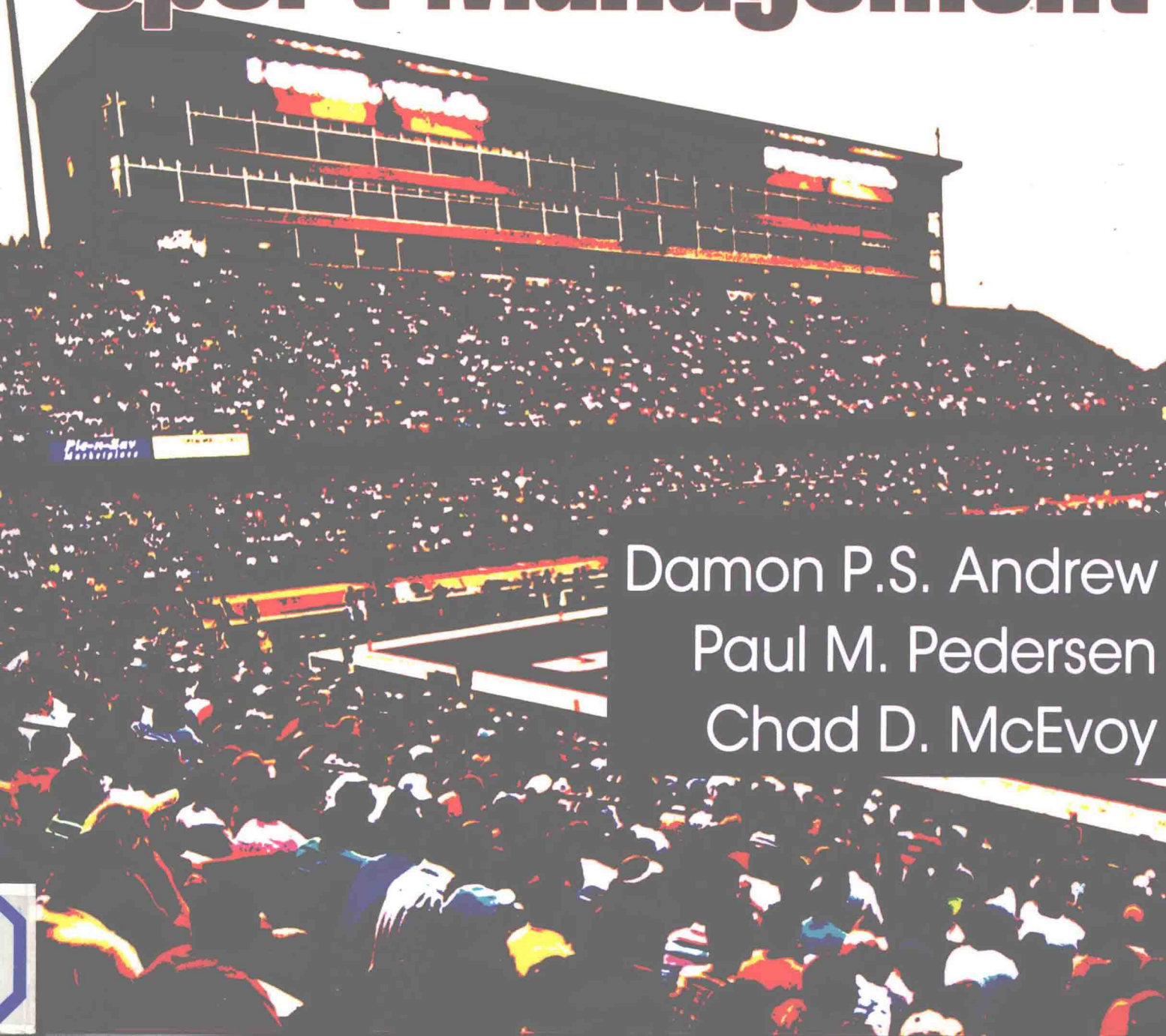


Research Methods and Design in Sport Management



Damon P.S. Andrew
Paul M. Pedersen
Chad D. McEvoy

Research Methods and Design in Sport Management

Damon P. S. Andrew, PhD

College of Health and Human Services
Troy University

Paul M. Pedersen, PhD

School of Health, Physical Education, and Recreation
Indiana University

Chad D. McEvoy, EdD

School of Kinesiology and Recreation
Illinois State University



Research Methods and Design in Sport

Management

体育管理中的研究方法和设计



Human Kinetics

Library of Congress Cataloging-in-Publication Data

Andrew, Damon P.S., 1976-

Research methods and design in sport management / by Damon P.S. Andrew, Paul M. Pedersen, and Chad D. McEvoy.

p. cm.

