

PART 1 Introduction to E-Commerce and E-Marketplaces 35

CHAPTER 1 OVERVIEW OF ELECTRONIC COMMERCE 35

Net-A-Porter: Dress for Success 36

1.1	ELECTRONIC COMMERCE: DEFINITIONS AND CONCEPTS	38
	Defining Electronic Commerce	38
	Defining E-Business	38
	Major EC Concepts	38
	Electronic Markets and Networks	39

1.2	THE ELECTRONIC COMMERCE FIELD: CLASSIFICATION, CONTENT, AND A BRIEF HISTORY	39
	An EC Framework	40
	Classification of EC by the Nature of the Transactions and the Relationships Among Participants	42
	A Brief History of EC	44
	The Future of EC	45

Case 1.1 **EC Application: Zappos: A Success Story of Selling Footwear Online** 46

1.3	E-COMMERCE 2.0: FROM SOCIAL COMMERCE TO VIRTUAL WORLDS . .	47
	Social Computing	48
	Web 2.0	48
	Social Networks and Social Network Services	49
	Enterprise Social Networks	49
	Social Commerce	50
	Virtual Worlds and Second Life	50
	The Major Tools of Web 2.0	51

1.4	THE DIGITAL WORLD: ECONOMY, ENTERPRISES, AND SOCIETY	52
	The Digital Economy	52
	The Digital Enterprise	52
	The Digital Society	54

1.5	THE CHANGING BUSINESS ENVIRONMENT, ORGANIZATIONS' RESPONSE, AND EC SUPPORT	56
	The Changing Business Environment	56
	Performance, Business Pressures, and Organizational Responses and EC Support	57

1.6	ELECTRONIC COMMERCE BUSINESS MODELS	60
	The Structure and Properties of Business Models	60
	Typical EC Business Models	63

Case 1.2 **EC Application: Groupon** 64

1.7	BENEFITS, LIMITATIONS, AND IMPACTS OF ELECTRONIC COMMERCE . .	66
	The Benefits and Impacts of EC	66
	The Limitations and Barriers of EC	66
	Why Study E-Commerce?	68

Case 1.3 **EC Application: How College Students Become Entrepreneurs** 69

1.8	OVERVIEW OF THIS BOOK	70
	Part 1: Introduction to E-Commerce and E-Marketplaces	70
	Part 2: EC Applications	70
	Part 3: Emerging EC Platforms	71
	Part 4: EC Support Services	71
	Part 5: E-Commerce Strategy and Implementation	71
	Online Tutorials	71
	Online Chapter Supplements	71
	Managerial Issues.	71
	Summary	72
	Key Terms	73
	Discussion Questions	73
	Topics for Class Discussion and Debates.	73
	Internet Exercises	74
	Team Assignments and Projects	74
	Closing Case: E-Commerce at the German Soccer League (Bundesliga) . .	75
	Online Resources	76
	References	77

CHAPTER 2 E-COMMERCE: MECHANISMS, INFRASTRUCTURE, AND TOOLS 79

	Web 2.0 Tools at Eastern Mountain Sports	80
2.1	ELECTRONIC COMMERCE MECHANISMS: AN OVERVIEW.	82
	EC Activities and Support Mechanisms	82
	Sellers, Buyers, and Transactions	83
2.2	E-MARKETPLACES	84
	Electronic Markets	85
	Components of and the Participants in E-Marketplaces	86
	Disintermediation and Reintermediation	87
Case 2.1	EC Application: How Blue Nile Inc. Is Changing the Jewelry Industry.	87
	Types of E-Marketplaces	88
2.3	CUSTOMER SHOPPING MECHANISMS: STOREFRONTS, MALLS, AND PORTALS	89
	Electronic Storefronts	89
	Electronic Malls	90
	Types of Stores and Malls	90
	Web (Information) Portals	90
	The Roles and Value of Intermediaries in E-Marketplaces	92
Case 2.2	EC Application: Financial Standard.	93
2.4	MERCHANT SOLUTIONS: ELECTRONIC CATALOGS, SEARCH ENGINES, AND SHOPPING CARTS	94
	Electronic Catalogs	94
	EC Search Activities, Types, and Engines	95
	Shopping Carts	97
	Other Mechanisms in Merchant Software	97
2.5	AUCTIONS, BARTERING, AND NEGOTIATING ONLINE.	98
	Definition and Characteristics	98
	Dynamic Pricing	98
	Traditional Auctions Versus E-Auctions	99
	Innovative Auctions	99
	Types of Auctions	100
	Benefits and Limitations of E-Auctions	101
	Impacts of Auctions	102

Online Bartering	103
Online Negotiating	103
2.6 SOCIAL SOFTWARE TOOLS: FROM BLOGS TO WIKIS TO TWITTER . . .	104
Blogging (Weblogging)	104
Microblogging and Twitter	107
Twitter	107
Wikis	109
Mechanism Aids for Web 2.0 Tools: Tags, Folksonomy, Mashups, and Social Bookmarks	109
Case 2.3 EC Application: Stormhoek Winery Excels with Web 2.0 Tools	111
2.7 VIRTUAL COMMUNITIES AND SOCIAL NETWORKS	111
Characteristics of Traditional Online Communities and Their Classification	112
Online Social Networks	114
Business-Oriented Social Networks	115
Business Models and Services Related to Social Networking	116
Mobile Social Networking	117
Social Network Services	118
Case 2.4 EC Application: Craigslist: The Ultimate Online Classified Community	118
2.8 VIRTUAL WORLDS AS AN ELECTRONIC COMMERCE MECHANISM . . .	119
Avatars	119
Business Activities and Value in Virtual Worlds	120
2.9 THE FUTURE: WEB 3.0 AND WEB 4.0	121
Web 3.0: What's Next?	121
The Technological Environment	124
Managerial Issues	124
Summary	125
Key Terms	126
Discussion Questions	127
Topics for Class Discussion and Debates	127
Internet Exercises	127
Team Assignments and Projects	128
Closing Case: Business in Second Life	129
Online Resources	131
References	131

