

# Enterprise Risk Management (ERM)

Benchmarking Survey 2008



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# Introduction

PricewaterhouseCoopers Oy (PwC) carried out a study on the status of Enterprise Risk Management (ERM) practices among 26 Finnish companies. This is the third comprehensive ERM study published in Finland by PwC. Initially, 43 of the 60 largest companies in Finland (excluding financial institutions and insurance companies) were selected to take part in this survey. Survey interviews were completed by 26 companies, which is slightly more than in the surveys conducted in 2004 and 2006. Data for this survey was collected between January and March 2008.

The aim of this survey was to provide an independent and objective perspective on the maturity of the ERM process and function in Finland, outlining how much progress companies have made in ERM implementation since the previous studies conducted in 2004 and 2006.

The key objectives of this survey were to identify:

1. Current focus areas in corporate risk management
2. Current and planned risk management related functions in companies
3. Current and planned risk management processes at the enterprise level
4. Practical next steps to advance ERM within organizations

Financial institutions have traditionally used comparable risk and compliance management frameworks. However, the focus of this current survey was to enhance understanding of the area in industrial, manufacturing and service companies, excluding financial institutions and insurance companies. An important observation is that although risk management has gained considerable attention amongst the respondents – it is seen as good governance practice and good for business – it is still mostly not aligned with strategic and operational business decisions.

# Importance of Enterprise Risk Management (ERM)

As the dynamics of the market, business environment and changes in regulatory requirements for corporations increase in their complexity, it becomes harder to plot the right course for continued success. The abilities to identify and to adapt to changes are key success factors for the leaders of tomorrow. In the light of this, companies are driven more than ever by the desire to protect their reputation and manage their risks effectively.

Enterprise risk management provides a framework for management to deal effectively with uncertainty and associated risk and opportunity, thereby enhancing the company's capacity to build value.

Enterprise risk management does not operate in isolation in a corporation, but rather is an enabler of the management process. ERM is part of corporate governance. It provides information to the board of directors and to the audit committee on the most significant risks and how

they are being managed. ERM interrelates with internal control as well as with performance management by providing risk-adjusted measures.

Best practices in corporate governance begin with a commitment by the board of directors and senior managers to elevate the discipline to a high strategic priority. To improve corporate governance and make it a source of value, leading companies integrate their governance, risk management and compliance activities so that they are more efficient, consistent and legally sound. To create this integrated governance and risk management model, the companies identify and prioritize risks that need to be managed and controlled, launch change management initiatives to support the necessary structural and job changes, and enable and measure this transformation through the information technology (IT) infrastructure.

## Survey participants and methodology

The survey was conducted among 26 of the 60 largest companies in Finland, excluding financial institutions and insurance companies. The participants represented a broad range of industries. Senior personnel of PricewaterhouseCoopers' risk management practice personally interviewed each participant. The interviews were based on a comprehensive questionnaire. The participating companies selected the most appropriate person(s) to complete the survey. In most cases, interviews were conducted with the Chief Risk Officer (CRO), CFO or equivalent.

Personal interviews were chosen to facilitate discussion of specific questions and immediate identification of any possible misunderstandings. The following results are thus based on self-assessments conducted by the respondents.

All survey participants receive a summary and a benchmark assessment of the survey. Any company that did not participate in the survey but would like to obtain a benchmark assessment against the sample companies is welcome to contact the PricewaterhouseCoopers office in Helsinki. Contact details are listed at the end of this document.

Information on individual companies participating in this survey will remain confidential and will not be disclosed without prior permission of the company.

# Survey results

## ERM function and processes

Chart 1 indicates that ERM has gained more attention among Finnish companies compared to the results dating two years back (results from the previous study are in parenthesis). The majority, 69 percent of the companies in this survey, have both an ERM process and function in place. Another 15 percent say that they are considering putting one in place in the

short term – one to three years. Only 4 percent cite that they are not even considering ERM adoption.

The term ERM adopted companies will be used later in this study to refer to companies that have ERM process and/or function in place.

