

# IMPLEMENTING ENTERPRISE RISK MANAGEMENT

Case Studies and Best Practices



**KOLB SERIES IN FINANCE**

Essential Perspectives

*John R.S. Fraser, Betty J. Simkins, Kristina Narvaez, Editors*

**WILEY**

IMPLEMENTING  
ENTERPRISE RISK  
MANAGEMENT

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*Additional Praise for*  
**Implementing Enterprise Risk Management**

"Educators the world over seeking to make the management of risk an integral part of management degrees have had great difficulties in providing their students with a definitive ERM text for their course. The Standards and associated Handbooks helped, but until the arrival of *Implementing Enterprise Risk Management: Case Studies and Best Practices*, there has been no text to enlighten students on the application of an effective program to manage risk across an enterprise so that objectives are maximized and threats minimized. Fraser, Simkins, and Narvaez have combined with a group of contributors that represent the cream of risk practitioners, to provide the reader with a clear and concise journey through the management of risk within a wide range of organizations and industries. The knowledge, skills, and experience in the management of risk contained within the covers of this book are second to none. It will provide a much needed resource to students and practitioners for many years to come and should become a well-used reference on the desk of every manager of risk."

—Kevin W. Knight AM, chairman, ISO/TC 262—Risk Management

"The authors—Fraser, Simkins, and Narvaez—have done an invaluable service to advance the science of enterprise risk management by collecting an extensive number of wonderful case studies that describe innovative risk management practices in a diverse set of companies around the world. This book should be an extremely valuable source of knowledge for anyone interested in the emerging and evolving field of risk management."

—Robert S. Kaplan, senior fellow, Marvin Bower Professor of Leadership Development, emeritus, Harvard University

"Lessons learned from case studies and best practices represent an efficient way to gain practical insights on the implementation of ERM. *Implementing Enterprise Risk Management* provides such insights from a robust collection of ERM programs across public companies and private organizations. I commend the editors and contributors for making a significant contribution to ERM by sharing their experiences."

—James Lam, president, James Lam & Associates; director and Risk Oversight Committee chairman, E\*TRADE Financial Corporation; author, *Enterprise Risk Management—From Incentives to Controls*

"For those who still think that enterprise risk management is just a fad, the varied examples of practical value-generating uses contained in this book should dispel any doubt that the discipline is here to stay! The broad collection of practices is insightful for students, academics, and executives, as well as seasoned risk management professionals."

—Carol Fox, ARM, director of Strategic and Enterprise Risk Practice, RIMS

"Managing risk across the enterprise is the new frontier of business management. Doing so effectively, in my view, will be the single most important differentiating factor for many enterprises in the twenty-first century. *Implementing Enterprise Risk Management: Case Studies and Best Practices* is an innovative and important addition to the literature and contains a wealth of insight in this critical area. This book's integration of theory with hands-on, real-world lessons in managing enterprise risk provides an opportunity for its readers to gain insight and understanding that could otherwise be acquired only through many years of hard-earned experience."

I highly recommend this book for use by executives, line managers, risk managers, and business students alike."

—Douglas F. Prawitt, professor of Accounting at Brigham Young University,  
and Committee of Sponsoring Organizations (COSO)  
Executive Board member

"The real beauty of and value in this book is its case study focus and the wide variety of firms profiled and writers' perspectives shared. This will provide readers with a wealth of details and views that will help them chart an ERM journey of their own that is more likely to fit the specific and typically customized ERM needs of the firms for whom they toil."

—Chris Mandel, senior vice president, Strategic Solutions for Sedgwick;  
former president of the Risk Management Society  
and the 2004 Risk Manager of the Year

"*Implementing Enterprise Risk Management* looks at many industries through excellent case studies, providing a real-world base for its recommendations and an important reminder that ERM is valuable in many industries. I highly recommend this text."

—Russell Walker, Clinical associate professor, Kellogg School of Management;  
author of *Winning with Risk Management*

"The body of knowledge in *Implementing Enterprise Risk Management* continues to develop as business educators and leaders confront a complex and rapidly changing environment. This book provides a valuable resource for academics and practitioners in this dynamic area."

