

JOE F. HAIR, JR., MICHAEL PAGE, AND NIEK BRUNSVELD

ESSENTIALS OF BUSINESS RESEARCH METHODS

Fourth Edition



Essentials of Business Research Methods

In an era of big data and data analytics, how can managers make decisions based on almost unlimited information, not to mention hiring and retaining individuals with the required data analytics skills? The new fourth edition of *Essentials of Business Research Methods* explains research methods and analytical techniques for individuals who aren't data scientists.

The authors offer a straightforward, hands-on approach to the vital managerial process of gathering and using data to make relevant and timely business decisions. They include critical topics, such as the increasing role of online research, ethical issues, privacy matters, data analytics, customer relationship management, how to conduct information-gathering activities more effectively in a rapidly changing business environment, and more. This is also the only text that includes a chapter on qualitative data analysis, and the coverage of quantitative data analysis is more extensive as well as much easier to understand than in other texts.

A realistic continuing case used throughout the book, applied research examples, and ethical dilemma mini cases enable upper-level undergraduate and postgraduate students to see how business research information is used in the real world.

This comprehensive textbook is supported by a range of online resources, including instructors' manuals, PowerPoint slides, and test banks.

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ESSENTIALS OF

Business Research Methods

FOURTH EDITION

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Preface

Business research in a knowledge-based, global economy presents many challenges for managers. Businesses are challenged to be more decisive and offer higher-quality products and services, and they must do so with fewer people at lower costs. This means modern business managers must make more decisions in a shorter period of time, and those decisions must be better. Fortunately, the tools and technologies available to business professionals have expanded dramatically. Computing power, storage capacity, and software expertise no longer represent significant barriers to accessing and processing information. The speed and memory of personal computers have been doubling every eighteen months while prices have been dropping. Windows-based and other user-friendly interfaces have brought sophisticated data analytics software packages into the “click-and-point” and “drag-and-drop” era, greatly reducing the need for specialized computer skills to utilize otherwise complex statistical or data visualization software. Now, even “unsophisticated” users can analyze large quantities of complex data with relative ease. The knowledge that emerges from the application of these new tools and technologies contributes to better decision making.

Research turns information into knowledge. Better business knowledge is essential to improved decision making. We are pleased to publish the 4th edition of our book about making better decisions by using knowledge that only research can create. The book places minimal emphasis on statistical theory and maximum effort on providing basic skills covering a wide range of potential business research applications. By using the concepts and principles presented in this book, the reader will be better able to cope with the fast-paced decision-making environment of business today and tomorrow.

MANAGERS NEED BUSINESS RESEARCH SKILLS

The amount of information available for decision making has exploded in recent years and will continue to do so in the future, likely at an ever increasing pace. Until recently, much information just disappeared. Either data was not collected or it was discarded, often because there was no cost-effective way of collecting and storing

it. Today information is collected and stored both internally and externally in the cloud and is available to be analyzed for improved decision making. Sometimes the information can be analyzed and understood with simple analytical tools. Other times, turning it into business intelligence requires more complex approaches. In this book, we cover the simple as well as some of the more complex tools in an easily understood manner. Without knowledge of these business research tools, managers and entrepreneurs simply cannot benefit from the intelligence emerging from this expanded database of information.

Most business research texts are long and take an encyclopedic approach. This book covers the important topics in a concise manner and focuses on the essentials of business research for managers. It includes coverage of the increasing role of knowledge management as well as how to conduct information-gathering activities more effectively in a rapidly changing business environment. The fundamentals of business research, such as research design, use of qualitative and quantitative data, and sampling and questionnaire design, are presented in a highly readable format. Illustrations are used in conjunction with many practical examples to highlight significant points.

