

(1) Introduction and Early Phases of Marketing Research

Marketing Research Definition:

- **AMA Definition of Marketing Research:** The function that links the consumer, the customer, and public to the marketer through **INFORMATION**.

INFORMATION objectives:

1. Used to identify and define market opportunities and problems
2. Generate, Refine, and evaluate marketing performance
3. Monitor Marketing performance
4. Improve understanding of marketing as a process

- **Marketing Research** is the systematic and objective process of **identification, collection, analysis, dissemination, and use of information** for the purpose of improving decision making related to the **identification and solution of problems and opportunities in marketing**.

Marketing Research Outcomes:

- Specifies the information necessary to address these issues
- Manages and implements the data collection process
- Analyzes the results
- Communicates the findings and their implications
- Helps managers use this information to make decisions

Classification of Marketing Research:

- i. **Problem-Identification Research:** Research undertaken to help identify problems which are not necessarily apparent on the surface and yet exist or are likely to arise in the future.

Examples:

- Market potential research
- Market share research
- Market characteristics research
- Sales analysis and forecasting research.
- Business Trends research.

- ii. **Problem-Solving Research:** Research undertaken to help solve specific marketing problems. **Examples:**

- Segmentation Research
- Product Research
- Promotional Research
- Pricing Research
- Distribution Research

Marketing Research Process (STEPS):

- 1- Defining the Problem (**Most Important Step**)
 - 2- Development of an Approach to the Problem
 - 3- Formulation of a Research Design
 - 4- Fieldwork or Data Collection
 - 5- Data Preparation and Analysis
 - 6- Report Preparation and Presentation
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(2)

The Role of Marketing Research is based on:

- **Customers Groups**
 - Consumers
 - Employees
 - Shareholders
 - Suppliers
- **Controllable Marketing Variables**
 - Product
 - Pricing
 - Promotion
 - Distribution
- **Uncontrollable Environmental Factors**
 - Economy
 - Technology
 - Laws & Regulations
 - Social & Cultural Factors
 - Political Factors
- **Marketing Managers** (Asses Information Needs - Provide Information – Make Decisions)
 - Market Segmentation
 - Target Market Selection
 - Marketing Programs
 - Performance & Control

Marketing Information Flow:

A Continues Process of **Data Gathering** → **Providing Information** → **Data Gathering** Again

Communications before Production: Needs, Wants, Preferences. →

Communications in and After Production: Provide of Information →

Communication After Consumption: Satisfaction level, Suggestions, adoption level, Loyalty.

The Decision to conduct a Marketing Research:

- ❖ Is **not** an automatic decision
- ❖ It should be guided by many considerations (costs VS the benefits, availability of the resources to conduct research and to implement the expected findings, the manager's attitude toward research...)
- ❖ **In Addition**, the most important considerations which managers face are the **value of information** to obtain, not exceed **the cost**, and **budget** to be available in the adequate time.
- ❖ The Management may rely on marketing research suppliers and services to obtain information needed.
- ❖ The Suppliers of marketing research may be **internal** or **external**.

Power Decision's Methodology (Look up Fig 1.3 in Book!)

Marketing Research Suppliers & Services (Look up Fig 1.4 in Book!)

Marketing Research Suppliers & Services:

- **Internal Suppliers** (From within the Organization)
- **External Suppliers:**
 - o **Full Service:** Syndicate Services, Standardized Services, Internet Services, Customized Services, etc...
 - o **Limited Service:** Field Services, Technical and Analytical Services, Focus Groups and Qualitative Services, Other Services...

Criteria for Selecting a Research Supplier:

- What is the reputation of the supplier?
- Do they complete projects on schedule?
- Are they known for maintaining ethical standards?
- Are they flexible?
- Are their research projects of high quality?
- What kind and how much experience does the supplier have? Has the firm had experience with projects similar to this one?
- Do the supplier's personnel have both technical and non-technical expertise?
- Can they communicate well with the client?

Competitive bids should be compared on the basis of quality as well as the price.

The Marketing Information System

- A **MKIS** is a structure consisting of people, equipment, and procedures to gather, sort, analyze, evaluate, and distribute needed, timely, and accurate information to marketing decision makers.

Components of MKIS:

- Internal Reports & Records: Ex, Accounting Information System, etc...
- **MDSS** (Marketing Decision Support System): Ex, Database with analytical tools.
- Marketing Intelligence: Ex, Information from outside the Firm.
- Marketing Research

The Marketing Research System has a role in MKIS because:

- It gathers information not gathered by the other MKIS component subsystems.
- Marketing research studies are conducted for a specific situation facing the company.
- Marketing research projects unlike other MKIS components are not continuous – They have a beginning and an end.

Decision Support System DSS:

- Is an information system that enables the decision makers to interact directly with both databases and analysis models.