—Mark L. Frigo, director, Strategic Risk Management Lab,  
Kellstadt Graduate School of Business, DePaul University

"The management of enterprise risk is one of the most vexatious problems confronting boards and executives worldwide. This is why this latest book by Fraser, Simkins, and Narvaez is a much needed and highly refreshing approach to the subject. The editors have managed to assemble an impressive list of contributors who, through a series of fascinating real-life case studies, adroitly help educate readers to better understand and deal with the myriad of risks that can assault, seriously maim, and/or kill an organization. This is a 'how to' book written with the 'risk management problem solver' in mind. It provides the link that has been missing for effectively teaching ERM at the university and executive education levels and it is an exceptional achievement by true risk management advocates."

—Dr. Chris Bart, FCPA, founder and lead faculty,  
The Directors College of Canada

"The Institute of Risk Management welcomes the publication of this highly practical text which should be of great interest to our students and members around the world. *Implementing Enterprise Risk Management* brings together a fine collection of detailed case studies from organizations of varying sizes and working in different sectors, all seeking to enhance their business performance by managing their risks more effectively, from the boardroom to the shop floor. This book makes a valuable contribution to the body of knowledge of what works that will benefit the development of the risk profession."

—Carolyn Williams, technical director, Institute of Risk Management

To Wendy, my wonderful wife and my inspiration, and to my parents who instilled in me a lifelong thirst for learning.

—John Fraser

To my husband (Russell) and our family: sons and daughters-in-law (Luke & Stephanie and Walt & Lauren), daughter and son-in-law (Susan & Jason), and our youngest daughter (April). Thank you for your love, support, and encouragement!

—Betty Simkins

I would like to thank my husband and four children for supporting me on my journey of writing two chapters and co-editing this book. I would also like to thank the Risk and Insurance Management Society for supporting me during my educational years and providing great workshops and conferences on enterprise risk management.

—Kristina Narvaez

# Foreword

**E**nterprise Risk Management is an evolving discipline focused on a complex and still imperfectly-understood subject. In such a situation, science is advanced best by collecting data from multiple, independent sites. A rich set of observations educates the field's scholars and practitioners and provides the foundation for them to develop descriptive and normative theories as well as codified best practices about the subject.

The authors—Fraser, Simkins, and Narvaez—have done an invaluable service to advance the science of enterprise risk management by collecting an extensive number of wonderful case studies that describe innovative risk management practices in a diverse set of companies around the world. This book should be an extremely valuable source of knowledge for anyone interested in the emerging and evolving field of risk management. We should be grateful to the editors and to each chapter author for expanding the body of knowledge for risk management professionals and academics.

Robert S. Kaplan  
Senior Fellow, Marvin Bower Professor  
of Leadership Development, Emeritus  
Harvard University



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## CHAPTER 1

# Enterprise Risk Management Case Studies

## An Introduction and Overview

### JOHN R.S. FRASER

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### BETTY J. SIMKINS

Williams Companies Chair of Business and Professor of Finance, Oklahoma State University

### KRISTINA NARVAEZ

President and Owner of ERM Strategies, LLC

Businesses, business schools, regulators, and the public are now scrambling to catch up with the emerging field of enterprise risk management.

—Robert Kaplan (quote from Foreword in Fraser and Simkins, 2010)

Most executives with MBA degrees were not taught ERM. In fact, there are only a few universities that teach ERM. So some business school graduates are strong in finance, marketing, and management theory, but they are limited in terms of critical thinking, business acumen, and risk analysis skills.

—Paul Walker<sup>1</sup>

## THE EVOLUTION OF ENTERPRISE RISK MANAGEMENT

Over the past two decades enterprise risk management (ERM) has evolved from concepts and visions of how risks should be addressed to a methodology that is becoming entrenched in modern management and is now increasingly expected by those in oversight roles (e.g., governing bodies and regulators). As Felix Kloman describes in his chapter “A Brief History of Risk Management,” published in Fraser and Simkins (2010), many of the concepts go back a very long time and many of the so-called newly discovered techniques can be

referenced to the earlier writings and practices described by Kloman. However, it is only from around the mid-1990s that the concept of giving a name to managing risks in a holistic way across the many operating silos of an enterprise started to take hold. In the 1990s, terms such as *integrated risk management* and *enterprise-wide risk management* were also used. Many thought leaders, for example, those who created ISO 31000,<sup>2</sup> believe that the term *risk management* is all that is needed to describe good risk management; however, many others believe that the latter term is often used to describe risk management at the lower levels of the organization and does not necessarily capture the concepts of enterprise-level approaches to risk. As a result, the term ERM is used throughout this book.