Includes bibliographical references and index.

ISBN-13: 978-0-7360-7385-1 (hard cover)

ISBN-10: 0-7360-7385-X (hard cover)

1. Sports--Management--Research. 2. Sports administration--Research. I. Pedersen, Paul Mark. II. McEvoy, Chad D., 1971- III. Title.

GV13.A55 2011

796.06'9dc22

2010039551

ISBN-10: 0-7360-7385-X (print)

ISBN-13: 978-0-7360-7385-1 (print)

Copyright © 2011 by Damon P.S. Andrew, Paul M. Pedersen, and Chad D. McEvoy

All rights reserved. Except for use in a review, the reproduction or utilization of this work in any form or by any electronic, mechanical, or other means, now known or hereafter invented, including xerography, photocopying, and recording, and in any information storage and retrieval system, is forbidden without the written permission of the publisher.

The Web addresses cited in this text were current as of September 2010, unless otherwise noted.

Acquisitions Editor: Myles Schrag; **Developmental Editor:** Judy Park; **Assistant Editor:** Brendan Shea; **Copyeditor:** Tom Tiller; **Indexer:** Bobbi Swanson; **Permission Manager:** Dalene Reeder; **Graphic Designer:** Fred Starbird; **Graphic Artist:** Dawn Sills; **Cover Designer:** Keith Blomberg; **Photographer (cover):** Troy University Photography Dept.; **Art Manager:** Kelly Hendren; **Associate Art Manager:** Alan L. Wilborn; **Illustrations:** © Human Kinetics; **Printer:** Sheridan Books

Printed in the United States of America 10 9 8 7 6 5 4 3 2 1

The paper in this book is certified under a sustainable forestry program.

Human Kinetics

Web site: www.HumanKinetics.com

United States: Human Kinetics
P.O. Box 5076
Champaign, IL 61825-5076
800-747-4457
e-mail: humank@hkusa.com

Canada: Human Kinetics
475 Devonshire Road Unit 100
Windsor, ON N8Y 2L5
800-465-7301 (in Canada only)
e-mail: info@hkcanada.com

Europe: Human Kinetics
107 Bradford Road
Stanningley
Leeds LS28 6AT, United Kingdom
+44 (0) 113 255 5665
e-mail: hk@hkeurope.com

Australia: Human Kinetics
57A Price Avenue
Lower Mitcham, South Australia 5062
08 8372 0999
e-mail: info@hkaustralia.com

New Zealand: Human Kinetics
P.O. Box 80
Torrens Park, South Australia 5062
0800 222 062
e-mail: info@hknewzealand.com