### Does your organization have ERM (Enterprise Risk Management) process and/or function in place?

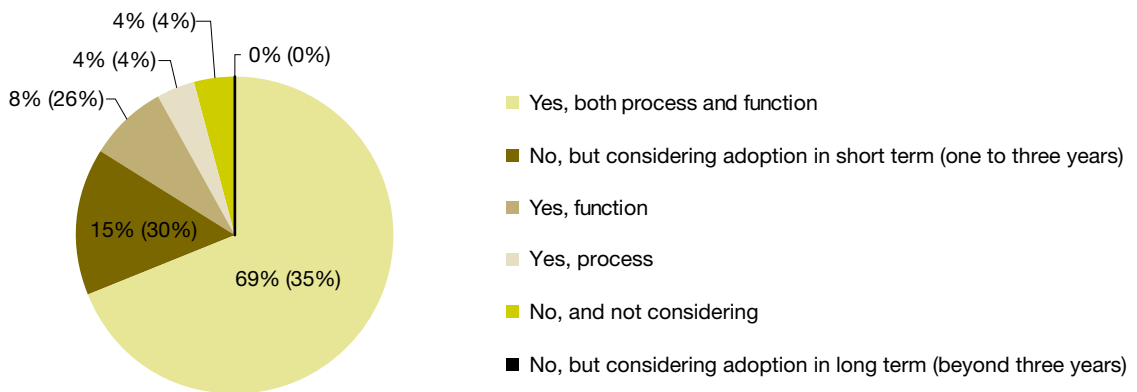


Chart 1

## Motivation to adopt ERM

Adopting a good business practice is the most common motivation for ERM implementation among Finnish companies. Over 96 percent of the survey participants claim that this is their primary reason for adopting ERM, compared to 78 percent in 2006 (see Chart 2). Over 81 percent of the survey participants seem to be adopting ERM because of tightening corporate governance pressures. More than 42 percent of the respondents say that ERM gives them a competitive advantage. Over 30 percent stated that investment community pressure was a motivation to adopt ERM. It seems that market analysts are demanding more information on companies' risk management activities. In Finland, companies seem to feel more pressured by regulators to adopt ERM than two years ago. The percentage

of respondents stating this motivation has increased from 4 percent to over 30 percent since 2006. This tendency is becoming closer to the situation in the United States, where the regulators put more emphasis on risk management issues. Rating agency pressure has increased only slightly, but one has to keep in mind that not too many of the sample companies were rated. If the sample had consisted purely of rated companies, this figure would certainly have been much higher as rating agencies put more and more emphasis on good governance and risk management in their rating frameworks. Twelve percent of the participants stated that a recent catastrophe within organization/industry has been a major motivation, which is slightly less than two years ago.

Motivation to adopt ERM

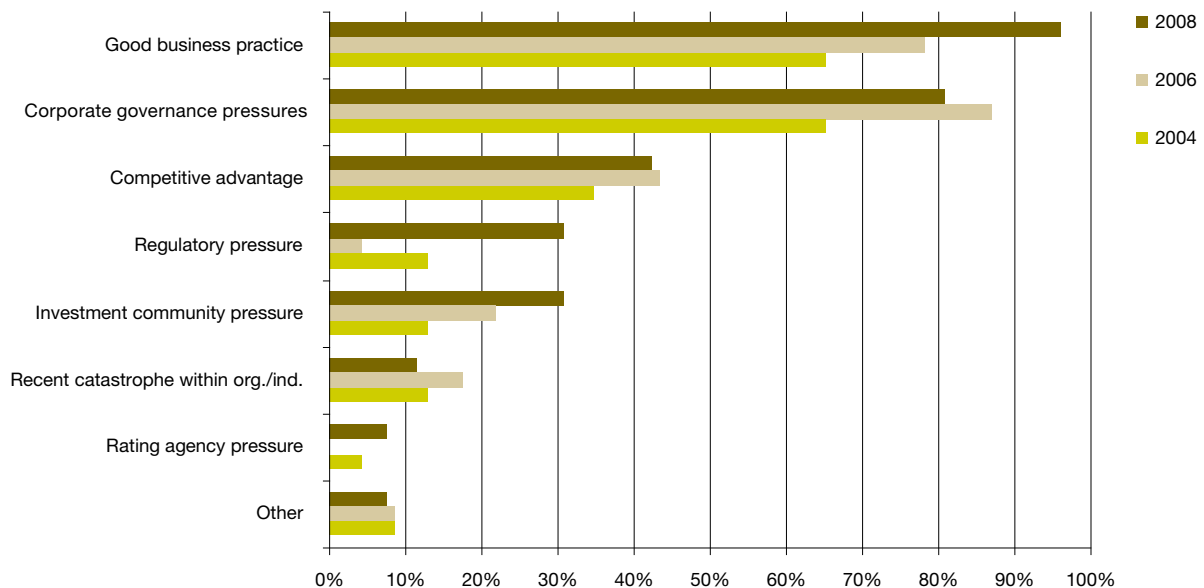


Chart 2

## Company impressions of ERM

Table 1 below presents respondents' views on selected ERM related statements on a scale of 1 to 5. It implies that companies are still strongly regarding risk management as a top management priority (statement 1). Roles, responsibilities and accountabilities for all those involved in the risk management process have been better defined since the previous survey, especially among ERM adopted companies (statement 3). Companies are also pointing out more and more that new products and businesses undergo thorough review prior to launch (statement 2). Companies' perception of ERM process has broadened - compared to the previous

study, fewer respondents viewed the communication of portfolio view of risks to senior management as the most important goal of ERM (statement 6). This table also demonstrates that all statements, especially from 3 to 15, were ranked considerably higher among ERM adopted companies. The presentation of an ERM program was not considered important in communicating with rating agencies, regulators or other investor constituents. The ratings in Table I also indicate that there is still room for improvement in integrating ERM with the operational level decision-making (statement 14).