As ERM continues to evolve there is still much discussion and confusion over exactly what it is and how it should be achieved. It is important to realize that it is still evolving and may take many more years before it is fully codified and practiced in a consistent way. In fact, there is a grave danger now of believing that there is only one way of doing ERM. This is probably a mistake by regulators who have too eagerly seized some of these concepts and are trying to impose them when the methods are not fully understood, and in some cases the requirements are unlikely to produce the desired results. As Fraser and Simkins (2010) noted in their first book on ERM: "While regulatory interest can force ERM into companies, if not done well, it can become another box-ticking exercise that adds little value."<sup>3</sup>

The leading and most commonly agreed<sup>4</sup> guideline to holistic risk management is ISO 31000. However, it should be mentioned that in the United States the COSO 2004 Enterprise Risk Management-Integrated Framework has been the dominant framework used to date. Many organizations are currently adopting one or the other of these frameworks and then customizing them to their own context.

## WHY THE NEED FOR A BOOK WITH ERM CASE STUDIES?

Following the success of the earlier *Enterprise Risk Management: Today's Leading Research and Best Practices for Tomorrow's Executives* by Fraser and Simkins (2010), we found through our own teaching experiences, and by talking to others, that there was an urgent need for a university-level textbook of ERM case studies to help educate executives, risk practitioners, academics, and students alike about the evolving methodology. As a result, Fraser and Simkins, together with Kristina Narvaez, approached many of the leading ERM specialists to write case studies for this book.

Surveys have also shown that there is a dire need for more case studies on ERM (see Fraser, Schoening-Thiessen, and Simkins 2008). Additionally, surveys of risk executives report that business risk is increasing due to new technologies, faster rate of change, increases in regulatory risk, and more (PWC 2014). As Paul Walker of St. John's University points out in the opening quote of the 2014 American Productivity & Quality Center (APQC) report on ERM, "Most executives with MBA degrees were not taught ERM. In fact, there are only a few universities that teach ERM. So some business school graduates are strong in finance, marketing, and

management theory, but they are limited in terms of critical thinking, business acumen, and risk analysis skills." Learning Centered Teaching (LCT), as discussed in Chapter 2, is an ideal way to achieve this. Using LCT and the case study approach, students actively participate in the learning process through constructive reflective reasoning, critical thinking and analysis, and discussion of key issues. This is the first book to provide such a broad coverage of case studies on ERM.

The case studies that follow are from some of the leading academics and practitioners of enterprise risk management. While many of the cases are about real-life situations, there are also those that, while based on real-life experiences, have had names changed to maintain confidentiality or are composites of several situations. We are deeply indebted to the authors and to the organizations that agreed so kindly to share their stories to help benefit future generations of ERM practitioners. In addition, we have added several chapters where we feel the fundamentals of these specialized techniques (e.g., VaR) deserve to be understood by ERM students and practitioners. Each case study provides opportunities for executives, risk practitioners, and students to explore what went well, what could have been done differently, and what lessons are to be learned.

Teachers of ERM will find a wealth of material to use in demonstrating ERM principles to students. These can be used for term papers or class discussions, and the approaches can be contrasted to emphasize different contexts that may require customized approaches. This book introduces the reader to a wide range of concepts and techniques for managing risks in a holistic way, by correctly identifying risks and prioritizing the appropriate responses. It offers a broad overview of the various types of ERM techniques, the role of the board of directors, risk tolerances, profiles, workshops, and allocation of resources, while focusing on the principles that determine business success.

Practitioners interested in implementing ERM, enhancing their knowledge on the subject, or wishing to mature their ERM program, will find this book an absolute must resource to have. Case studies are one of the best ways to learn more on this topic.

This book is a companion to *Enterprise Risk Management: Today's Leading Research and Best Practices for Tomorrow's Executives* (Fraser and Simkins 2010). Together, these two books can create a curriculum of study for business students and risk practitioners who desire to have a better understanding of the world of enterprise risk management and where it is heading in the future. Boards and senior leadership teams in progressive organizations are now engaging in building ERM into their scenario-planning and decision-making processes. These forward-looking organizations are also integrating ERM into the business-planning process with resource allocation and investment decisions. At the business unit level, ERM is being used to measure the performance of risk-taking activities of employees.