DSS Components: The important components of a DSS include:

- Hardware
- Communications Network
- Database
- Model Base
- Software Base
- User Interface (DSS User, Decision Maker)

- ❖ A Decision Support System combines the use of analytical models and techniques with the traditional models and techniques with the traditional access and retrieval function of an MKIS.
- ❖ DSS is easier to use in an interactive mode and can adapt to change in the environment as well as to the decision making approach of the user.

Management Information System vs. Decision Support Systems

MKIS:

- Structured Problems
- Use of Reports
- Rigid Structure
- Information Displaying Restricted
- Can improve Decision Making by Clarifying Data.

DSS:

- Unstructured Problems
- Use of Models
- User Friendly Interaction
- Adaptability
- Can Improve Decision Making by Using "What if" Analysis.

Rigid = Not Flexible

Marketing Research Associations Online International

- **ESOMAR:** European Society for Opinion and Marketing Research (www.esomar.nl)
- **MRS:** The Market Research Society (www.marketresearch.org,.uk)
- **MRSA:** The Market Research Society of Australia (www.mrsa.com.au)

Overview of Ethical Issues in Marketing Research :

Table 1.3

- i. Problem Definition**
 - Never use surveys as a guise for selling or fundraising
 - Personal agendas of the researcher or client
 - Conducting unnecessary research
- ii. Developing an Approach**
 - Using Findings and Models developed for specific clients or projects for other projects.
 - Soliciting proposals to gain research expertise without Pay.
 - Inaccurate reporting.
- iii. Research Design**
 - Formulating a research design more suited to the researcher's rather than the client's needs.
 - Using secondary data that are not applicable or have been gathered through questionable means.

- Disguising the purpose of the research.
- Soliciting unfair concessions from the researcher.
- Not maintaining anonymity of respondents.
- Disrespecting privacy of Respondents.
- Misleading Respondents.
- Disguising observations of Respondents.
- Embarrassing or putting stress on Respondents.
- Using Measurement scaled of questionable reliability & Validity.
- Designing overly long/sensitive questionnaires.
- Using inappropriate sampling procedures and sample size.

iv. Field Work

- Increasing discomfort level of respondents.

(READ BOOK FOR REST)

**Read and Understand Figure 1.7A in Book (Important)
Concept Map for the Marketing Research Process**

Chapter 2: Defining the Marketing Research Problem and Developing an Approach

The Importance of Problem Identification:

- Properly defining the problem is **the most important** step in the marketing research process.
- If the wrong problem is defined, all the remaining steps in the marketing research process are wrong.

Two Sources of Problem:

- A problem exists when a gap exists between what was **supposed** to happen and what **did** happen. Ex, failure to meet the objective.
- An opportunity occurs when there is a gap between what **did** happen and what **could** have happened... Called an *Opportunity*.

(Lookup Table 4.1 in Book: Problem Recognition)

The Role of the Researcher in Problem Definition:

- Researchers should ensure managers are defining the problem correctly.
- This is particularly true when the manager has already defined the problem in very specific terms.
- Researchers sometimes take additional investigations, known as a "Situation Analysis". To ensure the problem is adequately defined.

Impediments to Problem Definition:

- Failure to change behavior for problem definition situations:
 - Managers deal with outside suppliers efficiently with little interaction.
 - Marketing research requires a great deal of interaction and communication.

- There are differences between managers and researchers backgrounds.
 - o Traditionally researchers were technicians and managers were trained in general decision making.
 - o Today, managers are much more aware of technical software such as using **SPSS**.

The Role of Symptoms in Problem Recognition:

"We have a problem... We are losing Money"

"We have a problem... We are losing a great part of our market-share"

(The Two above are not Problems... They are results for problems or Symptoms for a problem)

- Managers must be careful to avoid confusing symptoms with problems.
- Symptoms are changes in the level of some key monitor that measures the achievement of an objective.
- The Role of the Symptom is to alert management to a problem; there is a gap between what **should** be happening and what **is** happening.

Assess the Background and the Manager's Situation

- The researcher should first understand the industry, the competitors, and the company.
- The Researcher must understand the manager's unique situation...
 - o Does the manager have a particular objective?
 - o What constraints is the manager operating under?

Identify Suspected Causes of the Symptom

- There's always some cause or causes for a change.
- It is important to determine **all possible** causes.
- Researchers should narrow possible causes to a small set of **probable causes**.

Specify Possible Solutions that May Alleviate the Symptoms

- Possible Solutions include any marketing action that the marketing manager thinks may solve the problem, such as price changes, product modification, etc...

Speculate on Anticipated Consequences of the Solutions

- "What if" questions should be made regarding possible consequences etc...

Identify Manager's Assumptions about Solutions Consequences:

- Assumptions are assertions that certain conditions exist or certain reactions will take place if considered solutions are implemented.