A Business Research Dashboard feature provides applied examples of actual research problems and current issues. Some Business Research Dashboard examples summarize actual research studies. Others describe websites that help researchers analyze qualitative data, locate sources of digital and secondary data, or design better survey questionnaires. Case studies involving applications of research approaches are also included, as well as instructions on how to use statistical software to analyze data. With more than 100 Business Research Dashboard examples, the text material is truly brought to life! In addition to the Business Research Dashboard examples, we suggest online applications/questions at the end of each chapter that provide interactive exercises for students, as well as discussion questions that pose analytical issues going beyond just repeating the topics covered in the chapters. Finally, each chapter has an ethical dilemma mini case to stimulate thinking on and understanding of ethics-related topics.

The book is based on the needs of managers, researchers, and scholars to make better decisions. Thus research is couched in the greater decision-making context. Because managers increasingly must make decisions based on almost unlimited information, we provide more coverage of data analysis techniques in this book than do other texts. We recognize that most managers and business students will not be data scientists. But an understanding of data analytics techniques will help them to better utilize the increasing amounts of information they will be expected to apply in decision making. Our straightforward, hands-on approach makes the book particularly successful with advanced undergraduates in all business disciplines and with graduate business students, in both traditional and executive programs. The book will also serve as an effective reference guide for advanced users, including basic researchers and beginning doctoral students.

Changes in the business environment have created opportunities as well as uncertainty, and they make the role of business research even more important in improving decision making. For example, information technology and processing speeds,

rapidly declining data storage costs, and the cloud enable us to process vast amounts of data faster for improved forecasting accuracy and for improved employee productivity. At the same time, new laws and regulations on privacy and concerns about ethics are making managers think twice about whether and how to acquire, process, and store data about their customers and employees. Knowledge is power, but managers must convert the increasing amount of information into knowledge before its power can be tapped. Businesses that are best able to harness this power will be those that are successful in the long run. Hence, a main focus of the book is the collection, evaluation, understanding, and use of information from the manager's perspective.

EXCELLENT PEDAGOGY

Our pedagogy has been developed from many years of conducting and teaching business research. To bring the concepts to life and make the text more interesting, we focus on a single case throughout the book. Phil Samouel is a restaurant entrepreneur in New York City. His Greek restaurant competes with Gino's Italian Ristorante. Phil hires a business research consultant to help him, and the case study is used to illustrate the principles of business research throughout the book. The consultant has recommended two surveys, one of customers and the other of Phil's employees. Both questionnaires are included in the text, and two databases from the results of the surveys are used to demonstrate the data analysis techniques. A sample report of the surveys' initial findings is available on our website (www.routledge.com/9780367196189). Exercises at the end of the chapters provide an opportunity for students to further examine the findings of the two surveys and to use them in preparing a more comprehensive report on the restaurant case study. Electronic copies of the questionnaires and databases are available on our website.

The continuing case study makes it easy for readers to become familiar with the Samouel's Greek Cuisine case and refer to it in each chapter. For example, we refer to the case when we discuss research design alternatives as well as when evaluating different sampling approaches. The thinking behind the employee questionnaire is provided in the measurement and scaling chapter, and the rationale for the customer survey questionnaire is reviewed in the questionnaire design chapter. In all the data analysis chapters, we use the case study data to illustrate SPSS, PSpss, Excel, and the various statistical techniques. A copy of the research proposal given to Phil Samouel is provided in Chapter 2, and a summary of the research report is on our website (www.routledge.com/9780367196189). Focusing on a single case study throughout the book enables readers to more easily understand the benefits and pitfalls of using research to improve business decision making.

The book's coverage of quantitative data analysis is more extensive and much easier to understand than that in other texts. Step-by-step instructions are included on how to use statistical software to execute data analysis for all statistical techniques. This enables instructors to spend much less time teaching students how to use the software. It also saves time later by providing a handy reference for students if they forget how to use the software. For instructors who want to cover more advanced statistical techniques (e.g., multivariate data analysis), our book is the only one that

addresses this topic. Thus, the approach of our book is much more balanced between qualitative and quantitative than are other books.