### Companies' impressions of ERM

Statement Ref. #	To what extent do you agree or disagree with each of these statements about your organization? (5 = strongly agree; 1 = strongly disagree)	Average response to the statement (2006 results)	ERM adopted companies' response	Non-ERM adopted companies' response
1	Risk management is a board/CEO priority	4,23 (4,35)	4,35	3,80
2	New products and businesses undergo thorough review prior to launch	4,15 (3,83)	4,25	3,80
3	There are clearly defined roles, responsibilities and accountabilities for all those involved in the risk management process	4,08 (3,35)	4,50	2,20
4	Our organization has progressed from risk identification and measurement to active risk mitigation and management	3,69 (3,26)	4,05	2,60
5	Our ERM program helps our organization be more successful	3,69 (N/A)	4,15	1,80
6	The most important goal of ERM is to communicate a portfolio view of risks to senior management	3,46 (3,83)	3,75	2,60
7	Implementation of ERM has facilitated steps to coordinate and centralize risk mitigation activities	3,46 (2,36)	4,00	1,00
8	Risks are identified, reported and quantified to the greatest possible extent	3,42 (3,04)	3,95	1,80
9	ERM is fully integrated with strategic business planning and decisions	3,38 (2,64)	3,80	1,80
10	Our organization has clearly defined standards for risk taking activities	3,35 (3,00)	3,75	1,80
11	We have a common terminology for all of our risks and risk management processes that is well understood throughout the organization	3,35 (2,67)	3,85	1,60
12	Our organization has implemented risk management systems so that management information supports risk management objectives	3,31 (2,59)	3,60	2,40
13	ERM responsible persons are involved in preparing strategic decisions (including M&A)	3,27 (2,50)	3,70	1,80
14	ERM is fully integrated to the operational level decision-making and follow-up	2,88 (N/A)	3,40	1,20
15	The presentation of our ERM program is an important part of our interaction with regulators, rating agencies and other investor constituents	2,36 (1,96)	2,70	1,00

Table 1

## Risk assessment

Compared to results from the previous study, risk identification has been further formalized and common metrics are more often used. The survey also indicates that 85 percent of the companies rank the materiality of individual risks from an enterprise perspective, which is a significant improvement compared to 2006. The incorporation of formal risk assessments into organizations' due diligence processes has slightly improved comparing to the previous research.

Over two-thirds of the companies in the study incorporate risk dimension in the strategic planning process. Approximately half of the companies analyze risks in relation to the key risk processes, whereas only

a third of the companies utilize risk information in defining return on capital targets. In addition, slightly over 20 percent of the respondents analyze risk assessment results in order to create early warning measures or triggers. Although companies seem to acknowledge the role of ERM in strategic planning, it is not integrated into strategy follow-up and other strategic and operational business decisions.

