

Preface

GLOBAL RISK AND CONTINGENCY MANAGEMENT OVERVIEW

Introduction

The purpose of this first chapter is to provide a preface and an introduction to the book. We open with rationale and generalization goals – why risk and contingency management practitioners, researchers, scholars, educators or decision makers should read this book. We explain the rigorous selection criteria that were used for inclusion and how we conducted the peer reviews.

Interestingly, we included several verbatim examples from the authors addressing the constructive peer review feedback (with their permission). The details of peer reviews are rarely revealed. Recently Cabell's (a well-known reputable scholarly journal indexing company located in Texas, USA) along with other organizations have revealed scandals surrounding the lack of scholarly peer reviews as well as many scams associated with predatory publishers (Bissaccio, 2017). In fact, the editors of this book carefully researched publishers using Cabell's whitelist and blacklist (Cabells, 2017) along with investigating other literature (i.e. Robinson-García, Jiménez-Contreras, Fuente-Gutiérrez & Torres-Salinas, 2014; Tausch, 2011) to select companies to present our edited book proposal to.

Another item which is rarely discussed in edited books but it may be of keen interest to readers is that we share how we designed the content by applying a strategic management methodology. That is the method we used to develop the proposal, the themes, call-for-chapters and we also used the outcomes to inform the logical sequencing. We close by succinctly summarizing each chapter, grouped by theme.

Rationale and Goals of the Book

Public and not-for-profit organizations around the world face a range of risks including trade commerce fluctuations, regulatory compliance, operational uncertainty, reputation loss, data security breaches and terrorism (Nedaei, Rasid, Sofian, Basiruddin, & Kalkhouran, 2015, USADHS, 2016 & Losha, Strang & Vajjhala, 2017). We show in this edited book that the way that practitioners view risk and contingency planning has changed over the years from a math-grounded statistical basis towards a contemporary emphasis on a holistic approach that encompasses numerous macro as well as micro environmental factors. For example, decades ago risk managers purchased insurance to cover mathematically projected losses and the biggest environmental factor was avoiding the 50-year flood zone. Now risk planners have to insure and develop contingency plans for climate warming impacts, international currency fluctuations, changing (or Brexiting) trade agreements, terrorism, data breaches and ransom attacks from the Internet. These have all happened during 2016-2017.

There is a gap in the literature about how to approach, quantify and plan for uncertainty along with the corresponding socioeconomic risk impacts. The old silo approach for risk and contingency management will not work well any longer. Tenhiälä (2011) supports this assertion by stating that there is an increasing gap between practice and the academic theoretical models. Nedaei and his colleagues (2015) emphasize that risk management is essential for market leadership and the growth of a company in a competitive landscape. Therefore, we need to extend the risk and contingency analysis body of knowledge with innovative and holistic approaches.

This book addresses the gap in the risk and contingency management literature by providing a thematic collection of chapters seeking to link theoretical models with practical studies of businesses or non-profits. The themes and chapters in this book address risk from a holistic viewpoint and adopt an evidence-based approach to investigate important risk and contingency management issues.

The purpose of this peer-reviewed edited book is to focus on current and future risk-contingency management issues, practices and models. The main goals of this edited book include:

- To provide an all-encompassing holistic discussion of risk management and perception
- Give readers innovations on empirical risk-contingency management research and case studies
- Strengthen the current risk and contingency management body of knowledge (close gaps)
- Expand the understanding of risk management from various social and cultural perspectives

Our target audience was primarily risk or contingency management practitioners. We anticipated scholars, researchers, policy makers, and decision makers involved in uncertainty analysis, risk management/mitigation and contingency planning would be interested in this book.

Applying Strategic Management to Design the Book

This section contains a technical discussion of how we applied a strategic management methodology to design this book. We felt it was worth sharing that knowledge with researchers and practitioners. We approached this endeavor as a research project from a post-positivist ideology (Strang, 2015), using the aforementioned goals of discovering innovative risk-contingency management practices as the unit of analysis. This means that we did not just accept what was available to publish, but rather, we searched for new or revised empirical material that would address our mandate to close the gap in risk-contingency management literature.

We use a business planning methodology called SWOT-TOWS which is considered an essential procedure for high performing organizations and it is also used around the world for international capacity building (Strang, 2017). The SWOT-TOWS acronym means Strengths-Weaknesses-Opportunities-Threats followed by a reverse of the same factors to formulate a strategic growth or contingency plan. This procedure is considered a *defacto* methodology used in business practice for a new service/product design (Strang & Chan, 2010). Thus, we felt it was ideal for developing our book. Early in the planning process, Strang led us through this methodology.

We applied the methodology through numerous email conversations between the three editors, Dr. Max Korstanje (from Argentina), Dr. Rao Vajjhala (from Nigeria and later traveling through Albania and India), and Strang (based in the USA). The initial motivation for this book came from the three editors working on a grant proposal in the spring of 2017. We used project management techniques to fast track the entire project, to meet all scope, budget, time, and quality goals. All three editors collaborated well

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together using fluent communications and the responsibilities flowed intuitively between them. It was an accomplishment to complete this entire project in less than six months (late April-early September).

SWOT Analysis

The following is an enumerated summary of our SWOT (before the TOWS procedure) which is discussed below. In the list below, IJRCM refers to the *International Journal of Risk and Contingency Management*.

