

OPMGT – 530

Enterprise Risk:

Measurement, Management, Leadership

Syllabus as of 04-12-24

Professor: Russell Walker
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Course Overview

Goal:

This course will present management tools and frameworks to understand and identify risk. Emphasis will be placed on how to improve a firm's risk position, and how to adapt an organization to deal with risk. Cases are used to highlight and exercise the key concepts and frameworks in the course.

Course Description:

The famous American Economist, Frank Knight said, "Profit is the reward for taking risk." In Enterprise Risk Management, we develop a holistic approach to the identification and management of risks facing an organization, allowing leaders to identify and quantify the risks facing the enterprise. Typically recognized forms of risk, such as credit and market risks are presented. The impact of shocks to enterprises and the role of liquidity risk and the importance of protecting against it are reviewed. The role of operational risks, such as those arising from reliance on complex systems, outsourcers, international supply chains, lean processes, and external shocks pose perhaps the greatest risk to firms in the post-globalization era and are reviewed accordingly. This course provides frameworks for identifying, quantifying (in terms of capital allocation), and managing risks to the overall enterprise and offers direction on the formulation of a successful risk office and its appropriate integration with corporate strategy.

About Russell Walker, Ph.D.

Dr. Russell Walker is Associate Teaching Professor of Marketing and International Business and Director of Experiential Learning in Analytics at the Foster School of Business at the University of Washington. From 2007-2019, he was Clinical Professor at the Kellogg School of Management at Northwestern University, where he founded the school's executive-level risk management curriculum and the school's popular Analytical Consulting Lab, Risk Lab, Global Lab and Digital Lab – novel experiential classes that brought MBAs together with real-world corporate opportunities focused on data, risk, and digital strategy. Professor Walker received the Kellogg Impact Award, given by his students for excellence and influence in teaching.

His most recent book, "[From Big Data to Big Profits: Success with Data and Analytics](#)" (Oxford University Press, August 2015), in which Dr. Walker explores how firms can best monetize Big Data, received the Silver Business Technology Book award from [Axiom Books](#). In his award-winning 2013 title, "[Winning with Risk Management](#)" (World Scientific Publishing), he makes the case for companies succeeding on the basis of risk management, much as companies compete on efficiency, costs, labor, location, and other dimensions. He has authored numerous popular business case studies supporting this theory, many of which have been recognized for excellence by the Aspen Institute, Harvard Business Review Press, Harvard School of Business, Kellogg School of Management, the World Bank, and the Bank of England, among others.

He has advised leading organizations internationally on risk management and analytics, including: the U.S. Department of State, the World Bank, the Securities and Exchange Commission, the US Federal Reserve Banking System, the FBI, the Department of Homeland Security, the Bank of England, International Finance Corporation, Microsoft, CME Group, John Deere, Teradata, Discover Financial, USAA, IBM, State Farm, PG&E, Capital One Financial, and many other leading banks and insurers.

Dr. Walker began his career with Capital One Financial, where he served as a senior corporate strategist specializing in advancing analytics throughout the enterprise for the purposes of improving marketing and risk management. Currently, he serves on the Scientific and Technical Council for the Menus of Change, an initiative led by the Harvard School of Public Health and the Culinary Institute of America, to develop healthier and more environmentally sound food choices. He was a board member of the Virginia Hispanic Chamber of Commerce, where he developed support programs for Hispanic entrepreneurs and advised U.S. senators on U.S. Latino matters. He currently advises the Cuba Study Group, a nonpartisan group dedicated to enabling prosperity in Cuba.

More on his work can be found at russellwalkerphd.com and at his popular and award-winning blog bigdatatobigprofits.com

Professor Walker holds an MS and Ph.D. from Cornell University, and an MBA from the Kellogg School of Management at Northwestern University and a BS from the University of South Florida.

Course Schedule**Course Outline, Frameworks, Cases and Readings**

All Assignments are due on the Monday of the following week of mention. Cases submissions are due at the beginning of class. The class will begin with a case debrief, incorporating input from the various teams.

Week I: Class 1 and 2**Risk, Risk Identification, Impacts of Risk**

In this module, we will examine the role of risk on a simple operation. The impact to enterprise performance will be stressed. We will explore how to measure, transfer and adapt to risks.

Topics:

What is Risk?

How to Measure and Prepare for Risk in an Enterprise?

