

ESSENTIALS OF
Business
Research
Methods

SECOND EDITION

Joseph F. Hair Jr. • Mary Wolfinbarger Celsi

Arthur

Samouel • Michael J. Page

M.E. Sharpe
Armonk, New York
London, England

Brief Table of Contents

PREFACE	xv
PART I. INTRODUCTION	
1. Business Research for the Twenty-First Century	3
2. Overview of the Research Process	27
3. Ethics in Business Research	52
PART II. BEGINNING THE RESEARCH PROCESS	
4. Defining the Research Problem and Reviewing the Literature	81
5. The Nature and Sources of Secondary Business Data	110
6. Conceptualization and Research Design	133
PART III. SAMPLING AND DATA COLLECTION	
7. Sampling Approaches and Considerations	163
8. Methods of Collecting Primary Data	185
9. Measurement and Scaling	209
10. Questionnaire Design	247
PART IV. ANALYSIS AND INTERPRETATION OF DATA	
11. Basic Data Analysis for Qualitative Research	275
12. Basic Data Analysis for Quantitative Research	294
13. Testing Hypotheses in Quantitative Research	320
14. Examining Relationships Using Correlation and Regression	348
15. Other Multivariate Techniques	385
PART V. COMMUNICATING THE RESULTS	
16. Reporting and Presenting Research	425
GLOSSARY	443
INDEX	461
ABOUT THE AUTHORS	475

Detailed Table of Contents

PREFACE	xv
PART I. INTRODUCTION	1
1. BUSINESS RESEARCH FOR THE TWENTY-FIRST CENTURY	3
Learning Outcomes	3
Business Research Defined	4
A Truth-Seeking Function	4
Elements of Business Research	5
What Do Business Researchers Study?	6
Trends Impacting Business Research	9
Expanding Market Freedom	9
International Research	10
Relationship Marketing	11
The Information Revolution	12
The Manager-Researcher Relationship	19
Who Performs Business Research?	19
Continuing Case Study: Samouel's and Gino's Restaurants	20
Continuing Case: Samouel's Greek Cuisine	21
Summary	22
2. OVERVIEW OF THE RESEARCH PROCESS	27
Learning Outcomes	27
The Business Research Process	27
Phase I: Formulation	28
Phase II: Execution	31
Phase III: Analytical	32
Theory and Business Research	33
The Fuel for Research	33

Continuing Case: Samouel's Greek Cuisine—Do Lower Prices Result in Higher Sales?	34
The Practicality of Theory	35
The Scientific Method and Business Research	37
Rigor of Science	40
The Pragmatics of Business	40
Research Proposals	40
Structure of a Research Proposal	41
Continuing Case: Samouel's Greek Cuisine—Is Theory Useful in Business Research?	45
Summary	49
3. ETHICS IN BUSINESS RESEARCH	52
Learning Outcomes	52
Business Ethics Defined	52
Relevance of Business Ethics	53
Ethical Obligations of the Researcher	55
Before the Research Project	55
During and After the Research	57
Ethical Obligations of the Client	64
Before the Research	64
During and After the Research	64
Ethical Obligations of Research Participants	65
Voluntary Participation	65
Faithful Participation	66
Honesty	66
Privacy	66
Implications of Unethical Actions	66
Access to Respondents: Strategies and Tactics	69
Issues in Obtaining Access	69
Barriers to Access	71
Continuing Case: Samouel's Greek Cuisine	74
Summary	74
PART II. BEGINNING THE RESEARCH PROCESS	79
4. DEFINING THE RESEARCH PROBLEM AND REVIEWING THE LITERATURE	81
Learning Outcomes	81
Characteristics of a Quality Research Topic	82
Converting Research Ideas into Research Questions and Objectives	85
The Role of Theory in Research	88
Preparing a Literature Review	89
Contributions of the Literature Review	93
Defining the Research Problem	93
Background Information	94