Strengths

1. Access to articles on IGI Global eEditorial Discovery® to identify leading risk-contingency management authors
2. Access to IJRCM Table of Contents (TOC) and Editorial Prefaces to search for theme ideas
3. Access to IJRCM authors with experience using the eEditorial Discovery® system
4. Access to other relevant IGI Global journal authors relevant to the book goals
5. Max's network of authors in risk related books
6. Ken's network of scholars in risk related journals
7. Multinations.org web site can be used to facilitate project management
8. Rao and Ken are licensed international project managers
9. IGI Global staff are knowledgeable and willing to help editors.

Weaknesses

1. Typically, poor email response from eEditorial Discovery® authors due to spam email filters
2. Questionable (low) quality of some authors or co-authors (may be already reprinted somewhere)
3. Difficulty working in eEditorial Discovery® system (at least from a journal standpoint, but it has improved recently since they have hired the developer MKP Software to enhance it)
4. Effort required vs. we could spend time on other projects (e.g., grants, articles, other books)
5. No guarantee that scholars or practitioners will buy book (shared royalty is not a motivating factor though because recognition and knowledge sharing are more important goals).

Opportunities

1. Focus on summary of academic state of the art in risk-contingency management
2. Focus on extension/application of risk-contingency management to industry practice
3. Focus on extension/application of risk-contingency management to organizational learning
4. Focus on extension/application of risk-contingency management to college teaching
5. Focus on extension/application of risk-contingency management to strategy & decision making
6. Promote/cite our relevant research outside of scholarly journals (using edited books).

Threats

1. External competitive books (which we developed using Clarviate and EndNote analysis)
2. Internal (IGI Global) competitive books (Risk & Decision Making, Cyber Terrorism, etc.)
3. Evaluate IGI Global reputation vs. other publishers (Oxford Publishers, Springer-Palgrave, Nova, etc.)*

First, we came to an agreement in principle that we wished to collaborate on an edited peer-reviewed book that was focused on current and future risk-contingency management issues. We wanted to attract high quality content that was relevant to the risk and contingency management field of practice, at all levels of analysis: Individual researcher, project team, organizational, and country or industry. We also unanimously concurred that to achieve a high-quality outcome that we needed to have a peer reviewed book. We intended to have Strang act as coordinator of the peer reviews allowing both other editors Korstanje and Vajjhala to perform double-blinded peer reviews along with a final accept-reject decision on every chapter (except their own – should an editor submit a chapter).

Strang conducted a brief literature analysis so as to establish a list of competitive books on risk and contingency management related topics (per threats 1-2 above). To address the third threat, Korstanje conducted extensive research with book indexes and determined that IGI Global had an excellent reputation – in the top 20 to 50 publishers according to which ever index one was examining (Robinson-García, Jiménez-Contreras, Fuente-Gutiérrez & Torres-Salinas, 2014; Tausch, 2011).

Since IJRCM was a scholarly journal with a healthy assortment of indexes and printed by a reputable publisher, we anticipated many authors whom had published in IJRCM would serve as the initial knowledge base of scholars. This gave us the advantage that scholars who had published in IJRCM would have had experience with all aspects required for the book, including: Scholarly research studies, APA style guides, IGI Global eEditorial Discovery® manuscript workflow system, and with the editors. Strang was the editor in chief for IJRCM and Korstanje along with Vajjhala were the associate editors of IJRCM so the editors have experience with the topics, and the contributors to IJRCM had experience with these editors.

Furthermore, we were confident that the existing contributing authors of IJRCM would have at least some relevant material already published to use as a foundation with which to build on and enhance to make a strong contribution to the book. We conducted a brief product/service resource analysis. Since we expected to source the chapters from existing IJRCM contributing authors, and since we already had the last volume 6 number 4 for 2017 completed (in type-setting stage), we estimated the number of potential eligible contributing authors within the 6 volumes and 4 issues per volume. Of course, not every contributing IJRCM author would be in a position to write a new chapter for a book due to many reasons so based on editorial experience we used a 50% likelihood probability. Therefore, the expected number of eligible book chapter authors was estimated to be: 6 vol * 4 issues * 4 mean articles * 50% likely response = 48 expected value estimated of potential number of chapters.

Since we had identified IGI Global as the most desired publisher, we pitched our proposal to them. Once our proposal was accepted by the publisher, we had all agreed on a book size of 135,000-180,000 words which equates to approximately 13 chapters (135000/10000 words on average per chapter). We anticipated inviting a well-known international figurehead to write the foreword and the editors would write the introductory preface as well as the concluding chapter. Therefore, we were confident that we would have more than 13 chapters. Strang estimated the time frame to market by extrapolating from

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other book projects. We estimated this to be: 1 year from call-for-proposals to IGI Global copyediting + 6 months = 1.5 years to market. Since we started the project in April 2017 (with the proposal), we estimated that the book would hit the market by October 2018.