ORGANIZATION OF THE BOOK

The text and all major supplements are organized around the learning objectives given at the beginning of each chapter. Instead of a single summary of the chapter, summaries accompany each learning objective. This organizational approach makes the book especially readable for students and readily useful for instructors. In short, it delivers value for students, professors, universities, and research organizations.

The organization of the book follows the logic of the business research process. It is organized into five parts. Part I introduces the reader to business research, emerging trends, the research process, and the role of ethics. Part II provides an overview of how to begin the business research process, from defining the problem to conceptualization and research design. Part III covers data collection, including sampling, measurement, and questionnaire design. In Part IV, we examine data analysis and interpretation for both qualitative and quantitative research. Part V focuses on writing reports and presenting research findings.

WHAT'S NEW IN THIS EDITION

We added many new concepts in this edition. Some changes were suggested by 3rd edition readers, and our students and colleagues. Other changes are based on student feedback from the research methods courses we teach. Finally, we constantly strive to keep up-to-date on the latest developments in this field so that we can share them with you. It is impossible to list all the little as well as big changes we have included, but following is a list of the major additions to this edition:

- Understanding the role of sentiment analysis
- How to obtain and use PSPP software for statistical analysis, the free clone of SPSS
- Expanded coverage of the revision of established measurement scales
- Clarified difference in a pretest and a pilot test
- Additional coverage of the role and value of evidence-based practices
- Conversion of metric measurement scales to nonmetric scales
- Further explanation of qualitative and quantitative assessments of constructs
- Expanded coverage of reliability assessment
- Expanded coverage of emerging data collection and analysis in digital environments, including social media and mobile data collection
- Clarified difference between conceptual and theoretical models
- Additional material on sentiment analysis and netnography
- Expanded coverage of the emerging statistical method of partial least squares structural equation modeling (PLS-SEM) using the SmartPLS software (www.smartpls.de)

- Coverage of communication tools and visualization software that are now available for reporting research findings
- Explanation of the role of situation analysis, as well as importance-performance analysis tools
- Growing importance of privacy regulations for business research
- Expansion on scientific integrity and ethical review in business research practices

COMPREHENSIVE INSTRUCTOR AND STUDENT RESOURCES

The book includes an extensive set of resources for instructors and students. For instructors, a test bank provides a wide variety of questions on all the major concepts in the book. The instructor's manual includes lecture outlines, answers to end-of-chapter questions, and teaching notes for the exercises. Each chapter has twenty to thirty PowerPoint slides summarizing and illustrating the key concepts. Two data sets for the restaurant case in SPSS, PSPP, and Excel formats are provided for instructors to use in teaching quantitative analysis and for students to learn the software and concepts. Additional end-of-chapter assignments give the user an opportunity to experience a wide range of analytical applications using the data sets. This eliminates the need for instructors and students to hunt for data demonstrating business research concepts and techniques. The instructor's website (www.routledge.com/9780367196189) includes a wide array of supplementary materials for instructors to incorporate into their teaching.

In addition to electronic copies of all instructors' teaching support materials, copies of sample questionnaires used in research projects are provided on the website, along with answers to frequently asked questions related to business research and copies of the data sets. In short, it is, we believe, one of the most comprehensive websites of any business research book.

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Among the many people to mention, we thank first our families and colleagues for encouraging us to write the book and for their support and comments throughout the process of bringing it to completion. Second, it is with a heavy heart that we say goodbye to one long-term friend, colleague, and coauthor. This past year Mary Celsi passed away. We will always remember and respect her contribution to previous editions of this book, as well as to this new edition to which she was able to contribute indirectly. We also want to acknowledge two other colleagues and friends who have retired and chose to not be involved in this new edition. Finally, we welcome a new young coauthor, Niek Brunsveld, who provided many new and timely insights about the developing field of business research. In addition, at Routledge, we thank Meredith Norwich, editor, Mary Del Plato, editorial assistant, and Katharine Atherton, our production editor. Finally, we owe a debt of gratitude to our students and colleagues, who inspired us to write this book. Their questions and comments helped us to know which important

topics to cover and how to cover them. We also offer gratitude to our teachers, who inspired us to a lifelong mission of learning and sharing knowledge. Our hope is that this book will be of particular help to students as they apply themselves to the study of business research and data analysis and, more generally, pursue their own careers and goals.

