Marketing Research

Ninth Edition

International Student Version

Carl McDaniel, Jr.
University of Texas
at Arlington

Roger Gates
DSS Research

John Wiley & Sons, Inc.
CONTENTS

Preface vii

1 Introduction to Marketing Research 1

Nature of Marketing 2
  The Marketing Concept 2
  Opportunistic Nature of Marketing Research 2
  External Marketing Environment 3
Marketing Research and Decision Making 4
  Marketing Research Defined 4
  Importance of Marketing Research to Management 4
  Understanding the Ever-Changing Marketplace 6
  Social Media and User-Generated Content 6
  Proactive Role of Marketing Research 7
  Applied Research versus Basic Research 7
  Nature of Applied Research 8
  Decision to Conduct Marketing Research 9
Development of Marketing Research 11
  Inception: Pre-1900 11
  Early Growth: 1900–1920 12
  Adolescent Years: 1920–1950 12
  Mature Years: 1950–2000 13
  ➤ Practicing Marketing Research: What Is Good about Marketing Research Today 13
  The Connected World: 2000–Present 14
  ▪ Summary 15
  ▪ Key Terms & Definitions 16
  ▪ Questions for Review & Critical Thinking 17
  ▪ Real-Life Research 1.1: Courtyard by Marriott 18
  ▪ Real-Life Research 1.2: Young Consumers Searching for a Bank Still Want the Personal Touch 19

2 Ethical Decision Making in the Marketing Research Industry 21

Evolving Structure of the Marketing Research Industry 22
  Primary Information Users (Client Organizations)
    Consumer and Industrial Goods and Services Producers 22
    Federal, State, and Local Governments 23
  Media Companies 24
  Retailers and Wholesalers 24
  Manufacturers 24
  Marketing Research Suppliers 24
  Marketing Research Supplier Service Firms 24
3 Steps in the Research Process 57

Critical Importance of Correctly Defining the Problem 58
Recognize the Problem or Opportunity 59
Find Out Why the Information Is Being Sought 59
Understand the Decision-Making Environment with Exploratory Research 60
Use the Symptoms to Clarify the Problem 62

Practicing Marketing Research: What Do You Need to Know 63
Translate the Management Problem into a Marketing Research Problem 64
Determine Whether the Information Already Exists 64
Determine Whether the Question Can Be Answered 65

Practicing Marketing Research: Importance of Top Management's Definition of the Management Problem 65
State the Research Objectives 66
Marketing Research Process  66
   Creating the Research Design  66
   Choosing a Basic Method of Research  68
   Selecting the Sampling Procedure  69
   Collecting the Data  69
   Analyzing the Data  70
   Writing and Presenting the Report  70
   Following Up  71
Managing the Research Process  71
   The Research Request  71
   Request for Proposal  72
➤ PRACTICING MARKETING RESEARCH: WHERE DO I SEND THE RFP?  72
The Marketing Research Proposal  73
   What to Look for in a Marketing Research Supplier  75
What Motivates Decision Makers to Use Research Information?  75
  □ Summary  76
  □ Key Terms & Definitions  77
  □ Questions for Review & Critical Thinking  78
  □ Working the Net  79
  □ Real-Life Research 3.1: Let's Go Out to Eat!  79
  □ Real-Life Research 3.2: Cessna Aircraft  84
Appendix 3A: A Marketing Research Proposal  85
   Background  86
   Objectives  86
   Study Design  86
   Areas of Questioning  86
   Data Analysis  87
   Personnel Involved  87
   Specifications/Assumptions  87
   Services  87
   Cost  88
   Timing  88

4 Using Secondary Data  89
Nature of Secondary Data  90
   Advantages of Secondary Data  90
➤ PRACTICING MARKETING RESEARCH  91
   Limitations of Secondary Data  92
Internal Databases  94
   Creating an Internal Database  94
➤ PRACTICING MARKETING RESEARCH: LOOKING FOR INTELLIGENCE IN ICE CREAM  94
   Growing Importance of Internal Database Marketing  95
➤ PRACTICING MARKETING RESEARCH: DATABASE DESIGN AND IMPLEMENTATION  96
   Data Mining  97
   Behavioral Targeting  99
   Battle over Privacy  100
➤ PRACTICING MARKETING RESEARCH  105
   Marketing Research Aggregators  106
5 Focus Groups, Depth Interviews, and Other Non-quantitative Research Methods 116

Nature of Qualitative Research 117
  Qualitative Research versus Quantitative Research 117
  Popularity of Qualitative Research 118
  Limitations of Qualitative Research 119