Introduction to Risk and Uncertainty

Risk Decisions for the Manager

Risks in Operating an Enterprise

Frameworks:

Difference between random risk and learnable risk

Measurement of risk and its quantification

Cases and Readings:

1. Chapters 1-3, *Winning with Risk Management*. By Russell Walker
2. Balanced Scorecard in Supply Chain Risk Management by Olson, HBS Publication.
3. Milk and Money, Karl Schmedders, Kellogg Case # 5-407-754: Identification of Risk and Quantification (Use of Correlation and Hedging in Risk Management).

Assignment: Milk and Money Answer Questions in the case.

Week II: Class 3 and 4:**Risks in Global Supply Chains: Making Products with Partners**

For a great many firms, the largest risk comes from failed operations, stemming from failures in critical supply chain partners. In many ways, that is not tied to market or financing issues. We will examine operational risk in various industries and in particular in those involving physical sourcing.

Topics:

External Shocks

Regulatory Risk

Operational Risk – Your Supply Chain, Outsourcing

Frameworks:

Learning about your risks, reducing exposure and lack of information
Developing a strategy for dealing with risk
Understanding pitfalls in the global supply chain economy
Scenario Analysis and Stress Testing for Operational Risk

Cases:

1. Chapter 4. *Winning with Risk Management*: Nokia/Ericsson: Shocks to Global Sourcing Systems. By Russell Walker.
2. Apple Inc. Managing a Global Supply Chain, by Johnson and Mark, HBS Case.
3. From Superstorms to Factory Fires: Managing Unpredictable Supply-Chain Disruptions, by Simchi-Levi, Shmidt, and Weit, HBR Article.

Assignment: Nokia Ericsson Case from book chapter
Answer Posted Questions

Prepare Apple case to discuss

Week III: Class 5 and 6
Risks from Customer Interfaces

Serving customers offers its own plethora of risks. Customers are a source of revenue but also potential risks. None are more potentially severe than those experienced by the food, beverage and pharmaceutical industries. Producing a product that goes into one's body requires absolute trust and compliance. Consumers also have emotions of fear when products are viewed as operationally dangerous.

Topics:

Supply Chain and Operational Risks in Complex Customer Facing Businesses
Managing customer trust
Responding to customer-facing crisis
Developing a safe and compliant supply chain in operations

Frameworks:

Key Risk Indicators
Understanding critical operations
Managing customer perceptions for safety and surety in operations

Cases and Readings:

1. Chipotle: Food with Integrity? By Russell Walker, Kellogg Case.

Assignment:

Assignment: Chipotle Case: Examine why Chipotle's recovery is hard. What would you do to help right its course?

**Week IV: Class 7 and 8:
Market Risk – Evaluation of Assets and Asset Protection**

In market risk we will examine how asset-holding firms evaluate the volatility of asset prices. We will examine the implications to banks and asset rich firms. Market risk is valuable to individuals, too, in terms of real estate and retirement holdings. We will discuss that and tools for managing asset volatility. We will discuss major commodities the risks posed to firms that use or require such commodities.

Topics:

- Overview of models in market risk
- Value at Risk (VaR)
- Liquidity Risk
- Scenario Analysis
- Basel approach to Market Risk
- Introduction to Major Commodities
- Developing Monte Carlo Simulations

Frameworks:

- Value at Risk (VaR) and Monte Carlo simulations
- Modeling scenarios (Monte Carlo simulations)
- Stress Testing

Cases:

1. Arbor City Case Part A and B: Application of VaR to an asset portfolio (actual fund data). (Kellogg Case by Russell Walker)

Assignment: Arbor City A and B

**Week V: Class 9 and 10
Operational Risk in Digital Supply Chains and Cybersecurity**

For a great many firms, the largest risk comes from failed operations, especially those that impact digital operations. In many ways, IT or digital processes drive the business entirely. Social networks, ecommerce sites, banks, hospitals and even transport networks have some of the most critical operations and IT systems in business, relying of a vast network of critical digital suppliers in cloud computing, software execution, and customer data collection. Special emphasis will be given to risks from data, IT and digital processes, given their importance to so many industries.

Topics:

- Cybersecurity
- Data Breaches
- Cloud Computer Partner Risk

Operational Risk – Digital Supply Chain, Outsourcing and IT Risks
IT-Risks – How technology can change your company

Frameworks:

Role and importance of digital and data supply chains
Developing a strategy for dealing with risk in digital operations
Understanding legal obligations in data and digital operations

Readings:

1. Chapter 5 *Winning with Risk Management*. By Russell Walker.
2. Cyberattack: The Maersk Global Supply-Chain Meltdown by Wesley, Dau, Roth, HBS Case.
3. Alexa: A Pandora's Box of Risks. By Russell Walker. Kellogg Case.

