks so they can

systematically probe into the responses taken by the company. The risks also enable the internal audit function to design their audit program.

2. Create a hierarchy of risks and screen for company-wide, group level risks which are determined by the significance of their potential impact on reputation as well as finances. Ranking risks and determining their potential impact is a useful means of concentrating executives' attention on the big risks and avoiding distracting them with an accumulation of many smaller potential risks.
3. Once responsibility for risk mitigation is allocated among managers, determine what will get done and when; how the results will be measured and embed the risk response objectives in the performance plans of the managers.
4. Categorize risks between external events, existing operations and self-generated risks. This helps to plan various risk mitigation actions.

Table 3 Limits of Risk Tolerance	
Percent willing to tolerate risk "not at all" or "only slightly"	
Legal	70 percent
Financial	53
Hazard	52
Operating	39
Strategic	26

Not only does strategic risk often have a greater impact on a company's market value, but respondents to the survey indicated that they would be more willing to accept strategic risk than any of the more traditional risks, whether operating, financial, or hazard risks. This suggests that board members should focus more attention on strategic risks given the greater appetite for this type of risk

4.1 Drivers behind ERM

Table 4 Primary drivers for implementing ERM*

Rank	*Driver*	*Percent*
1	Corporate governance requirements	66
2	Greater understanding of strategic and operating risks	60
3	Regulatory pressures, including rating agencies	53
4	Board request	51
5	Competitive advantage	41

* multiple answers allowed

Respondents chose “corporate governance requirements” as the most important reason for pursuing improved risk management. While this is not surprising in light of recent regulatory requirements, the finding that respondents rank gaining a “greater understanding of strategic and operating risks” as the second most important driver is indicative of the growing acceptance of advanced uses of ERM. This ranking suggests that while external regulations might be the initial impetus for adopting ERM, the important underlying benefits of ERM—better diagnosis and control over strategic and operating risks—only become evident over time. Perhaps reflecting their longer experience with regulatory changes reinforcing risk management that started in the 1990s, Canadian respondents put this driver at the top of their list.

When a recent study by PriceWaterhouseCoopers (2004) compared companies that had fully implemented ERM into strategic planning with those that had not, it found that the former group reported much stronger positive impacts from advanced risk practices. More specifically, the report notes that the addition of ERM to strategy is likely to result in:

- greater enterprise-level risk information
- a more commonly held risk terminology and set of standards
- improved risk integration across all functions and business units
- quantifying risks to the greatest extent possible
- reduced risk of noncompliance
- better tracking of the costs of compliance
- and an increased employee understanding of accountability.

Finally, companies are also pursuing ERM in the expectation that rating agencies will take enterprise risk management into consideration when assessing their operations. Both Moody’s

Investors Service and Standard and Poor's have launched efforts to enhance their analysis of risk, and both have chosen to start by examining the financial services industries, a leading sector for risk management practices. Their experiences in this area will ultimately inform the role risk management plays in determining credit ratings for other industries as well. They have already announced that they will include risk assessment policies and practices into their credit and corporate governance analysis (Risk Management Assessments, Moody's, 2004a; PIMS, Standard & Poor's, 2005). In particular, Moody's (2004b) wrote:

"These ERM assessments have often been relatively broad, focusing on reputation, litigation; product development, and health and safety risks, rather than focusing solely on financial risks. Where we have seen these assessments implemented we have commented favourably, particularly when the board or the audit committee is actively involved."

Despite the external pressures and internal drivers for ERM, most companies have not yet adopted the practices needed to achieve these aims.

Table 5 Few companies have the practices needed to support desired ERM objectives	
5a BASIC elements of ERM identification, infrastructure, and process	
	Component is "up and running"
BUs determine risk mitigation strategies	22%
Established a business risk inventory	18
Aligned BU risks with objectives	15
Have common language for risk exposures, control activities, and monitoring efforts	15
Communicated expectations for risk taking to senior managers	14

As for the most basic ERM elements, many firms consider specific risks within certain business units, but they rarely examine risk strategies at the company-wide level. This may explain why 22 percent of respondents report that the process of having "business units determine risk mitigation strategies" is up and running, making it the most commonly used basic ERM element. Participants have had less success in implementing two other foundational elements of ERM:

"establishing a risk inventory" and "developing a common language for risk exposure." Only 14 percent of the surveyed companies say they are adequately "communicating expectations for risk taking to senior managers," making it one of the least accepted basic elements of ERM. Without sufficient parameters for acceptable risk levels that such communication can provide, business units' risks can not be coordinated.