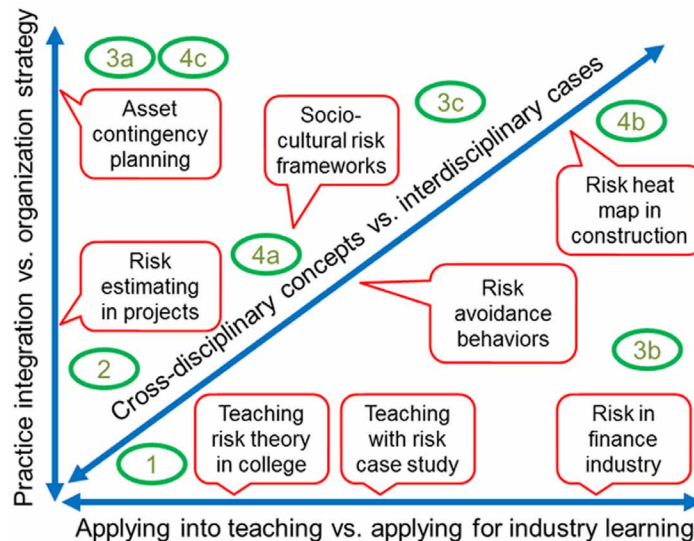
TOWS Analysis

We then conducted a Threats-Opportunities-Weaknesses-Strengths (TOWS) competitive factor integration exercise. This is not often used in business but it is a valuable methodology to more deeply analyze the critical success factors for a capacity building or in a new product/service project (Strang, 2017). TOWS is a strategic methodology to identify most likely synergistic combinations of the SWOT elements by leveraging strengths to overcome threats and take advantage of opportunities while eliminating weaknesses. Generally, the purpose of the TOWS methodology is to reduce the threats and weaknesses while capitalizing on opportunities using strengths. When goal importance weights are added, along with competitive alternative action ratings, the outcome is a weighted scoring matrix of prioritized goals for capacity building or a strategy for a new product/service design. In this way, an organization can prioritize what to do while ensuring that existing resources are used and that the most likely opportunities are targeted while minimizing threats and accounting for known weaknesses.

An edited diagram of the SWOT-TOWS strategic analysis matrix is shown in Figure 1. We added a third dimension to the two axes of the model to incorporate all three strategic themes which emerged from our STOW-TOWS analysis. The most important TOWS components are discussed below with the proposed book theme/title identified by bubbles (and linked to the analysis with reference numbers-letters).

1. University Teaching and Organizational Learning using Contingency or Risk Management Research
2. Integrating Contingency or Risk Management Research into Organizational Strategy or Practices
3. Other variations of thematic title could be,
 - a. From Scholarly Risk Management to Organizational Strategy

Figure 1. Strategic positioning of proposed book content by theoretical dimension



- b. Future Research in Global Risk and Contingency Management: What is Known and Needed
- c. Global Risk and Contingency Management: Research, Practices and Innovations
4. Selected as title and modified at IGI Global's request on 4/25/17 to avoid subtitles to:
5. Research, Practices and Innovations in Global Risk and Contingency Management
 - a. Contemporary International Risk and Contingency Management
6. IGI Global emailed several good suggested titles on 4/24/17
 - a. Interdisciplinary Perspectives on Risk and Contingency Planning
 - b. Managing Risk and Uncertainty in Contemporary Society
 - c. Facilitating Risk and Contingency Management for Organizational Success
7. On 4/22/17 Korstanje suggested title 3(c) was good and on 4/24/17 Vajjhala and Strang agreed; IGI Global staff suggested to avoid colons in the title so our title was slightly modified to become "Research, Practices and Innovations in Global Risk and Contingency Management"
8. Using this title, Strang developed the strategic analysis diagram to model the SWOT-TOWS,
 - a. Theoretical dimension 1: applying into teaching vs. applying for industry learning
 - b. Theoretical dimension 2: integrating into practice vs. as an organization strategy
 - c. Theoretical dimension 3: interdisciplinary cases vs. cross-disciplinary concepts.

Quality Selection Criteria

Strang, Korstanje and Vajjhala developed the chapter quality selection criteria using their experience and templates in use with IJRCM. With this in mind the editors firmly established a criterion that every chapter must be unique from any previously published literature and more than 20%-40% enhanced from previous published articles published. It should be noted that authors were permitted to extensively augment the best of their previous work that was published in peer-reviewed journals as long as they sought appropriate permissions for any material or image that was directly taken from elsewhere. Additionally, we required that authors should have at least 10-20 references with 2-5 dated within the last two (2) years to ensure the book would have contemporary modern content. The editors finalized the selection criteria as listed below. We developed an eight item Likert rating scale along with several qualitative factors to use as selection criteria and in peer reviews.

Edited Book Selection and Peer Review Criteria

- Quantitatively rated criteria:
 - Practical managerial significance
 - Appropriateness for this book
 - Adequacy of background
 - Adequacy of analysis of issues
 - Clarity of presentation
 - Organization of chapter (must follow IGI Global edited book template).
- Qualitatively evaluation criteria to guide peer review constructive feedback:
 - Publishable (yes now, requires minor revisions, requires major revisions; enhanced 20%-40% from any previous studies using the same data models, is it an original relevant title and abstract).