PART 2 EC Applications 133

CHAPTER 3 RETAILING IN ELECTRONIC COMMERCE: PRODUCTS AND SERVICES 133

Amazon.com: The World's Largest B2C E-Store 134

3.1 INTERNET MARKETING AND B2C ELECTRONIC RETAILING	135
Overview of Electronic Retailing	136
Size and Growth of the B2C Market	136
What Sells Well on the Internet	137
Characteristics and Advantages of Successful E-Tailing	137
3.2 E-TAILING BUSINESS MODELS	140
Classification of Models by Distribution Channel	141
Case 3.1 EC Application: Selling Cars Online: Build-to-Order	142
Other B2C Models and Special Retailing	144
B2C Social Shopping	145
Virtual Visual Shopping	146

3.3	TRAVEL AND TOURISM (HOSPITALITY) SERVICES ONLINE	147
	Services Provided	148
	Special Services Online	148
Case 3.2	EC Application: WAYN: A Lifestyle and Travel	
	Social Network	149
	Benefits and Limitations of Online Travel Services	150
	Corporate Travel	150
3.4	EMPLOYMENT PLACEMENT AND THE JOB MARKET ONLINE	151
	The Internet Job Market	151
	Benefits and Limitations of the Electronic Job Market	154
3.5	REAL ESTATE, INSURANCE, AND STOCK TRADING ONLINE.	155
	Real Estate Online	155
	Insurance Online	156
	Online Stock Trading	156
3.6	BANKING AND PERSONAL FINANCE ONLINE	158
	Home Banking Capabilities	158
	Virtual Banks	158
	International and Multiple-Currency Banking	159
	Online Financial Transaction Implementation Issues	160
Case 3.3	EC Application: Security for Online Bank Transactions	160
	Online Billing and Bill Paying	161
3.7	ON-DEMAND DELIVERY OF PRODUCTS, DIGITAL ITEMS, ENTERTAINMENT, AND GAMING	162
	On-Demand Delivery of Products	162
	Online Delivery of Digital Products, Entertainment, and Media	163
	Online Entertainment	163
3.8	ONLINE PURCHASING-DECISION AIDS	164
	Shopping Portals	164
	Price and Quality Comparison by Shopbot	
	Software Agents	165
	Business Ratings Sites	166
	Trust Verification Sites	166
	Other Shopping Tools	166
3.9	ISSUES IN E-TAILING AND LESSONS LEARNED	168
	Disintermediation and Reintermediation	168
	Channel Conflict	169
	Possibility of a Price Conflict and Determining the Right Price by Sellers	169
	Product and Service Customization and Personalization	169
	Online Competition	170
	Fraud and Other Illegal Activities	170
	Lessons Learned from Failures and Lack of Success of E-Tailers	170
	Managerial Issues	171
	Summary	172
	Key Terms	173
	Discussion Questions	173
	Topics for Class Discussion and Debates	173
	Internet Exercises	174
	Team Assignments and Projects	174
	Closing Case: IKEA: The Convergence of the Virtual and Physical Worlds	175
	Online Resources	176
	References	177

CHAPTER 4 B2B E-COMMERCE 179

Branas Isaf Competes by Using E-Tendering 180

4.1	CONCEPTS, CHARACTERISTICS, AND MODELS OF B2B E-COMMERCE . .	181
	Basic B2B Concepts and Process	181
	The Basic Types of B2B Transactions and Activities	181
	The Basic Types of B2B E-Marketplaces and Services	181
	Market Size and Content of B2B	182
	B2B Characteristics	183
	Supply Chain Relationships in B2B	185
	Service Industries Online in B2B	185
	Partner and Supplier Relationship Management	186
	The Benefits and Limitations of B2B	187
4.2	ONE-TO-MANY: SELL-SIDE E-MARKETPLACES	188
	Sell-Side Models	188
	Sales from Catalogs: Storefront	189
Case 4.1	EC Application: Brady Corporation Uses Catalogs and Multichannels to Sell	190
	Comprehensive Sell-Side Systems	191
Case 4.2	EC Application: The Haier Group	191
4.3	SELLING VIA DISTRIBUTORS AND OTHER INTERMEDIARIES	193
Case 4.3	EC Application: W.W. Grainger and Goodrich Corporation	193
4.4	SELLING VIA E-AUCTIONS	194
	Using Auctions on the Sell Side	194
	Auctioning from the Company's Own Site	194
	Using Intermediaries in Auctions	194
Case 4.4	EC Application: How VicForests Sells Timber Through an Online Auction Platform	195
	Examples of B2B Forward Auctions	195
4.5	ONE-FROM-MANY: E-PROCUREMENT AT BUY-SIDE E-MARKETPLACES	196
	Inefficiencies in Traditional Procurement Management	196
	Procurement Methods	197
	E-Procurement Concepts	197
	The Goals and Process of E-Procurement	198
	The Benefits and Limitations of E-Procurement	200
4.6	REVERSE AUCTIONS AT BUY-SIDE E-MARKETPLACES	201
	Conducting Reverse Auctions	201
	Group Reverse Auctions	202
4.7	OTHER E-PROCUREMENT METHODS	203
	An Internal Purchasing Marketplace: Aggregating Suppliers' Catalogs and Desktop Purchasing	203
	Group Purchasing	204
	Buying at Sellers' Sites	204
	Acquisition Via Electronic Bartering	205
	Selecting an Appropriate E-Procurement Solution	205
4.8	B2B EXCHANGES: DEFINITIONS AND CONCEPTS	206
	Ownership of B2B Exchanges	207
	Dynamic Pricing in B2B Exchanges	209
	Advantages, Limitations, and the Revenue Model of Exchanges	209
4.9	B2B PORTALS AND DIRECTORIES.	210
	An Overview	210
	Corporate (Enterprise) Portals	211
Case 4.5	EC Application: Alibaba.com	214