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Part I

Introduction



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1

Business Research for the Twenty-First Century

LEARNING OUTCOMES

1. Provide an introduction to modern-day business research.
2. Define business research and the people who use it.
3. Discuss recent business trends and how they affect business research.
4. Examine research-related technologies.
5. Introduce the continuing case used throughout the text.

Research is a discerning pursuit of the truth—of knowing the facts. How do we decide between business opportunity A or B? We need to know the facts, both positive and negative. Those who do research are looking for answers. In our everyday lives, we all play the role of researcher. A trip to the movies is rarely undertaken without some period of discernment, especially since there are so many online alternatives. During this process, prospective movie theater patrons first determine what type of movie would best fit their present desire. They may form a preliminary opinion of several movies based on previous knowledge of the actors and directors involved. Is *The Mystery of the Blue Dog Café* worth seeing? Media sources, online reviews, previews, and input from personal acquaintances often provide information to answer this question. Thereafter, if prospective theater patrons are reasonably confident about their conclusion, they make a decision about which movie. But then the decision likely moves to another stage, which is whether to view the movie online, such as on Netflix, or to go to a theater. This simple illustration contains some of the basic elements of business research. Good decision making depends on asking questions and conducting research that will result in accurately predicting an outcome of importance, in this case enjoyment of *The Mystery of the Blue Dog Café*.

Although formal research training is relatively new to the business world, business research is perhaps as old as commerce itself. International commerce expanded rapidly with the rise of Phoenician traders during the early classical period, about

500 B.C.E.¹ Investors in trading expeditions soon realized it was too risky to simply load ships with surplus goods and sail from port to port until a buyer was found. So they began to gather information about how goods might be altered to appeal to specific markets. With this information, merchants made strategic decisions involving product differentiation and market segmentation. Merchants discovered the existence of price and quality segments. Wine from the countries of Thasos and Chios was highly sought after in some markets. Thasian and Chiot wine sold for as much as one drachma per liter compared to one-fourth that for other wines. Winemakers from southern Italy performed research while peddling their own goods on the seas and attempted to capitalize on this new intelligence. While they were unable to match the quality of Thasian or Chiot wines, they appealed to these markets by making imitations of higher-quality wines. Consequently, research may have led to the first product knockoffs.²

Research also proved a key to success in selling crockery (dinnerware or china). Corinthians lost out to the Athenians in serving the early Etruscan market for crockery. The Athenians produced a style known as Tyrrhenian. Tyrrhenian crockery more closely matched Etruscan taste. It was “cheap and gaudy . . . and often carried mock inscriptions, presumably to impress Etruscans who would not have been able to read.”³ Perhaps Tyrrhenian crockery was the pink flamingo of its time. There seems to be little doubt, therefore, that the products were produced with a specific consumer segment in mind based on information gathered from the market.

Increasing literacy, the Industrial Revolution, continued advances in transportation, the advent of various forms of computing, and the general expansion of commerce worldwide changed the way research is done. Frederick Taylor used early motion picture technology to film workers and demonstrate how they could improve their productivity. Similarly, General Electric was among the first companies to use consumer research to design new products.

Today, there are thousands of companies whose primary activity involves providing research services that help businesses answer key strategic, tactical, and operational questions. Research has become much more formal and technical. Digital environments and social media offer businesses new ways to collect and analyze information. But the purpose of business research remains much the same as inquiries undertaken by those Phoenician merchants. How do I find the answers to improve my performance and make life better for customers, employees, and owners? Business research is designed to answer these questions.

