教 育 部 高 等 教 育 司 推 荐 国外优秀信息科学与技术系列教学用书

# 电子商务

管理视角

(影印版)

# ELECTRONIC COMMERCE

A Managerial Perspective

Efraim TurbanJae LeeDavid KingH. Michael Chung



高等教育出版社 Higher Education Press Pearson Education 出版集团



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Pearson Education 出版集团

#### 图字: 01-2001-1045号

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#### Electronic Commerce: A Managerial Perspective

By Efraim Turban, Jae Lee, David King & H. Michael Chung

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Published by arrangement with Prentice Hall, Inc., a Pearson Education company

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#### 图书在版编目(CIP)数据

电子商务: 管理视角 英文/(美)特伯恩(Turban,E.)

一北京: 高等教育出版社, 2001

ISBN 7-04-010047-9

I. 电··· II. 特··· III. 电子商务-英文 IV. F713.36

中国版本图书馆 CIP 数据核字(2001) 第 19845 号

#### 电子商务——管理视角

#### Efraim Turban 等

出版	发行	高等教育出版社			
社	址	北京市东城区沙滩后街 55 号	邮政约	扁码	100009
电	话	010-64054588	传	真	010-64014048
<b>[</b> 22]	址	http://www.hep.edu.cn			
		http://www. hep. com. cn			
经	销	新华书店北京发行所			
EP	刷	北京外文印刷厂			
_					
<del>开</del>	本	$850 \times 1168  1/16$	版	次	2001 年 5 月第 1 版
ED	张	34.75	ED	次	2001年12月第2次印刷
字	数	770 000	定	价	33.00 元
7	奴	770 000	Æ	M	33.00 /6

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### 前 言

20 世纪末,以计算机和通信技术为代表的信息科学和技术,对世界的经济、军事、科技、教育、文化、卫生等方面的发展产生了深刻的影响,由此而兴起的信息产业已经成为世界经济发展的支柱。进入21世纪,各国为了加快本国的信息产业,加大了资金投入和政策扶持。

为了加快我国信息产业的进程,在我国《国民经济和社会发展第十个五年计划纲要》中,明确提出"以信息化带动工业化,发挥后发优势,实现社会生产力的跨越式发展。"信息产业的国际竞争将日趋激烈。在我国加入 WTO 后,我国信息产业将面临国外竞争对手的严峻挑战。竞争成败最终将取决于信息科学和技术人才的多少与优劣。

在 20 世纪末,我国信息产业虽然得到迅猛发展,但与国际先进国家相比,差距还很大。为了赶上并超过国际先进水平,我国必须加快信息技术人才的培养,特别要培养一大批具有国际竞争能力的高水平的信息技术人才,促进我国信息产业和国家信息化水平的全面提高。为此,教育部高等教育司根据教育部吕福源副部长的意见,在长期重视推动高等学校信息科学和技术的教学的基础上,将实施超前发展战略,采取一些重要举措,加快推动高等学校的信息科学和技术等相关专业的教学工作。在大力宣传、推荐我国专家编著的面向 21 世纪和"九五"重点的信息科学和技术课程教材的基础上,在有条件的高等学校的某些信息科学和技术课程中推动使用国外优秀教材的影印版进行英语或双语教学,以缩短我国在计算机教学上与国际先进水平的差距,同时也有助于强化我国大学生的英语水平。

为了达到上述目的,在分析一些出版社已影印相关教材,一些学校已试用影印教材进行教学的基础上,教育部高等教育司组织并委托高等教育出版社开展国外优秀信息科学和技术优秀教材及其教学辅助材料的引进研究与影印出版的试点工作。为推动用影印版教材进行教学创造条件。

本次引进的系列教材的影印出版工作,是在对我国高校的信息科学和技术专业的课程与美国高校的进行对比分析的基础上展开的;所影印出版的教材均由我国主要高校的信息科学和技术专家组成的专家组,从国外近两年出版的大量最新教材中精心筛选评审