The Importance of Focus Groups 119
  Popularity of Focus Groups 120
  Conducting Focus Groups 120

  ➤ PRACTICING MARKETING RESEARCH: BUILDING A STRONG BOND WITH FOCUS GROUP PARTICIPANTS 124
  Focus Group Trends 128

  ➤ GLOBAL RESEARCH: PLANNING GLOBAL FOCUS GROUPS 129
  Benefits and Drawbacks of Focus Groups 131

Other Qualitative Methodologies 133
  Individual Depth Interviews 133
  Projective Tests 137

  ➤ PRACTICING MARKETING RESEARCH: GETTING CONSUMERS TO TELL THEIR STORIES 142

Future of Qualitative Research 143

  ➤ GLOBAL RESEARCH: CONDUCTING MARKETING RESEARCH IN CHINA 158

6 Methods of Survey Research 151

  ➤ GLOBAL RESEARCH: CONDUCTING MARKETING RESEARCH IN CHINA 158

Popularity of Survey Research 152

Types of Errors in Survey Research 152
  Sampling Error 152
  Systematic Error 153

Types of Surveys 157
  Door-to-Door Interviews 157
7 Using the Internet for Marketing Research  177
The Online World  178
Using the Internet for Secondary Data  178
  Sites of Interest to Marketing Researchers  178
  Newsgroups  178
  Blogs  181
Internet Search Strategies  181
  Creating a Database from a Web Site—A Marketer's Dream  184
Online Qualitative Research  185
  The Popularity of Online Focus Groups  186
  PRACTICING MARKETING RESEARCH: ADVANTAGES OF ONLINE FOCUS GROUPS IN B2B RESEARCH  187
  FROM THE FRONT LINE: EIGHT TIPS FOR CONDUCTING SUCCESSFUL BULLETIN BOARD FOCUS GROUPS  191
  PRACTICING MARKETING RESEARCH: HAVE TECHNOLOGY, WILL INVESTIGATE: INNOVATIVE ONLINE SOLUTIONS FOR QUALITATIVE  194
Online Survey Research  195
  Advantages of Online Surveys  195
  GLOBAL RESEARCH: RESEARCH IN RUSSIA  196
  Disadvantages of Online Surveys  197
  PRACTICING MARKETING RESEARCH: THE PRIMACY OF ONLINE RESEARCH  198
  Methods of Conducting Online Surveys  199
Commercial Online Panels  201
  Panel Management  201
  GLOBAL RESEARCH: TIMING IS EVERYTHING IN SURVEY INVITATIONS  202
  Open versus Closed Recruitment  203
  Respondent Cooperation  203
  Controlling the Panel  204
  Mobile Internet Research—The Next Step  205
  PRACTICING MARKETING RESEARCH: MOBILE RESEARCH IS RIGHT NOW  207
FROM THE FRONT LINE: WHY ISN'T ALL DATA COLLECTION MOVING TO THE INTERNET? 208

Summary 209
Key Terms & Definitions 210
Questions for Review & Critical Thinking 210
Working the Net 211
Real-Life Research 7.1: Good Things Come to Brands That Give 211
Real-Life Research 7.2: Weiner World 212

8 Ethnography, Scanner-based Research, and Other Observation Techniques 213
Nature of Observation Research 214
Conditions for Using Observation 214
Approaches to Observation Research 214
Advantages of Observation Research 216
Disadvantages of Observation Research 217
Human Observation 217
Ethnographic Research 217
Global Research: Ethnography Is an Enriching Process 221
Mystery Shoppers 222
Practicing Marketing Research: Taking Ethnography Online 223
One-Way Mirror Observations 225
Practicing Marketing Research: Undercover with a Hotel Spy 226
Machine Observation 227
Traffic Counters 227
Physiological Measurement Devices 227
Television Audience Measurement and the Portable People Meter 232
Symphony IRI Consumer Network 233
Observation Research on the Internet 233
Observation Research and Virtual Shopping 235
Summary 236
Key Terms & Definitions 237
Questions for Review & Critical Thinking 238
Working the Net 239
Real-Life Research 8.1: A Glad Trash Bag Breakthrough 239
Real-Life Research 8.2: Stovetops and Laptops 240