Research Questions and Hypotheses	95
Methodology	95
Interpretation	96
Literature Sources	96
Books	97
Journals and Conference Proceedings	97
Government and Industry	98
Theses and Dissertations	98
Electronic Databases	98
Internet Searches	99
Planning the Literature Search	99
Writing a Literature Review	100
Confirming Research Questions with the Literature Review	102
Continuing Case: Samouel's Greek Cuisine—Developing Research Questions and Objectives	105
Summary	106
5. THE NATURE AND SOURCES OF SECONDARY BUSINESS DATA	110
Learning Outcomes	110
Secondary Business Data Defined	111
Sources and Types of Secondary Business Data	111
Locating Secondary Business Data	114
Advantages and Disadvantages of Secondary Data	119
Advantages of Secondary Data	119
Evaluating Secondary Sources	120
Disadvantages of Secondary Data	122
Evaluating the Quality of Secondary Business Data	124
Evaluating the Source	124
Evaluating the Research Design	124
Evaluating Data Collection Methods	125
Ethical Issues Related to the Use of Secondary Data	127
Continuing Case: Using Secondary Data with Samouel's Restaurant	128
Summary	128
6. CONCEPTUALIZATION AND RESEARCH DESIGN	133
Learning Outcomes	133
Developing a Conceptual Model	133
Identifying Variables and Constructs	134
Preparing a Conceptual Model	139
Basic Research Designs	144
Qualitative Versus Quantitative Approaches	145
Three Types of Research Designs	147
Using Several Research Designs	155
Continuing Case: Samouel's Greek Cuisine	156
Summary	157

PART III. SAMPLING AND DATA COLLECTION	161
7. SAMPLING APPROACHES AND CONSIDERATIONS	163
Learning Outcomes	163
Sampling	164
The Sampling Process	165
Defining the Target Population	165
Choosing the Sampling Frame	166
Selecting the Sampling Method	167
Probability Sampling	168
Continuing Case: Samouel’s Greek Cuisine—Which Is Better, Proportionately or Disproportionately Stratified Samples?	172
Continuing Case: Samouel’s Greek Cuisine—Cluster Sampling of Restaurant Customers	174
Nonprobability Sampling	174
Determining Sample Size	176
Sampling from a Large Population	176
Sampling from a Small Population	179
Implementing the Sampling Plan	180
Continuing Case: Samouel’s Greek Cuisine—Which Sampling Method Is Best?	182
Summary	182
8. METHODS OF COLLECTING PRIMARY DATA	185
Learning Outcomes	185
Data Collection Methods	185
Qualitative Data Collection	186
Observation	186
Ethnographic Research	188
Content Analysis	189
Interviews	190
Quantitative Data Collection	197
Self-Completion Surveys	198
Interviewer-Completed Surveys	203
Observation	204
Continuing Case: Samouel’s Greek Cuisine—Choosing the Best Data Collection Method	204
Summary	204
9. MEASUREMENT AND SCALING	209
Learning Outcomes	209
What Is a Concept?	209
Measurement in Business Research	210
Measurement Difficulties	211
How to Measure Concepts	214

Types of Scales	215
Nominal Scale	215
Ordinal Scale	216
Interval Scale	219
Ratio Scale	220
Frequently Used Measurement Scales	221
Metric Scales	221
Nonmetric Scales	227
Practical Decisions When Developing Scales	230
Number of Scale Categories	230
Number of Items in Measuring a Concept	230
Odd or Even Number of Categories	231
Balanced or Unbalanced Scales	231
Forced or Nonforced Choice	231
Category Labels for Scales	232
Criteria for Assessing Measurement Scales	232
Reliability	233
Continuing Case: Samouel's Greek Cuisine—Using SPSS to	
Calculate Cronbach's Alpha	237
Validity	238
How to Develop a Scale	240
Summary	241
10. QUESTIONNAIRE DESIGN	247
Learning Outcomes	247
Questionnaires	247
Steps in the Questionnaire Design Process	249
Initial Considerations	252
Clarification of Concepts	254
Determining Question Types, Format, and Sequence	254
Preparing and Presenting Good Questions	262
Preparing Clear Instructions	266
Pretesting the Questionnaire	267
Administering the Questionnaire	268
Continuing Case: Evaluating the Samouel's and Gino's Customer Survey	
Questionnaires	269
Summary	269
PART IV. ANALYSIS AND INTERPRETATION OF DATA	273
11. BASIC DATA ANALYSIS FOR QUALITATIVE RESEARCH	275
Learning Outcomes	275
Understanding Qualitative Research	275
Qualitative Research Approaches	276
Managing Qualitative Data	278

