# Need for Marketing Data

## Think About It

Look at your smartphone and imagine all the marketing decisions that had to be made before the phone became yours: who will buy the product, how can we best reach the buyer with our promotional messages, where should the product be sold, what products are selling well, what products need to be modified or phased out, how much should we charge for the product, etc. To wisely answer these questions, marketers must base their decision-making on data.

## Types of Data

There are different types of data that businesses use to make wise decisions. Some of these types of data are:

- Facts: These are data that can be verified or proven.
- Estimates: These are approximations or educated guesses.
- Predictions: These are projections or forecasts about the future.

## Sources of Data

There are many sources of data available to assist with decision-making, and each provides specific types of data.

- Salespeople—Potential/Current customers, customer needs, completed sales, sales comparisons, sales staff actions and costs
- Customers—Sales invoices, product use
- Competitors—Public financial data, product offerings, promotional campaigns
- Suppliers and distributors—Conditions impacting product availability, product sales, customer feedback
- News, online publications, blogs, and trade journals—Economic conditions, trends

# Need for Marketing Data

(cont'd)

## Uses of Marketing Data in Decision-Making

Examples of decisions that marketers use data to make:

- Identifying realistic **SMART** goals for sales, market share, budgets, etc. SMART goals are specific, measurable, achievable, realistic, and time-bound.
- Developing product strategies. These decisions involve choosing what products to offer, what new products to develop, and what level of customer service to provide with each product. Most of these decisions are based on data about customer wants and needs.
- Developing pricing strategies. Marketers must decide what to charge for a product and when to change the price.
- Developing promotional strategies. Marketers must decide what to say to customers, how they should present the message, where they should present the message, how often the message should be repeated, what communication channels to use to deliver the message, etc.
- Developing place strategies. Marketers must determine what distribution channels to use, how much product to create, and where customers will buy. Sales reports and customer data are useful here.
- Making budgeting decisions. Marketers must allocate their funds wisely. They use data to estimate product costs and the company's financial data to make budgeting decisions.
- Identifying problems or issues. Marketers must follow up with products to make necessary adjustments over time. They must examine the product itself, customer service, vendors/ suppliers, and salespeople.
- Evaluating results. Marketers need to evaluate the outcomes of their decisions so that they can avoid making the same mistakes in the future. They can also gain insights into methods and strategies that work well. Sales reports are useful here.

## Reasons To Use Marketing Data

Wise data use helps marketers create more competitive and successful products by paying attention to data that show how best to meet customer needs and wants. This creates satisfied customers who continue to purchase from the business. Data use can also save money by helping the business run more efficiently. Cost-effective decisions can be reached through wise data use. Saving money on even one product can affect the entire company's bottom line and contribute to overall profitability.

# Identifying Marketing Data

## Think About It

Businesses require data for decision-making. How can a business increase its sales in a particular market segment if it doesn't even know that sales are lagging in that segment? How can a business address frequent customer complaints if it doesn't even know what those complaints are? Many types of information can help with marketing decision-making. Thriving businesses take the time and effort to gather and analyze these data and use them to their best advantage.

## Types of Data Sources

Data come from many types of sources and can be either primary or secondary. **Primary data** come from new research the organization carries out on its own initiative—a customer survey or focus group, for example. **Secondary data** come from research that is already available—financial records, call reports, sales invoices, and public investment information, to name just a few sources. These secondary sources of data can be either internal or external to the organization.

## External Sources of Data

Since businesses don't function in bubbles, they should examine external data including information about competitors and the overall business environment.

*Competition*. Businesses must keep close watch on what their competitors are doing to help marketers plan their strategies with more precision. Some sources and types of competitor data are:

- Competitors' websites
- Competitors' financial information
- A company's own salespeople
- A company's suppliers and distributors
- Observable changes in marketing strategies
- **Market share**
- **Market share analysis**

*Business environment*. A business's environment includes the industry in which the business operates, as well as the economy as a whole. It is important to keep track of data such as economic and industry trends. Some sources of these data are trade publications, outside vendors, and economic indicators (such as **gross domestic product**, **unemployment rates**, the stock market, the **consumer price index**, **interest rates**, and the rate of **inflation**).

# Identifying Marketing Data (cont'd)

## Internal Sources of Data

A large amount of secondary data can be found within the boundaries of a company itself including:

*Sales information*. Sales information provides a vast amount of data that can aid in many types of decision-making. One example is **sales volume analysis**, which allows a company to measure its actual sales against a number of different criteria such as how sales differed between market segments, among products or product lines, or compared to sales goals. Managers can then use these findings to make adjustments to sales processes or marketing strategies. Examples of useful sales information include:

- **Sales invoices**
- **Call reports**
- **Sales reports**
- Expense reports

*Customer information*. Customers provide a wealth of secondary data that businesses can use for smart marketing decision-making, including **demographic data** and insights into buying habits. Examples include:

- Customer records
- Customer complaints
- Digital marketing analytics

*Product information*. Actions related to the products themselves are also important for marketing decision-making. Some of these include:

- Product returns
- Service calls
- Product reviews

# Identifying Marketing Data (cont'd)

## Internal Sources of Data (cont'd)

*Company financial information*. Companies track a variety of financial data that are useful to marketers in understanding the company's financial well-being and future projections. Understanding these sources of data can help companies understand their financial position, which affects their ability to make certain marketing decisions. Important financial statements that marketers should monitor include:

- **Balance sheets—**report the financial position of a company, including **assets**, **liabilities**, and **shareholders' equity**.
- **Budgets—**an estimate of income and expenses for a specific period of time.
- **Cash flow statements—**detail incoming and outgoing cash during a certain period of time.
- **Income statements—**give insight into an organization's performance in terms of revenues minus expenses over a specific period of time.
- **Statements of retained earnings—**show the way that net income and dividends affected the financial position of a company over a period of time.