Social media and big data are transforming business at an ever accelerating rate, and business research processes are by no means immune to this transformation. Advances in our understanding of consumer preferences,⁴ increases in our ability to predict product and service demand,⁵ and our capacity to target market segments in a far more surgical manner⁶ are all thanks to advances in social media and our capacity to “scrape” and analyze huge volumes of data incredibly quickly. The unintended impacts of these enhancements have also been featured in the news all too frequently and notably include Microsoft’s Tay tweets racist chatbot fiasco⁷ and Pepsi Sweden’s Cristiano Ronaldo advertisements.⁸

Although the impact of big data cannot be overemphasized, the popular use of the term understates the very nature of the transformation that big data is having

on business. Big data has been described as including the five Vs. The first four of these have been described as outlining the parameters of big data—volume, velocity, variety, and veracity—while the fifth—value—has been argued as being able to understand the first four, as well as the dual nature of both prediction and causality as major methodological approaches to harness big data.⁹

Business research methods continue to evolve to meet this challenge. Although exponential increases in processing power make it easier to deal with volume and velocity, business researchers are confronted with the challenge of variety—where data arrives in formats that range from structured to unstructured, or in numerical or text formats—and veracity—where data biases, noise, and abnormality need to be dealt with.¹⁰ Finally, business researchers using big data have to consider whether they are adopting a data-driven or theory-driven approach in their analysis. Data-driven research is exploratory in nature and uses algorithms to search for interesting patterns that may then lend themselves to scientific interpretation. In contrast, theory-driven approaches use big data in a more traditional way by analyzing the data to test predefined hypotheses.¹¹

BUSINESS RESEARCH DEFINED

Business research includes several interrelated components. The most important are described in the following sections.

A TRUTH-SEEKING FUNCTION

We begin with a simple definition of science as systematic truth seeking. **Science** seeks to explain the world as it really is. Real-world, or physical, scientists seek the truth about the world's physical realities. Chemists deal with chemical phenomena, biologists with biological phenomena, and so forth. Social scientists, such as psychologists and sociologists, seek to describe and predict the realities of individual human behavior and the interactions of humans in a society. Business researchers are generally social scientists because most business problems and opportunities involve people.

Like all scientists, **business researchers** pursue the truth about business phenomena.¹² The essence of business is people serving people through participation in a value-creating process with exchange at its core. This includes all the support systems necessary to facilitate the process. **Business research** seeks to predict and explain phenomena that, taken together, constitute the ever changing business environment. Thus, business research is a truth-seeking, fact-finding function that gathers, analyzes, interprets, and reports information so that business decision makers become more effective.

Like all research, business research needs to be reliable to be of any value to its users. Business decision makers are seldom able to check whether the research indeed led to the findings presented by the researchers. They also need to be able to rely on the research findings presented and on each other's research results, which

they use to develop new hypotheses. One of the primary responsibilities of researchers, therefore, is to conduct one's research according to the core values of research, that is, objectivity, honesty, openness, accountability, fairness, and stewardship,¹³ and to the specific norms and practices in their field. Fabricating, falsifying and plagiarizing research results are clear breaches of research integrity.¹⁴ In addition, researchers should avoid questionable research practices, such as hypothesizing after results, also known as harking, or massaging research data to better suit conclusions. Ultimately, such practices harm the discipline of research and also the business decision making they are meant to support.

ELEMENTS OF BUSINESS RESEARCH

The scope of business research is broad, and the types of phenomena business researchers study are expanding rapidly. Time and motion studies are relatively infrequent today, although they were essential in the development of scientific business management. Instead, business researchers may study employee productivity as a function of a communication channel's richness, how purchasing patterns have changed because of digital media, or how they can better predict customer preferences using big data and machine learning techniques. Thus, business research is dynamic in that researchers are constantly studying new issues with new tools. Here is a list of key elements of business research.