If the Manager is completely certain of Assumptions there is no need for research.

Defining the Problem & Establishing Research Objectives

A Process:

- There is no universally accepted, step-by-step approach used by marketing researchers to define the problem and establish research objectives.
- "Defining problems accurately is an art of science"

(Lookup Fig 2.1 in Book: The Problem Definition Process)

Tasks Involved In Problem Definition:

- Discussions with Decision Markers
- Interviews with Industry Experts
- Secondary Data Analysis
- Qualitative Research

Discussion with Decision Markers:

- Is an important step to discuss with DM about the limitations and capabilities of the research.
- The Decision Makers should know how the expected information obtain from the research can help them.
- Especially that the researches can provide important information but they.....
- (READ BOOK.....)

In Many failed cases we can observe complicity in the interaction between the researcher and DM.

Problem Audit:

- The problem Audit is defined as a **comprehensive examination of the marketing problem** to understand its origin and nature.
- It provides a useful **framework for interact with the decision makers** to identifying and highlighting the main causes of the problem.

The Problem Audit in Marketing research as well as any other types of audit involves the following issues:

- **(The History of the problem).** The event that led to decision that action is needed.
 - o **Ex:** The influence of the competitor's actions, environmental changing or any other event which may cause the problem
- **The availability of alternative action course for DM. the qualitative research can help here to identify the innovative courses of action for DM.**
 - o **Ex:** It refers to reduce pricing, introduce a new product, expanding the geographic coverage, launching special offers...
- **The Criteria that will be used to evaluate the alternative courses of action:**
 - o **Ex:** the new product offering might be evaluated on one or more of the following basis: Sales, ROI, market share, profitability.
- **The potential actions that are likely to be suggested on the research findings.**
 - o **Ex:** the research finding may conduct strategically marketing responds.
- **The information that is needed to answer DM questions:**
 - o **Ex:** the exploring of situational analysis and the comparison with competitors
- **The manner in which DM will use each item of information in making decision:**
- **The Corporate Culture as it relates to decision making:**
 - o The Dominant and the personality of decision-making.

Why Does Problem Audit Important:

- The decision makers focusing on symptoms more than the cause of the problem.
- The Decision makers may see the effect or the result of the problem, but they may don't know why it happened.
- The researcher should understanding and highlighting the causes and not merely address the symptoms.

The Cs of Interaction:

The interaction between the DM and the researcher should be characterized by the seven C's:

- 1- **Communication:** open and free exchange of ideas between DM & Researcher.
- 2- **Cooperation:** Between DM & Researcher to identify the problem
- 3- **Confidence:** Which guide to mutual trust
- 4- **Candor:** the honesty and the openness
- 5- **Closeness:** and what warmth will guide to trust & friendly relationship between DM & researcher
- 6- **Continuity:** the interact must be continuously
- 7- **Creativity:** the interact should be creative rather than formulaic.

Interviews with Experts:

Individuals knowledgeable about the firm and industry may help formulate the marketing research problem. Those experts may be found both inside and outside the firm.

- The Researcher can obtain information from experts by unstructured personal interviews.
- He makes list of topics to be covered by interviews. Without designing a formal questionnaire.
- Interviews should be flexible to capture the insights of firms.
- Expert Information is helpful if product is of technical nature.

The Coca Cola (Example)

The causes of declining sales of "Diet Cherry Coke" were identified by industry experts.

- The problem was that diet cherry coke was not positioned correctly.
 - Experts emphasized that brand image was a key factor influencing soft drink sales and diet cherry coke was perceived as conventional and old fashioned. An image inconsistent with existing cherry coke.
 - The Research was undertaken and the product was repositioned to align it more closely to the image of cherry coke.
 - The aim was to target younger drinkers. So the packaging and promotion programs were done accordingly.
-

PROBLEM:

P: Past info and forecasts

R: Resources and constraints

O: Objectives

B: Buyer Behavior

L: Legal Environment

E: Economic ...

M: Marketing and.....

Environmental Factors to be considered in the Research:

- Past Information & Forecasts: Should be carried out at industry and firm levels.
 - o Ex: if firm's sales have decreased but industry increased, then the problem will be very different from when the industry sales also decreased.
-

Management Decision Problem & Marketing Research Problem

- The **Management Decision Problem** asks what the decision makers need to do.
 - The **Marketing Research Problem** asks what information is needed and how it can be best obtained.
 - **Management Decision Problem** is ACTION ORIENTED.
 - **Marketing Research Problem** is INFORMATION ORIENTED
 - **Management Decision** focuses on SYMPTOMS
 - **Marketing** focuses on (Read Book)
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Examples for Management D. & Marketing R.:

Management D.: Should a new product be introduced?

Marketing R.: To determine consumer preference and purchase intention for the product.