# What Is Marketing-Information Management?

## Think About It

Marketers cannot successfully do their jobs on the basis of gut instinct or personal knowledge. They need data and information to make informed decisions. They can obtain this from a marketing-information management system.

## Are Data and Information the Same?

The short answer is no. Data are facts and figures—nothing more. Information is data presented in a useful form. For data to become information, they must be processed, organized, and presented in an understandable, meaningful manner.

Marketing information, then, is marketing data available from inside and outside a business that have been processed in a useful way. Businesses need marketing information to:

- Solve problems efficiently.
- Learn about the markets they serve.
- Find out what products are working in those markets.
- Determine why the products are successful.
- Plan for the future.
- Ascertain how price impacts customer decisions.

## Primary vs. Secondary Marketing Information

Marketing information and its sources can be categorized as primary and secondary. Both categories help marketers learn more about their markets; however, primary and secondary information are different. **Primary information** is developed from data that are collected for use in one particular situation. **Secondary information**, on the other hand, comes from data that have already been collected for other purposes. These data are popular with marketers because they can be obtained quickly and less expensively than primary data.

# What Is Marketing-Information Management? (cont'd)

## Characteristics of Good Information

Good information should share the following characteristics:

- Organized
- Accurate
- Sufficient
- Relevant
  - Timely
  - Accessible
  - Cost-effective

## Marketing-Information Management Systems

A **marketing-information management system** (MkIS) is an organized way of continuously gathering, sorting, analyzing, evaluating, and distributing marketing information. An MkIS consists of all the people, policies, procedures, and technology involved in managing a business's marketing information.

Each business must decide what the functions of its MkIS are. Most marketers, though, agree that an MkIS needs to complete certain tasks, including:

- **Data gathering.** The basic function of an MkIS is to gather data important to the business from both internal and external sources on an ongoing basis.

  Internal data are relatively easy and inexpensive to collect. They are found inside a business. Some common types of internal data are operating data, sales reports, and inventory data. External data, on the other hand, come from a variety of sources outside the business, including local business associations, federal and state planning agencies, trade journals, online databases, and commercial services. Businesses also obtain external data by conducting **marketing research**, which is the systematic gathering, recording, and analyzing of data about a specific marketing problem or situation.

- **Data processing.** Transforming data into much more understandable, organized marketing information is an important function of an MkIS.

- **Information reporting.** A third important function of the MkIS is handling the flow of information within a business. The system should distribute the necessary information to those who need it and make it easy for marketers to locate and retrieve information at any time.

# What Is Marketing-Information Management? (cont'd)

## Basic Requirements of an MkIS

A marketing-information management system should meet certain basic requirements, including:

- Deciding quickly what data and information are needed
- Collecting, processing, and storing data and information effectively
- Handling whatever amount of data and information a particular business needs
- Protecting data and information
- Operating continuously

## Benefits of an MkIS

An MkIS can speed up the decision-making process and make it more effective and efficient. It can benefit marketers in a number of ways, including:

- Collecting and presenting marketing information to marketers in an organized fashion
- Giving marketers a broader perspective of the market
- Providing marketers with information that may help prevent a business crisis
- Helping marketers improve their planning

## Situations for Using an MkIS

Marketers could use an MkIS in situations such as the following:

- Making business decisions
- Identifying market opportunities
- Forecasting sales
- Evaluating promotional strategies
- Conducting a situation analysis
- Determining profitability
- Controlling or reducing risk

# What Is Marketing-Information Management? (cont'd)

## Limitations of MkIS

It can be very expensive to install a marketing-information management system and train employees on its use. Since the system involves such a vast amount of information, it can also sometimes be slow to update in the case of a major business change or technology upgrade.

Lastly, an MkIS isn't a substitute for skilled marketers. Even the most advanced marketing-information management system's success depends on employees who know how to interpret its information to make advantageous decisions and create useful strategies for the business.

# Ethics in Marketing-Information Management

## Think About It

Managing all of the different types of marketing information can get complicated. Marketing data are sensitive and critically important to a business's success. They include private, personal information that often provides a business with a competitive advantage. Therefore, marketing information needs to be treated carefully.

## Ethics in Marketing-Information Management

When obtaining, processing, and reporting marketing data, **ethics** are a must. It is essential that the data marketers collect are reliable, accurate, and not harmful to anyone. Customers, partners, and society at large need to be able to trust that marketers are providing them with quality data and handling their private information in an ethical way. When determining how to obtain and use information, marketers can look to several ethical principles to guide them in the right direction.

*Objectivity*. **Objectivity** means viewing things in an unbiased manner—not allowing personal needs and desires to impact decision-making. Companies may be tempted to skew marketing information to support their interests or their previously established ideas. To maintain objectivity, invite an uninvolved third party to analyze survey information and provide feedback.

*Credibility*. **Credibility** is believability. It is critical that marketers ensure the information they manage is believable. They can establish credibility by using quality research methods, being open about those methods, and backing up the research with transparent, objective analysis.

*Integrity*. **Integrity** is adhering to an established set of personal ethics and sound moral principles. It includes acting with honesty in all situations, even difficult ones. In general, marketers should strive to have integrity throughout all phases of the information management process.

*Transparency*. **Transparency** means maintaining open and truthful communications. Marketers should inform participants and customers when information is being collected, explain research collection methods, and share ways information will be used.

*Accountability*. **Accountability** is accepting responsibility for all decisions and being liable for all actions.

*Rule of law*. **Rule of law** means complying with the spirit and intent of all regulations and laws. There are many laws that dictate what marketers can and cannot do when gathering information.

