

>part I

Introduction to Business Research 1

1 Research in Business 2

Why Study Business Research? 4

Information and Competitive Advantage 7

Goals 7

Decision Support 7

Business Intelligence 7

Strategy 7

Tactics 8

Hierarchy of Information-Based Decision Makers 9

The Research Process: A Preview 11

Is Research Always Problem-Solving Based? 12

What Is Good Research? 12

A Glimpse at Four Research Studies 16

ClassicToys 16

MedImage 16

MoreCoatings 16

York College 17

What Dilemma Does the Manager Face? 17

The Types of Research Studies Represented by the Four Examples 18

>summary 20

>key terms 21

>discussion questions 22

>cases 22

Appendix 1a How the Research Industry Works 23

2 Ethics in Business Research 30

What Are Research Ethics? 32

Ethical Treatment of Participants 32

Benefits 33

Deception 34

Informed Consent 34

Debriefing Participants 35

Rights to Privacy 36

Data Collection in Cyberspace 38

Ethics and the Sponsor 40

Confidentiality 41

The Sponsor–Researcher Relationship 41

Sponsor’s Ethics 42

Researchers and Team Members 43

Safety 43

Ethical Behavior of Assistants 43

Protection of Anonymity 44

Professional Standards 44

Resources for Ethical Awareness 46

>summary 49

>key terms 49

>discussion questions 50

>cases 51

3 Thinking Like a Researcher 52

The Language of Research 54

Concepts 54

Constructs 55

Definitions 57

Variables 58

Propositions and Hypotheses 62

Theory 65

Models 67

Research and the Scientific Method 68

Sound Reasoning for Useful Answers 70

>summary 75

>key terms 75

>discussion questions 76

>cases 77

4 The Research Process: An Overview 78

The Research Process 80

Stage 1: Clarifying the Research Question 81

Stage 2: Proposing Research 84

Resource Allocation and

Budgets 84

<i>Valuing Research Information</i>	85
<i>The Research Proposal</i>	87
Stage 3: Designing the Research Project	87
<i>Research Design</i>	87
<i>Sampling Design</i>	88
<i>Pilot Testing</i>	89
Stage 4: Data Collection and Preparation	89
Stage 5: Data Analysis and Interpretation	90
Stage 6: Reporting the Results	90
Research Process Issues	91
<i>The Favored-Technique Syndrome</i>	91
<i>Company Database Strip-Mining</i>	92
<i>Unresearchable Questions</i>	92
<i>Ill-Defined Management Problems</i>	92
<i>Politically Motivated Research</i>	93
>summary	93
>key terms	94
>discussion questions	94
>cases	95

5 Clarifying the Research Question through Secondary Data and Exploration 96

A Search Strategy for Exploration	98
<i>Levels of Information</i>	100
<i>Types of Information Sources</i>	102
<i>Evaluating Information Sources</i>	104
Mining Internal Sources	106
<i>Evolution of Data Mining</i>	107
<i>Data-Mining Process</i>	109
The Question Hierarchy: How Ambiguous Questions Become Actionable Research	112
<i>The Management Question</i>	112
<i>The Research Question</i>	116
<i>Investigative Questions</i>	117
<i>Measurement Questions</i>	122
>summary	122
>key terms	123
>discussion questions	123
>cases	124
Appendix 5a Bibliographic Database Searches	125
Appendix 5b Advanced Searches	132

>part II The Design of Business Research 135

6 Research Design: An Overview 136

What Is Research Design?	138
<i>Classification of Designs</i>	140
Exploratory Studies	143
<i>Qualitative Techniques</i>	143
<i>Secondary Data Analysis</i>	145
<i>Experience Survey</i>	146
<i>Focus Groups</i>	147
<i>Two-Stage Design</i>	148
Descriptive Studies	149
Causal Studies	151
>summary	154
>key terms	155
>discussion questions	155
>cases	156