9 Primary Data Collection: Experimentation and Test Markets 242
What Is an Experiment? 243
Demonstrating Causation 243
Concomitant Variation 243
Appropriate Time Order of Occurrence 244
Elimination of Other Possible Causal Factors 244
Experimental Setting 244
Laboratory Experiments 245
Practicing Marketing Research: What's It Like to Be Old? 245
Field Experiments 246
11 Attitude Measurement 302
Attitudes, Behavior, and Marketing Effectiveness 303
Link between Attitudes and Behavior 303
Enhancing Marketing Effectiveness 304
Scaling Defined 305
Attitude Measurement Scales 305
Graphic Rating Scales 305
Itemized Rating Scales 306
Practicing Marketing Research: Comparing the Traditional Likert Scale and Alternative Slider Scales 306
Traditional One-Stage Format 310
Two-Stage Format 310
Rank-Order Scales 310
Paired Comparisons 310
Constant Sum Scales 311
Semantic Differential Scales 312
Global Research: Cross-Cultural Segmentation: Accounting for Cross-Cultural Response Differences When Using Survey Rating Scales 314
Stapel Scales 314
Likert Scales 315
Purchase Intent Scales 316
Practicing Marketing Research: To Choose or Not to Choose? Are Choice Techniques the Right Choice? 318
Scale Conversions 320
Considerations in Selecting a Scale 321
The Nature of the Construct Being Measured 321
Type of Scale 321
Balanced versus Nonbalanced Scale 322
12 Questionnaire Design 335

Role of a Questionnaire 336
Criteria for a Good Questionnaire 337

Does It Provide the Necessary Decision-Making Information? 337
Does It Consider the Respondent? 337
Does It Meet Editing and Coding Requirements? 337

Questionnaire Design Process 339

PRACTICING MARKETING RESEARCH: TIPS FOR MAXIMIZING USER RESPONSE IN ONLINE SURVEYS 340
Step One: Determine Survey Objectives, Resources, and Constraints 341

PRACTICING MARKETING RESEARCH: IT'S ALL ABOUT THE OBJECTIVES 342
Step Two: Determine the Data-Collection Method 343
Step Three: Determine the Question Response Format 343

PRACTICING MARKETING RESEARCH: USEFUL OPEN-ENDED QUESTIONS 348
Step Four: Decide on the Question Wording 352
Step Five: Establish Questionnaire Flow and Layout 355
Model Introduction/Opening 358
Model Closing 358
Step Six: Evaluate the Questionnaire 359
Step Seven: Obtain Approval of All Relevant Parties 359
Step Eight: Pretest and Revise 360
Step Nine: Prepare Final Questionnaire Copy 360

PRACTICING MARKETING RESEARCH: TIPS FOR WRITING A GOOD QUESTIONNAIRE 360
Step Ten: Implement the Survey 362
Field Management Companies 362

Impact of the Internet on Questionnaire Development 364
Software for Questionnaire Development 364