# Ethics in Marketing-Information Management (cont'd)

## Ethical Conflicts

Since marketing-information management is complex, different types of information create different types of ethical conflicts.

*Competitive intelligence*. **Competitive intelligence** is the process of defining, gathering, analyzing, and distributing information about competitors' strengths and weaknesses to enhance business decision-making. It is one of the most important types of marketing information.

Some competitive information, such as prices, promotional efforts, and product lines, is freely available on the company's website or in other media outlets. There is nothing unethical about obtaining and using this information. A lot of competitive information is not publicly available since companies want to protect their marketing strategies. Trying to obtain this information can bring about ethical dilemmas. In general, marketers should strive to be honest and avoid **conflicts of interest** when obtaining competitive intelligence.

*Technology*. The digital world brings many issues related to **privacy**. An ethical **privacy policy** puts the customers first. It should help build respectful, trusting, and fair relationships between companies and customers. Customers should be aware of what information is being collected, how it will be used, and how the privacy of that information will be secured.

Sometimes, marketers collect data when customers are unaware of it. This phenomenon is often known as "**big data**," the large amounts of raw facts and figures that are automatically collected from electronic sources. Many of these data are collected by **cookies**, mechanisms used by websites to track users' browsing histories. Marketers should be careful when gathering information not to invade their customers' privacy or exploit their trust.

*Using trustworthy sources*. Marketers need to use reliable and trustworthy sources of secondary data. The Internet is full of inaccurate and/or biased information. If marketers are not using reliable sources, they are not fulfilling their ethical responsibility and can damage the business's image and reputation. To ensure a source is reliable, marketers can:

- Check the web address and the owner of the site.
- Find a wide variety of sources that support the same point.
- Use technological tools such as reverse image searching, plagiarism detectors, and browser plug-ins.

# Ethics in Marketing-Information Management (cont'd)

## Marketing Research Ethics

Performing new marketing research brings its own set of ethical issues. Marketers must conduct their research in an ethical manner, showing respect for participants and striving to make it a positive experience for them. Ethical conflicts in marketing research include:

*Confidentiality*. **Confidentiality** is the practice of keeping information secret or private. Participants' identities should not be revealed. Only the people who need to see confidential information to do their jobs should have access to it.

*Transparency*. Marketers must be truthful and open about their intentions and processes. An effective research study is objective and controlled. Any misrepresentation of data is unethical. Marketers also should not sell products or fundraise under the guise of conducting research. Research designs can also be deceptive if the sample size is not big enough or representative of the population. Surveys or interviews might use **leading questions**—those that subtly prompt the respondent to answer in a particular way.

To maintain transparency, researchers can provide participants with **informed consent** forms before beginning the research. These are voluntary agreements to participate in research, ensuring that participants have a clear idea of what the research entails. They also obtain participants' permission to use the information in the intended way. Marketers should also be willing to answer questions and take criticism about their research.

*Do no harm*. One of the most important principles of ethical marketing research is ensuring that participants and society will not be harmed. Marketers should refrain from becoming invasive or annoying when seeking information from participants. No surveys or focus groups should make participants' lives more difficult or uncomfortable.

# Regulation of Marketing-Information Management

## Think About It

Customer data. Who owns it? The customer? The company that collects it? Customer data are extremely valuable to marketers so they can market their products to customers. However, the possession and storage of customer data are controversial and risky. Customer data have the potential to intrude on a consumer's right to privacy and are frequently exposed to the risks of misuse, loss, and theft. Companies have an ethical and legal obligation to collect, store, and use customer data in unharmful ways.

## Regulation of Data-Collection Methods

The **Children's Online Privacy Protection Act (COPPA)** regulates what information is collected from children online. Any company that collects personal information from children under 13 must inform parents how the data are used, obtain parental consent, allow parents to revoke consent, and fulfill parental requests to review collected information.

Email is regulated by the **CAN-SPAM Act**. Businesses using email to promote products must reveal their identity, provide accurate information, include an unsubscribe link, and honor opt-out requests. Email surveys sent for research purposes are exempt from the CAN-SPAM Act.

Telephone calls are regulated by the FTC's **Telemarketing Sales Rule (TSR)**.

- Organizations must promptly and correctly identify their organization and the purpose of calls. If automatic dialers are used, a recorded message must provide the name and telephone number of the organization calling.
- Companies cannot contact consumers who have been placed on the **Do Not Call Registry** unless they have an established business relationship, or the consumer has given written permission to be called.
- Political organizations, charities, and telephone surveyors are free to call consumers on the Do Not Call Registry.
- Companies are required to update their database records every 31 days.
- Companies using **automatic dialers** must ensure and provide documentation that call abandonment rates do not exceed 3%.

# Regulation of Marketing-Information Management (cont'd)

## Illegal Data-Collection Practices

Companies that use sugging (selling under the guise of research) and frugging (fundraising under the guise of research) break the TSR rule by hiding the real purpose of their calls to acquire sales leads. Similarly, some companies break the CAN-SPAM Act by misrepresenting the true nature of their email messages and electronic surveys.

## Regulation of Collected Consumer Data

The FTC requires companies to take adequate measures to protect sensitive consumer data from loss, theft, or exposure. Companies can face fines and criminal prosecution for failure to follow their data privacy policies and for disclosing consumers' personal data through negligence or data breaches.

The **Standards for Privacy of Individually Identifiable Health Information (Privacy Rule)** is a set of U.S. national standards created to protect certain types of health information. Organizations such as medical and insurance providers that possess health information must protect consumers' health and medical records.

The **Gramm-Leach-Bliley Act (GLB)** requires financial institutions to share privacy policies with consumers and allow them to opt out of sharing their information with unaffiliated third parties. The GLB also requires financial institutions to have adequate security policies and procedures to protect consumers' personal and financial information.