Management D.: Should the advertising campaign be changed?

Marketing R.: To determine the effectiveness of the current ads campaign

Proper Definition of the Research Problem:

Marketing Research Problem → Broad Statement → **Variations** of Specific Components.

Components of an Approach:

- Objective/Theoretical Foundations
 - Analytical Model
 - Research Questions
 - Hypothesis
 - Specification of the information Needed.
-

The Role of Theory in Applied Marketing Research:

(READ BOOK)

The Role of Hypothesis in Defining the Problem:

- When a manager makes a statement or an assumption that he/she believes to be true and wants research to determine if there is support for that statement, we call this statement hypothesis.

Development of Research Questions and Hypotheses:

Components of Marketing R. Problem + Objective or Theoretical Framework = **Research Questions** + Analytical Model = **Hypotheses**.

- **Research Questions (RQs)** are refined statements of the specific components of the problem.
- A **hypothesis (H)** is an unproven statement or proposition about a factor or phenomenon that is of interest to the researcher. Often, a hypothesis is a possible answer to the research question.

Examples:

RQ: Do the customers of sears exhibit store loyalty?

H1: Customers who are store-loyal are less knowledgeable about the shopping environment.

H2: Store-Loyal customers are more risk-averse than are non-loyal customers.

E-Airlines Services (IMPORTANT)

RQ: Do Airlines working in Saudi Arabia adopt full e-reservation?

RQ: Do the travelers from kingdom of Saudi Arabia through Saudi Airlines companies are satisfied with the e-services provided?

RQ: What is the customers' perception about the current e-services of Saudi Airlines companies?

H1: Travelers in Kingdom of Saudi Arabia using E-booking services are more satisfied than travelers using traditional booking service.

At United Airlines, Food is Uniting the Airline with Travelers

- United Airlines, as other major, had to deal with passenger loyalty (management decision problem: how to attract more and more loyal passengers). The broad **marketing research problem** was to identify the factors that influence loyalty of Airline Travelers.
- The basic answer is to **improve service**. Exploratory research, theoretical framework, and empirical evidence revealed that the consumer's choice of an airline is influenced by: **Safety, price of the ticket, frequent flyer programs, convenience of scheduling, and brand name**.
- A graphical model stipulated that consumers evaluate competing airlines based on factors of the choice criteria to select a preferred airline. The problem was that major airlines were quite similar on these factors. Indeed, "airlines offer the same schedules, the same service, and the same fares." Consequently, United Airlines had to find a way to differentiate itself. Food turned out to be the solution.

- Secondary data, like the J. D Power & Associates' survey on "current and future trends in airline food industry," indicated that "food service is a major contributor to customers' loyalty." This survey also emphasized the importance of food brands.
- The airline's Marketer survey told United Airlines that "customers wanted more varied and up-to-date food."

The following research questions and hypotheses may be posed:

- RQ1 How important is food for airline customers?
 - H1: Food is an important factor for airline travelers.
 - H2: Travelers value branded food.
 - H3: Travelers prefer larger food portions, but with consistent quality.
 - H4: Travelers prefer exotic food.
- Characteristics which influence the research design included the identification of competing airlines (Delta, American, etc.), factors of the choice criteria (already identified), measurement of airline travel, and loyalty.
 - This kind of research helped United Airlines to define their marketing research problem, and develop the approach. Focus groups and surveys were conducted to check customers' perceptions of food in United Airlines' aircraft. The results provided support for all the hypotheses (H1 to H4). United Airlines then made a few changes: new "culinary menus," larger portions of food, new coffee, and branded products (e.g., Godiva chocolates). This resulted in better service, increasing customer satisfaction and fostering loyalty.

Assess the Adequacy of Information on Hand:

To Specify research Objectives:

- The Information State should be assessed
- The Information state refers to the quantity and quality of evidence a manager possesses for each of his or her assumptions.
- Information gaps are differences between the current information between the current information level and the desired information level.
- Information gaps are the basis for establishing research objectives.
- Research Objectives are set to gather the specific bits of knowledge that need to be gathered in order to close information gaps.

Review!

How to get research objectives from management questions:

- 1- State the marketing management question
- 2- List the specific pieces of information needed to answer the question.
- 3- Do this for **each and every** management questions.

The Marketing Research Proposal

Three Functions:

- It states the problem
- It specified the research objectives
- It details the research method proposed

Proposals also contain a timetable and a budget.

Parts of Research Proposal:

Any Research Proposal should comprise the following parts:

- **Introduction**
 - **Study Important**
 - **R. Problem Description**
 - **R. Objectives**
 - **R. Questions**
 - **Methodology:** Literature review, Operational Definition, R. framework & model adopted, variables, hypothesis, Methods to be used, and instrument.
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Research Objectives:

- Precise
- Detailed
- Clear
- Operational

(Lookup Figure 2.5A Concept Map for Problem Definition)

Chapter 3: Research Design

Research Design: Definition

- A **research design** is a framework blueprint for conducting the marketing research project.
- It details the procedures necessary for obtaining the information needed to structure or solve marketing research problems.