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- Does the chapter provide sufficient background information and literature review regarding its topic. Include in your assessment thoughts and recommendations as to how the author(s) can augment this area of the manuscript.
- List and describe in detail any topic(s) or information related to the discussion in the chapter which appears to be missing. Please provide suggestions as to what topic(s) or information the author(s) can add to ensure that the scope of the chapter's contents is complete.
- Please supply a detailed discussion as to whether or not the information in this chapter clearly illustrates the issues, problems, and trends related to the theme of this proposed book. Please offer your constructive and analytical assessment and list suggestions for improvement and/or enhancement.
- Please provide your opinion as to whether or not the issues, problems, and trends described in this chapter are given appropriate emphasis. Supply specific recommendations as to how the author(s) can improve in this area. Adequate emphasis was provided to address the issues and problems described in this chapter.
- Give an explanation of any serious over-emphasis or under-emphasis of any issues/problems in the chapter. Please provide critical and constructive assessment by offering suggestions as to how the chapter can be improved and enhanced in this area.
- In your opinion, what are the weaknesses of this chapter? Please describe how these specific weaknesses contribute to the ineffective aspects of this chapter. We ask that you carefully list specific suggestions for improvement and/or enhancement.
- In your opinion, what are the strengths of this chapter? Please describe how these specific strengths contribute to the value and quality aspects of this chapter and how said strengths can be utilized to make the weak areas of the chapter more effective.
- Please describe whether or not this chapter is properly directed to the proposed target audience of the book to which it was submitted.
- Please describe your thoughts on the effectiveness of the organization of the chapter. How can the "flow" of this chapter be improved? Please be specific. (must be at least 7,000 words but no longer than 12,000 words).
- Please provide your opinion as to whether or not the references used in this chapter are sufficient, appropriate, and up-to-date. If not, please suggest the relevant references you feel are necessary for the author(s) to include; (at least 10-20 references with 2-5 dated within 2015-2017).

We then launched our edited book project in early May 2017. Korstanje developed the call-for-chapters (CFC) with some help from Strang. The CFC was released on the Internet.

Strang used the IGI Global eEditorial Discovery® state-of-the-art manuscript workflow management system to develop a long list of potential authors whom had already published good quality articles in risk and contingency management topics. We concentrated on authors whom had published good quality articles in the *International Journal of Risk and Contingency Management* but we also looked beyond for potential relevant scholars.

Strang requested a database export of the eligible authors and IGI Global staff provided this. Strang then developed an email-merge invitation letter and sent this to approximately 170 eligible authors during the first week of May 2017. The target date for chapters was set at July 30, 2017. All chapters needed to be at least 7,000 words (no more than 12,000) and meet the other rigorous criteria specified in the

CFC. The original target date for completing the book and handing off to IGI Global was November 15, 2017. The editors were confident that they would achieve that target date by carefully managing it as a project. We later used this same list of 170 qualified scholars as a source to invite peer reviewers.

Editorial Review Board

In parallel to the above, Strang and Korstanje invited relevant scholars to become members of the Editorial Review Board of Directors (ERBD) using the list discussed above as well as their scholarly networks. Final membership in the ERBD was contingent on each scholar actively participating in the book development content as well as double-blind reviewing at least three (3) chapters including providing authors with relevant constructive feedback. The following ERBD members fulfilled their requirements and thus they are formally recognized as the Board of Directors for the edited book. We thank them for their professional community of practice volunteer service.

Editorial Review Board of Directors (alphabetical by surname): Hasnan Baber, Dennis Bialaszewski, Kaushik Chakraborty, Gerald Chaudron, Kunal Ganguly, Patti Gibbons, Maximiliano Korstanje, Vicki Lane, Bruce McLaughlin, Roy Nersesian, Andreas Økland, Nils O.E. Olsson, Madhu Kishore Raghunath, Colin Read, Denis Fischbacher-Smith, Kenneth Strang, Narasimha Vajjhala, and Michael Ziolkowski.

We also accepted volunteers to review chapters on an ad-hoc basis. Not all of the volunteers completed their reviews on time so we were not able to use those results. However, all chapters received at least three (3) double blind peer reviews. The following scholars were invited to periodically review papers so we sincerely want to thank those whom were able to provide authors with timely constructive feedback.

Invited ad-hoc reviewers (random order): Vittal Anantatmula, Joe McManus, Madhu Kishore Raghunath, Tulasi Devi, Mary Beth Lock, Chandra Sekhar Patro, Yang Fan, Madhavan Parthasarathy, Kunal Ganguly, Jan Terje Karlsen, Phyllis Mo, Abhijeet Kumar, Anu Kumar, Rebecca Hamilton, Richard Amponsah, Robert Brooks, Tiziana Guzzo, Fernando Ferri, Patrizia Grifoni, Katja Firus, Abraham Silvers, Padma Pradhan, Adenike Moradeyo, Alisa Mosley, Andrea Tillman-Hawkins, Prabir Bandyopdhyay, Hafida Moussaoui, Hamed Fazlollahtabar, James Smith, Mahdi Sheykhlar, Manoj Kumar, Anthony Pratkanis, Dinesh Kumar, Eshetie Berhan, Ermias Tesfaye, Gordon Kanyoke, Praval Shukla, Daly Basil, Zhaohao Sun, Marlene Turner, Yuri Raydugin, Hadis Zeydabadi, and Ruben Jun Sun Xing.

Strang coordinated the work of receiving the submitted chapters, cleaning them, allocating them for double-blind peer reviews, and managing the process.

Double Blind Peer Review

The double-blind peer reviews enhanced the quality of this book. All ERBD and invited ad-hoc peer reviewers were requested to review a chapter. Strang ensured that every chapter received at least three (3) double blind peer reviews with constructive feedback, and in fact most authors received four (4) or more. Reviewers used the “Edited Book Selection and Peer Review Criteria” explained earlier. The first introductory preface chapter (written by the editors) was not peer reviewed but not double blinded (all ERBD were invited to review it and everyone knew it was the opening chapters as well as the authors). Nonetheless, some useful constructive feedback was provided for improving the preface as well.