## Privacy Concerns

Many countries in the European Union and other developed countries have strict **consumer privacy laws**. The United States, however, has no such law. It is up to each organization to create its own privacy policies concerning the collection and use of personal data. Companies operating in the U.S. are only legally obligated to make consumers aware of their data privacy policies and to follow them.

# Regulation of Marketing-Information Management (cont'd)

## Importance of Self-Regulation

Since no legal definition of personal data exists in the United States, marketers need to self-regulate their use of data. Simply following laws is insufficient to handle customer data safely and ethically. When companies legally collect and sell customer data, for example, they can put their customers' and their businesses' reputations at risk. Developing strict company policies regarding personal data helps companies use data in ethical ways and avoid legal problems.

Many marketers use **data mining techniques** to search through large amounts of consumer data to detect patterns and trends. These patterns can provide detailed clues about consumer preferences and behavior that are used to guide marketing decisions. Some companies curate large volumes of detailed personal information about consumers. The loss or theft of such sensitive data can severely intrude on a customer's privacy and expose him/her to personal, legal, and financial problems. Companies possessing such highly personal data have a significant responsibility to protect it.

Marketers can reduce data storage risks by carefully selecting the types of data and data formats they use. The storage of **personally identifiable information (PII)**, data that can identify a specific individual, should be avoided unless it is absolutely necessary. Examples of PII include full legal names, Social Security numbers, and email addresses. Since many types of marketing data are useful without identifying the actual customer, they can be stored in anonymous formats to reduce risk.

## Changing State, National, and International Laws

Consumer privacy is a growing concern among society, and laws concerning data privacy are in a continual state of change. Data privacy laws vary widely from state to state and internationally, which makes national and global marketing strategies difficult to implement. In response to widespread concerns about data mining, U.S. lawmakers have proposed national laws to protect consumers. In this ever-changing legal environment, marketers must stay informed to follow data privacy laws.

# Marketing Research

## Think About It

The Pizza Parlor eliminates two low-selling pizzas—the "meat lover's" and the "very veggie." After a few months have passed, overall pizza sales plummet. To find out what happened, the owner of the Pizza Parlor conducts some much needed market research. He discovers that the low-selling "meat lover's" and "very veggie" pizzas were often part of large orders that included several different pizzas. Eliminating the low-selling pizzas resulted in the loss of large pizza orders. This example shows the value of marketing research. It also demonstrates that marketing research should take place before important business decisions are made.

## Marketing Research

Marketers need lots of information to make wise business decisions. Marketing research—the systematic gathering, recording, and analyzing of data about a specific issue, situation, or concern—is a valuable source of insight. Marketing research is used to solve specific marketing problems as well as to identify problems that may or may not be readily apparent to a business. Marketing research is useful for deciding what products to offer, what prices to charge, what forms of promotion work best, and many other marketing decisions.

## Ways Businesses Use Marketing Research

- Identify customer wants and needs.
- Develop customer profile.
- Analyze sales and market share.
- Describe the target market.
- Determine how to reach the target market.
- Forecast sales and trends.
- Be more competitive.
- Prevent unnecessary financial losses.
- Keep up to date.
- Maintain or determine image.

## Characteristics of Effective Marketing Research

Marketing research is a systematic, step-by-step process. No matter how much data are needed, the research process always involves gathering, recording, and analyzing information. Precise strategies and data are used to ensure the research is accurate and thorough. Researchers remain objective by keeping their own opinions out of the way. Marketing research is done in a timely way in order to make time-critical decisions. Effective marketing research is reliable, which means that if the same research were repeated or conducted by other researchers, the results would be the same. It also provides valid results—it measures what the researcher intends to measure.

# Marketing Research (cont'd)

## The Marketing Research Process

1. **Identify the reason for the research.** The first step in the research process is identifying the problem, issue, situation, or concern to be researched. Identifying the reason for the research includes determining what type of information is needed to solve the problem or issue.

2. **Set research objectives.** Once a business decides to proceed with marketing research, it should set specific objectives, or goals, for the project. Research objectives fall into one or more of the following categories:

- **To explore the current situation.** Exploratory research is used to gather nonspecific information to gain a better understanding of the identified problem. Exploratory research typically focuses on qualitative data, such as respondents' opinions and personal interpretations.
- **To define the current situation.** Descriptive research is used to gather specific quantitative data, such as facts and figures, related to the identified research problem.
- **To test the situation.** Causal research, sometimes called conclusive research, focuses on cause-and-effect relationships and tests. It determines the impact that one item or entity has on another.
- **To predict future situations.** Businesses use predictive research to help them forecast future business developments, such as estimating future sales or market share.

3. **Develop a hypothesis.** The next step is to develop a testable hypothesis based on the research objective(s). A hypothesis is a statement of the expected outcomes of the research—a theory you are trying to prove or disprove.

