# Preface

# **OVERVIEW AND PURPOSE**

This text focuses on five fundamental topics of business decision modeling; in addition, the text emphasizes the effective communication of results to the appropriate business decision maker. Overall, the text strives to educate managers in the process of becoming more effective and efficient problem solvers. Ten chapters capture the topics. Although traditional texts include many other topics, I have attempted to identify the core methods used by managers in their everyday problem-solving situations and offer students a process to improve their own critical thinking, management judgment, and communication with their end-user clients.

#### CHAPTERS AS BUILDING BLOCKS

Each chapter is a building block for the next topic and contains numerous links to previous material so students can integrate the information into their own decision-making and analysis process. Examples as well as exercises are presented that guide students in forming their own decision-making process, understanding the output from their analysis, and communicating that analysis in written and verbal form.

# COMMUNICATION OF BUSINESS DECISION MODELING— REPORT WRITING

A special section in each chapter is devoted to the communication of decision-making and business decision modeling results in written and verbal form. In addition, an appendix is provided that details the communication of specific techniques discussed in the text and illustrates proper presentation of results.

These special communication sections and the appendix are developed to link the burgeoning management scientist's internal understanding of the material with a practical framework for proper language, format, and presentation skills to successfully deliver results to a real-world audience.

## THE INTENDED AUDIENCE AND MARKET

The text is intended for introductory management science, quantitative methods/business analysis, and business decision making courses. The text could be used in a sophomore/junior level undergraduate curriculum and/or a graduate level MBA curriculum in a domestic or international setting. Examples and case studies include regional, national, and international situations, scenarios, and solutions. The text is flexible, with special features for a graduate curriculum that undergraduate courses could make optional.

#### SOFTWARE PACKAGES AND SUPPLEMENTAL MATERIAL

The trend of increased use of software packages, spreadsheets, and integrated case studies is taken into consideration in the text through numerous examples and the early incorporation of spreadsheets and software. Supplementary software programs, such as TreePlan, @Risk, and other add-ins for spreadsheets, are also integrated in the textbook. The text details the use of the simulation software and decision tree add-in programs in Chapters 4 and 5.

## INTENDED LEVEL OF THE COURSE

The author believes that the text is broad enough to satisfy the needs of a "survey course" in management science, but specific enough to satisfy upper division "elective" courses or graduate-level MBA courses in quantitative methods or business decision making. In addition, the author believes the text is highly adaptable, especially in the case of MBA programs

and the tendency of late to offer shorter 1.5 credit hour classes. The proposed text should be positioned as:

- 1. An alternative to lengthy technique specific texts
- 2. A multiuse text for undergraduate and/or graduate courses
- 3. An interactive text filled with up-to-date examples, case studies, and software
- 4. A text that develops a link between internal understanding of the material and practical frameworks (verbal and visual) for presentation of results to a real-world audience
- 5. A text that can be used in a regular 15-week semester course or in a shortened 10-week quarter based course or in a 1.5 credit hour graduate-level course
- 6. A text that provides detailed instructions including "rule-of-thumb" sections, which explain items such as software use, writing and presentation guides, real-world applications, and expert opinions.

#### **CONTENT OF THE TEXT**

The text provides the most important and useful topics within business decision models while at the same time preparing students to apply those topics to real-world problems, to integrate the use of common software packages into their analysis and solutions, and to prepare written and verbal conclusions from that analysis.

Instructors and students who view business decision modeling as an integrated, continuous course, and not as a series of techniques somehow loosely connected will especially be interested in this text. This text is highly suited to those instructors who teach in an alternative scheduling atmosphere, most notably the standard 15 week semester. In addition, instructors seeking comprehensive guides on the use of available software, real-world applications and case studies, and written and verbal communication skills are a target.

The inclusion and integration of communication skills relating to the written and verbal dissemination of analysis and results is a distinctive approach in this text. In addition, the use of comprehensive help/study/example guides within the text is unique.

## THE STORY—THE ROAD LESS TRAVELED

So you may ask, "Why write a textbook?" Well, after attempting in vain for numerous years to find a text that included the topics I wanted to cover, but was not a 25-chapter behemoth, and also challenged students to become better problem solvers instead of formula-memorizing robots, the logical and final conclusion was ...

... if you want it done right, do it yourself.

Therefore, I set off on the book writing road. And after many emails and meetings with publishers, colleagues, friends, and family, this text actually was finished. But like any academic writing, it is truly a work in progress, continually being made better. I hope all who read this work and those who attend a course wherein the material is taught enjoy it and take away something. I encourage any suggestions for improving the text and/or the material contained within.