### With respect to risk assessment does your organization

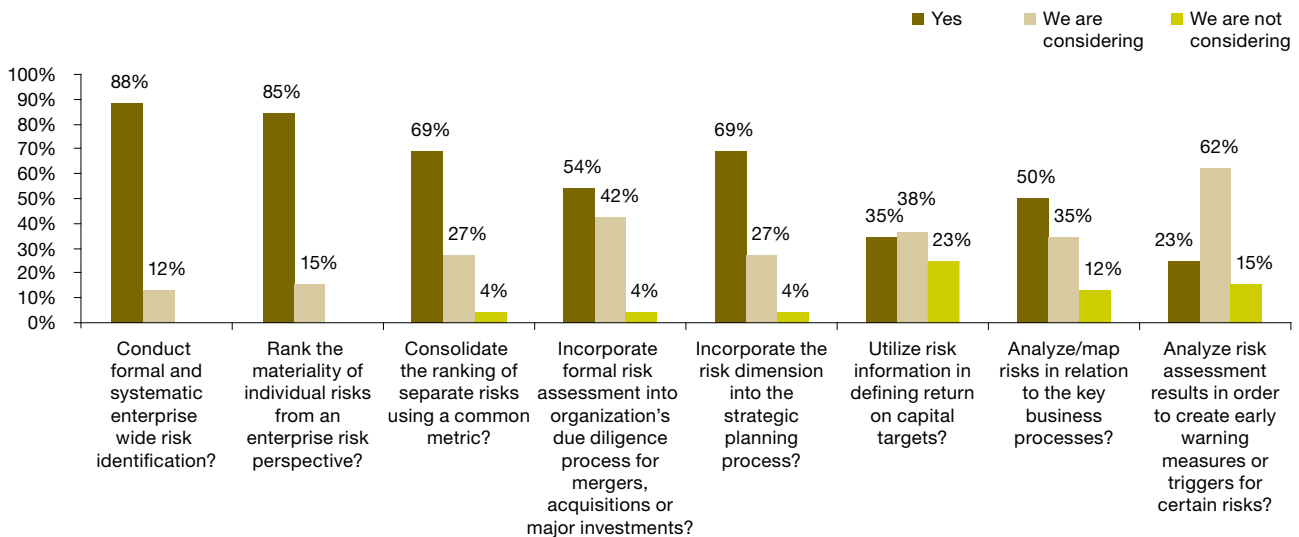


Chart 3

## Risk management responsibilities

Over 70 percent of the companies participating in the study stated that they have a Chief Risk Officer, Risk Director or equivalent who is responsible for their risk management issues. In most cases, this person reports to the CFO, but in some cases also to the Board of Directors, CEO or the Audit Committee. An ERM committee was formed in half of the participating companies, whereas an equal number of respondents stated that they do not have an ERM committee and they are not considering having one.

Chart 4 shows that CFO still has the main responsibility for overseeing the ERM activities in almost 40 percent in the participating companies. Compared to the previous studies, the responsibility for overseeing

ERM activities is more and more being allocated to specialized persons or bodies, such as the CRO, audit committee or CEO. None of the respondents viewed ERM or a Risk Management Committee as having the primary responsibility for overseeing ERM activities.

The number of fulltime ERM professional staff in ERM organizations remains rather small. The majority of participating companies (73 percent) have either no full time ERM personnel or maximum 1-2 persons. Only 8 percent of the respondents stated that the number of their ERM personnel is more than five. Generally, there is no significant change in ERM personnel compared to the results of the studies performed in 2004 and 2006.

Primary responsibility for overseeing ERM activities

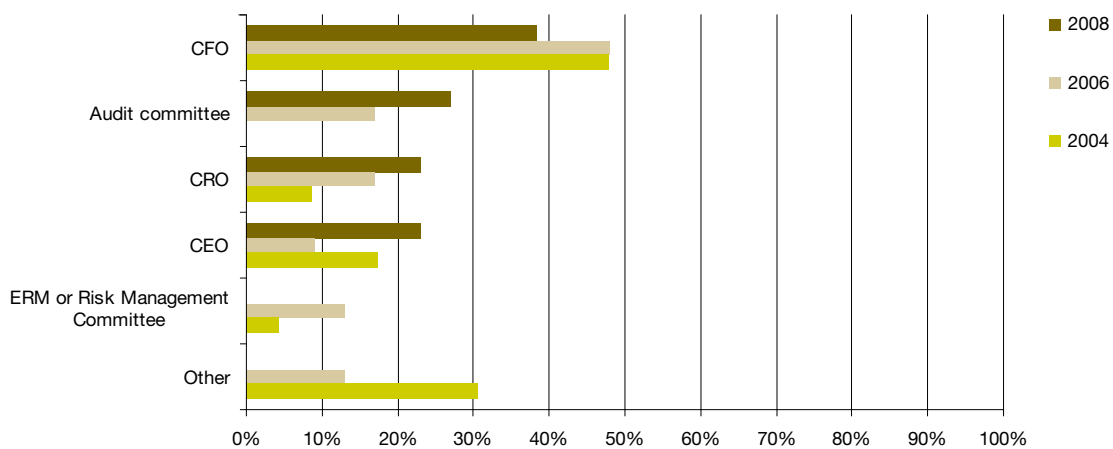


Chart 4

## Risk categorization

Over 90 percent of the respondents stated that they categorize risks in a formal way. Most companies categorize risks into strategic, operational, financial and event risks. Some industry specific risk categories and risk grouping by key processes or business units were also used.

# Risk communication

## Internal risk communication

Chart 5 shows that almost 70 percent of the respondents report risk information regularly to management and about as many produce risk reports on an ad hoc basis. Approximately 50 percent of the participants include risk reports in their continuous management reporting and

an additional 40 percent of the respondents are considering doing so. Compared to the results of the 2006 study, the growth in regular risk reporting to management has continued. Particularly, continuous management reporting has increased significantly.