# Marketing Research (cont'd)

## The Marketing Research Process (cont'd)

**4. Determine the research design.** A master plan is created that explains how the research will be carried out. Putting the research design in writing helps ensure that the business and the researcher have the same information. The written plan should address the following questions:

- **What types of data are needed?** Many businesses use both secondary and primary data when conducting research. Secondary data contain information that has been previously collected for other purposes. Since secondary data are readily available and relatively inexpensive, they are useful when they fit the research objectives. Primary research is used to collect data specifically related to the marketing research goal.
- **How much data will be collected?** The scope of the research project affects the amount of data needed. A business introducing new products would gather more data than one investigating low sales of current products.
- **Where will researchers find the data?** Researchers use sampling to choose a representative group of customers to study or survey. Researchers select whom to study, how many to study, and how to select research participants. Researchers may use internal data found within the business, such as sales records, customer records, and financial statements. To locate external data, researchers use publications by government agencies, trade associations, and commercial marketing-research firms.
- **What primary data-collection methods will be used?** There are three basic data collection methods that are used in marketing research—**survey**, **observation**, and **experiment**. When the survey method is used, marketers develop a set of written questions designed to gather specific data, called a **questionnaire**. Observation gathers data by monitoring customers' behavior. Customers may be monitored by other humans, by video cameras, cookies, or scanners. Experiment is a research method that tests cause-and-effect relationships, such as how customers respond to a taste test for a new food product.
- **How will the data be analyzed?** Another important component of the research design focuses on how data will be reviewed, evaluated, and analyzed. Computer analysis allows a great deal of data to be collected, while hand analysis severely limits data collection.

# Marketing Research (cont'd)

## The Marketing Research Process (cont'd)

5. **Collect the needed data.** The next step is the actual data collection. This involves surveying, observing, and experimenting.

6. **Analyze the data.** Data by themselves are just a collection of facts. To be useful, the data must be analyzed to determine how they relate to the research objectives.

7. **Make recommendations based on findings.** A research report is written that includes the original research objectives and hypothesis, the research methodology, research results, limitations to the research, and the researchers' recommendations for the business.

# Marketing Research Problems

## Think About It

Managers need to make decisions and form strategies, but they can't do so without a true understanding of the new or existing problems or opportunities the business faces. **Marketing research** can provide the information managers need to make the best decisions. Defining the problem or situation correctly is the important first step in the marketing-research process and will guide the direction of all future steps needed to solve the problem.

## Determining the Problem

Any marketing research study, regardless of its purpose, hinges on the clear and correct definition of the problem at hand. Defining the problem is important because:

- Managers are often working with outside researchers. If the two parties aren't "on the same page" about the purpose of the research study, its results may be useless.
- Spending time researching the wrong problem wastes important resources like time, money, and effort.

- When a business wastes resources researching the wrong problem, it may be too late to capitalize on new opportunities, or the business may miss out on timely solutions to pressing problems.

## Decision Problems

A critical part of defining a marketing research problem is separating the decision problem into one or more research problems. A **decision problem** is the basic issue a business's managers are facing—the reasons they believe that marketing research is necessary.

**Discovery-oriented decision problems** are aimed at answering the questions of "what?" or "why?" They are typically stated from a manager's perspective. For example, "Why are sales lower in this particular geographical region?" or "What are some unfulfilled needs in our target market?"

**Strategy-oriented decision problems** seek to answer the questions of "how?" and "which?" They are typically stated from a researcher's perspective. For example, "How can we improve our business's market share?" or "Which new product should our business introduce to the market first?"

# Marketing Research Problems (cont'd)

## Research Problems

Once researchers have helped managers clearly define their decision problem, they can develop the research problems that will help answer them. **Research problems** ask what research needs to be done to solve the decision problem. There may be several research problems that relate to one decision problem. Research questions that address the decision question "What are some unfulfilled needs in our target market?" might be: "What are the key **demographics** of the business's target customers?" or "What types of products does this target market currently favor?"

Translating decision problems into research problems is an important step because it causes managers and researchers to carefully consider the true nature of the root problem.

## Research To Avoid

Managers and researchers should be aware of situations in which conducting marketing research may not be the most appropriate course of action. The purpose of marketing research is to discover useful information for the business—not necessarily to support decisions or strategies that are already in place. The results of this skewed type of marketing research will not be valid, and researchers should avoid these types of projects.

Managers should avoid any marketing research projects that don't make financial sense. Taking shortcuts in marketing research can yield untrustworthy results. In some cases, it's better to wait until the right amount of funds is available. In other cases, managers may have the budget to conduct the research, but the benefits of doing so don't outweigh the costs.

Research may also not help when introducing certain inventive new products.

# Marketing Research Problems (cont'd)

## Process of Identifying Research Problems

Although every business and marketing research project is unique, managers and researchers typically use similar processes to identify their marketing research problems clearly and correctly.

*Identify the decision problem*. One of the first things that managers and researchers need to do is determine what information they really need based on their surroundings. Managers usually start by stating their decision problem. But, researchers don't immediately translate the decision problem into research problems. Researchers may discuss the situation with managers and ask probing questions to make sure that managers are focusing on the actual problem and not just its symptoms.

*Clarify the situation*. Researchers may also help managers clarify their decision problem by conducting a **situation analysis**. A situation analysis is exploratory research, conducted with the purpose of providing a more complete understanding of the research problem and the total business environment in which it exists. Analyzing this information may give managers and researchers a deeper insight into the nature of the decision problem.

*Determine the questions to answer*. Only after the decision problem has been clarified can researchers boil it down into research problems. Forming the research questions is a critical step, as it lays the foundation for all the following decisions in the marketing research process. Together, managers and researchers must determine which research problems to pursue. It's better to thoroughly explore a few research problems than to spread company resources too thin trying to research too much. The business can always pursue other research studies in the future if the budget allows.

*Decide where and how to find the answers*. Once managers and researchers have determined which research problems to pursue, both parties can agree on what kind of information is needed to conduct the marketing research study. In most cases, marketing researchers rely on a combination of both **primary data** and **secondary data**. Managers and researchers must also agree on the unit of analysis that will be used for the research study. If this unit of analysis isn't clearly defined, the research results may be skewed. Finally, managers and researchers will determine the **relevant variables** that the marketing research study will address.