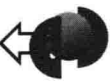
Preface

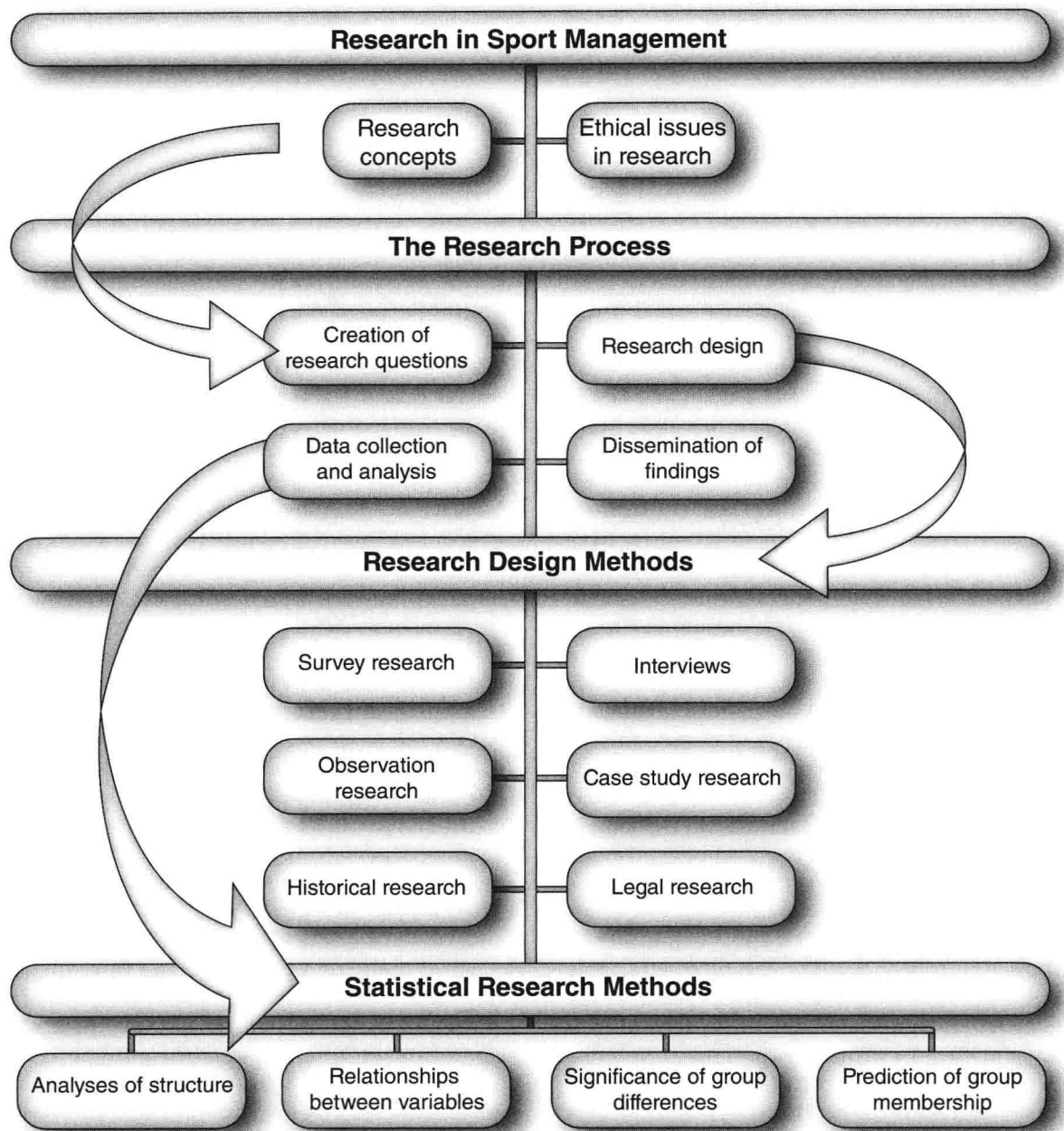
On November 13, 2009, an industry panel consisting of John Bolton (general manager of the BOK Center and Tulsa Convention Center), Pat Gallagher (former president of the San Francisco Giants Enterprises), and Steve Zito (senior vice president of operations and management for the Memphis Grizzlies and FedEx Forum) addressed the audience at the 2009 Sport Entertainment and Venues Tomorrow Conference in Columbia, South Carolina. The topic for their panel was “Have You Been Served? Customer-Centric Services as a Marketing Tool.” As each of these industry experts explained how the marketing function had gradually shifted from segmented marketing to customer-centric marketing during the 21st century, it became very clear to the audience that research was the engine behind this paradigm shift. Each member of the panel explained in detail how his organization used methods such as customer surveys, interviews, and focus groups to learn more about existing customers and prospective customers. Decisions made within their organizations were not based on hunches or even experienced guesses—those decisions were data driven. Not surprisingly, as we enter the second decade of the 21st century, successful sport organizations are those that collect, analyze, interpret, and apply data. At the conclusion of their presentation, these panel members emphasized that the successful sport manager in the future must possess and consistently apply research skills. Accordingly, the process of sport management education must continually be adapted to meet the needs of the industry, and it is our hope that this text helps spawn the next generation of data-driven sport managers.

This text meets the needs of upper-level undergraduate and graduate sport management students and serves as a reference for sport management scholars and practitioners in the field. The first two sections of the text are organized in a manner that allows you to understand the research process from beginning to end before delving into the specific methods of qualitative, quantitative, and mixed-methods research that are presented in the last two parts of the book. As such, it is an ideal tutorial

for those embarking on a research project, thesis, or dissertation. Using our collective experience in teaching research methods classes, we incorporated multiple applied examples of past research by some of the leading sport management scholars in the world. Accordingly, special attention is devoted to the process of reading and understanding research in the field so that you are prepared to comprehend and apply research long after reading our text. Finally, in accordance with its applied focus, the book features step-by-step procedures for analyzing data, including SPSS statistical software procedures for quantitative analyses. At the end of each chapter you’ll find a featured called Research Methods and Design in Action. The journal articles in these features discuss terms that relate specifically to the concepts described within the chapter; the circled terms in the text excerpt section are those discussed within the chapter and highlighted with the *Journal of Sport Management* icon. These articles and the discussion questions that follow them are aimed at teaching you how to effectively consume and evaluate research. You can find the full articles on the Human Kinetics Web site at www.humankinetics.com/products/all-products/Research-Methods-and-Design-in-Sport-Management.