5b MIDPOINT elements of ERM identification, infrastructure, and process	
	Component is "up and running"
Quantified key risk to best extent possible	19%
Identified key metrics to report on risk	14
Written risk policy and procedure manuals consistent across major risk types	12
BUs analyze risks' root cause and impact	10
Process to integrate effects of risk types	9

Few of the responding companies have put in place the elements needed to support the middle phase of their ERM implementation. Moreover, the finding that 19 percent of survey companies—the highest percentage for a midpoint practice—"quantify key risks to the best extent possible" may be an inflated number because, for many companies, this may refer primarily to financial risks, which are those most frequently quantified. Key metrics may not exist for softer and less quantifiable risks such as reputation, but articulating expectations for these softer risks may be as critical as for any financial risk. Again, two of the lowest rated midpoint practices—"business units analyze risks' root causes and impacts" and "process to integrate effects of risk types"—are essential to realizing the benefits of an ERM process. The former procedure guides managers toward the strategic action plans needed to mitigate risks, and the latter encourages companies to overcome their tendency to consider risks only within their individual silos.

5c ADVANCED elements of ERM identification, infrastructure, and process	
	Component is "up and running"
Strategic planning	16 %
Annual budget process	16
Stakeholder communications	10

Management scorecards	4
Remuneration	4

As for advanced ERM practices, only 16 percent of responding companies have incorporated ERM into corporate practices like “strategic planning” and the “annual budget process,” and just 4 percent indicate that they are integrating ERM into “management scorecards” and “remuneration.”

Case example 3

Terasen, a Canadian energy company, recommends several actions to implement ERM fully.

1. Begin with risk inventory and assessment activities.
2. Introduce the ERM framework and methodology in one major operating unit first as a pilot before rolling out throughout the company.
3. Embed and operationalize ERM processes throughout the company, from the strategic planning process with the board to business processes at the operational level.
4. Apply the ERM framework when entering new businesses and making other major investment decisions.
5. Reinforce accountability by integrating risk management with individual performance plans in a number of business units.

4.2 Obstacles to Implementing ERM

In spite of the board and top management’s awareness of ERM’s importance and the external pressures for it, the majority of companies has not yet implemented ERM processes. They cite a number of obstacles.

Table 6, What are the greatest impediments to ERM?*				
	Very significant	Significant	Moderate	Less than moderate

	challenge			
Competing priorities	26%	34%	24%	17%
Insufficient resources (people/tech)	12	32	28	27
Lack of consensus on ERM's benefits	10	22	30	37
Getting organization to make changes	10	27	30	31
Lack of quantification of "soft risks"	7	30	30	32
* Responses have been rounded and may sum to more or less than 100.				

"Competing priorities" receives the highest rating for a "very significant challenge," which might reflect the fact that many of the U.S. respondents are heavily occupied with Sarbanes-Oxley 404 implementation. It may also explain the second place ranking for "insufficient resources," since the resources diverted into meeting these new requirements might have otherwise been used to develop ERM. But a "lack of consensus on ERM's benefits" may actually be a greater obstacle than a temporary lack of resources. If the board and senior management are not convinced about the benefits of ERM, it is often hard to persuade other leaders in the organization of their value. Companies with advanced ERM systems already in place report significantly lesser degrees of difficulty with the main challenges in implementing ERM. This could also reflect early and strong agreement among the board and management about ERM's benefits.

Table 7, Companies with advanced ERM report lesser challenges when establishing a business risk inventory

	Percent responding challenge is "significant" or "very significant"	
	Advanced	Beginner
Competing priorities***	43	70
Insufficient resources (people/technology)**	35	51
Lack of consensus on ERM's benefits**	22	39
Getting organization to make changes**	26	40
Lack of quantification of soft risks**	28	45

*** $p < .001$; ** $p < .01$

Case example 4

How Bristol-Myers Squibb incorporates ERM into strategic planning

1. Make leadership support for ERM highly visible by devoting the time and resources needed to improve transparency regarding risks.