# Marketing Research Problems (cont'd)

## Process of Identifying Research Problems (cont'd)

*Develop research objectives*. Managers and researchers need to finalize their decisions into formal research objectives. **Research objectives** state exactly what the research study will achieve. In short, if the research objectives are fulfilled by the researchers, then managers will have all the information they need to make the best decisions regarding the problem or opportunity. After agreeing on the research objectives, managers and researchers should step back and take a look at the overall project they've mapped out. They must consider if the projected benefits of pursuing the research are worth the costs (time, money, effort, etc.) that the marketing research study entails. If both parties agree, the research study can begin.

# Research-Design Methods

## Think About It

It's critical for organizations to formulate marketing decisions based on sound research, and effective marketers know that they must design their research projects to address the issue at hand in the most efficient way possible.

## Marketing Research

Marketers undertake marketing research to accomplish a specific objective. Generally, marketing research is conducted to:

- Explain something.
- Monitor something.
- Test **hypotheses**.
- Predict something.
- Discover something.

Once the purpose of the marketing research has been established, marketers will use these objectives to construct their research design. The **research design** is the master plan for conducting the marketing research. It lays out the types of data needed, how much data to collect, what collection methods to use, and how data will be analyzed. It is essential for the marketing research

design and methods to be appropriate to the purpose for conducting that research. Marketers must be careful not to plan the research before determining its purpose or goal.

Almost all marketing projects will follow one of three common designs: exploratory, descriptive, or causal. Frequently, a single research project will include at least two, but possibly all three, types of research designs throughout multiple stages of research. This can help marketers complete the most thorough research possible.

## Exploratory Research

**Exploratory research** collects information to help a business define its issue, situation, or concern and choose a pathway in order to address it. This type of research is generally used to learn more information and as a starting point for further and more detailed research. Because of this, the methods of conducting exploratory research are very flexible, require little structure, and are often designed to capture **qualitative data**. Examples of exploratory research include:

- Interviewing a subject-area expert
- Conducting a **focus group** with potential customers
- Administering a **pilot study** (to test the feasibility of a project or idea)

# Research-Design Methods

(cont'd)

## Descriptive Research

Marketing research that gathers information related to an identified issue, situation, or concern is known as **descriptive research** or statistical research. It is only conducted after marketers have a good understanding of the question or problem they are facing. It is critical for descriptive research to be accurate. For this reason, the methods used are often rigid and seek to gather **quantitative data** that are specific, measurable, and easily presented in the forms of graphs, charts, etc. Examples of descriptive research include:

- Performing a **case study** (an intense analysis of a person, group, or event; e.g., a competitor)
- Conducting an in-depth survey asking respondents carefully crafted questions
- Observing and recording customer behavior in action

## Causal Research

**Causal research** (sometimes called conclusive research) focuses on cause-and-effect relationships and tests "what if" theories. Marketers use causal research to show that an **independent variable** causes or affects the value of other **dependent variables**. Marketers only use causal research when they are already extremely familiar with the research matter and are testing specific hypotheses. Thus, it is almost always conducted after exploratory and descriptive research have already been completed.

Causal research is typically completed by conducting experiments or **simulations** that are carefully designed and tightly controlled in order to gain accurate results. As such, this type of research can be very costly, time-consuming, and complex. Examples of causal research include:

- **Test-marketing** a new product to gather data about sales potential
- Allowing customers to shop in a simulated store and recording their actions
- Conducting a clinical trial for a new medication

# Obtaining Marketing Research Data

## Think About It

Marketers undertake marketing research projects for a variety of reasons—to learn more about a problem or issue, to understand a market segment better, to test the viability of a new product or promotional campaign, etc. Although each marketing research project is different, they all require researchers to obtain **data**.

## Secondary Marketing Research

There are many different types of data, as well as many different methods for gathering them. Although it may sound counterintuitive, most researchers start out with secondary research. **Secondary research** collects **secondary data** that have already been collected for reasons other than the research project at hand. This helps marketers gain initial insights into a marketing research problem or learn more about a specific industry or market segment. There are two categories of secondary data: internal and external.

**Internal data** already exists in an organization's "in-house" information systems. Sales invoices, sales reports, customer records, and social media analytics are among the many sources for internal data.

**External data** exist outside of the organization and can come from sources such as: government statistics, business directories, commercial marketing research suppliers, public information, and the Internet. Most external data can be gathered for free. However, data from commercial marketing research suppliers do come with a price tag. In many cases, organizations find that paying research experts to collect external data is cost-effective than collecting data on their own.

# Obtaining Marketing Research Data (cont'd)

## Primary Marketing Research

Sometimes, secondary data are just not enough to meet researchers' needs. In these cases, marketers will rely on primary research. **Primary research** collects data specifically for the project at hand and can be divided into two main groups: qualitative and quantitative.

**Qualitative data** are subjective, meaning they are based on thoughts, feelings, opinions, and experiences. Researchers conduct qualitative research through methods such as **questionnaires**, **focus groups**, informal interviews, or simple observations. The questions are designed to search for information in an open-ended and unstructured way. Qualitative research is typically performed during a short timeframe and uses a small **sample** of the population. Marketers must understand that these small samples do not necessarily accurately represent the population as a whole, however.

**Quantitative data** are objectives, meaning they are based on statistics and facts and are usually represented numerically. They are gathered from carefully crafted and highly structures methods such as **surveys**, field tests, and **experiments**. Quantitative research is almost always used to follow up qualitative research and it usually takes a significantly longer period of time to complete. It also uses samples that are large enough to accurately represent the entire population.

## Comparing Methods

Secondary research is often quicker to conduct and costs significantly less than primary research. Furthermore, certain circumstances, such as gaining data on competitors' financial records, only allow for secondary research because primary data would be impossible to collect.