7 Qualitative Research 158

What Is Qualitative Research?	160
Qualitative versus Quantitative Research	160
<i>The Controversy</i>	160
<i>The Distinction</i>	161
The Process of Qualitative Research	164
Qualitative Research Methodologies	167
<i>Sampling</i>	167
<i>Interviews</i>	168
<i>Individual Depth Interviews</i>	172
<i>Group Interviews</i>	175
Combining Qualitative Methodologies	181
<i>Case Study</i>	181
<i>Action Research</i>	182
Merging Qualitative and Quantitative Methodologies	182
>summary	183
>key terms	184
>discussion questions	184
>cases	185

8 Observation Studies 186

- The Uses of Observation 188
 - Nonbehavioral Observation* 189
 - Behavioral Observation* 191
- Evaluation of the Observation Method 192
- The Observer–Participant Relationship 192
 - Directness of Observation* 193
 - Concealment* 194
 - Participation* 194
- Conducting an Observation Study 195
 - The Type of Study* 195
 - Content Specification* 196
 - Observer Training* 197
 - Data Collection* 197
- Unobtrusive Measures 200
- >summary** 203
- >key terms** 204
- >discussion questions** 204
- >cases** 205

9 Experiments 206

- What Is Experimentation? 208
- An Evaluation of Experiments 209
 - Advantages* 209
 - Disadvantages* 209
- Conducting an Experiment 210
 - Selecting Relevant Variables* 211
 - Specifying Treatment Levels* 211
 - Controlling the Experimental Environment* 213
 - Choosing the Experimental Design* 213
 - Selecting and Assigning Participants* 215
 - Pilot Testing, Revising, and Testing* 215
 - Analyzing the Data* 215
- Validity in Experimentation 217
 - Internal Validity* 217
 - External Validity* 219
- Experimental Research Designs 220
 - Preexperimental Designs* 220
 - True Experimental Designs* 222
 - Field Experiments: Quasi- or Semi-Experiments* 225
- >summary** 226
- >key terms** 227

>discussion questions 227

>cases 228

Appendix 9a Complex Experimental Designs 229

Appendix 9b Test Markets 232

10 Surveys 238

- Characteristics of the Communication Approach 240
 - Error in Communication Research* 243
 - Choosing a Communication Method* 248
- Self-Administered Surveys 250
 - Evaluation of the Self-Administered Survey* 250
 - Maximizing Participation in the Self-Administered Survey* 253
 - Self-Administered Survey Trends* 254
- Survey via Telephone Interview 255
 - Evaluation of the Telephone Interview* 256
 - Telephone Survey Trends* 260
- Survey via Personal Interview 261
 - Evaluation of the Personal Interview Survey* 261
- Selecting an Optimal Survey Method 263
 - Outsourcing Survey Services* 263
- >summary** 264
- >key terms** 265
- >discussion questions** 265
- >cases** 266

>part III

The Sources and Collection of Data 267

11 Measurement 268

- The Nature of Measurement 270
 - What Is Measured?* 272
- Measurement Scales 273
 - Nominal Scales* 274
 - Ordinal Scales* 276
 - Interval Scales* 276
 - Ratio Scales* 277