4.10	B2B IN WEB 2.0 AND SOCIAL NETWORKING	216
	E-Communities in B2B	216
	The Opportunities of Social Commerce in B2B	216
	The Use of Web 2.0 Tools in B2B	217
	Social Networking in B2B	217
	Examples of Other Activities of B2B Social Networks	218
	Strategy for B2B Social Networking	219
	The Future of B2B Social Networking	219
4.11	B2B INTERNET MARKETING	219
	Organizational Buyer Behavior	220
	The Marketing and Advertising Processes in B2B	220
	Methods for B2B Online Marketing	221
	Affiliate Programs, Market Research, and Data Mining	221
	Managerial Issues	222
	Summary	223
	Key Terms	224
	Discussion Questions	224
	Topics for Class Discussion and Debates	224
	Internet Exercises	225
	Team Assignments and Projects	225
	Closing Case: iMarketKorea	226
	Online Resources	228
	References	228

CHAPTER 5 INNOVATIVE EC SYSTEMS: FROM E-GOVERNMENT TO E-LEARNING, COLLABORATIVE COMMERCE, AND C2C COMMERCE 230

	Knowledge Sharing as a Strategic Asset at Caterpillar Inc.	231
5.1	E-GOVERNMENT: AN OVERVIEW	232
	Definition and Scope	232
	Government-to-Citizens	232
	Government-to-Business	235
	Government-to-Government	236
	Government-to-Employees and Internal Efficiency and Effectiveness	237
	Implementing E-Government	238
	The Transformation to E-Government	238
	E-Government 2.0 and Social Networking	238
	M-Government	239
5.2	E-LEARNING, E-TRAINING, AND E-BOOKS	240
	The Basics of E-Learning: Definitions and Concepts	241
	Benefits and Drawbacks of E-Learning	242
	Distance Learning and Online Universities	244
	Online Corporate Training	245
	Social Networks and E-Learning	246
	Learning in Virtual Worlds and Second Life	247
	Visual Interactive Simulation	248
	E-Learning Management	249
	Implementing E-Learning and E-Training	250
	Electronic Books (E-Books)	250
5.3	KNOWLEDGE MANAGEMENT, ADVISORY SYSTEMS, AND ELECTRONIC COMMERCE	253
	An Overview of Knowledge Management	253
	KM Types and Activities	253
	Knowledge Sharing	254

Case 5.1	EC Application: Knowledge Management at Infosys Technologies	255
	How Is Knowledge Management Related to E-Commerce?	255
	KM and Social Networks	256
	Deploying KM Technologies	256
	Online Advice and Consulting	257
	Finding Expertise and/or Experts Electronically and the Use of Expert Location Systems	257
Case 5.2	EC Application: How the U.S. Department of Commerce Uses an Expert Location System	260
5.4	COLLABORATIVE COMMERCE	260
	Essentials of Collaborative Commerce	260
	The Elements and Processes of C-Commerce	261
	Collaboration Hubs	261
	Representative Examples of Collaborative Commerce	262
	Implementing C-Commerce	264
	Barriers to C-Commerce	265
5.5	CONSUMER-TO-CONSUMER ELECTRONIC COMMERCE	265
	E-Commerce: C2C Applications	266
	Managerial Issues	267
	Summary	268
	Key Terms	269
	Discussion Questions	269
	Topics for Class Discussion and Debates	270
	Internet Exercises	270
	Team Assignments and Projects	271
	Closing Case: Social Networking Initiatives by the New Zealand Government	271
	Online Resources	273
	References	274