However, secondary research is limited in that it is not customized to the specific needs of the research project. When using information that is already in existence, there is no guarantee that the data will serve the complete purpose of the project or that it is current and up to date. Marketers must be careful when gaining insights from data that is not contemporaneous to the project at hand.

# Obtaining Marketing Research Data (cont'd)

## Comparing Methods (cont'd)

Primary research, on the other hand, is always up to date and customizable to the project at hand. It gives marketers more control over the study and allows them to interact personally with the study's respondents.

Although recent advances in technology are beginning to reduce these costs, primary research is still quite costly and time-consuming. Designing primary research is still labor-intensive and it can be difficult to recruit and select respondents who meet the demographic requirements for the project at hand.

## Outsourcing Research

Due to the high cost and time requirements, many organizations choose to outsource marketing research to commercial firms who specialize in conducting these studies. This practice is popular because these firms are expert, efficient, and solely focused on conducting effective research. They have objective researchers and specialized technology that allow for reliable and streamlined processes. They also allow for anonymous data collection.

The potential disadvantages of contracting marketing research firms include risking that the firm will not be as familiar with the company or the products being tested and giving up some level of control over the process.

# Sampling Plans

## Think About It

People make determinations based on samples all the time. Nobody eats an entire pizza if s/he doesn't like the first bite. Most people can tell if they will like a song after the first 30 seconds. Similarly, marketers can learn a lot about an entire population just by learning about a representative sample.

## Sampling Plans

After marketers have carefully identified their target population, they use **sampling** to choose a **representative** group within that population from whom to obtain data for the research study. This group is called the **sample**. **Sampling units** are often, but not always, individual people. They could also be product items, businesses, households, or even entire cities.

The main reason that marketers use samples is that contacting every single member of a **target population** (a process called a **census**) is often unrealistic or impossible. In most cases, using a representative sample is quicker, more achievable, and much less expensive. More importantly, sampling has proven to be a sufficiently reliable way to get an accurate picture of an entire population.

## Sampling Plan Components

When marketers undertake sampling, they begin with a **sampling plan**, the purpose of which is to ensure that a truly representative sample of the population can be drawn in the most efficient way possible with the lowest potential for error. The components of a sampling plan include:

***Determining the target population*.** The target population provides the framework from which the sampling units will be selected. A target population that is not carefully chosen can result in an inaccurate sample.

***Determining the sample size*.** Marketers determine how many sampling units they will draw from their target population. While many factors influence sample size, larger samples are generally better. Marketers must carefully consider the type and purpose of their research before making this decision.

***Determining the sample design*.** Finally, marketers must choose a **sample design**, or a method for selecting sampling units out of the target population. The various sample design methods fall into the main categories of probability design and non-probability design. However, depending on the need of the study, marketers may choose to use more than one sampling design at different stages of the process. This is known as **multi-stage sampling**. Any combination of sampling designs is acceptable, as long as marketers take steps to ensure that the end results are valid and reliable.

# Sampling Plans (cont'd)

## Probability Sample Designs

In a **probability design**, each sampling unit has a known probability of being selected, the selection process is random, and its results are considered to be representative of the entire population. Probability designs are the most reliable way to draw a sample. Common examples include:

*Simple random sampling*. **Simple random sampling** gives every sampling unit a known and equal chance of being selected. Marketers might use a random number generator or other computer programs to ensure that each unit has an equal chance of selection. Simple random sampling is easily understood and carried out and results in a true, representative sample. However, this method only works with small enough populations that a complete and accurate population list is attainable.

*Systematic random sampling*. **Systematic random sampling** is similar to simple random sampling except that the sampling units must be placed in a list form in random order. Marketers then choose respondents using a **skip interval** and beginning at a random starting point. To determine the skip interval, marketers divide the number of sampling units in the target population by the number of sampling units they want in their sample size. Systematic random sampling is quick and economical, but it requires an accurate number of potential sampling units to be known ahead of time so that an appropriate skip interval can be determined.

*Stratified random sampling*. With **stratified random sampling**, marketers break their target population down into non-overlapping groups (**strata**) and then select simple random samples from each group. The sample size from each stratum can be dependent on its size relative to the entire population (**proportionately stratified sampling**) or independent from it (**disproportionately stratified sampling**). Stratified random sampling allows marketers to analyze and compare important subgroups within a target population while ensuring random, representative samples. While this sampling method is more statistically precise than simple random sampling, the determination of how to effectively separate the population into strata that will lead to the most useful data can be difficult.

*Cluster sampling*. **Cluster sampling**, also called area sampling, is similar to stratified random sampling except that the non-overlapping subpopulations (called **clusters**) are divided by geography. Then, each cluster is randomly sampled. Cluster sampling was invented as a way to save time and money for field researchers who had to travel from place to place to collect data. However, advances in technology have made it easier to collect this data without using cluster sampling.

# Sampling Plans (cont'd)

## Non-Probability Sample Designs

In a **non-probability design**, the probability of selecting each sampling unit is not known, and the selection process is not random. Non-probability samples may be representative of the target population, but there is no reasonable assurance of this. Therefore, the results of non-probability sampling are not considered to be reliably representative of the population as a whole. However, there are still several good reasons for using these methods. Common non-probability designs include:

*Convenience sampling*. **Convenience sampling** involves researchers choosing respondents based on opportunity (e.g., researchers questioning customers who exit a store). Although convenience sampling is quick and easy, the results are not truly representative of the entire population.

*Judgment sampling*. **Judgment sampling** (also known as expert sampling or purposive sampling) requires researchers to "handpick" respondents who have a certain knowledge or expertise. Although this method can be informative, and is generally preferred to convenience sampling, its results cannot be considered representative.