Sources of Measurement Differences 278

Error Sources 279

The Characteristics of Good Measurement 280

Validity 280

Content Validity 281

Criterion-Related Validity 281

Construct Validity 282

Reliability 283

Practicality 285

>summary 286

>key terms 287

>discussion questions 287

>cases 288

12 Measurement Scales 290

The Nature of Attitudes 292

The Relationship between Attitudes and Behavior 292

Attitude Scaling 294

Selecting a Measurement Scale 294

Research Objectives 294

Response Types 295

Data Properties 295

Number of Dimensions 295

Balanced or Unbalanced 295

Forced or Unforced Choices 296

Number of Scale Points 296

Rater Errors 297

Rating Scales 298

Simple Attitude Scales 298

Likert Scales 299

Semantic Differential Scales 303

Numerical/Multiple Rating List Scales 306

Stapel Scales 306

Constant-Sum Scales 307

Graphic Rating Scales 307

Ranking Scales 307

Sorting 310

Cumulative Scales 312

>summary 313

>key terms 314

>discussion questions 315

>cases 316

13 Questionnaires and Instruments 318

Phase 1: Revisiting the Research Question Hierarchy 320

Type of Scale for Desired Analysis 321

Communication Approach 321

Disguising Objectives and Sponsors 322

Preliminary Analysis Plan 323

Phase 2: Constructing and Refining the Measurement Questions 324

Question Categories and Structure 325

Question Content 325

Question Wording 328

Response Strategy 329

Sources of Existing Questions 335

Phase 3: Drafting and Refining the Instrument 338

Participant Screening and Introduction 339

Measurement Question Sequencing 340

Instructions 343

Conclusion 345

Overcoming Instrument Problems 345

The Value of Pretesting 347

>summary 347

>key terms 348

>discussion questions 348

>cases 350

Appendix 13a Crafting Effective Measurement Questions 351

Appendix 13b Pretesting Options and Discoveries 358

14 Sampling 362

The Nature of Sampling 364

Why Sample? 364

What Is a Good Sample? 365

Types of Sample Design 367

Steps in Sampling Design 370

What Is the Target Population? 370

What Are the Parameters of Interest? 371

What Is the Sampling Frame? 372

What Is the Appropriate Sampling Method? 374

What Size Sample Is Needed? 374

Probability Sampling 377

Simple Random Sampling 377

Complex Probability Sampling 377

Nonprobability Sampling 384

Practical Considerations 384

Methods 385

>summary 387

>key terms 388

>discussion questions 388

>cases 389

Appendix 14a Determining Sample Size 390

>part IV Analysis and Presentation of Data 399

15 Data Preparation and Description 400

Introduction 402

Editing 402

Field Editing 403

Central Editing 403

Coding 405

Codebook Construction 405

Coding Closed Questions 406

Coding Open-Ended Questions 407

Coding Rules 408

Using Content Analysis for Open Questions 409

"Don't Know" Responses 413

Missing Data 415

Data Entry 417

Alternative Data Entry Formats 417

On the Horizon 420

>summary 421

>key terms 421

>discussion questions 421

>cases 422

Appendix 15a Describing Data Statistically 423

16 Exploring, Displaying, and Examining Data 428

Exploratory Data Analysis 430

Frequency Tables, Bar Charts, and Pie Charts 431

Histograms 433

Stem-and-Leaf Displays 439

Pareto Diagrams 440

Boxplots 440

Mapping 442

Cross-Tabulation 444

The Use of Percentages 445

Other Table-Based Analysis 447

>summary 449

>key terms 449

>discussion questions 450

>cases 451

17 Hypothesis Testing 452

Introduction 454

Statistical Significance 454

The Logic of Hypothesis Testing 456

Tests of Significance 464

Types of Tests 464

How to Select a Test 466

Selecting Tests Using the Choice Criteria 467

One-Sample Tests 468

Two-Independent-Samples Tests 471

Two-Related-Samples Tests 474

k-Independent-Samples Tests 477

k-Related-Samples Tests 484

>summary 487

>key terms 487

>discussion questions 488

>cases 489

18 Measures of Association 490

Introduction 492

Bivariate Correlation Analysis 493

Pearson's Product Moment Coefficient r 493

Scatterplots for Exploring Relationships 494

The Assumptions of r 496

Computation and Testing of r 497

Simple Linear Regression	502
<i>The Basic Model</i>	503
<i>Concept Application</i>	504
<i>Method of Least Squares</i>	506
<i>Predictions</i>	509
<i>Testing the Goodness of Fit</i>	511
Nonparametric Measures of Association	514
<i>Measures for Nominal Data</i>	514
<i>Measures for Ordinal Data</i>	518
>summary	522
>key terms	523
>discussion questions	523
>cases	525