Assignment: Evaluate the risks facing Amazon via Alexa. Consider risks from data breaches, cybersecurity issues, and risks from partners and to partners. Who owns these risks?

Team Presentations and Course Wrap-up

Required Case Packets: Critical readings, examples, cases, and exercises.

Case packet: <https://hbsp.harvard.edu/import/1082778>

Text: *Winning with Risk Management* by Russell Walker, 2013.

I have arranged to make the text available **AT NO COST** in E-format/digital mode from the UW library for free at to members of the UW community:

https://orbiscascade-washington.primo.exlibrisgroup.com/discovery/fulldisplay?context=L&vid=01A_LLIANCE_UW:UW&search_scope=UW_EVERYTHING&tab=UW_default&id=alma99161802761201452

Grading/ Evaluation

The course grade will be based on the group homework assignments, individual assignments, discussions, and the final project and its presentation. All assignments have points assigned on the canvas course page.

Grading

5 Team Assignments:	50%
Final Team Project:	15%
Individual Participation:	20%

Peer Evaluation: 15%

Individual Participation: Our sessions together will be interactive. Students are expected to contribute to the discussion, polls, and reflections on the course readings. Points are earned for each session. With 10 classes, a student can earn 2 points per session through participation in that session.

Final Project:

**Assessment of risk and application of risk frameworks to an enterprise of choice.
The final project will be presented in the last class.**

All group work may be completed and submitted as a group, but *everyone* is expected to work on *each* assignment. Each group will submit one copy of the report per assignment, and it should be an electronic copy of their model, analysis and solution.

Each group member *must* fill out the attached peer evaluation form reflecting each individual's contribution to the group output. **Groups should be a maximum of 6 people.**

Re-grading

If you believe that your assignment needs to be re-graded, you understand that the entire assignment is subject to regrading, including the possible outcome of a grade reduction.

Assignment Write-ups

This should be a clear and concise explanation of your spreadsheet model, analysis, and conclusions. Use a presentation format with outlines, bullets and tables, rather than long essays.

The write-up should include:

I. Executive Summary:

Overview of the **problem** addressed, **key issues** involved, and your **solution**, which demonstrates your understanding of the assignment. Provide a clear description of recommendations, decisions to be made, and other concerns that you may wish to raise

II. Analysis:

How should risk be framed, measured, and managed in the situation at hand? Propose a framework, process, measurement, or best practice that is appropriate for the case at hand.

Project

This involves creating, modeling, and analyzing a business case of your choice. It may be based on your work experience, a case from another course, a magazine article, or even

your own imagination! The goal is to analyze enterprise risk at a specific company. You need not contact the company, but may rely on public, published, and industry-specific details. A good model looks at major risk types to the enterprise and considers measurement processes, management role's, risk evaluation processes, and risk acceptance roles in the enterprise. Have fun with the project and explore something of interest to you!

You will also make a **fifteen-minute presentation of your project to the class**. The project report is due at the time of your presentation. You should prepare a presentation suitable to communicate the entire body of your work, as if you were presenting to a client or board of directors

Foster School and University of Washington Terms and Conditions

Academic Integrity:

I employ the principles and procedures espoused by the University of Washington Student Conduct Code to maintain academic integrity in the course. The Code establishes the expectation that students will practice high standards of professional honesty and integrity. In particular, implementation of the Code at the Foster School of Business prohibits cheating, attempted cheating, and plagiarism—including improper citations of source material—as it pertains to academic work. Suspected violations will be handled in compliance with the University of Washington Student Conduct Code.

Students agree to complete coursework without the assistance of AI tools, outside resources, or agents (real as in people or digital as code) to complete their work. Deviation from this is grounds for a student receiving a failing grade in the course.

Disability-related Accommodations:

To request academic accommodations due to disability, please contact Disability Resources for Students (DRS) <http://depts.washington.edu/uwdrs/>. If you have a letter from DRS indicating that you have a disability that requires academic accommodations, please present the letter to me *as soon as possible* so that we can discuss the support I can offer you in this class.

Religious Accommodations Policy:

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at [Religious Accommodations Policy](#). Accommodations must be requested within the first two weeks of this course using the [Religious Accommodations Request form](#).