PART 3 Emerging EC Platforms 275

CHAPTER 6 MOBILE COMMERCE AND UBIQUITOUS COMPUTING 275

	Hertz Goes Mobile All the Way	276
6.1	MOBILE COMMERCE: CONCEPTS, LANDSCAPE, ATTRIBUTES, DRIVERS, APPLICATIONS, AND BENEFITS	277
	Basic Concepts and the Landscape	277
	The Attributes of M-Commerce	277
	Drivers of M-Commerce	279
	An Overview of the Applications of M-Commerce	280
	The Benefits of M-Commerce	281
6.2	TECHNICAL INFRASTRUCTURE: COMPONENTS AND SERVICES OF MOBILE COMPUTING	282
	Overview of Mobile Computing	282
	Mobile Devices	283
	Mobile Computing Software and Services	286
	Wireless Telecommunications Networks	287
	Putting It All Together	290
6.3	MOBILE FINANCIAL APPLICATIONS	291
	Mobile Banking	291
	Other Financial-Related Mobile Applications	291
6.4	MOBILE ENTERPRISE SOLUTIONS: FROM SUPPORTING THE WORKFORCE TO IMPROVING INTERNAL OPERATIONS	293

Defining Mobile Enterprise	293
The Framework and Content of Mobile Enterprise Applications	293
Mobile Workers	294
Mobile Workforce and M-Commerce Support	294
Fleet and Transportation Management	296
Mobile Applications in Warehouses	297
Case 6.1 EC Application: Right Time, Right Place, Right Recipient at Puma's Scandinavian Central Warehouse	298
Other Enterprise Mobile Applications	299
6.5 MOBILE ENTERTAINMENT AND OTHER CONSUMER SERVICES	300
Overview of Mobile Entertainment	300
Mobile Music and Video Providers	300
Mobile Games	300
Mobile Gambling	301
Mobility and Sports	302
Service Industry Consumer Applications	303
6.6 LOCATION-BASED MOBILE COMMERCE	304
L-Commerce Infrastructure	305
Location-Based Services and Applications	308
Barriers to Location-Based M-Commerce	310
6.7 UBIQUITOUS (PERVASIVE) COMPUTING AND SENSORY NETWORKS	311
Overview of Ubiquitous Computing	311
Smart Application: Grid, Homes, Cars, and More	313
Radio Frequency Identification (RFID)	316
Wireless Sensor Networks	316
Case 6.2 EC Application: Sensors at INRIX Solve Transportation Problems	318
Privacy Issues in Ubiquitous Computing	318
6.8 IMPLEMENTATION ISSUES IN MOBILE COMMERCE: FROM SECURITY AND PRIVACY TO BARRIERS OF M-COMMERCE	319
M-Commerce Security and Privacy Issues	319
Technological Barriers to M-Commerce	320
Failures in Mobile Computing and M-Commerce	320
Ethical, Legal, Privacy, and Health Issues in M-Commerce	321
Mobility Management	322
Managerial Issues	322
Summary	323
Key Terms	324
Discussion Questions	324
Topics for Class Discussion and Debates	325
Internet Exercises	325
Team Assignments and Projects	325
Closing Case: Hassle-Free Shopping at the METRO GROUP Future Store	326
Online Resources	328
References	328

CHAPTER 7 SOCIAL COMMERCE 331

How Starbucks Drives Millions to Its Coffee Shops Using Social Media	332
7.1 THE WEB 2.0 AND SOCIAL MEDIA REVOLUTIONS	333
Web 2.0 and Its Characteristics	333
Welcome to the Web 2.0 Revolution	334
Social Media, Social Marketing, Social Capital, and Social Media Marketing	335
Social Networks and Social Networking	337

7.2	THE FUNDAMENTALS OF SOCIAL COMMERCE AND SOCIAL NETWORKING	338
	Some Definitions of Social Commerce	339
	The Evolution of Social Commerce	339
	The Landscape of Social Commerce	340
	The Potential Benefits of Social Commerce	340
	Mobile Social Networking and Commerce	342
	Concerns and Limitations of Conducting Social Commerce	343
7.3	SOCIAL SHOPPING: CONCEPTS, BENEFITS, AND MODELS	343
	Definitions, Concepts, and Benefits of Social Shopping	343
	The Major Models of Social Shopping	345
	Ratings and Reviews, Social Recommendations, Advice, Comparisons, and Conversations	346
	Group Buying, Deal Purchasing, and Shopping Together	348
	Shopping Communities and Clubs	349
	Other Innovative Models	351
	Social Marketplaces and Direct Sales	352
	What Components to Expect in a Social Shopping Site	353
7.4	SOCIAL ADVERTISING: FROM VIRAL ADVERTISING TO LOCATION-BASED ADVERTISEMENT/MARKETING	355
	Social Ads and Social Apps	355
	Viral (Word-of-Mouth) Marketing	356
	Location-Based Advertisement and Social Networks	356
	Using YouTube and Other Social Presentation Sites for Advertising	359
	Using Twitter as an Advertising and Marketing Tool	359
	Other Innovative Ways to Advertise in Social Media	360
7.5	MARKET RESEARCH AND STRATEGY IN SOCIAL NETWORKS	362
	Using Social Networking for Market Research	362
	Feedback from Customers: Conversational Marketing	364
	Social Analytics and Social Intelligence in Social Commerce	364
	Social Analytics for Social Intelligence in Social Commerce	365
	Analyzing Consumer Conversations and Other User Generated Content	365
	Conducting Market Research Using the Major Social Networks	366
	Putting It All Together	367
7.6	SOCIAL CUSTOMER SERVICE AND CRM	368
	How Social Networking Improves Customer Service	368
	How to Serve the Social Customers	369
	Implementation of Social Customer Service and CRM	370
	Some More Advanced Applications	371
7.7	ENTERPRISE APPLICATIONS: FROM COMMUNITY BUILDING TO COLLABORATION	372
	A Business Network	373
Case 7.1	EC Application: LinkedIn: The Business-Oriented Social Network	373
	The Benefits of Enterprise Business Social Networking	375
	Business-Oriented Public Social Networking	375
	Entrepreneur Networks	376
	Enterprise Private Social Networks	376
	How Companies Interface with Social Networks and Networking	379
	Commercial Activities in Enterprise Social Networks	380
	Social Human Resource Management	380