Three Types of Research Approaches:

- Exploratory
- Descriptive
- Causal

Each approach got a unique choice of data collection methods:

- Secondary and standardized data
- Qualitative methods
- Surveys
- Experiments

Role of Research Supplier:

- Project Design
- Raw Data Collection

Research Tactics: (Choose the suited tactics depending the research type)

- Develop measures of interest
- Construct questionnaire
- Design experiments
- Design Sampling plan
- Anticipate analysis

Classification of Research Design:

Research Design:

- Exploratory Research Design
- Descriptive Research Design
 - o Descriptive
 - o Causal

(MISSING DATA: CHECK BOOK!!!)

Types of Research Design: "Important"

The choice of the most appropriate design depends largely on:

1. Type of needed information
2. How much is known about the problem
3. Expected and desired results
4. Research Objectives
5.??

Types of Research Design: (Exploratory, Descriptive, or Causal)

CAUTION: it should not be implied that research design is a step-by-step process in terms of the order in which design should be carried out. Many research projects **SHOULD** use only one design.

Exploratory Research:

- Exploratory Research is most commonly **unstructured and informal research** that is undertaken **to gain background information** about the general nature of the research problem.
- By unstructured, we mean **there is no formal set of objectives, sample plan, or questionnaire.**
- It is usually conducted **when the researcher does not know much about the problems.**
- Exploratory research is **usually conducted at the outset of research projects**

Uses of Exploratory Research:

- Gain background Information
- Define Terms
- Clarify problems and hypothesis (Refine research objectives)
- Establish Research Priorities

(CHECK TABLE 3.2 in Chapter 3 in Book)

Exploratory: To gain background Information, to define terms, etc...

Descriptive: To describe and measure marketing phenomena

Causal: To Determine causality, to make "if-then" statements

Exploratory Research:

- The primary objective of the exploratory research is to provide insights into, and an understanding of, the problem confronting the research.
- Exploratory Research is **used in cases when the researcher must define the problem more precisely**, identifying relevant courses of action, or again additional insights before an approach can be developed.

Exploratory Research:

- A variety of methods are available to conduct exploratory research:
 - o Secondary Data Analysis
 - o Experience Surveys
 - o Case Analysis
 - o Focus Groups
 - o Projective Techniques

Exploratory & Conclusive Research Differences:

Table 3.1	Exploratory	Conclusive
Objective:	To provide insights and understanding	To test specific hypotheses and examine relationships
Characteristics:	Information needed is defined loosely. Research process is flexible and unstructured. Sample is small and non-representative. Analysis of primary data is qualitative.	Information needed is clearly defined. Research process is formal and structured. Sample is large and representative. Data analysis is quantitative.
Findings / Result:	Tentative	Conclusive
Outcome:	Generally Followed By Further Exploratory or Conclusive Research.	Findings used as input into decision.

A Comparison of Basic Research Design:

Table 3.2	Exploratory	Descriptive	Causal
Objective:	Discovery of Ideas and Insights	Describe market characteristics or functions	Determine cause and effect relationships.
Characteristics:	Flexible, Multitalented Often the front end of total research design.	Marked by the prior formulation of specific hypotheses Preplanned and structured design.	Manipulation of Independent variables, effect on dependent variables
Methods	<ul style="list-style-type: none"> - Expert Surveys - Pilot Surveys - Case Studies - Secondary Data: Qualitative Analysis or Research 	<ul style="list-style-type: none"> - Quantitative Analysis - Surveys - Panels - Observation and Other Data 	<ul style="list-style-type: none"> - Experiments

Uses of Exploratory Research:

- Formulate a problem or define a problem more precisely
- Identify alternative courses of action
- Develop Hypotheses
- Isolate Key variables and relationships for further examination
- Gain insights for developing an approach to the problem
- Establish something..... ""Missing Text"".

(WAS ABSENT IN SUNDAY 20 MARCH)

Potential Sources of Error in Research Designs:

Fig 3.2

Total Error:

- **Random Sampling Error**
- **Non-Sampling Error**
 - o Response Error
 - Researcher Error
 - Xxxxx
 - xxxxx
 - o Non-Response Error
- **Random Sampling Error:** imperfect representation of the population of interest.
- **Non-Sampling Error:** attributed to sources other than sampling, they may be random and non-random resulting from errors in problem definition, approach, scales, etc...
- **Non-Response Error:** When the respondents included in the sample did not respond.
- **Response Error:** Respondents give inaccurate answers or their answers are misreported or misanalysis.