Part I of the text begins with an introduction to research in sport management (both qualitative and quantitative in nature) along with a discussion of the ethical issues associated with research projects. Chapter 1 defines the concept of research and outlines five general themes in which research can be classified: application, objectives, type of information sought, presence of data, and the data source analyzed. In addition, two philosophical approaches to research are defined as well as four paradigms, or mind-sets, of research inquiry. The evolution and status of sport management research are delineated. Chapter 2 addresses ethical issues in research by detailing the history of human subjects’ protection and the development of the Nuremberg Code. The chapter also reviews commonly accepted ethical principles and guidelines for research, including beneficence and nonmaleficence, fidelity and responsibility, integrity, justice, and respect





Flowchart of book organization.

for people's rights and dignity. Topics such as the institutional review board, informed consent, and scientific dishonesty are explained.

Part II introduces the research process, a step-by-step process of addressing one or more research questions. The processes of selecting a topic, reviewing the literature, developing a conceptual framework, focusing research questions, and outlining hypotheses are covered in chapter 3. Chapter 4 describes the various types of research designs and how one would go about selecting a research

design tailored to the research question. Specific issues including the selection of an appropriate sample size, sampling strategies, and establishing reliability and validity are also discussed. Chapter 5 focuses on data collection and analysis, including such topics as nonresponse bias, data preparation, scales of measurement, the concept of statistical significance, Type I and Type II errors, statistical power, effect size, and an overview of descriptive and inferential statistics. Finally, chapter 6 delineates the various research dissemination options,

including academic presentations, scholarly journals, and research reports.

Part III introduces common research designs used by sport management students, scholars, researchers, and practitioners. A chapter is devoted to each of the following six common designs: surveys, interviews and focus groups, observation approaches, case studies, historical analysis, and legal analysis. Cumulatively, these designs allow for the assessment of data through quantitative, qualitative, or mixed-methods approaches. We extend special appreciation to Stephen Dittmore (chapter 8, Interviews) and Anita Moorman and John Grady (chapter 12, Legal Research) for their content expertise and authorship of respective chapters in this section. Indeed, chapter 12 is particularly noteworthy because it serves as the first-ever description of sport law research methods, another void filled by this text.

Finally, given that the field of sport management relies heavily on statistical methods, part IV of this text is dedicated to the presentation of these techniques according to their general purpose. Accordingly, part IV includes chapters that address analyses of structure, relationships between variables, significance of group differences, and prediction of group membership. In grouping the analyses by purpose, our goal is to create a user-friendly text through the acknowledgment that sport managers tend to use research to investigate an existing situation or provide solutions to an existing problem. Throughout part IV, we provide procedural steps for conducting each analysis by means of SPSS, a

statistical software package that is used widely by sports management researchers and at prominent universities and colleges. Chapter 13 discusses Cronbach's alpha, exploratory factor analysis, principal component analysis, and confirmatory factor analysis. Chapter 14 addresses bivariate correlation, simple linear regression, multiple regression, and path analysis. Chapter 15 covers the t-test, one-way analysis of variance (ANOVA), one-way analysis of covariance (ANCOVA), factorial ANOVA, factorial ANCOVA, one-way multivariate analysis of variance (MANOVA), one-way multivariate analysis of covariance (MANCOVA), factorial MANOVA, and factorial MANCOVA. Finally, chapter 16 addresses discriminant analysis, logistic regression, and cluster analysis.

A wise professor once said, "There are no completed manuscripts—there are only published and unpublished manuscripts." This quote acknowledges that every draft of a manuscript or book, even the final draft, is still a draft. The meaning of this quote is not often lost on professors, many of whom have either developed perfectionist qualities during their doctoral studies or possessed them before their higher education experiences began! Indeed, this textbook is the result of over four years of our cumulative efforts. Though we are hopeful the first edition will have a significant impact on the field, we are already dreaming up ways to make the book better in future editions. As such, we invite you to join us in this process by contacting us directly should you have any ideas for improvement of the text, whether in structure or in content.