Managerial Problem Solving, Innovations, and Knowledge Management	381
Using Web 2.0 Tools for Managerial Tasks	382
7.8 CROWDSOURCING: COLLECTIVE INTELLIGENCE FOR PROBLEM SOLVING AND CONTENT CREATION	384
Definitions, Major Concepts, and Benefits	384
The Process of Crowdsourcing	385
Successfully Deployed Crowdsourcing Systems: Some Representative Examples	386
Case 7.2 EC Application: Wikipedia	387
Issues and Concerns in Implementing Crowdsourcing	388
Tools for Crowdsourcing	390
7.9 SOCIAL COMMERCE: APPLICATIONS IN VIRTUAL WORLDS.	391
The Features and Spaces of Virtual Worlds	391
The Landscape of Virtual World Commercial Applications	391
The Major Categories of Virtual World Applications	392
The Major Drivers of Social Commerce in Virtual Worlds	396
Concerns and Limitations of Commercial Activities in Virtual Worlds	398
7.10 ENTERTAINMENT, MULTIMEDIA SHARING, AND SOCIAL GAMES . . .	398
Entertainment and Social Networks	398
Mobile Web 2.0 Devices for Entertainment and Work	400
Multimedia Presentation and Sharing Sites	400
Social Games	401
7.11 JUSTIFICATION, RISKS, OTHER IMPLEMENTATION ISSUES, AND STRATEGY	403
The Complexity of Social Commerce Implementation	403
Justification, Cost-Benefit, and ROI of Social Commerce Systems	403
Risk Factors and Analysis	405
Other Implementation Issues	406
Reputation System Management	407
A Strategy for SC Success of Implementation	407
Revenue-Generation Strategies in Social Networks	409
Case 7.3 EC Application: Revenue Sources at YouTube.	410
The Future of Social Commerce	411
Managerial Issues	412
Summary	413
Key Terms	414
Discussion Questions	414
Topics for Class Discussion and Debates	415
Internet Exercises	415
Team Assignments and Projects	416
Closing Case: F-Commerce: Business Activities on Facebook	417
Online Resources	421
References	422

PART 4 EC Support Services 427

CHAPTER 8 MARKETING AND ADVERTISING IN E-COMMERCE 427

**Netflix Increases Sales Using Movie Recommendations
and Advertisements 428**

8.1 LEARNING ABOUT CONSUMER BEHAVIOR ONLINE. 429
A Model of Consumer Behavior Online 429

8.2	THE CONSUMER PURCHASING DECISION-MAKING PROCESS	432
	A Generic Purchasing-Decision Model	432
	Customer Decision Support in Web Purchasing	433
	Players in the Consumer Decision Process	434
8.3	LOYALTY, SATISFACTION, AND TRUST IN E-COMMERCE	434
	Customer Loyalty	434
	Satisfaction in EC	435
	Trust in EC	436
8.4	MASS MARKETING, MARKET SEGMENTATION, AND RELATIONSHIP MARKETING	438
	From Mass Marketing to One-to-One Marketing	438
	How One-to-One Relationships Are Practiced	440
8.5	PERSONALIZATION AND BEHAVIORAL MARKETING	441
	Personalization in E-Commerce	441
	Behavioral Marketing and Collaborative Filtering	442
8.6	MARKET RESEARCH FOR E-COMMERCE	444
	Objectives and Concepts of Market Research Online	444
Case 8.1	EC Application: Internet Market Research	
	Expedites Time-to-Market at Procter & Gamble	445
	Representative Market Research Approaches	446
	Limitations of Online Market Research and How to Overcome Them	450
	Biometric Marketing	451
8.7	WEB ADVERTISING	451
	Overview of Web Advertising	452
	Some Basic Internet Advertising Terminology	453
	Why Internet Advertising?	453
8.8	ONLINE ADVERTISING METHODS	454
	Major Categories of Ads	454
	Banners	455
	Pop-Up and Similar Ads	456
	E-Mail Advertising	456
	Search Engine Advertisement	457
	Google: The Online Advertising King	460
	Viral Marketing and Advertising	461
	Video Ads	461
	Advergaming	464
	Augmented Reality Advertisement	464
	Advertising in Chat Rooms and Forums	465
8.9	MOBILE MARKETING AND ADVERTISING	466
	Major Concepts	466
	Implementing Mobile Advertising and Marketing	467
	Mobile Marketing Implementation Guidelines	470
	Tools to Support Mobile Advertisement	470
	Mobile Ad Trends	471
8.10	ADVERTISING STRATEGIES AND PROMOTIONS	471
	Permission Advertising	471
	Other Advertising Strategies	472
	Online Events, Promotions, and Attractions	474
	Localization	474
	Intelligent Agents Applications	475
	Developing an Online Advertising Plan	475
	Managerial Issues	477
	Summary	478