Researcher Errors:

- **Sampling Frame Error:** variation between the population defined by the researcher and the population as implied by the sampling frame used.
- **Data Analysis Error**
- **Surrogate Information Error:** the variation between the information needed for the marketing research problem and the information sought by the researcher
- **Measurement Error:** variation between the information sought and information generated by the measurement process employed by the researcher
- **Population Definition Error:** Variation between the actual population relevant to the problem at hand and the population as defined by the researcher.

Interviewer Errors:

- **Respondent Selection Error:**
 - **Questionnaire Error**
 - **Recording Error**
 - **Cheating Error:** When the interviewer fabricates answers to a part or whole of the interview.
-

Respondent Error:

Response errors include inability error and unwillingness error.

Budgeting the Research Project:

Two approaches for budgeting Research

- 1. Estimate the costs associated with each research activity**
 - Used for **unusual** or **expensive projects**
 - 2. Determine the activities to be performed in hours and apply standard cost estimates to these hours**
 - Used for **routine projects** or when the researcher has knowledge of research activity costs.
-

Marketing Research Proposal:

- Executive Summary
 - Background
 - Problem Definition / Objectives of the Research
 - Approach to the Problem
 - Research Design
 - Fieldwork / Data Collection
 - Data Analysis
 - Reporting
 - Cost and Time
 - Appendices
-

Chapter 4: Exploratory Research Design: Secondary Data

External

Primary vs. Secondary Data

- **Primary Data:** Information that is developed or gathered by the researcher specifically for the research project at hand
- **Secondary Data:** Information that has previously been gathered by someone other than the researcher and/or for some other purpose than the research project at hand.

Uses of Secondary Data:

Secondary data has many uses in marketing research and sometimes the entire research project may depend on the use of secondary data.

- Applications include: economic-trend forecasting, corporate intelligence, international data, public opinion, and historical data.
- See: <http://www.secondarydata.com/>

More Details: Uses of Secondary Data:

- May provide enough information to resolve the problem being investigated
- Can be a source of new ideas that can be explored later
- Acts as a prerequisite to collecting primary data and can help in designing the primary data collection process.
- Helps to define the problem and formulate hypotheses about its solution
- Helps in defining the population / sample / parameters of primary research.
- Can serve as a reference base to compare validity of primary data.

Advantages of Secondary Data:

1. Clarify the problem
2. May provide a solution
3. May provide primary data research method alternatives.
4. May Alert the marketing researcher to potential problems or difficulties
5. May provide necessary background information and build creativity

Disadvantages & Limitations of Secondary Data:

1. Lack of Availability
2. Lack of Relevance
3. Inaccuracy:
 - a. Who gathered the data?
 - b. What was the purpose of the study?
 - c. What and when was the information collected?
 - d. How was the information collected?
 - e. Is the information consistent with other information?
4. Insufficiency

Criteria for Evaluating Data:

Criteria	Issues	Remarks
Specifications & Methodology	Data collection methods, response rate, quality & analysis of data, sampling techniques & size, questionnaire design, fieldwork.	Data should be reliable, valid & generalizable to the problem.
Error & Accuracy	Examine errors in approach research design, sampling, data collection & analysis, & reporting.	Assess accuracy by comparing data from different sources
Currency	Time lag between collection & publication, frequency of updates. Why was data collected?	Census data are updated by syndicated firms.
Objective	CHECK BOOK	CHECK BOOK
Nature	CHECK BOOK	CHECK BOOK
Dependability	CHECK BOOK	CHECK BOOK

Types & Classification of Secondary Data:

Secondary Data:

1. **Internal:** a) ready to use - b) Requires processing
2. **External:** a) Published - b) Commercial - c) Computerized databases & Internet.

Examples of Internal Secondary Data:

- Sales Invoice
- Salesperson's call report
- Credit Memos
- Warranty Cards

Examples of General Secondary Data:

- Directories
- Periodicals
- Financial Records

Government Secondary Data: Census Data, Other Government Publications

The Nature of Secondary Data:

Creating an Internal Database:

An internal database is a collection of related developed from data already within the organization.

The growing importance of internal Database Marketing:

- A large computerized file of customer and purchase patterns.

Internal Databases as collective memory banks

Internal Databases can be created from conversations

Classification of Secondary Data:

- Database marketing is the process of building, maintaining customer (internal) databases and other (internal) databases for the purpose of contacting, transacting, and building relationships.
 - CRM and Data Mining!
 - **Ethical Issue?** How much information should companies have about consumers?
-

Internal Sources of Secondary Data:

Internal Records:

- Accounting Data
 - Sales Reports
 - Inventory Management
 - Customer Database
-

Creating Databases from a Website –A Marketer's Dream

- Using Cookies

Data Mining: The use of statistical and other advanced software to discover non-obvious patterns hidden in a database.