Acknowledgments

This textbook is dedicated to Dr. John Kovalski, who first encouraged me to pursue an academic career, and Dr. Robert (Bob) Heitman, who sparked a passion for research methods and design in me that burns even brighter today. I am most appreciative to my colleagues (Paul, Chad, Steve, Anita, and John) who added their considerable talent to this first edition, as well as the good folks at Human Kinetics who believed in and supported this project. I would also like to acknowledge the faculty, staff, and students at Jefferson Davis Community College, University of South Alabama, University of Florida, Florida State University, University of Louisville, University of Tennessee, and Troy University, who have collectively pushed me over the years to improve on a daily basis. I owe a deep debt of gratitude to my parents, William and Debra Andrew, my sisters, Ivy and Pamela, and my grandmother, Janie Owen, who unselfishly sacrificed to ensure my college education. I would also like to thank my wife, Tera, for her unconditional love and guidance, and my daughter, Clare. I also render gratitude to my in-laws and extended family for their understanding and support throughout the writing of this textbook. Finally, I offer humble praise to my Creator for His many blessings.

—Damon P. S. Andrew, Ph.D.

I sincerely appreciate Dr. Damon Andrew's invitation and leadership, Dr. Chad McEvoy's collaboration, and Myles Schrag's guidance regarding this

textbook. I'm also very thankful for the support I received during this endeavor from my Indiana University colleagues (Drs. Larry Fielding, Gary Sailes, Choonghoon Lim, Galen Clavio, Patrick Walsh, and Antonio Williams), chair (Dr. David Koceja), and dean (Dr. Mohammad Torabi). Lastly, I could not have participated in this extensive project without the approval and encouragement of my family (Jen, Hallie, Zack, Brock, and Carlie). I'm grateful to you all.

—Paul M. Pedersen, Ph.D.

I would like to thank all those at Human Kinetics involved in publishing this book. In particular, I want to highlight the efforts of Myles Schrag and Judy Park. Thank you to my students and faculty peers at Illinois State University. My colleagues and friends in our Sport Management Program, Nels Popp and Brent Beggs, make the endeavor of building a great program a truly enjoyable experience. To our students, helping you learn about our industry and chase after your dreams of working in sport is extremely rewarding. Thanks also to my wonderful family – to my wife Kerry for being so supportive and for being such a terrific partner and mother, and to our boys Andy and Luke (and soon one more), who bring a smile to my face each and every day. I look forward to sharing my love of sport with you in the years to come. Finally, thank you to Damon and Paul for including me in this project. It was great to work with you both.

—Chad D. McEvoy, Ed.D.

Contents

Preface ix

Acknowledgments xii

Part I Introduction to Research in Sport Management. 1

Chapter 1 Research Concepts in Sport Management 3

Research Defined 6

Types of Research 7

Research Traditions 9

The Evolution of Sport Management Research 12

Summary 15

Chapter 2 Ethical Issues in Research. 19

Protection of Human Subjects 20

Ethical Principles and Guidelines 21

Institutional Review Board 25

Informed Consent 26

Scientific Dishonesty 26

Summary 26

Part II The Research Process 29

Chapter 3 Creation of Research Questions 31

Problem Selection 32

Literature Review 36

Development of a Conceptual Framework 38

Focusing of Research Questions 39

Identification of Variables 40

Clarification of Hypotheses 40

Summary 41

Chapter 4	Research Design	45
	Types of Research Design	46
	Sampling	48
	Determination of Sample Size	49
	Reliability	51
	Validity	52
	Summary	52
Chapter 5	Data Collection and Analysis	55
	Nonresponse Bias	56
	Preparation of Data for Analysis	56
	Scales of Measurement	57
	Descriptive Statistics	58
	Inferential Statistics	59
	Statistical Design	61
	Drawing Conclusions	61
	Summary	61
Chapter 6	Dissemination of Findings.	65
	Academic Conference Presentation	66
	Academic Journal Selection	67
	Manuscript Structure	69
	Journal Publication Process	70
	Evaluation of Journal Articles	74
	Summary	75