FROM THE FRONT LINE: PRACTICES THAT SIMPLIFY AND SPEED UP DESIGN OF A GOOD QUESTIONNAIRE 365

GLOBAL RESEARCH: SURVEY CONTAMINATION FROM NATIONAL DIFFERENCES IN RESPONSE STYLES 369
13 Basic Sampling Issues 379

Concept of Sampling 380
  Population 380
  Sample versus Census 380
Developing a Sampling Plan 381
  Step One: Define the Population of Interest 381
  ➤ PRACTICING MARKETING RESEARCH: DRIVER’S LICENSES AND VOTER REGISTRATION LISTS AS SAMPLING FRAMES 382
  Step Two: Choose a Data-Collection Method 384
  Step Three: Identify a Sampling Frame 384
  Step Four: Select a Sampling Method 385
  ➤ PRACTICING MARKETING RESEARCH: HOW TO ACHIEVE NEAR FULL COVERAGE FOR YOUR SAMPLE USING ADDRESS-BASED SAMPLING 385
  Step Five: Determine Sample Size 386
  Step Six: Develop Operational Procedures for Selecting Sample Elements 386
  ➤ PRACTICING MARKETING RESEARCH: CAN A SINGLE ONLINE RESPONDENT POOL OFFER A TRULY REPRESENTATIVE SAMPLE? 387
  Step Seven: Execute the Operational Sampling Plan 388
Sampling and Nonsampling Errors 388
Probability Sampling Methods 389
  ➤ FROM THE FRONT LINE: SAMPLING AND DATA COLLECTION WITH INTERNET PANELS 390
    Simple Random Sampling 391
    Systematic Sampling 391
    Stratified Sampling 392
    Cluster Sampling 394
Nonprobability Sampling Methods 396
  Convenience Samples 396
  Judgment Samples 397
  Quota Samples 397
  Snowball Samples 397
  ➤ PRACTICING MARKETING RESEARCH: E-MAIL SURVEYS OF WEB SITE USAGE—WHEN SNOWBALLING FAILS TO SNOWBALL 398
Internet Sampling 399
  ➤ PRACTICING MARKETING RESEARCH: HOW BUILDING A BLENDED SAMPLE CAN HELP IMPROVE RESEARCH RESULTS 400
  Summary 401
  Key Terms & Definitions 401
  Questions for Review & Critical Thinking 402
  Working the Net 403
  Real-Life Research 13.1: The Research Group 404
  Real-Life Research 13.2: Texas Field Research 405
14 Sample Size Determination 406
Determining Sample Size for Probability Samples 407
  Budget Available 407
  Rule of Thumb 407
  Number of Subgroups Analyzed 407
  Traditional Statistical Methods 408
Normal Distribution 408
  General Properties 408
  Standard Normal Distribution 410
Population and Sample Distributions 410
Sampling Distribution of the Mean 411
  Basic Concepts 412
  GLOBAL RESEARCH: NONRESPONSE BIAS IN A DUTCH ALCOHOL CONSUMPTION STUDY 414
Making Inferences on the Basis of a Single Sample 415
  Point and Interval Estimates 415
  Sampling Distribution of the Proportion 416
Determining Sample Size 417
  Problems Involving Means 417
  Problems Involving Proportions 419
Determining Sample Size for Stratified and Cluster Samples 420
Sample Size for Qualitative Research 420
Population Size and Sample Size 420
  PRACTICING MARKETING RESEARCH 421
  PRACTICING MARKETING RESEARCH: ESTIMATING WITH PRECISION HOW MANY PHONE NUMBERS ARE NEEDED 423
Determining How Many Sample Units Are Needed 424
Statistical Power 424
  Summary 425
  Key Terms & Definitions 427
  Questions for Review & Critical Thinking 428
  Working the Net 429
  Real-Life Research 14.1: Sky Meals 429
  Real-Life Research 14.2: HealthLife 430
  SPSS Jump Start for Chi-Square Test 431

15 Data Processing and Fundamental Data Analysis 435
Overview of the Data Analysis Procedure 436
Step One: Validation and Editing 436
  Validation 436
  Editing 437
Step Two: Coding 441
  Coding Process 442
  Automated Coding Systems 443
Step Three: Data Entry 444
  Intelligent Entry Systems 444
  The Data Entry Process 444
  Scanning 445
Step Four: Logical Cleaning of Data 445
Step Five: Tabulation and Statistical Analysis 446
  One-Way Frequency Tables 446
Cross Tabulations 448

► PRACTICING MARKETING RESEARCH: Q DATA ANALYSIS SOFTWARE A VERY FUNCTIONAL CHOICE 450

► PRACTICING MARKETING RESEARCH: SIX PRACTICAL TIPS FOR EASIER CROSS TABULATIONS 451

Graphic Representations of Data 452

► FROM THE FRONT LINE: SOLID SET OF CROSS-TABULATIONS CRITICAL 452

- Line Charts 453
- Pie Charts 454
- Bar Charts 454

► PRACTICING MARKETING RESEARCH: EXPERT TIPS ON MAKING BAD GRAPHICS EVERY TIME 455

Descriptive Statistics 457

- Measures of Central Tendency 457
- Measures of Dispersion 458
- Percentages and Statistical Tests 460

□ Summary 460
□ Key Terms & Definitions 462
□ Questions for Review & Critical Thinking 462
□ Working the Net 464
□ Real-Life Research 15.1: PrimeCare 464
□ Real-Life Research 15.2: Tico Taco 465
□ SPSS Exercises for Chapter 15 466

16 Statistical Testing of Differences and Relationships 470

Evaluating Differences and Changes 471

Statistical Significance 471

Hypothesis Testing 472

- Steps in Hypothesis Testing 472

► PRACTICING MARKETING RESEARCH: CHOOSING THE RIGHT TEST FOR THE RIGHT SITUATION 473

- Types of Errors in Hypothesis Testing 475

► PRACTICING MARKETING RESEARCH: WHY IN MEDICINE A TWO-TAILED TEST IS PREFERABLE TO A ONE-TAILED TEST 477

- Accepting H₀ versus Failing to Reject (FTR) H₀ 478
- One-Tailed versus Two-Tailed Test 478
- Example of Performing a Statistical Test 478