As these case studies demonstrate, ERM is a continuous improvement process and takes time to evolve. As can be gleaned from these case studies, most firms that have taken the ERM journey started with a basic ERM language, risk identification, and risk-assessment process and then moved down the road to broaden their programs to include risk treatments, monitoring, and reporting processes. The ultimate goal of ERM is to have it embedded into the risk culture of the organization and drive the decision-making process to make more sound business decisions.

## SUMMARY OF THE BOOK CHAPTERS

As mentioned earlier, the purpose of this book is to provide case studies on ERM in order to educate executives, risk practitioners, academics, and students alike about this evolving methodology. To achieve this goal, the book is organized into the following sections:

- Part I: Overview and Insights for Teaching ERM
- Part II: ERM Implementation at Leading Organizations
- Part III: Linking ERM to Strategy and Strategic Risk Management
- Part IV: Specialized Aspects of Risk Management
- Part V: Mini-Cases on ERM and Risk
- Part VI: Other Case Studies

Brief descriptions of the contributors and the chapters are provided next.

### PART I: OVERVIEW AND INSIGHTS FOR TEACHING ERM

The first two chapters provide an overview of ERM and guidance on ERM education. As we have pointed out, education on ERM is crucial and more universities need to offer courses in this area. Our conversations with many ERM educators and consultants highlight how extremely challenging it is to achieve excellence in ERM education.

Chapter 2, “An Innovative Method to Teaching Enterprise Risk Management: A Learner-Centered Teaching Approach,” offers insights and suggestions on teaching ERM. This chapter covers the concept of flipping the classroom with learner-centered teaching (LCT), distinguishes it from traditional lectures, and describes how it can be used in teaching ERM. The LCT approach emphasizes active student participation and collaboration on in-class activities such as case studies versus the traditional lecture approach. This chapter provides several examples as to how LCT can be applied in teaching ERM, utilizing Fraser and Simkins’ (2010) book. David R. Lange and Betty J. Simkins, both experienced ERM educators, team together to write this chapter. David Lange, DBA, is an Auburn University Montgomery (AUM) Distinguished Research and Teaching Professor of Finance. He has received many prestigious awards for both research and teaching from the University and from several academic associations. He has taught many courses in the area of risk management and has consulted in a significant number of individual and class insurance-related cases in both state and federal court. Betty Simkins, PhD, the Williams Companies Chair of Business and Professor of Finance at Oklahoma State University, is coeditor of this book.

### PART II: ERM IMPLEMENTATION AT LEADING ORGANIZATIONS

Part II is a collection of ERM case studies that give examples of how ERM was developed and applied in major organizations around the world. Note that there is no perfect ERM case study and the objective is for readers to assess what they believe was successful or not so successful about these ERM programs.



The first case study in this book describes ERM at Mars, Inc. Larry Warner, who is the former corporate risk manager at Mars, Inc. and now is president of Warner Risk Group, describes the ERM program at the company in Chapter 3. Mars is a global food company and one of the largest privately held corporations in the United States. It has more than 72,000 associates and annual net sales in excess of \$33 billion across six business segments—Petcare, Chocolate, Wrigley, Food, Drinks, and Symbioscience. Its brands include Pedigree, Royal Canin, M&M's, Snickers, Extra, Skittles, Uncle Ben's, and Flavia. With such complex business operations, Mars recognized the importance of providing its managers with a tool to knowledgeably and comfortably take risk in order to achieve its long-term goals. Mars business units use its award-winning process to test their annual operating plan and thereby increase the probability of achieving these objectives.

The case study in Chapter 4 entitled "Value and Risk: ERM in Statoil" was written by Alf Alviniussen, who is the former Group Treasurer and Senior Vice President of Norsk Hydro ASA, Oslo, Norway, and Håkan Jankensgård who holds a PhD in risk management from Lund University, Sweden. Håkan is also a former risk manager of Norsk Hydro. In this case study, the authors discuss ERM at Statoil, one of the top oil and gas companies in the world, located in Norway. In Statoil, understanding and managing risk is today considered a core value of the company, which is written into the corporate directives and widely communicated to employees. ERM is thoroughly embedded in the organization's work processes, and its risk committee has managed the transition from a "silo"-mentality to promoting Statoil's best interests in areas where risk needs to be considered.