2. Embed ERM in existing board committees and corporate-wide processes, (i.e., strategic planning, performance management, quality, or budgeting) to avoid being thought of as an add-on procedure.

3. Begin the process of uncovering and managing risks with a cross-functional team (legal, regulatory, finance and subject matter experts) and allow the team significant time investment to establish a common language for risk.

4. Train managers to answer questions such as, "What would be an appropriate risk framework for a particular business?"

Heinz Nicolas, Senior Corporate Counsel, describes how risk management is organized at Henkel (The Conference Board, 2005:35). "Once a year our central risk management department aggregates and reviews all the risk assessments—from business units and central functional departments—to assess the overall level of exposure. The risk reporting process is aligned with our strategic planning and decision-making processes. But risk isn't a once-a-year exercise. Legal entities report periodically into the central risk management function and any risks that exceed the respective limits are reported immediately to the management committee, the board, as well as to the central risk management group."

4.3. Benefits of full ERM implementation

Only 11 percent of survey respondents have spread ERM throughout all aspects of their operations. This small group reports a significantly increased level of perceived return from their efforts. These higher ratings are to be expected because it is often difficult for companies to quantify the value of implementing ERM until they have fully adopted the practice. Even then, some of ERM's value must be taken on faith since companies cannot be sure if there are

decisions they did not make because they had an ERM process in place or how much the opportunity cost would have been if they had made a wrong decision without the benefit of ERM.

Table 8, Companies with advanced ERM experience greater benefits

	Advanced ERM companies		All other companies	
	Rank	*Percent*	*Rank*	*Percent*
Better-informed decisions**	1	86 %	1	58 %
Greater management consensus***	2	83	5	36
Increased management accountability***	3	79	7	34
Smoother governance practices***	3	79	3	39
Ability to meet strategic goals***	5	76	5	36
Better communication to board+	6	69	2	52
Reduced earnings volatility**	7	62	4	37
Increased profitability**	8	59	8	33
Use risk as competitive tool**	9	46	9	22
Accurate risk-adjusted pricing*	10	41	10	21

*** $p < .001$; ** $p < .01$; * $p < .05$; + $p < .10$

4.3.1. Helping companies make better-informed decisions. Integrating an ERM process into the investment decision process can lead to quantifiable results. For example, Norske Skog's ERM framework organizes risk techniques into categories: control, trading, transfer, and modeling. Project investment risks are first identified and prioritized for the model through risk workshop discussions, questionnaires, and interviews. Investment risk modeling provides cumulative probability distributions for each potential project investment. By quantifying the risks associated with an investment, strategic resource allocation can be supported through risk modeling results. This risk technique helps demonstrate to senior management and the board how risk management procedures can guide their decisions.

BP explains how comprehensive risk management improves the decision-making process (The Conference Board, 2005: 38). "Identification and explicit articulation of risk can provide better

information to improve executives' critical decisions. Articulating risks can improve decisions, especially those taken at the beginning of the value chain, because business managers can then think early on about the likely outcomes of their decisions. Envisioning what might cause their desired outcomes to fail can lead to ideas to mitigate their occurrence."

4.3.2. Building greater management consensus. Due to their own business or functional perspectives, senior managers will often have disagreements when determining the risks that are most important. ERM provides processes that can help establish senior management consensus about the exact nature of key company-wide risks. An open discussion among people with different perspectives may also help counter some of the behaviors that often influence how decisions about risk are made. This is an important advantage because, leaders defining risk tend to:

- be overly-optimistic about the future
- treat the first figure they hear as an anchor for future negotiations
- be stubborn about abandoning cherished beliefs or earlier decisions
- emphasize things they have seen or experienced themselves
- be more concerned about losses than gains
- spend too much time on small decisions and not enough on big ones and
- act counterproductively out of regret. (*The Economist*, 2004).