Additionally, all authors were required to specifically explain how they addressed the peer review constructive comments when they submitted their revision. Chapters were not accepted unless authors were earnest in completing this. For example, many chapters were sent back to authors during August

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and some chapters were rejected due to not meeting the selection criteria or because the author(s) did not respond to the peer review constructive feedback. We wanted to share some of the peer reviews to illustrate the rigor and quality of the process (with permission) as elaborated upon below.

While all peer reviewers worked hard, especially those who made it to the ERBD, we want to recognize the best of the best so-to-speak, for this edited book. Editor Rao Vajjhala peer reviewed every chapter other than his own, and he co-wrote both this preface and the final chapter. His constructive comments were very detailed in all of his peer reviews. It was not only the content of his constructive criticism that caught my attention but rather the courteous yet helpful and insightful manner in which he presented his suggestions. To illustrate this below is an example (with permission) from one of his reviews. Imagine the amount of work both editors Korstanje and Vajjhala accomplished reading 23 submissions and taking the time to fill out a peer review form that itself spanned several pages on the computer screen.

This chapter can be turned into an interesting set of work but this would require a complete rewrite of the chapter through a properly structured format.

- Weak introduction and background information
- Inadequate literature review, especially lack of references to current literature (last five years)
- The research questions are not framed clearly, authors need to indicate what the central research question is?
- Link to risk is also missing.
- The discussion of the results needs to be clearly done apart from identification of research design and method and the reason for selecting this option.
- Conclusion and identification of possible themes for future research.
- References and citations are not in the proper format, the authors need to completely rewrite the reference entries in the format allowed in the book.

The editors of the book did not receive any special treatment when it came to the rigorous double-blind peer reviews. However, this did not impact the process. For example, here is an example constructive comment from one of the four (4) peer reviewers of *Emergent Issues in the World War against Global Terrorism*:

- What are the strengths of this chapter? Is this chapter is properly directed to the proposed target audience of the book to which it was submitted. How can the “flow” of this chapter be improved?
- Won’t future readers think of this as a Australian and USA centric paper? Page 2: It’s [the] USA.
- Page 2: I think you mean “developed” country
- Page12 I would change this to the island located off of the south-east coast of India Sri Lanka (the island located at the bottom of India)
- Page 15: Edit the punctuation at the end of this sentence? “First of all, the retrospective data underling this chapter based on the work of Strang and Alamieyeseigha (2015) was credible in that data contained over 125,087 terrorist acts – a census not a sample.”
- Conclusions page 15: Are the authors saying these are “probabilities” or “proportions” because they look like proportions....

Next, we wanted to highlight and formally recognize the best of the best from the ERBD peer reviewers (excluding the editors). This was a difficult decision. Colin Read came across as a tactful yet thorough

authoritative subject matter expert on all of his assigned peer reviews. He is a professor in economics, an experienced book and journal article author along with being a USA business school dean so providing constructive feedback is something he obviously knows how to do well. Below is a sample of his work.

The issues the author raises are interesting. This paper does not present in the customary academic style and hence I found it difficult to ascertain how the author was linking the academic literature on risk with his/her results. It is more of an industry discussion. I am a certified solar installer myself, so I found the paper interesting from that perspective, but not from an academic perspective. References and citations not consistent with traditional academic style.

Finally, we want to illustrate the hard and sincere work of the authors who contributed to this book. Below is an example from authors and ERBD members Andreas Økland and Nils Olsson. Below is an example from author and ERBD member Vicki Lane showing how she addressed the peer review.

Blinded Reviewer: *Underemphasis of practical application of the proposed approach. Please clarify research questions. Practical application can be discussed.*

Dr. Lane: *This is discussed on the following pages: p. 19, “Yet, by itself, it does not impart details about why it triumphed or failed with consumers.” p. 20, “Still, as a measure of discounted future cash flow, it is what investors expect will happen. Not, what actually happens. This bothers some marketers, perhaps causing a disconnect to its acceptance.” p. 20, “As for measurement issues, ER has both pros and cons. A challenge in using ER is purging noise from other concurrent events. ... Most marketers have little experience with stock data and some do not understand it. Indeed, of CMO’s surveyed, 55% indicate their staff does not understand other financial metrics (Jefferey, p. 105). While many in finance see stock return as the actual measure of owners wealth, marketers may not. While finance managers are schooled in maximizing the wealth of the firm, marketers are taught to satisfy consumers. Research shows these are linked, but how so is not obvious to everyone. As this paper shows, there are many steps in understanding how strategy impacts consumers, how consumers affect long term returns for the firm, how investors form expectations about returns, how stock price reflects these expectations, and how ER measures changes in financial value. Given their orientation, finance people see what happens to stock return as paramount, important in and of itself as a metric of success. On the other side, marketers may see stock return as far removed from consumers. Even if understood as a measure of a strategy’s future success, some might see it simply as a prediction.*

The next section succinctly outlines the remaining content of the book.

Summary of Book Themes and Chapters

The first theme of the book focuses on the traditional and emerging probabilistic, quantitative approaches to examine uncertainty theories, concepts, models, and applications. The topics covered in the book under this theme include innovations for quantifying and managing enterprise level risks in the textile and apparel industry. We included empirical studies examining stock market performance risk and critical success factors in the banking industry. We added an interesting quantitative empirical study about uncertainty behavior in executive decision making followed by an innovative quantitative model for balancing uncertainty in solar electricity generation plants.