Chapter 5, called "ERM in Practice at University of California Health Systems," is written by their former Chief Risk Officer (CRO), Grace Crickette, who is now the Senior Vice President and Chief Risk and Compliance Officer of AAA Northern California, Nevada, and Utah. The University of California's (UC) Health System is comprised of numerous clinical operations, including five medical centers that support the clinical teaching programs for the university's medical and health science school and handle more than three million patient visits each year. ERM plays an important role at the UC Health System and assists the organization in assessing and responding to all risks (operational, clinical, business, accreditation, and regulatory) that affect the achievement of the strategic and financial objectives of the UC Health System.

The descriptive case study in Chapter 6, written by Dr. Mark Frigo from DePaul University and Hans Læssøe, the Strategic Risk Manager of the LEGO Group, provides a great example of integrating risk management in strategy development and strategy execution at the LEGO Group, which is based on an initiative started in late 2006 and led by co-author Hans Læssøe. The LEGO methodology is also part of the continuing work of the Strategic Risk Management Lab at DePaul University, which is identifying and developing leading practices in integrating risk management with strategy development and execution.

United Grain Growers (UGG), a conservative 100-year-old Winnipeg, Canada-based grain handler and distributor of farm supplies, was an ERM pioneer. Chapter 7 called "Turning the Organizational Pyramid Upside Down: Ten Years of Evolution in Enterprise Risk Management at United Grain Growers" analyzes the ERM program at United Grain Growers 15 years later. When UGG announced that it had implemented a new integrated risk-financing program in 1999, it received a great deal of attention in the financial press. CFO magazine hailed the UGG

program as “the deal of the decade.” *The Economist* characterized it as a “revolutionary advance in corporate finance,” and Harvard University created a UGG case study. While most outside attention focused on the direct financial benefits of implementing the program (protection of cash flow, the reduced risk-capital required, and a 20 percent increase in stock price), scant attention was given to the less tangible and therefore less measurable issues of governance, leadership, and corporate culture—the conditions that enabled such innovation. It was a combination of a collaborative leadership open to new ideas, a culture of controlled risk taking, and active risk oversight by the board that produced a strategic approach to UGG’s risk management process. This chapter is written by John Bugalla, who is the principal of ermINSIGHTS.

John Hargreaves has written Chapter 8 titled “Housing Association Case Study of ERM in a Changing Marketplace.” He has a mathematics degree from Cambridge University and six years strategy consultancy experience at KPMG. This case study features four real-life charitable housing associations in England and Wales, each with a different strategy and risk environment. Simple yet practical tools to assist in risk identification and prioritization are also presented. This case study has two main aims. The first is to help develop an understanding of the importance of ERM in a charitable context, showing that modern charities are often very active organizations that face significant risks. Second, the case aims to illustrate the need for a close relationship between risk assessment and strategy development, particularly in sectors where objectives are defined in social as well as economic terms. Each of the four cases has a different perspective and challenges the student or practitioner to identify and assess the risk and develop possible risk treatments for each.

Chapter 9, “Lessons from the Academy: ERM Implementation in the University Setting,” was written by Anne E. Lundquist. She is pursuing a PhD in the Educational Leadership program at Western Michigan University with a concentration in Higher Education Administration. This chapter explores the unique aspects of the University of Washington’s (UW) risk environment, including how leadership, goal-setting, planning, and decision-making differ from the for-profit sector. The lack of risk management regulatory requirements, combined with cultural and environmental differences, helps explain why there are a limited number of fully evolved ERM programs at colleges and universities. The second half of the chapter explores the decision to adopt and implement ERM at UW, including a description of early decisions, a timeline of how the program evolved, a discussion of the ERM framework, and examples of some of the tools used in the risk management process. It traces the evolution of the UW program as well as demonstrates decisions that administrators made to tailor ERM to fit the decentralized culture of a university.

The case study in Chapter 10, “Developing Accountability in Risk Management: The British Columbia Lottery Corporation Case Study,” demonstrates how ERM was successfully implemented in a Canadian public sector organization over a 10-year period. Jacquetta Goy, author of this chapter, was the Senior Manager, Risk Advisory Services at British Columbia Lottery Corporation and was responsible for establishing and developing the ERM program. Currently, Jacquetta is the Director of Risk Management at Thompson Rivers University, Canada. This case study focuses on initiation, early development, and sustainment of the ERM