4.3.3. Improving the communication of risk. The ERM approach helps identify the top 10 to 15 risks within the corporation. At the beginning of the risk inventory and assessment process, managers often find that the same risk is identified differently in different parts of the company. Defining risks consistently and continuously can help leaders more easily relay their understanding of their companies' major risks to shareholders and rating agencies.

Case example 5

Terasen claims a broad range of benefits from its ERM process:

- engaging its board in the strategic planning process
- reducing earnings volatility
- providing its shareholders with steady growth in returns via a more effective use of capital

- ensuring that appropriate metrics are employed to measure the impact and frequency of all risks
- and overseeing whether or not management has taken appropriate steps to mitigate risks (The Conference Board, 2005: 15).

At Hydro One, another Canadian company that implemented ERM, the benefits were cited as follows (Aabo, Fraser, and Simkins, 2005):

- achieved lower cost of debt due to improved rating from Moody's and Standards&Poor
- capital expenditures process influenced by greater mitigation of risk per $ spent
- avoided "land mines" and other surprises
- reassured stakeholders that the business is well managed
- improved corporate governance via best practice guidelines
- and identified which risks the company can pursue better than its peers.

Table 9, Companies with advanced ERM are less likely to view ERM as a routine procedure

ERM practices	Percent responding "ERM is just another layer of bureaucracy"	
	Advanced	Beginner
Business units monitor and report on status of managing key risks	17	40
Business units analyze root causes, impacts, and risk relationships	18	39
Clearly communicated expectations for risk taking to senior managers	17	39

Companies with fully integrated ERM are much less likely to view risk analysis as simply another layer of bureaucracy created to comply with external regulations. Instead, these organizations see ERM as a rigorous process to integrate strategic and operating risks with financial, hazard, and legal risks as part of the company's planning and budgeting processes. One major factor behind this increased ability to implement ERM is the presence of a board and senior management that take ERM seriously, and consider ERM an integral component of all their activities. In their study of ERM systems, Barton, Shenkir, and Walker (2002) suggest that the commitment of one or more champions at the senior management level is a prerequisite for

implementation of ERM. They also caution that if consultants are used, they should only supplement, and not replace, senior management involvement in the risk management effort.

Maggie McDow, Risk Manager, BMI Healthcare division of General Healthcare Group, explains how risk management is organized and functions at her company, (The Conference Board, 2005: 28). "Clinical policies and guidelines provide care teams with a complete set of definitions for reporting requirements, including events or incidents that have no adverse outcome but are not completely compliant with expectations. Clinical reports are reviewed centrally to identify trends, potential risks, and any lessons that can be learned to maintain the highest standards for quality care. Information is shared back throughout the entire group of hospitals to maximize knowledge gain. We now have a very strong structure in place, and everyone sees the benefits. A member of the corporate board chairs the risk management committee, which has multi-disciplinary representation from all the regions and feeds up to the board and down to the hospitals. Within each hospital there's a risk officer that everyone locally can turn to. And while there is support from the top, it's not just a top-down process. Strategy is developed at a corporate level but nothing is put into practice without local input, and by local I mean in the hospitals."

The tools and techniques used to measure strategic and operating risks vary depending on the industry, and advanced ERM companies' measurement of strategic risks is evolving. These companies report that they have moved from conducting "scenario analysis," which ranks first as a tool for determining the impact of strategic risks at "all other companies" but third for "advanced" companies, to "key risk indicators" and "individual self assessments." Both the "advanced" and the "all other companies" groups use different measures when analyzing different risks, and both sets of companies are more likely to conduct "individual self assessments" as a means for uncovering operating risk impacts than as a method for discovering strategic risk impacts.