1. Business research involves the study of a wide range of phenomena, such as:
 - a. People, including employees, customers, supervisors, managers, policy makers, and stakeholders,
 - b. Systems or groups of people, including strategic business units, offices, factory labor, management groups, boards of directors, managing directors, market segments, cultures, subcultures, corporate cultures, communities, companies, and industries,
 - c. The interaction of people with systems, including accounting or audit systems, legal systems, management practices, compensation systems, supply chain processes, manufacturing systems, customer acquisition approaches, production processes, and financial systems.
2. Business research can be formal. Researchers may undertake systematic and sometimes exhaustive projects aimed at answering very specific questions. As an illustration, Toyota was interested in knowing the effects of one-price retailing, where, in auto purchases, car prices are not subject to negotiation. It tested the idea in several countries. Customers in Montreal, Canada, for example, generally preferred the one-price system by about two to one.¹⁵ But the effects of one-price retailing generally extend beyond customers to Toyota's dealer network and employees. Thus Toyota could also research the effects of one-price retailing on its dealer network and employees. Carefully researching the impact of the pricing strategy in several countries among customers, dealer networks, and employees results in a fairly comprehensive study. Toyota's research project is a good example of a one-shot research

project. **One-shot research projects** are performed to address a single issue at a specific time.

3. Business research can be informal. Restaurant owners or managers often spend a portion of each night circulating through the dining room. They stop at each table and ask, “How is everything?” The information they receive helps to identify patterns and improve decision making for enhancing the restaurant experience of their customers. While this sort of research is easy for small ventures, it’s more of a challenge for larger firms. New technologies are creating ways, however, that frontline employees can enter informal feedback from customers directly into databases. E-mail, text messages, social networking sites, customer reviews, and blogs can also provide qualitative feedback for larger firms. Informal research is often ongoing. This means research is performed constantly and is open to providing information about ongoing as well as as-yet unidentified problems and opportunities.
4. Good research is replicable. A goal of scientific research is to be as objective as possible. When research is objective, it is generally **replicable**, meaning that another researcher can produce the same results using the identical procedures employed by the original researcher. An example is the research done by Pepsi as part of its advertising and promotion approach for the Pepsi Challenge that was later replicated by Coca-Cola. The Pepsi Challenge was a promotion in which consumers were intercepted in a supermarket, allowed to taste two unidentified colas, and given a six-pack of the one they preferred. Pepsi routinely televised these consumer taste tests on live television. More people chose Pepsi in the Pepsi Challenge. Coca-Cola, questioning the authenticity of this research, conducted its own taste challenges but kept them out of the public eye. Coca-Cola’s research confirmed the Pepsi Challenge results. Thus, the Pepsi Challenge research was replicable.
5. Good research should provide more benefit than it costs. Ultimately, this is of primary importance in determining whether the research was worthwhile. Management should not conduct a \$200,000 research project to make a \$50,000 decision. Many decisions are made with little or no research because they do not involve a lot of risk. Other times, research is designed and executed in a manner that limits its costs so that they do not exceed the potential benefits of the decision.

Business research is scientific inquiry. But the terminology of business research differs depending on what motivates a particular study. **Applied business research** is motivated by an attempt to solve a particular problem faced by a particular organization. For example, Coca-Cola may want to know why Pepsi is gaining market share in Paris. **Basic business research** is motivated by a desire to better understand some business phenomenon as it applies to an entire industry or to business in general. For example, why are people drinking more bottled water and less cola? Applied business research helps decision makers make specific decisions bound by time and an organization. Basic research helps develop theory that attempts to describe and predict business events so that all business decision makers can benefit. Exhibit 1.1 compares applied and basic business research.

Exhibit 1.1

Examples of Applied and Basic Business Research

Applied Research Issues	Basic Research Issues
What is the effect on Samsung's Galaxy smartphone market share of adding foldable phones and extended battery life?	How does technological turbulence affect business performance?
How will stocking wines from a new French vineyard in Languedoc-Roussillon affect the profitability of Whole Foods supermarkets?	What factors relate to consumer satisfaction with and loyalty to a supermarket?
How would imposing reduced working hours rather than downsizing affect employee morale at Ford Motor Company?	Are staff reductions or furloughs more likely to affect employee morale?
Can using prospective employee psychological profiles reduce turnover at McDonald's?	What psychological factors predict reduced turnover in service occupations?