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The second theme provided a cross-sectional review of various theories, concepts and frameworks that could be useful for extending the quantitative topics of the first theme. These chapters start with a historical discussion about uncertainty, followed by a socio-cultural framework for contemporary risk management. The next chapter in some ways integrates concepts of the first two into a new holistic approach for risk assessment. The chapter provides ideas about how to manage quality in the context of project risk. The final chapter discusses the philosophical basis for terrorism and it presents some insightful points about the future of risk management in the era of global terrorism.

The third theme of the book reviews best practices in strategic contingency planning. The topics covered under this theme include engineering risk analysis, knowledge management contingency planning, and risk mitigation in project management. The first chapter builds and shares a unique model using a combined qualitative and quantitative basis. The next two chapters look at different perspectives of contingency planning for natural or man-made disasters while the final chapter discusses how contingency planning can be undertaken in the cross-disciplinary project management practice. Interestingly we see that all of these could work together in project management.

The fourth theme is a mixed method compilation of special purpose industry application studies of risk and contingency planning. The first chapter examines risk planning in the information technology security discipline within the supply chain industry. This is followed by a chapter that develops a unique structural equation model of risk factors for a supply chain case study. The next chapter examines the impact and probability of global terrorism attacks using a big data analytics quantitative approach. The final chapter again goes back to a cross-disciplinary approach, using project management, to reduce risk in large public projects by controlling scope.

We used the outcome of the SWOT-TOWS to divide the chapters into these logical themes:

1. Quantitative Approaches to Risk and Uncertainty Models
 - a. Strategic and Tactical Measures in Managing Enterprise Risks in the Textile Apparel Industry
 - b. A Comparison of Excess Stock Market Return to Standard Marketing Metrics
 - c. Analyzing Risk Management and Non-Performing Assets in Banks
 - d. How Social Culture Impacts Young Executive Decision Making in a Context of Uncertainty
 - e. Risk Inherent in Matching Uncertainty With Unreliability
2. Qualitative, Historical, and Philosophical Risk Perspectives
 - a. Astronomical Roots of Risk Management Measures
 - b. Socio-Political Risk-Contingency-Management Framework for Practitioners and Researchers
 - c. Impact of Risk Assessment Models on Risk Factors: A Holistic Outlook
 - d. Beyond the Precautionary Principle: Is Terrorism a Real Risk?
 - e. Deming as a Guide for Reducing Risk in Project Management
3. Strategic Management and Contingency Planning Practices
 - a. Comprehensive Risk Abatement: A Paradigm Shift
 - b. Burst Pipes and Leaky Roofs: Small Emergencies Are a Challenge for Libraries
 - c. Perils of Lending Rare Book and Archival Materials for Exhibition: Identifying Threats and Evaluating Exposures
 - d. Risk Management Strategies for Project Success
4. Industry Applications and Mixed Method Studies
 - a. Complex Interdependency of IT Security Risk in B2B Supply Chains
 - b. Modelling the Enablers of Supply Risk Management Using Interpretive Structural Methodology

- c. Emergent Issues in the World War Against Global Terrorism
- d. Practical Use and Effects of Scope Reductions in the Form of Reduction Lists: A Tool for Cost Control of Large Public Projects.

Quantitative Approaches to Risk and Uncertainty Models

In the first chapter, “Strategic and Tactical Measures in Managing Enterprise Risks in the Textile Apparel Industry”, the authors conduct a qualitative empirical research study to examine six Hong Kong-based companies along the textile-apparel pipeline with major production operations in mainland China. The findings of this study demonstrate that companies which have survived critical challenges over the past decade have been able to survive because they have practiced risk management at enterprise level. The authors emphasize that risk management is an integral aspect of operational responsibilities and business decisions in strategic planning and implementation.

Investors are always interested in advice about how to manage alternative risk strategies in the stock market. So in the next chapter, “A Comparison of Excess Stock Market Return to Standard Marketing Metrics”, the authors describe the process and importance of measuring the financial value of marketing strategy with excess stock market return. The authors provide an overview of the event study method, which is a technique examining the excess return to the stock price of the firm after realizing the information relevant to the financial success of the firm. In this chapter, the authors illustrate how excess return is useful as a metric for judging the success of marketing strategy.

In the chapter, we continue the analysis of risk in the financial industry with “Analyzing Risk Management and Non-Performing Assets in Banks”. The author explores the risk management strategies in the context of non-performing assets in the banks. The author investigates how various credit, market, and operational risks associated with the banking sector impact performance. This chapter also includes an evaluation of the risk management practices in one of the largest private sector banks in India. The author also analyzes the role of the supervision in strengthening the risk management practices of the bank. Finally, the author analyzes the trends in the non-performing assets of the bank case study.

We take a slightly different direction in the chapter, “How Social Culture Impacts Young Executive Decision Making in a Context of Uncertainty”, where the authors explore the various social science theories from a quantitative perspective that explain how emerging young executives respond to risk in situations of uncertainty. The authors conduct a literature review and follow it up with a critical analysis of socio-cultural decision-making literature. In this chapter, the authors perform a controlled experiment using a sample of senior university students to represent young executives. The authors illustrate the cultural aspects that impact decision making in the context of uncertainty.