► FROM THE FRONT LINE: MORE TIPS ON SIGNIFICANCE TESTING 479

► PRACTICING MARKETING RESEARCH: DOES STATISTICAL PRECISION VALIDATE RESULTS? 482

Commonly Used Statistical Hypothesis Tests 483

- Independent versus Related Samples 483
- Degrees of Freedom 484

Goodness of Fit 484

- Chi-Square Test 484
□ SPSS Jump Start for Chi-Square Test 487

Hypotheses about One Mean 489

- Z Test 489

► PRACTICING MARKETING RESEARCH: TAKING THE Z TEST INTO THE CLASSROOM AND COURTROOM—TWO PRACTICAL USES 490
- t Test 492
17 Bivariate Correlation and Regression  514
Bivariate Analysis of Association  515
Bivariate Regression  515
  Nature of the Relationship  515
  Example of Bivariate Regression  516
  SPSS Jump Start for Regression  520
Correlation Analysis  526
  Correlation for Metric Data: Pearson’s Product–Moment
  Correlation  526
  PRACTICING MARKETING RESEARCH: RETHINKING THE APPLICABILITY OF PEARSON’S PRODUCT–
  MOMENT CORRELATION  527
  SPSS Jump Start for Correlation  528
  PRACTICING MARKETING RESEARCH: DO YOUR “BESD” WHEN EXPLAINING
  CORRELATION RESULTS  529
  PRACTICING MARKETING RESEARCH: PEARSON’S PRODUCT–MOMENT CORRELATION FINE-TUNES
  MEDICAL STATISTICS  530
  PRACTICING MARKETING RESEARCH: WHEN BIVARIATE AND MULTIVARIATE
  CORRELATION COMBINED GIVE THE BEST PICTURE  531
  Summary  532
  Key Terms & Definitions  533
  Questions for Review & Critical Thinking  533
  Working the Net  535
  Real-Life Research 17.1: Find Any Error  536
  Real-Life Research 17.2: Baja Burger Image Analysis  536
  SPSS Exercises for Chapter 17  538

18 Multivariate Data Analysis  540
Multivariate Analysis Procedures  541
  PRACTICING MARKETING RESEARCH: STATISTICIAN: THE HOT JOB OF THE
  FUTURE  541
Multivariate Software  542
  PRACTICING MARKETING RESEARCH: ELEVEN TECHNIQUES FOR ANALYZING
  DATA  543
Multiple Regression Analysis 544
Applications of Multiple Regression Analysis 545
Multiple Regression Analysis Measures 545
Dummy Variables 545
Potential Use and Interpretation Problems 546
Example of Multiple Regression Analysis 547
SPSS Jump Start for Multiple Regression Analysis 549
Multiple Discriminant Analysis 551
Applications of Multiple Discriminant Analysis 552
Example of Multiple Discriminant Analysis 552
SPSS Jump Start for Multiple Discriminant Analysis 554
Cluster Analysis 555
Procedures for Clustering 556
Example of Cluster Analysis 557
FROM THE FRONT LINE: HOW TO SEGMENT A MARKET USING CLUSTER ANALYSIS 559
Factor Analysis 560
Factor Scores 561
Factor Loadings 562
Naming Factors 563
Number of Factors to Retain 563
Example of Factor Analysis 563
Conjoint Analysis 564
Example of Conjoint Analysis 564
Limitations of Conjoint Analysis 568
Data Mining 569
Data Mining Process 569
Results Validation 569
Privacy Concerns and Ethics 570
Commercial Data Mining Software and Applications 570
Summary 570
Key Terms & Definitions 571
Questions for Review & Critical Thinking 572
Working the Net 574
Real-Life Research 18.1: Satisfaction Research for Pizza Quik 574
Real-Life Research 18.2: Custom Car Wash Systems 576
Appendix: United Wireless Communications Data Set 577
Research Objectives 577
Methodology 578
Description of the Data Set 578
Role of Marketing Research in the Organization and Ethical Issues 580
Marketing Research across the Organization 580
Ethical Dilemma 581
SPSS Exercises for Chapter 18 582

19 The Research Report 585
The Research Report 586
PRACTICING MARKETING RESEARCH: THE RELATIONSHIP BETWEEN CLARITY AND PROJECT SUCCESS 586
CONTENTS

Photo Credits PC-1

Appendix One: Comprehensive Cases A-1
  A Biff Targets an Online Dating Service for College Students A-2
  B Freddy Favors Fast Food and Convenience for College Students A-5
  C Superior Online Student Travel—A Cut Above A-9
  D Rockingham National Bank Visa Card Survey A-13

Appendix Two: Considerations in Creating a Marketing Plan A-21

Appendix Three: Statistical Tables A-25

Endnotes A-32

Glossary G-1

Index I-1