Analyzing Qualitative Data	281
Data Reduction	282
Data Display	283
Drawing and Verifying Conclusions	286
Assessing Credibility	287
Continuing Case: Samouel’s Greek Cuisine—The Role of Qualitative Research	289
Summary	290
12. BASIC DATA ANALYSIS FOR QUANTITATIVE RESEARCH	294
Learning Outcomes	294
Analyzing Quantitative Data	295
Data Preparation	295
Data Analysis Using Descriptive Statistics	299
The Frequency Distribution	300
Histograms	302
Bar Charts	306
Pie Charts	306
The Normal Distribution	308
Measures of Central Tendency	310
Examples of Measures of Central Tendency	311
Measures of Dispersion	312
Examples of Measures of Dispersion	315
Outliers	315
Continuing Case: Samouel’s Greek Cuisine—Using Descriptive Statistics with the Restaurant Employee Survey	317
Summary	317
13. TESTING HYPOTHESES IN QUANTITATIVE RESEARCH	320
Learning Outcomes	320
Understanding Hypothesized Relationships	321
Sample Statistics Versus Population Parameters	321
Type I and Type II Errors	323
Hypothesis Testing	325
Choosing the Appropriate Statistical Technique	325
Other Considerations in Hypothesis Testing	326
Single Group Hypothesis Testing	327
Multiple Group Hypothesis Testing	330
ANOVA (Analysis of Variance)	336
Factorial Design: Two-Way ANOVA	340
Multivariate Analysis of Variance (MANOVA)	343
Continuing Case: Samouel’s Greek Cuisine—Developing Relationships and Testing Hypotheses	344
Summary	345

14. EXAMINING RELATIONSHIPS USING CORRELATION AND REGRESSION	348
Learning Outcomes	348
Types of Relationships Between Variables	348
Presence	349
Nature of Relationships	349
Direction	349
Strength of Association	350
Variable Relationships and Covariation	350
Correlation Analysis	352
An Example of Pearson Bivariate Correlation	353
Practical Significance of the Correlation Coefficient	355
Measurement Scales and Correlation	355
An Example of the Spearman Rank Order Correlation	356
Statistical Techniques and Data Analysis	358
Regression Analysis	361
An Example of Bivariate Regression	363
Multiple Regression Analysis	366
Statistical Versus Practical Significance	368
An Example of Multiple Regression	369
Multicollinearity and Multiple Regression	374
An Example of Multicollinearity	374
Advanced Topics in Multiple Regression	377
The Role of Dummy Variables in Regression	377
An Example of Dummy Variables	378
Summary	381
15. OTHER MULTIVARIATE TECHNIQUES	385
Learning Outcomes	385
Exploratory Factor Analysis	386
Deriving Factors	388
Number of Factors	392
Interpreting Factors	394
An Example of Factor Analysis	395
Cluster Analysis	399
Deriving Clusters	400
Phase I	401
Phase II	404
Phase III	404
An Example of Cluster Analysis	405
Multiple Discriminant Analysis	408
An Example of Discriminant Analysis	415
Stepwise Discriminant Analysis	418
Summary	419

PART V. COMMUNICATING THE RESULTS	423
16. REPORTING AND PRESENTING RESEARCH	425
Learning Outcomes	425
Written and Oral Communications	426
Audience Sophistication	426
Written Communication	426
Research Proposals	428
The Written Research Report	429
An Outline of an Applied Business Research Report	430
An Outline of a Basic Research Report	434
Oral Presentations	436
Considering the Audience	436
Presentation Format	437
Presentation Dos and Don'ts	437
Summary	439
GLOSSARY	443
INDEX	461
ABOUT THE AUTHORS	475