通过的内容新、有影响的优秀教材; 影印教材的定价原则上应与我国大学教材价格相当。

教育部高等教育司将此影印系列教材推荐给高等学校,希望有关教师选用,使用后有什么意见和建议请及时反馈。也希望有条件的出版社,根据影印教材的要求,积极参加此项工作,以便引进更多、更新、更好的外国教材和教学辅助材料。

同时,感谢国外有关出版公司对此项引进工作的配合,欢迎更多的国外公司关心并 参与此项工作。

教育部高等教育司 二〇〇一年四月

To all those eager to learn about electronic commerce

## 

## **Preface**

As we enter the second millennium we experience one of the most important changes in our lives—the move to an Internet-based society. Almost everything will be changed at home, in school, at work, in the government—even in our leisure activities. Some changes are already here and they are spreading around the globe. Others are just beginning. One of the most significant changes is in the manner we conduct business especially in how we manage the marketplace and commerce.

Electronic commerce (EC) describes the manner in which transactions take place over networks, mostly the Internet. It is the process of electronically buying and selling goods, services, and information. Certain EC applications, such as buying and selling stocks or books on the Internet, areß growing at a rate of several hundred percent every year. Electronic commerce could have an impact on a significant portion of the world, on businesses, professions, and, of course, on people.

However, the impact of EC is not just the creation of Web-based corporations. It is the building of a new industrial order. Vice President Albert Gore Jr. put it this way:

We are on the verge of a revolution that is just as profound as the change in the economy that came with the industrial revolution. Soon electronic networks will allow people to transcend the barriers of time and distance and take advantage of global markets and business opportunities not even imaginable today, opening up a new world of economic possibility and progress.

Such a revolution brings a myriad of opportunities as well as risks. Bill Gates is aware of that, as Microsoft is continually developing Internet and EC products and services. Yet, Gates said that Microsoft is always two years away from failure, that somewhere out there is a competitor, unborn and unknown, who will render your business model obsolete. Bill Gates knows that competition today is not among products, but among business models. He knows that irrelevancy is a bigger risk than inefficiency. What is true for Microsoft is true for just about every other company. The hottest and most dangerous new business models out there are on the Web.

The purpose of this book is to describe what EC is; how it is being conducted and managed; and its major opportunities, limitations, issues, and risks. Electronic commerce is an interdisciplinary topic and, therefore, it should be of interest to managers and professional people in any functional area of the business world.

In addition, people in government, education, health services, and more could benefit from learning about EC. This book is structured around the notion that EC applications, such as home banking or electronic fund transfers, require certain technological infrastructures and other support mechanisms. The applications are divided

into business-to-consumers, business-to-business, and intrabusiness. The infrastructure is in the areas of hardware, networks, and software. The support services range from secured payment systems to communication standards and legal issues.

This book is one of the first texts entirely dedicated to EC. It is written by experienced authors who share academic as well as real-world experiences. It is a comprehensive text that can be used in a one-semester course, or it can supplement a text on Internet fundamentals, on MIS, or on marketing.

#### Features of the book

Several features are unique to this book. They include:

#### • Managerial Orientation

Electronic commerce can be approached from two major aspects: technological and managerial. This text uses the second approach. Most of the presentations are about EC applications and implementation and are geared toward functional and general managers. However, we do recognize the importance of the technology; therefore, we present the essentials of EC infrastructure in chapter 11. We also provide some more detailed technology material in the appendices at the end of the book.

#### • Interdisciplinary Approach

Electronic commerce is interdisciplinary and we illustrate this throughout the book. Major related disciplines are Accounting, Finance, Information Systems, Marketing, Management, and Human Resources Management. In addition, some nonbusiness disciplines are related, especially Computer Science, Engineering, Psychology, Political Science, and the Legal field. Finally, Economics plays a major role in the understanding of EC.