19 Multivariate Analysis: An Overview 526

Introduction	528
Selecting a Multivariate Technique	528
Dependency Techniques	530
<i>Multiple Regression</i>	530
<i>Discriminant Analysis</i>	534
<i>MANOVA</i>	535
<i>Structural Equation Modeling</i>	539
<i>Conjoint Analysis</i>	541
Interdependency Techniques	545
<i>Factor Analysis</i>	545
<i>Cluster Analysis</i>	550
<i>Multidimensional Scaling</i>	553
>summary	556
>key terms	557
>discussion questions	558
>cases	559

20 Presenting Insights and Findings: Written Reports 560

Introduction	562
The Written Research Report	562
<i>Short Reports</i>	562
<i>Long Reports</i>	563
Research Report Components	565
<i>Prefatory Items</i>	566
<i>Introduction</i>	567
<i>Methodology</i>	568
<i>Findings</i>	569

<i>Conclusions</i>	570
<i>Appendices</i>	570
<i>Bibliography</i>	570
Writing the Report	570
<i>Prewriting Concerns</i>	570
<i>Writing the Draft</i>	572
<i>Presentation Considerations</i>	575
Presentation of Statistics	575
<i>Text Presentation</i>	575
<i>Semitabular Presentation</i>	586
<i>Tabular Presentation</i>	587
<i>Graphics</i>	587
>summary	594
>key terms	594
>discussion questions	594
>cases	595

21 Presenting Insights and Findings: Oral Presentations 596

Introduction	598
Aristotle's Three Principles of Persuasive Communication	599
Ethos	600
Pathos	600
Logos	600
Plan	601
<i>Audience Analysis</i>	602
<i>Types of Learners</i>	603
<i>Keep Your Audience from Checking Out</i>	604
<i>Planning and the Web-Delivered Presentation</i>	605
Organize	605
<i>Traditional Patterns of Organization</i>	606
<i>The Motivated Sequence Organization</i>	607
<i>The Narrative Organization</i>	607
<i>The Rule of Three and the Three-Point Speech</i>	609
Support	609
<i>Conveying Personal Experience through Stories</i>	611
<i>Demonstrations</i>	611
Visualize	612
<i>Psychological and Physical Foundations</i>	613
<i>Design Principles</i>	615
<i>Prescriptions for Better Slides</i>	619

Deliver 619
 Modes of Delivery 619
 Scripts and Notes 620
 Details Make a Difference 621
Practice and Arrange 623
 Rehearsal Is Essential 623
 Controlling Performance Anxiety 624
 Arrangements for Facilities and Equipment 626
>summary 628
>key terms 630
>discussion questions 630
>cases 631

Schedule 657
Facilities and Special Resources 658
Project Management 658
Bibliography 659
Appendices 659
Evaluating the Research Proposal 659
Covering Kids RFP 664
 Background 664
 Contractual Needs 665
 Evaluation Task 665
 Anticipated Time Schedule 666
 Proposal Instructions 666
 Review Criteria 667

case index 633

appendices 643

- a Business Research Requests and Proposals (with Sample RFP)** 644
 Proposing Research 644
 The Request for Proposal (RFP) 644
 Creating the RFP 644
 The Research Proposal 648
 Sponsor Uses 650
 Researcher Benefits 651
 Types of Research Proposals 651
 Internal Proposals 653
 External Proposals 653
 Structuring the Research Proposal 653
 Executive Summary 653
 Problem Statement 654
 Research Objectives 654
 Literature Review 654
 Importance/Benefits of the Study 655
 Research Design 655
 Data Analysis 655
 Nature and Form of Results 655
 Qualifications of Researchers 656
 Budget 656

- b Focus Group Discussion Guide** 668
 Background 668

c Nonparametric Significance Tests 670

One-Sample Test 670
 Kolmogorov-Smirnov Test 670
Two-Samples Tests 671
 Sign Test 671
 Wilcoxon Matched-Pairs Test 671
 Kolmogorov-Smirnov Two-Samples Test 672
 Mann-Whitney U Test 673
 Other Nonparametric Tests 675
k-Samples Tests 675
 Kruskal-Wallis Test 675

d Selected Statistical Tables 677

References and Readings 688

Glossary 714

Photo Credits 732

Indexes

Name 733
Company 737
Subject 742