Part III Research Design in Sport Management. 77

Chapter 7	Surveys	79
	Interviews	80
	Questionnaires	80
	Internet Surveys	81
	Questionnaire Development and Design	82
	Types of Error	87
	Summary	88

Chapter 8	Interviews	91
	Interview Process	92
	Interview Techniques	94
	Data Analysis	99
	Summary	101
Chapter 9	Observation Research	105
	Methodological Foundations	108
	Observation Site	113
	Observer Roles	115
	Participant Observation in New Media	116
	Data Collection	117
	Field Notes	122
	Data Analysis	124
	Summary	126
Chapter 10	Case Study Research	129
	Applied Research Advantages	130
	Defining Sport Management Case Study Research	132
	Research Versus Teaching Case Studies	133
	Design and Implementation	134
	Research Preparation	139
	Data Collection	141
	Data Analysis	144
	Case Study Repo	146
	Summary	148
Chapter 11	Historical Research	151
	Academic Perspective	153
	Practical Applications	154
	Research Prerequisites	155
	Topic Selection	156
	Source Material	158
	Data Analysis	163
	Historical Writing	165
	Summary	169

Chapter 12 Legal Research 173

- Qualities of Legal Research 174
- Nature of the Law and Legal Research 175
- Legal Research Techniques 176
- Sources of Legal Information 178
- Design and Implementation 187
- Summary 195

**Part IV Statistical Methods
in Sport Management 199****Chapter 13 Analyses of Structure 201**

- Importance of Reliability and Validity 202
- Cronbach's Alpha 202
- Exploratory Factor Analysis and Principal Component Analysis 203
- Confirmatory Factor Analysis 207
- Summary 208

Chapter 14 Relationships Between Variables 213

- Bivariate Correlation 214
- Simple Linear Regression 216
- Multiple Regression 217
- Path Analysis 220
- Summary 222

Chapter 15 Significance of Group Differences 227

- T-Test 229
- One-Way ANOVA 230
- One-Way ANCOVA 232
- Factorial ANOVA 234
- Factorial ANCOVA 235
- One-Way MANOVA 238
- One-Way MANCOVA 240
- Factorial MANOVA 241
- Factorial MANCOVA 243
- Summary 245

Chapter 16 Prediction of Group Membership249

Discriminant Analysis 250

Logistic Regression 252

Cluster Analysis 254

Summary 255

Glossary 259

References 267

Index 283

About the Authors 289

part

I

Introduction to Research in Sport Management

To some extent, we are all affected by research; indeed, it is challenging to make it through even a few hours without using a tangible object that was developed through countless hours of research, whether it be a communication device, a form of transportation, or even a mattress that promises more comfortable rest. In today's world, organizations that are able to efficiently acquire, process, and apply information stand out as leaders of our global society. Contemporary managers are less willing to make important decisions based on hunches or guesses, and data-driven decision making is now the gold standard for accomplished leaders. As a result, if the sport industry—currently entrenched as a top 10 global industry in scope, magnitude, and financial impact—is to retain this lofty position or even rise higher, its future must be guided by sport managers who base their management decisions on sound research findings.

As its title suggests, part I of this textbook focuses on the basics of understanding and conducting research in sport management. Just as

an athlete must possess basic knowledge about a sport and its rules in order to be successful, this part of the book provides two chapters addressing the nature of research (chapter 1) and its ethical boundaries (chapter 2). Chapter 1 defines the concept of research and outlines five general aspects by which research can be classified: application, objectives, type of information sought, presence of data, and data source. The chapter also defines two philosophical approaches to research and four paradigms (mind-sets) of research inquiry; in addition, it delineates the evolution and status of sport management research. Chapter 2 addresses ethical issues in research by detailing the history of human subject protection and the development of the Nuremberg Code. It also reviews commonly accepted ethical principles and guidelines for research, including beneficence, nonmaleficence, fidelity, responsibility, integrity, justice, and respect for people's rights and dignity. Finally, the chapter explores several other topics, including institutional review boards, informed consent, and scientific dishonesty.

Research Concepts in Sport Management

Learning Objectives

After studying this chapter, you should be able to do the following:

- Understand the need for sport managers to be consumers of research
- List prominent subdisciplines and contexts of sport management research
- Provide a general description of the purposes of research
- Distinguish between theories, principles, and facts
- Classify research according to application, objective, type of information sought, presence of data, and data source
- Discuss the philosophical approaches to research
- Understand the four research paradigms that influence a researcher's approach to study design
- Comment on the evolution and status of sport management research

It is difficult to find an area in society that is unaffected by current and ongoing research efforts. Television ads promote and distinguish between products and services of all types based on research conducted by trained professionals. For example, which medication is most effective at treating a particular kind of infection? Which automobile performs best in crash tests? What is the president's approval rating? The examples are endless and they affect us every day.

