

# Business Research Methods

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# Business Research Methods

An Applied Orientation

 Springer

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*Dedicated to our elders who shaped our lives*  
*Late Parmananda Mishra,*  
*Late Dr. Sushila Mishra,*  
*Dr. B. C. Mohapatra,*  
*H. K. Mohapatra,*  
*Kanyakumari Mohapatra (Bou)*

*and*

*Late Surendran Pillai P. (Father)*  
*Radhamani Amma (Mother) finally,*  
*inspiration behind all my success*  
*Suresh S. (Brother), Sreeja Sudharman*  
*(Sister), and Sudharman Pillai*

# Preface

In the globalized economy, business faces challenges that require knowledge-based solutions. The products and services that they offer need to be decisive, and precise value propositions that would meet customer's explicit and latent requirements. This means the managers need to use tools and techniques that will use research-based information to be part of decision support system. This book is about creating that information from research that can help managers to take decisions that will provide competitive edge.

This textbook provides an in-depth knowledge in the field of business research for students. Those who have made a career in practical research will also get benefits from the concepts illustrated here. It addresses all the concepts that are taught in MBA classes, explaining theoretical concepts and mapping these concepts to practical cases.

The pedagogy has been developed based on experience in teaching the subject to many batches of students. The methodologies depicted here have been used in several consulting assignments and have been proven to be useful for market researchers.

## Organization of the Book

The book has been prepared in five parts. The first part explains topics related to concepts that are related to business research, second part consists of descriptive and exploratory research methodology, third part consists of causal research design, and the fourth part illustrates the approach for writing business reports. Detailed contents in the book are as follows:

## **Part I: Overview of Business Research**

**Chapter 1:** *Introduction to Business Research:* Scope of Business Research—Basic Research and Applied Research—Role of Business Research in Decision-Making: Problem/Opportunity Identification, Problem/Opportunity Prioritization and Selection, Problem/Opportunity Resolution, Implementing the Course of Action—Factors Affecting Business Research: Time Constraint, Availability of Resources, Nature of Information Sought, Benefits Versus Cost—Globalization and Business Research—Business Research and the Internet: Primary Research and Secondary Research.

### ***Case Study 1***

**Chapter 2:** *Business Research Process:* Steps in the Research Process—Identifying and defining the Problem/Opportunity Exploratory Research, Preparing the Statement of Research Objectives, Developing the Hypotheses. Planning the Research Design, Selecting the Research Method—Surveys, Experiments, Secondary Data Studies, Observation Techniques, Analyzing Research Designs, Selecting the Sampling Procedure, Data Collection, Evaluating the Data, Analysis, Preparing, and Presenting the Research Report.

## **Part II: Research Design**

### ***Case Study 2***

**Chapter 3:** *Business Research Design: Exploratory, Descriptive and Causal Designs:* The Meaning of Business Research Design—Need for Research Design—Characteristics of a Good Research Design.

### ***Case Study 3: J & J and Cause-Related Marketing Initiatives***

Part I: Exploratory Research Design: Exploratory Research Design with Secondary Data: Classification of Secondary Data, Internal Secondary Data and Published External Secondary Data, Syndicated Data; Exploratory Research Design: Qualitative Research; Rationale for Using Qualitative Research, Classification, Focus Group, In-depth Interviews, and Projective Techniques.

## ***Video: How to Do In-depth Interviews***

Part II: Descriptive Research Design: Survey methods—Telephone Methods, Personal Methods, Mail Methods, Electronic Methods; Observation Methods—Personal Observation, Mechanical Observation, Audit, Content Analysis and Trace Analysis.

Part III: Causal Research Design: Experimentation: Research Design Concepts: Dependent and Independent Variables, Extraneous Variable, Control, Confounded Relationship, Research Hypothesis, Experimental and Non-experimental Hypothesis Testing Research, Experimental and Control Groups, Treatments, Experiment, Experimental Units—Classification of Research Designs: Exploratory Studies, Descriptive Studies, Causal Studies—Choosing a Research Design—Benefits of Research Designs. Issues In Experimentation: Treatment or Independent Variable, Experimental Groups and Control Groups, Selection and Measurement of the Dependent Variable, Control of Extraneous Variables—Experimental Validity: Internal Validity, External Validity—Experimental Environment: Laboratory Environment, Field Environment—Types of Experimental Designs: Pre-experimental Designs, True Experimental Designs, Quasi-Experimental Designs, Statistical Designs, Completely Randomized Design (CBD), Randomized Block Design, Latin Square Design, Factorial Design.