In the last chapter of this section we turn to a different interest topic, “Risk Inherent in Matching Uncertainty With Unreliability” where the author presents two types of risks. The first set of risks deals with surpluses and shortages resulting from the introduction of higher levels of electricity from renewable fuels mainly solar and wind. The second category of risk is from the conventional utility model for fossil fuel and nuclear investment decision making threatened by the intrusion of significant contributions of renewable energy to satisfying electricity demand. The author demonstrates in this chapter that the system performance can be improved by transforming base load generation to variable load generation.

Qualitative, Historical, and Philosophical Risk Perspectives

In the first chapter of this theme, “Astronomical Roots of Risk Management Measures”, we start with ground truth theories, historical concepts, and equations underlying uncertainty. In this chapter, the author describes the study of risk in decision making, including the evolution of risk and the improvements in economic theory and applied mathematical techniques. This chapter also covers how measures of risk are incorporated into sophisticated models of finance. The chapter begins with the description of the first analytic model of risk developed by the two Bernoulli cousins in their understanding of the game of chance. The chapter then continues with the description of how the applied mathematicians of the nineteenth century measured and incorporated risk into mathematics. The author then proceeds to discuss the risk-return tradeoff as well as Markowitz’s Modern Portfolio Theory. This chapter highlights the difference between risk and uncertainty using a historical contextual application. In this chapter, the author describes the work of pioneers of the mean-variance tool, including Daniel Bernoulli, Louis Bachelier, Jacob Marschak, Carl Friedrich Gauss, Harry Markowitz, William Sharpe, Paul Samuelson, Fischer Black, and Myron Scholes. This chapter includes several contributions that helped understand the science of risk management.

In the second chapter, an interesting qualitative risk holistic framework is developed which integrates some of the principles and concepts explained earlier to guide future research. In “Socio-Political Risk-Contingency-Management Framework for Practitioners and Researchers”, the author has developed a new risk and contingency model to articulate the emerging global paradigm factors that were not prevalent in the community of practice in the last few years. In this chapter, four new categories of global uncertainty that impact risk and contingency planning in the microenvironment, task environment, and internal to organizations are described. This chapter also includes a visual model encompassing some of the emerging factors including the big data paradigm, fear of global terrorism, economic instability, climate change, international trade agreement changes along with domestic and workplace violence.

It seemed an especially good progression and fit to the book to introduce another perspective on a risk management framework. In the chapter “Impact of Risk Assessment Models on Risk Factors: A Holistic Outlook”, the authors identify the various factors of risk in an organization. The authors articulate various quantitative and qualitative models that are available to various organizations intending to curb risk. The authors have analyzed both the quantitative and qualitative models in both public and private organizations. The various qualitative risk tools covered in this chapter include the risk probability and impact assessment, the probability and impact matrix, risk categorization and risk urgency assessment, and expert judgment. These various quantitative models for risk analysis discussed in this chapter include business risk mapping, probability distributions, sensitivity analysis, expected monetary value analysis, cost as well as schedule risk analysis, and modelling and simulation. This chapter emphasizes on the importance of risk management and use of risk models in dealing with risk factors and identifying risk management strategies to prepare for any unexpected events while achieving the strategic goals of the organization.

Next, we wanted to take another view of socio-political risk, perhaps the dark side or maybe the devil’s advocate perspective – is terrorism a risk to be managed? In the next chapter, “Beyond the Precautionary Principle: Is Terrorism a Real Risk?”, the author addresses the epistemological borders of risk, interrogating the role of media configuring terrorism as one of the most terrible risks that the West faces in the future. In this chapter, the author advocates that terrorism is a hazard because modern citizens have no possibility to avoid their effects. In this chapter, the author advocates that terrorism as-a-risk forms

an ideological discourse in order for the global elite to keep its privilege position and present a new face of capitalism dubbing this as “Thana Capitalism” for the global elite. This chapter raises some provocative questions about risk planning in the age of terrorism. We were torn about placing it after the war on global terrorism chapter but it seemed to fit better within this group.

Quality has always been important in reducing uncertainty and risk. Therefore, it made sense to close with a chapter dedicated to reducing risk by applying quality management within the cross-disciplinary framework of project management. In the final chapter of this theme, “Deming as a Guide for Reducing Risk in Project Management”, the author demonstrates how the risk of failure can be reduced through the incorporation of the principles of total quality management (TQM) into project management. The author discusses a real-world situation based on his vast project management experience where total quality management was employed during the management of the project. The author uses the 14 principles of total quality management developed by W. Edwards Deming as the background for this chapter. In this chapter, the author demonstrates how the application of the principles of total quality management can help eliminate the two top pitfalls in project management, namely, schedule management and cost management.

Strategic Management and Contingency Planning Practices

The first chapter of these topic kicks off with a truly insightful yet simple approach to improving contingency planning – without calling it by that theory. The author is an engineer at heart and a skilled management consultant in practice. In his chapter, “Comprehensive Risk Abatement: A Paradigm Shift”, the author provides a comprehensive risk abatement strategy for an organization to execute this contingency plan. In this chapter, the Matrix Management of Risk Abatement strategy is discussed and the implications for practitioners is explained. The author presents a single comprehensive risk abatement strategy, Enterprise Wellness Way, that includes process objectives, balanced progress methodology, and lines of communication between process and objectives. This chapter provides a clear explanation of how the proposed comprehensive risk abatement strategy overcomes some of the shortcomings of other risk abatement strategies.