#### • Real-World Orientation

Extensive, vivid examples from large corporations, small businesses, and government and not-for-profit agencies make concepts come alive by showing students the capabilities of EC, its cost and justification, and some of the innovative ways real corporations are using EC in their operations.

#### Solid Theoretical Background

Throughout the book we present the theoretical foundations necessary for understanding EC, ranging from consumer behavior to economic theory of competition. Furthermore, we provide extensive references, Web site addresses, and many exercises to supplement the theoretical presentations.

#### • Most Current

The book presents the most current topics of EC, as evidenced by the many 1998 and 1999 citations. Topics such as extranets, organizational knowledge bases, Web-based supply chain systems, and EC economics are presented both from the theoretical point of view and from the application side.

#### Economic Justification

Information technology is mature enough to stand the difficult test of economic justification, a topic ignored by most textbooks. It is our position that investment in EC must be scrutinized like any other investment, despite the difficulties of measuring technology benefits.

#### • Integrated Systems

In contrast with other books that highlight isolated Internet-based systems, we emphasize those systems that support the enterprise and supply chain management. Interorganizational systems are particularly highlighted, including the latest innovations in global EC and in Electronic Data Interchange (EDI).

#### Global Perspective

The importance of global competition, partnerships, and trading is rapidly increasing. Electronic commerce facilitates export and import, managing multinational companies, and trading electronically around the globe. International examples are provided throughout the book.

Comprehensiveness and Ease of Reading
 All major topics of EC are covered. Furthermore, the book is user friendly, easy to understand and follow, and full of interesting real-world examples and "war stories" that keep the reader's interest at a high level.

#### Organization of the book

The book is divided into five parts composed of 12 chapters with three technology appendices supplementing them.

#### PART I—INTRODUCTION

In this part we provide an overview of the entire book as well as the fundamentals of EC and some of its terminology (chapter 1).

#### PART II—APPLICATIONS

In this part we describe EC applications in six chapters. Chapters 2 and 3 are dedicated mostly to business-to-consumer commerce (chapter 2 deals with retailing, chapter 3 with Internet consumers and market research). Chapter 4 deals with EC advertisement, which is mostly related to business-to-consumer. In chapter 5 we present EC in service industries. These can be for individual consumers, for businesses or for both. Chapters 7 and 8 deal with various aspects of business-to-business and intrabusiness EC.

#### PART III—SUPPORTING ELECTRONIC COMMERCE

To support EC one needs various infrastructures and mechanisms, most importantly the payments (chapter 8), which are more relevant to business-to-consumer activities. Corporate strategy toward EC, especially planning, justification, and implementation, are treated in chapter 9. The last chapter in this part, chapter 10, deals with issues of public policy, privacy, legal issues, and ethics.

#### PART IV—TECHNOLOGICAL INFRASTRUCTURE

The technological infrastructure is covered in chapter 11, with details presented in Appendices A-C.

#### PART V—ADVANCED EC TOPICS

The book concludes in chapter 12 with a glance at the economics of EC as well as at several other issues, such as global EC, small businesses and EC, and EC research. This chapter also provides an overview of future EC directions.

### Learning aids

We developed a number of learning aids including:

#### Chapter Outline

The detailed outlines in the Contents at the beginning of the book provide a quick indication of the major topics covered.

#### • Learning Objectives

Learning objectives at the beginning of each chapter help students focus their efforts and alert them to the important concepts to be discussed.

#### • Opening Vignettes

Each chapter opens with a *real-world* example that illustrates the importance of EC to modern corporations. These cases were carefully chosen to call attention to the major topics covered in the chapters.

#### Managerial Issues

The final section of every chapter explores some of the special concerns managers face as they adapt to doing business in cyberspace.

#### • Key Terms

All boldface terms introduced within the chapter appear in a list at the end of the chapter and are defined in the glossary at the end of the book.