## **Part III: Sources and Methods of Data Collection: Qualitative and Quantitative Data**

### ***Case Study 6: Launching Fruit Flavoured Soft Drinks at Fresh Cola (A)***

**Chapter 4: Scales and Measurement:** Identifying and Deciding on the Variables to be Measured—Development of Measurement Scales—Types of Measurement Scales: Nominal Scale, Ordinal Scale, Interval Scale, Ratio Scale—Criteria For Good Measurement: Reliability, Test-Retest Reliability, Equivalent form Reliability, Internal Consistency, Validity, Face Validity, Content Validity, Criterion-Related Validity, Construct Validity, Sensitivity, Generalizability, Relevance—Sources of Measurement Problems: Respondent Associated Errors, Non-response Errors, Response Bias, Instrument Associated Errors, Situational Errors, Measurer as Error Source.

**Chapter 5: Questionnaire Design:** Preliminary Decisions: Required Information, Target Respondents, Interviewing Technique—Question Content—The Utility of Data, Effectiveness in Producing Data, The Participant’s Ability to Answer Accurately, The Respondent’s Willingness to Answer Accurately, Effect of External Events—Response Format-Open-Ended Questions, Close-ended

Questions—Question Wording: Shared Vocabulary, Unsupported Assumptions, Frame of Reference, Biased Wording, Adequate Alternatives, Double-Barrelled Questions, Generalizations and Estimates—Questionnaire Sequence: Lead-in Questions, Qualifying Questions, Warm-up Questions, Specific Questions, Demographic Questions—Questionnaire Pretesting, Revision and Final Draft.

## **Part IV: Multivariate Data Analysis Using IBM SPSS 20.0**

**Chapter 6:** *Data Preparation and Preliminary Analysis:* Validating and Editing: Treatment of Unsatisfactory Responses—Coding: Categorization Rules, Code Book, Coding Close-Ended Questions, Coding Open-Ended Questions—Data Entry: Optical Scanning, Barcode Reader, Voice Recognition—Data Cleaning—Tabulation of Survey Results: One-Way Frequency Tabulation, Cross Tabulation—Data Mining: Data Mining in Management Research, The Data Mining Process.

**Chapter 7:** *Experimental Analysis of Variance (ANOVA):* Objectives, overview, relationship among techniques, statistics associated with one-way analysis of variance, Analysis of randomized block, Latin square and factorial design.

### ***Case Study 10: Launching Fruit Flavoured Soft Drinks at Fresh Cola (B)***

**Chapter 8:** *Multiple Regression:* Statistics associated with multiple regressions, assumptions of regression-normality, linearity, multicollinearity, heteroscedasticity, autocorrelation. How to do regression analysis using SPSS.

### ***Case Study: ABC Group: Analysis of Sales***

### ***Videos: How to Do Regression Using SPSS***

**Chapter 9:** *Exploratory Factor and Principal Component Analysis:* Basic concept, factor analysis model, statistics associated with factor analysis, assumptions of factor analysis, How to do factor analysis using SPSS.



***Case Study: Aaron Group of Companies:  
A Consumer Perception Analysis***

***Videos: How to Do Factor Analysis Using SPSS***

**Chapter 10:** *Cluster Analysis:* Objectives, basic concept, statistics associated with cluster analysis, steps to conduct cluster analysis. How to do cluster analysis using SPSS.

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***Video: How to Do Cluster Analysis Using SPSS***

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**Part V: Data Presentation**

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Sanjay Mohapatra  
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# Acknowledgments

The book has been written after being ‘class tested’. The manuscript has been possible because of class notes and several comments that we have received from different sources. As a result, the book is complete with concepts, examples and cases. We hope this will be liked by readers.

We would also like to thank our family members for their unstinted and continued support in every walk of our lives.

Finally to God, who graced us with his blessing so that we could make it all possible.

Dr. S. Sreejesh  
Dr. Sanjay Mohapatra  
Dr. M. R. Anusree

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