Not surprisingly, the field of sport management also relies upon research in order to advance its knowledge base. Sport managers are often called upon to address important issues for their organizations, and many of these questions require research before they can be answered (see the related highlight box for a list of key topics in sport management). For example, a sport manager might be asked to address questions such as the following: What is the average income of our fans? How does our team's fan base fit with a particular sponsor's target market? What kinds of services do our customers want? Such questions affect the financial stability of sport organizations, and the sport managers called upon to answer them must become acquainted with basic research methods. All of us, then, are affected by research—both generally as consumers and specifically in our particular fields

of study. With that in mind, this text gives you a systematic overview of basic research methods and statistics in order to help you develop your ability to understand, conduct, and consume research.

Sport management students need to develop research competencies in order to become true professionals who can keep up with the latest industry trends long after their formal educational training is complete. In order to become effective decision makers, sport managers must avail themselves of the best and most recent knowledge available; that is, they must become consumers of research. This approach is vastly superior to the alternative of relying on tradition, trial and error, or bias in order to reach a conclusion. Sport managers must be able not only to interpret and apply the results of a study but also to judge the quality of the research used to produce those results. In a world filled with false and misleading advertising, true professionals can tell the difference between legitimate and nonlegitimate claims of effectiveness for a product or service. A good understanding of the research process might also enhance your life in less obvious ways. It might, for example, positively affect the way in which you develop a personal financial plan, select an important internship, organize for an extended trip, or even purchase common household products.

Research Topics in Sport Management

Research topics are typically derived from the various sport management subdisciplines, then applied to one of the various contexts, or focus areas, of sport.

Subdisciplines

- Communication and media relations in sport
 - Technology and the media
 - Integrating public relations with strategic management
 - Creating public relations campaigns
 - Managing relationships between sport organizations and the media
 - Crisis communication
 - Developing organizational media
 - Direct contact tactics
 - Internal communication

- Organizational behavior and theory in sport
- Organizational structure
- Interorganizational relationships
- Strategic alliances
- Human resources and labor management relationships
- Analyzing and managing change
- Diversity in sport organizations

- Sport economics
 - Economic impact of star players
 - Supply and demand in sport
 - Impact of sport on local economies
 - Labor markets and sport
 - Regulation of sport
 - Antitrust issues in sport

(continued)

Research Topics (continued)

- Sport finance
 - Debt and equity financing
 - Capital budgeting
 - Grant applications
 - Taxation and legal issues
 - Fundraising
 - Financial planning
 - Revenue streams
 - Exit strategy
- Sport marketing
 - Sport participant behavior
 - Sport spectator behavior
 - Pricing concepts and strategies
 - Promotions
 - Distribution concepts
 - Market segmentation and targeting
 - Managing sport brands
- Sport sponsorship and sales
 - Sport consumer incentivization
 - Training of ticket sales staff
 - Customer service and retention
 - Sport sponsorship sales and activation
 - Sport licensing
 - Ecommerce
 - Sport brand communication
- Sport facility and event management
 - Event planning
 - Risk management
 - Venue ownership and management
 - Venue operations (e.g., concessionaires, parking attendants)
 - Security, safety, and medical services
 - Maintenance issues
 - Retail sales
 - Postevent evaluation
- Sport law
 - Negligence and liability
 - Discrimination
 - Doping
 - Employment and labor law
 - Athlete agreements
 - Copyright and trademark
 - Commercial agreements
- Sport governance
 - International sport organizations
 - League operations
 - Government involvement in sport and policy issues
 - Corporate social responsibility
 - Health and humanitarian goals in communities
- Sport ethics
 - Ethics and morals
 - Sources and moderators of ethical decision making
 - Ethical principles for sport and recreation
 - Human interaction
 - Agent accountability
 - Rendering of moral judgment

Contexts

- Amateur sport
 - Youth sport
 - High school sport
 - Collegiate sport
 - International and Olympic sport
- Professional sport
- Disability sport
- Lifestyle sport
 - Health and fitness
 - Recreational sport
- Sport education
- Athletic equipment and apparel