Key Terms	479
Discussion Questions	479
Topics for Class Discussion and Debates	480
Internet Exercises	480
Team Assignments and Projects	481
Closing Case: Johnson & Johnson Uses New Media Marketing	482
Online Resources	483
References	484

CHAPTER 9 E-COMMERCE SECURITY AND FRAUD PROTECTION. 486

How Seattle’s Hospital Survived a Bot Attack	487
9.1 THE INFORMATION SECURITY PROBLEM	488
What Is EC Security?	488
The Drivers of EC Security Problems	491
Why Is an E-Commerce Security Strategy Needed?	493
9.2 BASIC E-COMMERCE SECURITY ISSUES AND LANDSCAPE	494
Basic Security Terminology	494
The EC Security Battleground	495
The Threats, Attacks, and Attackers	495
The Targets of the Attacks in Vulnerable Areas	496
Security Scenarios and Requirements in E-Commerce	497
The Defense: Defenders, Strategy, and Methods	499
Recovery	499
9.3 TECHNICAL ATTACK METHODS: FROM VIRUSES TO DENIAL OF SERVICE	500
Technical and Nontechnical Attacks: An Overview	500
The Major Technical Attack Methods	500
Malicious Code: Viruses, Worms, and Trojan Horses	501
9.4 NONTECHNICAL METHODS: FROM PHISHING TO SPAM	504
Social Engineering and Fraud	504
Social Phishing	505
Fraud on the Internet	505
Cyber Bank Robberies	508
Spam and Spyware Attacks	509
Case 9.1 EC Application: Internet Stock Fraud Aided by Spam	510
Social Networking Makes Social Engineering Easy	510
9.5 THE INFORMATION ASSURANCE MODEL AND DEFENSE STRATEGY	513
Confidentiality, Integrity, and Availability	513
Authentication, Authorization, and Nonrepudiation	513
E-Commerce Security Strategy	514
The Defense Side of EC Systems	516
9.6 THE DEFENSE I: ACCESS CONTROL, ENCRYPTION, AND PKI	517
Access Control	517
Encryption and the One-Key (Symmetric) System	519
Public Key Infrastructure (PKI)	520
9.7 THE DEFENSE II: SECURING E-COMMERCE NETWORKS	523
Firewalls	523
Virtual Private Networks (VPNs)	524
Intrusion Detection Systems (IDSs)	525
Honeynets and Honeypots	525
9.8 THE DEFENSE III: GENERAL CONTROLS, INTERNAL CONTROLS, COMPLIANCE, AND OTHER DEFENSE MECHANISMS	527
General, Administrative, and Other Controls	527

Application Controls and Intelligent Agents	528
Protecting Against Spam	528
Protecting Against Pop-Up Ads	529
Protecting Against Social Engineering Attacks	530
Protecting Against Spyware	531
9.9 BUSINESS CONTINUITY, DISASTER RECOVERY, SECURITY AUDITING, AND RISK MANAGEMENT	531
Business Continuity and Disaster Recovery Planning	531
Case 9.2 EC Application: Business Continuity and Disaster Recovery	533
Risk-Management and Cost–Benefit Analysis	533
9.10 IMPLEMENTING ENTERPRISEWIDE E-COMMERCE SECURITY	535
The Drivers of EC-Security Management	535
Senior Management Commitment and Support	536
EC Security Policies and Training	536
EC Security Procedures and Enforcement	537
Why Is It Difficult to Stop Internet Crime?	537
Managerial Issues	538
Summary	539
Key Terms	541
Discussion Questions	541
Topics for Class Discussion and Debates	542
Internet Exercises	542
Team Assignments and Projects	543
Closing Case: How Two Banks Stopped Scams, Spams, and Cybercriminals	544
Online Resources	545
References	546

CHAPTER 10 ELECTRONIC COMMERCE PAYMENT SYSTEMS 548

Pay-per-View Pages: The Next iTunes	549
10.1 THE PAYMENT REVOLUTION	550
10.2 USING PAYMENT CARDS ONLINE	552
Processing Cards Online	552
Fraudulent Card Transactions	554
10.3 SMART CARDS	556
Types of Smart Cards	557
Applications of Smart Cards	557
10.4 STORED-VALUE CARDS	559
10.5 E-MICROPAYMENTS	560
10.6 E-CHECKING	562
Case 10.1 EC Application: To POP or BOC: Digital Checks in the Offline World	563
10.7 MOBILE PAYMENTS	565
Mobile Proximity Payments	566
Mobile Remote Payments	566
Case 10.2 EC Application: Closing the Digital Divide with Mobile Microfinance in Bangalore (India)	567
Mobile POS Payments	568
10.8 B2B ELECTRONIC PAYMENTS	569
Current B2B Payment Practices	569
Enterprise Invoice Presentment and Payment	569

Managerial Issues	572
Summary	573
Key Terms	574
Discussion Questions	574
Topics for Class Discussion and Debates	575
Internet Exercises	575
Team Assignments and Projects	575
Closing Case: Freemiums in the Social Gaming World	576
Online Resources	577
References	578