Table 10, Techniques/tools used to measure the impact of strategic risks

	Advanced ERM companies		All other companies	
	Rank	*Percent*	*Rank*	*Percent*
Key risk indicators	1	61 %	3	31 %
Individual self-assessments	2	56	4	28
Scenario analysis	3	52	1	42
Risk mapping using impact and frequency	4	50	2	34
Facilitated group self-assessments	5	48	5	25
Economic value-added	6	44	5	25
Value at risk	7	33	9	17
Industry benchmarks/loss experience	8	29	7	22
Statistical analysis/probabilistic modeling	9	25	8	19

Based on an analysis of five case studies, Barton, Shenkir, and Walker (2002) suggest four guidelines to improve ERM, including using more rigorous measurement techniques and tools:

- Measure financial risk with the most sophisticated and relevant tools available, such as VaR and stress testing.
- Develop sophisticated tools and measures that meet the organization's needs and that management can easily understand.
- Know your company's and your shareholders' appetite for risk.
- Apply more rigor to measuring non-financial risks whenever possible.

5. OWNERSHIP OF ERM

While the regulatory push for ERM encourages the chief auditor to take responsibility for ERM in order to respond to requests from the board's audit committee for proper procedures for integrated risk management, there may be an inherent conflict for an auditor to create risk procedures, then to audit them thereafter. However, a separate role, the chief risk officer, CRO, may also be created which could report to audit, finance or strategic planning. Whether ERM is integrated with strategic planning could depend largely on the reporting assignment for this role.

Whether strategic risks are fully integrated with financial, legal, hazard, and operating risks could also depend on how the CRO role evolves.

At Hydro One, the first attempts to launch ERM failed in part because they were led by outside consultants (Aabo, Fraser, and Simkins, 2005). Only when the CRO role was created and assigned to the Head of Internal Audit did ERM gain acceptance within the company. Nevertheless, this full-time role (with two additional colleagues) existed for only four years, at which time the role was reduced to a part-time position. The authors consider that this role reduction reflected the effective transfer and generation of knowledge on strategic risk management throughout the subsidiaries and divisions so that central planning, implementation and monitoring was significantly reduced. This is consistent with survey predictions that the CRO's responsibilities would be distributed to the operating units or assimilated into the CFO's duties (The Conference Board of Canada, 2001). One must question whether, once ERM enters fully into standard operating procedures, the CRO role will disappear.

6. CONCLUSION AND EXPLORATORY RESEARCH AGENDA

This paper investigated in an exploratory manner the drivers, obstacles and benefits of the new corporate practice of enterprise risk management. The results suggest that since strategic risk often has greater impact on a company's market value then traditional sources of risk (hazard, financial, legal, etc.), and companies are more willing to accept higher strategic than traditional risk, then Board members and senior management should focus more attention on strategic risks. They also reflect the fact that although ERM arose from pressures for regulatory compliance and from credit rating agencies, more advanced companies cite that the primary driver for ERM is to gain a greater understanding of strategic and operating risks. In other words, once the resistance to external regulation subsides, the real value of ERM may become apparent. Finally, few companies (16 percent) have fully integrated ERM into strategic planning and annual budget processes; for the majority of firms, there is a lot of work ahead before they begin to report significant benefits.

Since it is an emerging phenomenon, ERM raises a number of questions about how strategic risks will be incorporated into ERM, and how ERM will be integrated into strategic planning. The following is a research agenda of relevant questions that arose from this exploratory study.

6.1. Drivers

Will companies respond differently to the demands for ERM from various external groups (regulators, institutional investors, rating agencies)?

Once companies have fully implemented ERM, will the process be actively maintained by the desire to better manage strategic and operating risks rather than be treated as another bureaucratic procedure to meet compliance rules?

Does ERM help companies identify, manage and mitigate strategic risks? Does board monitoring and mitigation of strategic risks actually lower them?

6.2. Obstacles

Will ERM continue to suffer from competing priorities to advance in its application? If so, how can ERM promoted to a higher priority?

How can a board and senior management be convinced of the benefits of ERM?

6.3. Benefits

Does the integration of legal, financial, hazard, operating, and strategic risks result in better-informed decisions, greater management consensus, and increased management accountability?

How can ERM's purported benefits (such as lower share volatility, lower cost of capital, lower risk of financial distress, higher EPS) be demonstrated?

As for the management of strategic risks, in which industries and under which environmental conditions are Slywotzky and Drzik's recommended counter-measures most or least effective?

6.4 Ownership of ERM

Does who own ERM matter to the successful mitigation of strategic risks?

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