### Internal risk communication

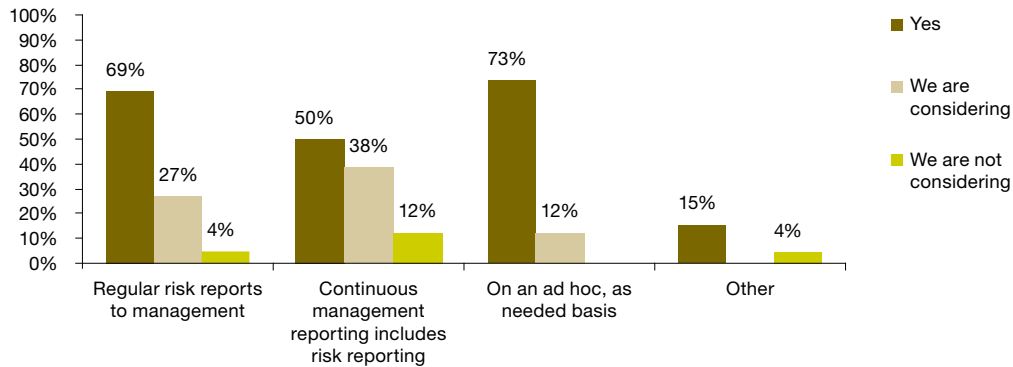


Chart 5

## External risk communication

Over 90 percent of the respondents include risk reporting in their annual report. Chart 6 shows that only about 4 percent do not even consider publishing separate risk management disclosures in their annual reports. The internet is also a popular risk management disclosure medium and over 70 percent of the respondents, twice as many as two years before, provide risk information on their company's web pages. However, only 12 percent of the participating companies provide risk information to analysts and also 12 percent provide information to rating agencies.

management activities and risk management organization. For example, some companies provide sensitivity analyses for the biggest risks and some inform about how ERM is linked with their strategy.

Comparison with the results of the earlier study reveals that companies are paying more attention to external reporting. The amount of those respondents who are not even considering any external reporting has declined significantly in two years. Reporting to rating agencies and market analysts is however an exception: almost 70 percent of the recipients still do not even consider that.

Participating companies cited that their external risk communication usually contains at least a description of the key risks of the company, risk

### External risk communication

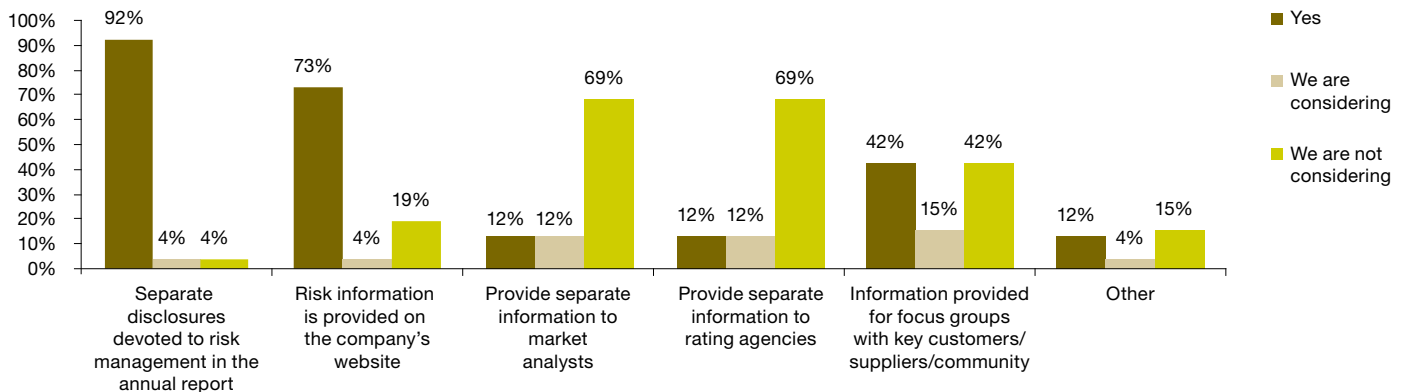


Chart 6

# ERM process related issues

## Benefits of the ERM process

Respondents were asked about the benefits of ERM process. Chart 7 presents these results of the ERM studies performed in 2004, 2006, and 2008. The differences are not significant and all studies reveal that the benefits are related to better control and forecasting of business and avoiding losses. However, in the recent study, better control of uncertainty was considered a more important benefit than in the earlier study in 2006. Most of the companies consider also loss avoidance, an improved achievement of company's objectives, reputation, and an improved effectiveness of processes as the main benefits of ERM.

Business development issues, such as identifying new business opportunities, were cited by 35 percent of respondents in 2006 and in 2008. Though, significantly fewer respondents mentioned bringing new products to market a significant benefit of ERM process, 15 percent in 2008 compared to 35 percent in 2006.

It is also notable that 12 percent of the organizations pointed to lower cost of capital as one of the benefits from ERM.