CHAPTER 11 ORDER FULFILLMENT ALONG THE SUPPLY CHAIN AND OTHER EC SUPPORT SERVICES. 579

How Amazon.com Fulfills Orders	580
11.1 ORDER FULFILLMENT AND LOGISTICS: AN OVERVIEW	581
Acquiring Goods and Services	582
The EC Order Fulfillment Process	583
11.2 PROBLEMS IN ORDER FULFILLMENT ALONG SUPPLY CHAINS	586
Typical Supply Chain Problems	586
Why Supply Chain Problems Exist	586
11.3 SOLUTIONS TO ORDER FULFILLMENT PROBLEMS ALONG SUPPLY CHAINS	587
Improvements in the Order-Taking Activity	588
Warehousing and Inventory Management Improvements	589
Case 11.1 EC Application: How WMS Helps Schurman Improve Its Internal and External Order Fulfillment System	589
Changing the Structure and Process of the Supply Chain	589
Speeding Deliveries	590
Partnering Efforts and Outsourcing Logistics	591
Integrated Global Logistics Systems	591
Case 11.2 EC Application: UPS Provides Broad EC Services.	592
Order Fulfillment in Make-to-Order and Mass Customization	592
Handling Returns (Reverse Logistics)	593
Order Fulfillment in B2B	594
Case 11.3 EC Application: How Daisy Brand Fulfills B2B Orders	595
Other Solutions to Supply Chain Problems	596
Case 11.4 EC Application: How Sundowner Motor Inns Fulfills Its Online Reservations	596
Innovative E-Fulfillment Strategies	597
11.4 RFID AND CPFR AS KEY ENABLERS IN SUPPLY CHAIN MANAGEMENT	598
The Essentials of RFID	598
RFID Applications in the Supply Chain Around the Globe	599
Collaborative Planning, Forecasting, and Replenishment	602
Case 11.5 EC Application: West Marine: A CPFR Success Story	604
11.5 OTHER E-COMMERCE SUPPORT SERVICES	604
Consulting Services	604
Directory Services, Newsletters, and Search Engines	605
More EC Support Services	606
Outsourcing EC Support Services	608

Managerial Issues	609
Summary	610
Key Terms	611
Discussion Questions	611
Topics for Class Discussion and Debates	611
Internet Exercises	612
Team Assignments and Projects	613
Closing Case: How Mass Customized EC Orders Are Fulfilled—Multibras of Brazil	613
Online Resources	614
References	615

PART 5 E-Commerce Strategy and Implementation 617

CHAPTER 12 EC STRATEGY, GLOBALIZATION, AND SMES 617

New EC Strategies Enable Travelocity to Move Ahead in the Online Travel Market.	618
12.1 ORGANIZATIONAL STRATEGY: CONCEPTS AND OVERVIEW	619
Strategy in the Web Environment	619
The Strategic Planning Process	622
Case 12.1 EC Application: Focusing on Quality over Quantity at Warner Music Group	626
Strategic Planning Tools	626
12.2 E-COMMERCE STRATEGY: CONCEPTS AND OVERVIEW	628
12.3 E-COMMERCE STRATEGY INITIATION	629
Representative Issues in E-Strategy Initiation	629
Case 12.2 EC Application: Measuring Profit on the Web: Axon of New Zealand.	632
Strategy in the Web 2.0 Environment and in Social Networking	633
12.4 E-COMMERCE STRATEGY FORMULATION.	634
Selecting E-Commerce Opportunities	634
Determining an Appropriate EC Application Portfolio Mix	635
Risk Analysis in Strategy Formulation	636
Security Issues to Consider During Strategy Formulation	636
Other Issues in E-Commerce Strategy Formulation	637
12.5 E-COMMERCE STRATEGY IMPLEMENTATION	638
E-Commerce Strategy Implementation Process	638
E-Commerce Strategy Implementation Issues	639
12.6 E-COMMERCE STRATEGY AND PROJECT PERFORMANCE ASSESSMENT	641
The Objectives of Assessment	641
Measuring Results and Using Metrics	642
12.7 A STRATEGY FOR GLOBAL E-COMMERCE	645
Benefits and Extent of Global Operations	645
Barriers to Global E-Commerce	646
Breaking Down the Barriers to Global E-Commerce	649
12.8 E-COMMERCE STRATEGY FOR SMALL AND MEDIUM-SIZED ENTERPRISES.	649
Globalization and SMEs	651
Resources to Support SMEs	651
SMEs and Social Networks	651

Managerial Issues	652
Summary	653
Key Terms	654
Discussion Questions	654
Topics for Class Discussion and Debates	655
Internet Exercises	655
Team Assignments and Projects	656
Closing Case: CatchOfTheDay Seizes the Market	656
Online Resources	657
References	658