We had two insightful case studies about how to conduct contingency planning to address natural or man-made disasters. The first of those two chapters, “Burst Pipes and Leaky Roofs: Small Emergencies Are a Challenge for Libraries”, the author examines small-scale water disasters using a case study approach. In this chapter, the author uses two university library case studies to demonstrate how emergencies occur and presents risk mitigation and prevention strategies. He also explains how a non-profit disaster management and recovery strategies. The first case study covered the impact of the McWherter Library flood at the University of Memphis. Interestingly he examines how disaster impacted the library and how they handled the aftermath of the flood in terms of recovery and restoration. The second case study covered the Mitchell Memorial Library and the problems they had to face because of leaky roofs. Both these cases provide an excellent set of examples on risk mitigation and prevention as well as how disasters should be handled apart from providing useful guidelines for preparing for similar disasters in future.

In the next chapter about natural disaster contingency planning entitled “Perils and Risks of Lending Rare Book and Archival Materials for Exhibition: Identifying Threats and Evaluating Exposures”, the author discusses about the risks that special collection libraries face. Special collection libraries are responsible for storage of important historical and cultural heritage treasures. These special collection libraries also develop exhibitions to highlight the bibliographic and historic holdings as part of their

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outreach strategy. Hence, protection of these special collection materials is quite significant because of the implications on public relations because of any losses. In this chapter, the author explores the risks associated with loans in these special collection libraries and also offers solutions and recommendations on mitigating and reducing these risks.

We closed this section with a cross-disciplinary project management study about how to handle contingency planning and risk management across any type of project. In “Risk Management Strategies for Project Success”, the authors describe a research effort to identify the commonly used risk mitigation approaches used by various organizations using the premise that these approaches will help project managers understand cultural and behavioral issues. Understanding these cultural and behavioral issues will help project managers develop better risk management plans addressing these issues. The objective of this chapter is to understand how risk is managed in projects and how risk varies depending on the type of industry. The authors conducted a survey of more than one hundred project management professionals and present the findings of this survey.

Industry Applications and Mixed Method Studies

This theme was focused on applied special purpose industry studies of risk management. We started this section with a discussion about data security risk management. This is a topic that almost every public, private or non-profit organization needs to be concerned with. In “Complex Interdependency of IT Security Risk in B2B Supply Chains”, the author conceptually decomposes IT security risk in terms of the likelihood of a breach and the potential loss from that breach. The intention of this conceptual decomposition is to analyze the interplay between these interdependencies in IT security risk as faced by supply chain firms. The author seeks to investigate whether the interdependencies in IT security risk are caused by interconnection between the firms. The author also examines how the extent of interconnection and the extent of process integration affect the supply chain firms’ incentives to invest in IT security.

We continued the trend of examining applications in the supply chain industry with a discussion of how risk was addressed using a quantitative model. In the chapter “Modeling the Enablers of Supply Risk Management Using Interpretive Structural Methodology”, the author identifies the enablers of supply risk management process that influences supplier selection in selection chains. This chapter includes a detailed description and explanation of the identified enablers using Interactive Structural Modeling (ISM). The authors also explain the managerial implications of this research in detail. The author uses an exploratory research for formulating relevant factors that provide the basis for inquiries into issues faced by supply risk management process and supplier selection related to the automobile industry in India. This chapter includes an extensive review of literature as well as surveys of opinions of experts in this area.

In the next chapter, we changed direction to look at an empirical study of global terrorism using big data analytics. In “Emergent Issues in the World War against Global Terrorism”, the author examines the impact of global terrorism on the top most-impacted nations. In this chapter, the two major impacts - the actual attacks causing death injuries and property damage, and the emerging culture of fear where human rights are regressed are covered. The author has adopted the critical analysis method and integrated this with a meta-analysis of selected studies. This chapter reviews the risk of global terrorism and provides recommendations addressing the emergent risks. This chapter highlights emergent risks in the war against global terrorism providing a guideline for contingency planning and research.

In the final chapter of this theme we again wanted to take a cross-disciplinary perspective to risk management by offering a study of how to reduce risk in large public projects. In “Practical Use and Effects of Scope Reductions in the Form of Reduction Lists: A Tool for Cost Control for Large Public Projects”, the authors advocate the use of potential scope reductions as expressed by the reduction lists and project contingencies. The purpose of this chapter is to explore the use of potential reductions for a range of completed construction projects. The authors address several research questions in their chapter, including the extent to which predefined scope reduction options are implemented in completed construction projects apart from the understanding the characteristics of implemented scope reductions. The authors also explore the relationship between scope reductions as a tool for cost control and sustainability. The authors also investigate the relationship between budget contingencies, uncertainty estimates, and the use of predefined scope reductions.

The Rest of the Book

The following chapters are arranged in the aforementioned sequence so as to allow the reader to choose an area of interest and proceed from specific examples to a general cross-disciplinary approach within each theme. The themes start with contemporary industry studies instead of a historical perspective, and in our theme where we discuss philosophy the topics present interesting somewhat contrasting views.

We close the book with a brand new thought-provoking chapter that discussed what we think are the strengths and weaknesses of our book. We then explore what we believe are the most controversial risk and contingency management issues that must be examined in the future to close the gap in the literature.

Kenneth David Strang
State University of New York at Plattsburgh, USA

Rao Vajjhala
American University of Nigeria, Nigeria

Maximiliano E. Korstanje
Palermo University, Argentina

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