**Benefits of ERM process and activities**

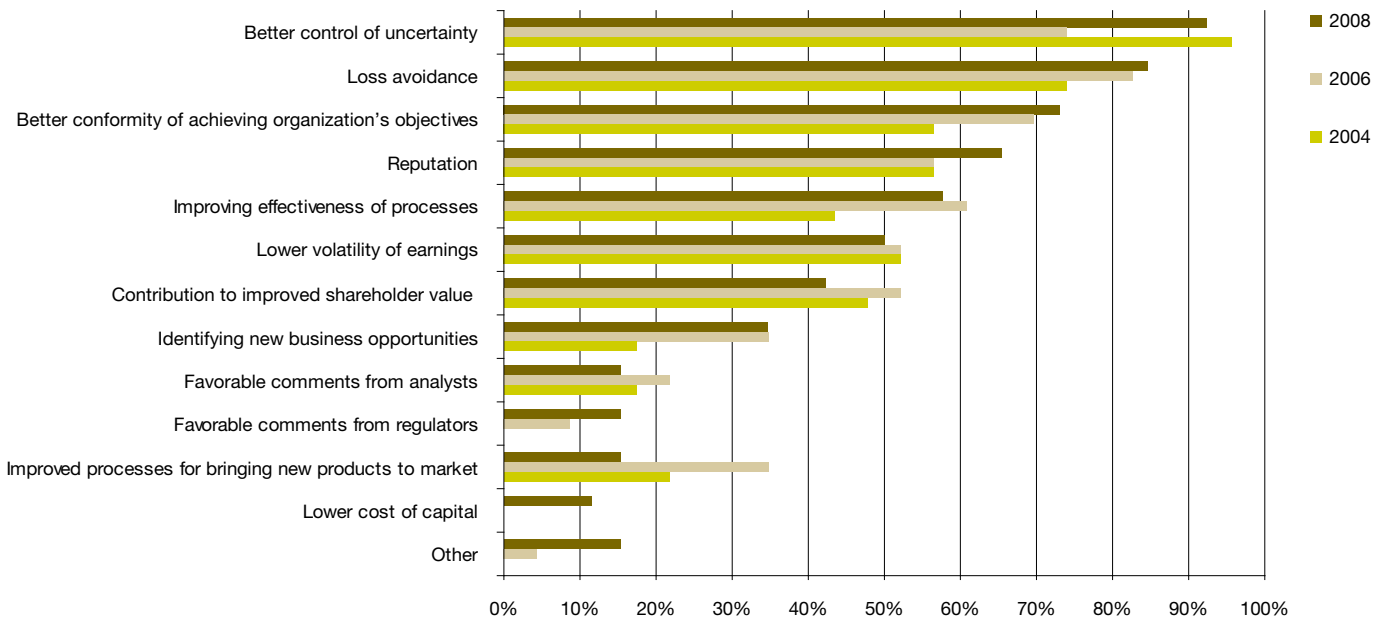


Chart 7

# Maturity levels of the different ERM components<sup>1</sup>

ERM consists of eight interrelated components. For a brief introduction on each component see Appendix A.

- A. Internal environment
- B. Objective setting
- C. Event identification
- D. Risk assessment
- E. Risk response
- F. Control activities
- G. Information and communication
- H. Monitoring

For each of the eight components, the participants have given a value from 0 to 5 according to their perceived risk management maturity. The following results are self-assessments conducted by the respondents. PwC may have had an effect on the ratings during the interview discussions with the respondents when e.g. clarifying the contents of each maturity level. However, PwC has relied solely on the statements and motivations of the respondents and, thus, has not reviewed or evaluated the actual practice.

For each of the eight components (A-H), participants were provided with more concrete definitions for levels 1, 3, and 5 in order to facilitate the determination of the right maturity level. The detailed basis for the maturity levels of the eight components is based on PwC ERM methodology.

The maturity has been valued as follows:

Maturity level	General definition
5 Leading	Component is accurately defined, documented, communicated and aligned with ongoing management practices.
4 Optimizing	Component is continuously practiced, formal structured definitions and documentation in process.
3 Practicing	Component exists and is used, however, formal definition and documentation may not currently exist.
2 Developing	Component is in planning and development phase.
1 Aware	Management recognizes need for development.
0 No actions/not identified the need	No planned actions in the area.

## Average risk management maturity profile

Chart 8 shows the respondents' average maturity profile of risk management. Risk assessment and event identification in particular are considered to be on a relatively good level, scoring 3.7 points on average. This indicates that the participating companies are continuing their way to adopting ERM and that risk assessment and event identification are the major steps of the process. The lowest maturity level is in monitoring which is in the later stages of the ERM process. All other activities' maturity levels are higher than 3.

The positive development in risk maturity profiles has continued. Generally, all dimensions have improved since the previous studies. The biggest improvement can be seen in event identification, objective setting, and information & communication.

Average risk management maturity profile

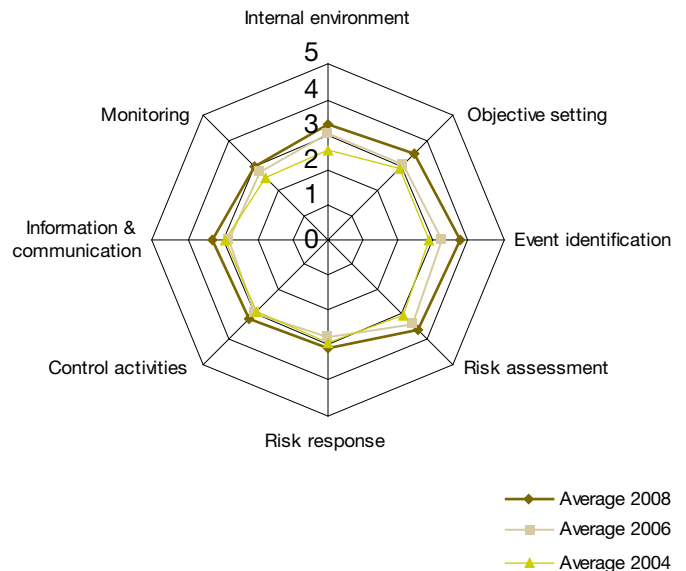


Chart 8

<sup>1</sup>Categorized according to COSO's Enterprise Risk Management – Integrated Framework