*Quota sampling*. In **quota sampling**, researchers choose sampling units based on fixed quotas or percentages. Once a preset quota of respondents is met, researchers will stop sampling for that particular group. Quota sampling assures that researchers gain adequate coverage of specific subgroups, but like all forms of non-probability sampling, its results are not considered representative.

## Sampling Bias and Errors

Though markets strive to ensure that their research studies are as accurate as possible, there are often times when errors or **bias** can skew results. Errors in a research study can be classified as sampling errors or non-sampling errors.

A **sampling error** represents the difference between a sample and the actual population. Any mistake in a sample size or sample selection is a sampling error. These errors can be reduced by increasing the sample size, but it may not be worth the added cost. The best way to reduce sampling error is to carefully construct an appropriate sampling plan and sample design that suits the particular study.

Any mistake in a research study that occurs outside the sampling process is called a **non-sampling error**. In other words, the mistake would have occurred even if the researchers were using a census rather than a sample. A non-sampling error can occur at any stage in the research process and affects the accuracy of the data collected. Non-sampling errors can occur for a variety of reasons, including poorly written survey questions, interviewer mistakes, incorrect answers from respondents (either intentional or unintentional), etc.

# Data-Collection Methods

## Think About It

Both qualitative and quantitative data-collection methods have their pros and cons. Many marketers choose a variety of techniques in their research efforts to build on the strengths of each method while minimizing weaknesses. Combining data-collection methods increases the overall reliability of the collected data. Studying human behavior is a complex undertaking—the more techniques in the marketers' toolbox, the better!

## Qualitative Data-Collection Methods

Information that is descriptive and non-statistical in nature is known as **qualitative data**. Many businesses find this information to be very useful. Some common methods for collecting it include:

*Personal interviews*. The **personal interview** is a data-collection method in which a researcher sits down with a respondent one-on-one to ask questions and record answers. This method is often used when researchers are just starting to explore an issue and want to obtain as much information as possible. Although researchers can cover a lot of topics, ask in-depth and follow-up questions, and get accurate and reliable data from personal interviews, they can also take a lot of time and money to conduct. Finding willing participants can also be a challenge.

*Focus groups*. The **focus group** method involves one or two researchers moderating a group discussion of a small number of members of a target market. This popular method is used to gauge reactions to new products or marketing ideas. They can cover as much ground as personal interviews, but are often less intimidating to respondents and tend to stimulate in-depth discussion. Focus groups are flexible in nature and can be conducted quickly, though they are sometimes expensive. The results from this method can be heavily dependent on the skill of the moderator.

*Observation*. The **observation** method requires researchers to watch people perform certain activities, usually in a natural setting. Sometimes, the observation is **covert** in that respondents are not aware that they are being observed. This can be helpful to researchers because it doesn't require that respondents knowingly agree to participate. Observation can be advantageous to researchers in that it reduces the potential that either researcher **bias** or participant awareness can skew the **validity** of the data. However, this method, which can be quite expensive, gives limited insight into the reasons for respondent behavior and can only measure activities that take place in observable situations.

Qualitative research almost never provides enough information to be used entirely on its own. The scope of these studies are limited to only small portions of the target market and the resulting descriptive data does not allow for needed statistical analysis.

# Data-Collection Methods (cont'd)

## Quantitative Data-Collection Methods

Quantitative data are numbers and statistics, but they are not always complex. The main methods for collecting quantitative data include:

*Surveys*. A **survey** captures information from respondents through a research instrument (usually a **questionnaire**). Some are completed by respondents on their own while others are administered by a researcher. They tend to be simple, reliable, and easy to analyze, but survey data may be compromised by respondents' interpretation of questions. In-person surveys lead to accurate and complete information gathering, but can be expensive and time-consuming. Surveys conducted by mail can cover a large cross-section of a target market, but response rates are difficult to rely on. This is also a drawback for conducting surveys over the phone, although these are much quicker and less expensive. Online surveys are fast, inexpensive, and often have higher response rates, but getting a representative sample may be difficult.

*Tracking*. **Tracking** is a data-collection method in which marketers monitor customers' behavior, usually online (using **cookies**) or through purchases (using **point-of-purchase scanners**, **customer loyalty cards**, smartphone apps, etc.). The main advantage of tracking is that it is **automated**. Not only is tracking fast and requires little or no human interaction, it is also capable of collecting massive amounts of data. Data can be captured and stored immediately with no lag time from researchers needing to input the collected information. On the other hand, tracking can raise serious concerns about privacy, especially when it is conducted online. Also, while researchers can track behavior, they cannot easily track the reasons for that behavior.

*Experiments*. Conducting **experiments** is a method of data collection that involves **manipulating** one **variable** to see how it affects another. Two ways that marketers conduct experiments are by test marketing products and creating purchase laboratories. **Test marketing** a product means offering it to a sample of the target market to see how potential customers respond to it and how well it sells. **Purchase laboratories** are mock stores where marketers can conduct controlled experiments with respondents. Marketers can collect data from running experiments in the purchase lab multiple times and manipulating different variables (price, packaging, location, etc.) to test the effect of those changes. Experiments are accurate and reliable measures of cause and effect, but they are often difficult and costly to design. While information on cause and effect can give slightly better insight into reasons behind behavior, experiments are still limited in how in-depth this analysis can be.

# Data-Collection Methods (cont'd)

## Data Collection and the Internet

Marketers are finding more and more ways to use the Internet for data collection. Surveys, tracking, and focus groups are now being administered or conducted online. The Internet allows for faster, more convenient, and less expensive data collection that is easier to keep up to date. It also allows marketers to reach much larger groups of people who tend to be more willing to participate online than over the phone or mail. However, data collection over the Internet is limited by technical difficulties and the lack of a researcher's guiding input. It also raises significant privacy concerns that are constantly evolving with the technology that makes it possible.