WHAT DO BUSINESS RESEARCHERS STUDY?

The boundaries of business research today are nearly limitless. Business research is intended to result in better decision making. Business decisions often involve all aspects of business. Therefore, it should be no surprise that business research involves all aspects and all functions of business.

Marketing managers are often interested in new product development, the effectiveness of promotional efforts, brand image, customer satisfaction, and brand and product positioning, for instance. Most consumers can recall times when they have responded to some type of customer-satisfaction study. This information is vital for strategic decisions. Which strategic actions should the firm take? Should it diversify or stay entrenched as a specialist within a niche market? Business researchers contribute significantly to these decisions, as exemplified in the Global Effie Awards, which recognize effective and creative marketing campaigns that have been proven in multiple markets worldwide.

For manufacturing firms, efficient and effective production processes are essential if customers are to realize product quality and satisfaction. Business research is often tasked with identifying processes that create the optimal mix of product and service quality. Further, because employees are ultimately responsible for quality production, a great deal of research is directed at understanding employee job satisfaction, employee performance, and employee turnover. In the United Kingdom, research indicates that firms incur \$8,000 a year in additional costs for every employee quitting, with costs rising to over \$11,000 for managerial positions. A study of U.S. firms estimates the average cost of replacing an employee who leaves is about one-fifth of the employee's salary.¹⁶ Thus, the rate at which employees leave and why receive a great deal of attention from researchers and decision makers.

Strategic and tactical decisions often involve alternatives that require different levels of capital investment. An early online grocery store, Webvan, failed after

investing in distribution centers and a delivery network. The investment turned out to be too ambitious when customers were just beginning to shop online and when online access was relatively new. Recently, newer business models are being tried that utilize existing distribution centers and minimum investment in delivery. Currently, both Amazon and WalMart are competing head-to-head with online grocery sales in the United States, and Amazon has purchased Whole Foods in an effort to more effectively serve customers. A completely different approach is offered by Instacart, which buys your groceries from existing stores and delivers them to your door. Instacart's employees are individuals who log in and indicate their availability to customers for shopping and delivery whenever they are ready to work. Instacart's business model is "lean," but their delivery model may pose additional challenges to ensure service quality.¹⁷ In addition, established supermarkets such as Publix and Ralph's are beginning to offer directly to their customers delivery or pickup services. For any of these emerging business models to succeed, there must be a sufficient marketplace of consumers who are willing to regularly forego in-person shopping for the added convenience of online grocery shopping or delivery direct to their home or office. Exhibit 1.2 illustrates some of the business research implications that might be involved in an entrepreneurial venture in the online grocery industry.

Exhibit 1.2

Business Research Applications for a Start-Up Venture in Online Grocery Sales

Decision Involved	Research Topic	Implications
What type of capital resources should be used?	Identify the financial and risk implications associated with the various options.	Online grocers are highly capital intensive. The result is cash starvation during the early months of operation.
What markets should we serve?	Identify the potential profitability of potential markets.	Online grocers must identify markets with high volume potential relative to a small service area.
What product assortments should be emphasized?	Identify the shopping value associated with product acquisition of various types.	Online grocers must determine the products for which customers believe physical product interaction is a value-added process.
What type of personnel should be involved in operations?	Assess the impact of outsourcing on perceived service quality.	Online grocers may find it more cost-effective to outsource certain operational components, including product delivery.
How should customers be attracted?	Identify the potential response rate from the different options for creating awareness, stimulating interest, and inducing trial.	Customer acquisition costs are extremely high for new online retailers. Therefore, successful online grocers will need to be efficient in attracting customers.
What is the most effective way to communicate with customers?	Determine the demographic, lifestyle, and social media usage patterns of the target market.	Attracting customers to a new alternative is difficult. Some existing grocery retailers are adding online and delivery options that will retain their existing customer base, and new competitors are entering the market.