## Differences in risk management maturity profiles

Difference between companies that have adopted ERM (either process or function or both) and companies that have not adopted ERM (process nor function)

As seen in Chart 9, there seems to be a significant difference in the risk maturity profiles of ERM adopted and non-ERM companies, especially in risk assessment, monitoring, and internal environment components. On average, the figures for companies that have adopted ERM are 0.5 units higher than that for the non-ERM companies.

This is not surprising given the nature of ERM. Enterprise risk management provides a framework for management to effectively deal with uncertainty and associated risk and opportunity.

**Maturity differences between ERM adopted and non-ERM adopted companies**

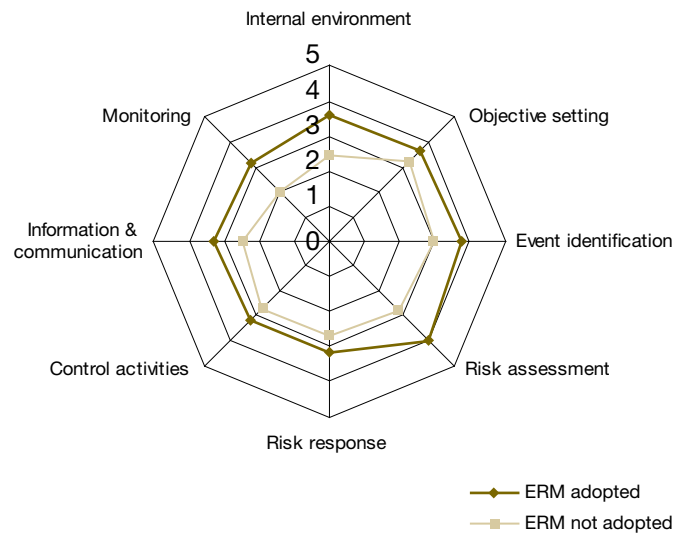


Chart 9

## Difference between turnover categories

Company turnover and risk management maturities seem to correlate positively. However, the difference in the risk maturity profiles is not significant. Among the larger turnover categories, risk management maturities are slightly higher. These results may indicate that the companies in the largest categories may have more pressure to adopt ERM practices, and hence, the maturities are higher. The small sample size of this survey should be taken into account to ensure that these conclusions are not overly generalized.

**Maturity difference between turnover categories**

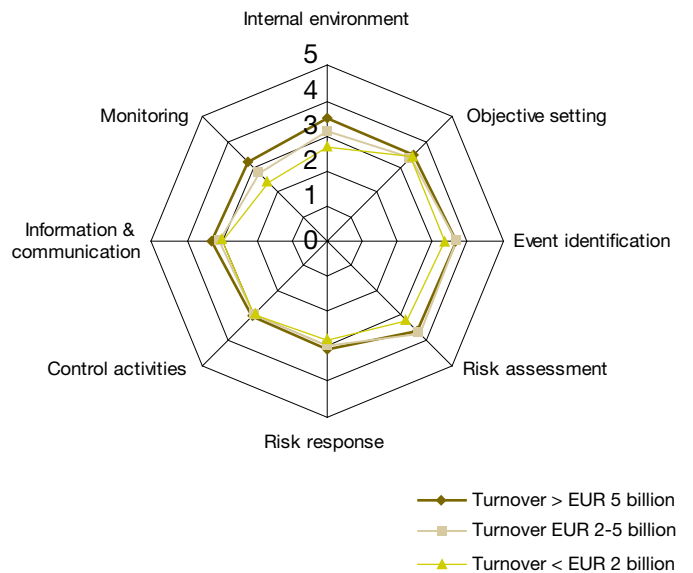


Chart 10

# Risks and share prices

This section of the ERM study concentrated on how realization of a certain risk affects the share price. Significant price declines were filtered from the Helsinki Stock Exchange share price data between Jan-97 and Dec-07 and those cases where the price fell more than 25 percent during a thirty-day period were studied. The drops, which were not related to any clear reason or were due to dividends or stock or splits as well as the general price shocks during 2001, were ignored. The reasons and the risks that had materialized were searched from the stock exchange reports of the company. Risks were divided into four categories using the standard classification: strategic, operational, financial and event.