#### • Chapter Summary

The chapter summary is linked to the learning objectives introduced at the beginning of each chapter.

#### • End-of-Chapter Exercises

Different types of questions measure students' comprehension and their ability to apply knowledge. Questions for Review ask students to summarize the concepts introduced. Discussion Questions are intended to promote class discussion and develop critical thinking skills. Exercises are challenging assignments that require students to apply what they have learned. The Group Assignments are class projects designed to foster teamwork.

#### • Internet Exercises

About 100 hands-on exercises send students to interesting Web sites to conduct research, investigate an application, or learn about state-of-the-art technology.

#### • Application Cases

In-text cases highlight real-world problems encountered by corporations as they develop and implement EC.

#### • Real-World Cases

Each chapter ends with a somewhat more in-depth real-world case. Case questions follow.

### **Supplementary materials**

The following material is available to support this book:

• Instructor's Manual with Test Item File (Test Bank)
This manual includes answers to all review and discussion questions, exercises, and case questions. The printed Test Item File includes multiple-

choice questions for each chapter. An electronic version of the Test Item File is available in the form of the Windows PH Test Manager.

• PowerPoint Lecture Notes

An extensive set of Microsoft PowerPoint lecture notes, oriented toward text learning objectives, is available for each chapter. Lecture Notes can be downloaded from the text's Web site at www.prenhall.com/turban.

• Web Site

The book is supported by a Companion Web site that includes:

- a. A password-protected faculty area where instructors can download the PowerPoint Lecture Notes and the Instructor's Manual.
- b. URLs for all the major topics in the book with links to other sources.
- c. Links to a large number of case studies, including customer success stories and academically oriented cases.
- d. Links to many EC vendors' sites.
- e. Supplemental material for each chapter.
- f. Several case studies, some with teaching notes

#### **Acknowledgments**

Many individuals helped us create this text. Faculty feedback was solicited via reviews and through a focus group. We are grateful to the following faculty for their contributions.

David Ambrosini Cabrillo College

Deborah Ballou University of Notre Dame

Martin Barriff
Illinois Institute of Technology

Joseph Brooks
University of Hawaii

John Bugado
National University

Christer Carlsson
Abo Akademi University

Jack Cook
State University of New York at Geneseo

Larry Corman Fort Lewis College

Mary Culnan Georgetown University

Ted Ferretti
Northeastern University

Jeffrey Johnson
Utah State University

#### xxxii PREFACE

Morgan Jones University of North Carolina

Douglas Kline
Sam Houston State University

Byungtae Lee University of Illinois at Chicago

Michael McLeod

East Carolina University

Susan McNamara
Northeastern University

Bud Mishra
New York University

William Nance San Jose State University

Linda Salchenberger Loyola University of Chicago

George Schell
University of North Carolina at Wilmington

J. P. Shim

Missisippi State University

Kan Sugandh
DeVry Institute of Technology

Linda Volonino Canisius College

Pirkko Walden-Abo Akademi University, Finland

James Zemanek
East Carolina University

Many students at California State University, Long Beach; City University of Hong Kong; and Korea Advanced Institute of Science and Technology (KAIST) participated in this project in many ways. Some helped us to find materials while others provided feedback. There are too many to name, but thanks goes to all of you.

Several individuals helped us with the administrative work. Special mention goes to Judy Lang of Eastern Illinois University, who helped in typing and editing; to Flavia Chung Yan from City University of Hong Kong, who created the lecture notes in *PowerPoint*; and to Duan Ning Zhou from City University of Hong Kong, who assisted in organizing the chapters. We thank all of them for the dedication and the superb performance shown throughout the project.

We also recognize the various organizations and corporations that provided us with permission to reproduce material.

Finally, thanks goes to the Prentice Hall team who helped us from the inception of the project under the leadership of David Alexander. The dedicated staff include Keith Kryszczun, Lucinda Gatch, Lori Cerreto, Kelly Warsak, and Gail Steier.

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