CHAPTER 13 IMPLEMENTING EC SYSTEMS: FROM JUSTIFICATION TO SUCCESSFUL PERFORMANCE 660

Vodafone Essar of India	661
13.1 THE IMPLEMENTATION LANDSCAPE	663
The Major Implementation Factors	663
13.2 WHY JUSTIFY E-COMMERCE INVESTMENTS? HOW CAN THEY BE JUSTIFIED?	664
Increased Pressure for Financial Justification	664
Other Reasons Why EC Justification Is Needed	664
EC Investment Categories and Benefits	665
How Is an EC Investment Justified?	665
What Needs to Be Justified? When Should Justification Take Place?	665
Using Metrics in EC Justification	666
13.3 DIFFICULTIES IN MEASURING AND JUSTIFYING E-COMMERCE INVESTMENTS	668
The EC Justification Process	668
Difficulties in Measuring Productivity and Performance Gains	669
Relating EC and IT Expenditures to Organizational Performance	670
Intangible Costs and Benefits	671
The Process of Justifying EC and IT Projects	672
The Use of Gartner’s Hype Cycle	672
13.4 METHODS AND TOOLS FOR EVALUATING AND JUSTIFYING E-COMMERCE INVESTMENTS	673
Opportunities and Revenue Generated by EC Investment	674
Methodological Aspects of Justifying EC Investments	674
Traditional Methods for Evaluating EC Investments	674
Implementing Traditional Methods	676
ROI Calculators	676
Advanced Methods for Evaluating IT and EC Investments	677
13.5 EXAMPLES OF E-COMMERCE METRICS AND PROJECT JUSTIFICATION.	679
Justifying E-Procurement	679
Justifying a Portal	680
Justifying Social Networking and the Use of Web 2.0 Tools	680
Justifying an Investment in Mobile Computing and in RFID	681
Justifying Security Projects	681
13.6 THE ECONOMICS OF E-COMMERCE	681
Reducing Production Costs	681
Increased Revenues	683
Reducing Transaction Friction or Risk	685

Facilitating Product Differentiation	685
EC Increases Agility	685
Valuation of EC Companies	685
13.7 A FIVE-STEP APPROACH TO DEVELOPING AN E-COMMERCE SYSTEM	687
Step 1: Identifying, Justifying, and Planning EC Systems	688
Step 2: Creating an EC Architecture	689
Step 3: Selecting a Development Option	690
Step 4: Installing, Testing, Integrating, and Deploying EC Applications	690
Step 5: Operations, Maintenance, and Updates	691
Managing the Development Process	691
13.8 DEVELOPMENT STRATEGIES FOR E-COMMERCE PROJECTS	691
In-House Development: Insourcing	692
Buy the Applications (Off-the-Shelf Approach)	692
Outsourcing EC Systems Development and Applications	693
Leasing EC Applications: Cloud Computing and Software-as-a-Service	694
Other Development Options	696
Selecting a Development Option	696
13.9 ORGANIZATIONAL IMPACTS OF E-COMMERCE	697
Improving Marketing and Sales	697
Transforming Organizations and Work	698
Redefining Organizations	701
Change Management	701
How to Organize an EC Unit in a Company	703
13.10 OPPORTUNITIES FOR SUCCESS IN E-COMMERCE AND AVOIDING FAILURE	704
Factors That Determine E-Commerce Success	704
E-Commerce Successes	705
Cultural Differences in EC Successes and Failures	707
Managerial Issues	708
Summary	709
Key Terms	711
Discussion Questions	711
Topics for Class Discussion and Debates	711
Internet Exercises	712
Team Assignments and Projects	712
Closing Case: Developing a Web 2.0 Platform to Enable Innovative Market Research at Del Monte	713
Online Resources	714
References	715

CHAPTER 14 E-COMMERCE: REGULATORY, ETHICAL, AND SOCIAL ENVIRONMENTS	717
Why Is Disney Funding Chinese Pirates?	718
14.1 ETHICAL CHALLENGES AND GUIDELINES	719
Ethical Principles and Guidelines	719
Business Ethics	719
EC Ethical Issues	721
14.2 INTELLECTUAL PROPERTY LAW	723
Intellectual Property in E-Commerce	723
Fan and Hate Sites	727

14.3	PRIVACY RIGHTS, PROTECTION, AND FREE SPEECH	727
	Social Networks Changing the Landscape of Privacy and Its Protection	727
	Privacy Rights and Protection	728
	Free Speech Online Versus Privacy Protection	729
	The Price of Protecting an Individual's Privacy	730
Case 14.1	EC Application: Hey Teacher, Leave Them Kids Alone! Activating Laptop Webcams to Spy on Students at Home	731
	How Information About Individuals Is Collected and Used Online	731
	Privacy Protection by Information Technologies	735
	Privacy Issues in Web 2.0 Tools and Social Networks	736
	Privacy Protection by Ethical Principles	736
Case 14.2	EC Application: Octopus Card Used Everywhere and Tracked Everywhere.	737
	Privacy Protection in Countries Other Than the United States	739
14.4	OTHER EC LEGAL ISSUES	740
	The Legal and Regulatory Environment	740
	E-Discovery	741
	Cyberbullying	742
14.5	CONSUMER AND SELLER PROTECTION FROM ONLINE FRAUD	743
	Consumer (Buyer) Protection	743
	Seller Protection	746
	Protecting Buyers and Sellers: Electronic and Digital Signatures	746
	Government Regulation of E-Commerce	747
14.6	PUBLIC POLICY AND POLITICAL ENVIRONMENTS	748
	Net Neutrality Approved by the FCC	748
	Taxation of EC Transactions	748
	Internet Censorship by Countries	749
	Regulatory Compliance	750
14.7	SOCIETAL ISSUES AND GREEN EC	751
	The Digital Divide	751
	Telecommuting	752
	Green EC and IT	753
	Other Societal Issues	756
	Managerial Issues.	757
	Summary.	758
	Key Terms	759
	Discussion Questions	759
	Topics for Class Discussion and Debates	760
	Internet Exercises	761
	Team Assignments and Projects	761
	Closing Case: Pirate Bay and the Future of File Sharing	762
	Online Resources	763
	References	764
	Glossary	768
	Index	780