According to the study more than 60 percent of the drops were caused by realization of a strategic risk. Declining demand or pessimistic market expectations were clearly the biggest reasons within this risk category. Other reasons were e.g. increased competition and pressures on pricing, problems in company restructuring, changing regulation within the industry or delays in product development. Realization of an operational risk was

the reason in 24 percent of the cases, most usually due to not reaching objectives, increased costs, problems with the production resources or poor project management.

The materialization of financial risks caused the drop in 10 percent of the cases. This was mostly due to significant losses or write-offs, changes in global economy, including interest rate fluctuations or capital structure. Three percent of the drops were caused by event risks. Most of these were legal processes the company was involved in, but also some other events such as the terrorist attacks on 9/11 had a significant effect on stock prices all over the world.

The results of this section are in line with a similar study performed in the US by Lippincott Mercer between 1998 and 2003. In that study, 60 percent of the drops were caused by strategic risk, 22 percent by operational risk and 11 percent by event risk. Of the rest, 7 percent were due to financial risks that had materialized.

## Risk realization by risk category

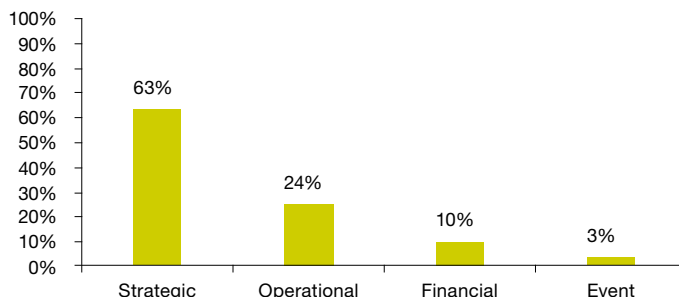


Chart 11

## Summary

- Enterprise Risk Management implementation has increased considerably – almost 70% of companies have ERM process and function in place
- The most important motivations for Enterprise Risk Management are good business practice, corporate governance regulations and competitive advantage
- Risk aspect is integrated into strategic planning, however, risk information is still not commonly used in defining return on capital targets or strategy follow-up e.g. early warning indicators
- Risk identification and assessment are generally on good level; monitoring needs improvement

## Glossary of terms

COSO	The Committee of Sponsoring Organizations of the Treadway Commission - COSO is a voluntary private sector organization dedicated to improving the quality of financial reporting through business ethics, effective internal controls and corporate governance.
ERM	Enterprise(wide) Risk Management
ERM adopted	ERM adopted companies in this study are defined as companies which cite that they have ERM process and/or function in place.
Risk	In the ERM context, risk is defined as the possibility that an event will occur and adversely affect the achievement of objectives.

# Appendix A

## Introduction on risk management components

The Committee of Sponsoring Organizations of the Treadway Commission (COSO) has released the Enterprise Risk Management – Integrated Framework that describes the essential components, principles and concepts of enterprise risk management for all organizations, regardless of size. With heightened concern and focus on risk management, the Framework provides boards of directors and managements a clear roadmap for identifying risks, avoiding pitfalls, and seizing opportunities to grow stakeholder value.

The framework describes the critical principles and components of an effective enterprise risk management process, setting forth how all important risks should be identified, assessed, responded to and controlled. It also provides a common language, so that when executives, directors and others talk about risk management, they are truly communicating.

The framework sets forth how a company applies enterprise risk management in its strategic planning and also describes techniques some companies are using in identifying and managing risk. Importantly, the framework emphasizes how an effective enterprise risk management process identifies not only the downside, but also the upside, or opportunities that can be seized to enhance profitability and return. The framework also describes roles of key players in the enterprise risk management process.

### A. Internal environment

The internal environment encompasses the tone of an organization, and sets the basis for how risk is viewed and addressed by an entity's people, including risk management philosophy and risk appetite, integrity and ethical values, and the environment in which they operate.

### B. Objective setting

Objectives must exist before management can identify potential events affecting their achievement. Enterprise risk management ensures that management has in place a process to set objectives and that the chosen objectives support and align with the entity's mission and are consistent with its risk appetite.

### C. Event identification

Internal and external events affecting achievement of an entity's objectives must be identified, distinguishing between risks and opportunities. Opportunities are channeled back to management's strategy or objective-setting processes.

### D. Risk assessment

Risks are analyzed, considering likelihood and impact, as a basis for determining how they should be managed. Risks are assessed on an inherent and a residual basis.

### E. Risk response

Management selects risk responses – avoiding, accepting, reducing, or sharing risk – developing a set of actions to align risks with the entity's risk tolerances and risk appetite.

### F. Control activities

Policies and procedures are established and implemented to help ensure the risk responses are effectively carried out.

### G. Information and communication

Relevant information is identified, captured, and communicated in a form and timeframe that enable people to carry out their responsibilities. Effective communication also occurs in a broader sense, flowing down, across, and up the entity.

### H. Monitoring

The entirety of enterprise risk management is monitored and modifications made as necessary. Monitoring is accomplished through ongoing management activities, separate evaluations, or both.



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