Potential Uses of Data Mining in Marketing:

- Customer acquisition
 - Customer retention
 - Customer abandonment
 - Market Basket Analysis
-

Computerized Databases:

- **Online**
- **Internet**
- **Offline**

Examples:

- **Bibliographic Databases:** Contains citations to articles
 - **Numeric Databases:** Contain numerical and statistical information
 - **Full-Text Databases:** Contains complete text of the source documents comprising the database
 - **Directory Databases:** provide information on individuals, organizations, and services.
 - **Special-Purpose Databases:** provide specialized information
-

Syndicated Services:

Are companies that collect and sell common pools of data of known commercial value designed to serve a number of clients.

Type	Characteristics	Advantages	Disadvantages	Uses
Surveys	Surveys conducted at regular intervals	Most flexible way of obtaining data; information on underlying motives	Interviewer errors; respondent errors	Market segmentation, advertising theme selection and advertising effectiveness
Purchase Panels	Households provide specific information regularly over an extended period of time; respondent asked to record specific behaviors as they occur	Recorded purchase behavior can be linked to the demographic/psychographic characteristics	Lack of representativeness; response bias; maturation	Forecasting sales, market share and trends; establishing consumer profiles, brand loyalty and switching; evaluating test markets, advertising, and
Media Panels	Electronic devices automatically recording behavior, supplemented by a diary	Same as purchase panel	Same as purchase panel	Establishing advertising rates; selecting media program or air time; establishing viewer profiles

Single-Source Data:

Single-source data provide integrated information on household variables, including media consumption and purchases, and marketing variables, such as product sales, price, advertising, promotion, and in-store marketing effort.

- Recruit a test panel of households and meter each home's TV sets.
- Survey households periodically on what they read.
- Grocery purchases are tracked by UPC scanners.
- Track retail data, such as sales, advertising, and promotion.

International Secondary Data:

- **Domestic Organization:** Government or Non-Government Sources
- **International Organizations in Domestic Markets**
- **Organizations in Foreign Countries:** Foreign Government, International Orgs, Trade Associations.

Chapter Five: Exploratory Research Design: Qualitative Research

Categories of Research:

- **Quantitative Research:** Research involving the use of structured questions in which response options have been predetermined and a large number of respondents involved.
- **Qualitative Research:** Research involving collecting, analyzing, and interpreting data by observing what few people do and say.

Qualitative Vs. Quantitative Research: (Check Table in Book)

Pluralistic Research: Combination of both quantitative and qualitative research methods in order to gain the advantages of both.

Pluralistic Research is used when:

- Even though there is enough information about the problem, we may still be forced to conduct a qualitative research to gain additional information.

Classification of Qualitative Research Procedures:

1- Direct (Non-Disguised)

- a. Depth Interviews
- b. Focus Groups

2- Indirect (Disguised)

- a. Projective Techniques
 - i. Expressive
 - ii. Construction
 - iii. Completion
 - iv. Association

- **Direct Approach:** is one type of qualitative research in which the purposes of the project are disclosed to the respondent or are clear and understandable, given the nature of the interview.
- **Indirect Approach:** is one type of qualitative research in which the purposes of the project are designed from the respondents.

-
- **Focus Groups:** are small groups of people brought together and guided by a moderator through and unstructured, spontaneous discussion for the purpose of gaining information relevant to the research problem.

The Moderator Task in Focus Groups:

- The moderator's task is to ensure that open discussions is "focused" on some area of interest.
- Focus groups are used to generate ideas, to learn the respondents "vocabulary", and to gain some insights into basic needs and attitudes.

Q) When to use Focus Groups?

A) When the organization needs to gain information and seek solutions from unstructured and spontaneous issues.

Characteristics of Focus Groups:

- **Size:** 8-12 People
 - **Composition:** Homogeneous, Respondents, Prescreened
 - **Physical Settings:** Relaxed, Informal Atmosphere
 - **Duration:** 1-3 Hours
 - **Recording:** Use of audiocassettes and videotapes
 - **Moderator:** Observational, Interpersonal, and communication skills of the moderator.
-

Key Qualification of Focus Groups Moderators:

1. Kindness with Firmness
 2. Permissiveness.
 3. Involvement
 4. Incomplete Understanding
 5. Encouragement
 6. Flexibility
 7. Sensitivity
-

Procedures for Planning and Conducting Focus Groups:

1. Determine the objectives and define the problem
 2. Specify the objectives of the qualitative research
 3. State the objectives/questions to be answered by Focus Groups
 4. Write a screening questionnaire
 5. Develop a Moderator's Outline
 6. Conduct the Focus Group Interviews
 7. Review Tapes and Analyze the Data
 8. Summarize the findings and plan follow-up research or action.
-

Variations in Focus Groups:

- **Two-Way Focus Group:** This allows one target group to listen to and learn from a related group. For example, a focus group of physicians viewed a focus group of arthritis patients discussing the treatment they desired.
- **Dual-Moderator Group:** A focus group conducted by two moderators: One moderator is responsible for the smooth flow of the session, and the other ensures that specific issues are discussed.
- **Dueling-Moderator Group:** There are two moderators, but they deliberately take opposite positions on the issues to be discussed.
- **Respondent-Moderator Group:** The moderator asks selected participants to play the role of moderator temporarily to improve group dynamics
- **Client-Participant Groups:** Client personnel are identified and made part of the discussion group.
- **Mini Groups:** These groups consist of one moderator and only 4 or 5 Respondents.
- **Tele-Session Groups:** Focus group sessions by phone using the conference call technique.
- **Online Focus Groups:** Focus groups conducted online over the internet

Advantages of Focus Groups:

1. Synergism
2. Snowballing
3. Stimulation
4. Security
5. Spontaneity & Impulsiveness
6. Fate of Outcome
7. Specialization
8. Scientific Inspection
9. Structure & Arrangement
10. Speed

Disadvantages of Focus Groups:

1. **Misuse:** It maybe used wrongly.
2. **Misjudge:** Its result or the group response sometimes are miscalculated
3. **Moderation:** It maybe under moderator's control
4. **Messy:** Uncertain questions-answers well led to confusion.
5. **Misrepresentation: Distortion:** Answers can not be generalized.

(Focus Groups should be used when the research objective is to DESCRIBE)

Online Vs. Traditional Focus Groups:

- **Size:**
(Online 4-6) (Traditional 8-12)
- **Composition:**
(Online: Anywhere in the world) (Traditional: From Local Area)
- **Time Duration:**
(Online: 1-1.5 Hours) (Traditional 1-3 Hours)
- **Physical Setting:**
(Online: Researcher has little control) (Traditional: Under the control of the researcher)
- **Respondent Identity:**
(Online: Difficult to verify)(Traditional: Easy to verify)
- **Respondent attentiveness:**
(Online: Respondents can engage in other tasks) (Traditional: Attentiveness can be monitored)

(CHECK BOOK FOR THE REST)

Lookup: Advantages and Disadvantages of Online Focus Group

Depth Interview Techniques: Laddering

In **Laddering and Ranking**, the line of questioning proceeds from **product characteristics** to **user characteristics**. This technique allows the researcher to tap into the consumer's network of meanings.

(Product Characteristics) Wide Body Aircrafts → I can get more work done → I accomplish more → I feel good about myself (**User Characteristic**)

Advertising Theme: You will feel good about yourself when flying our airline. "You're The Boss."

Depth Interview Techniques: Hidden Issue Questioning

In **Hidden issue questioning**, the focus is not socially shared values but rather on personal "sore spots," not on general lifestyles but on deeply felt personal concerns.

Fantasies, Work Lives, and Social Lives → Historic, Elite, "masculine-camaraderie," competitive activities

Advertising Theme: Communicate aggressiveness, high status, and competitive heritage of the Airline.

Depth Interview Techniques: Symbolic Analysis

Symbolic Analysis attempts to analyze the symbolic meaning of objects by comparing them with their opposites.

The logical opposites of a product that are investigated are: non-usage of the product attributes of an imaginary "non-product," and opposite types of products.

"What would it be like if you could no longer use Airplanes?"

"Without airplanes, I would have to rely on E-Mails, letters, and other means of communication"

Focus Groups vs. Depth Interviews

- **Group Synergy and Dynamics:** (Focus Groups: +) (Depth Interview: -)
- **Peer Pressure/Group Influence:** (Focus Groups: -) (Depth Interview: +)
- **Client Involvement:** (Focus Groups: +) (Depth Interview: -)
- **Generation of Innovative Ideas:** (Focus Groups: +) (Depth Interview: -)
- **Interviewing Competitors:** (Focus Groups: -) (Depth Interview: +)
- **Interviewing Professional Respondents:** (Focus Group: -) (Depth Interview: +)
- **Amount of Information:** (Focus Group: +) (Depth Interview: -)
- **Cost per respondent:** (Focus Group: +) (Depth Interview: -)
- **Time:** (Focus Group: +) (Depth Interview: -)
- **CHECK BOOK FOR REST (TABLE 5.4)**

Definition of Projective Techniques:

- An Unstructured, **Indirect form of questioning that encourages respondents to project their underlying** motivations, beliefs, attitudes or feelings regarding the **issues of concern.**
 - In projective techniques, **respondents are asked to interpret the behavior of others.**
 - In interpreting the behavior of others, respondents **indirectly project their own motivations, beliefs, attitudes, or feelings into the situation.**
-

Word Association:

- In word association, respondents are presented with **a list of words, one at a time, and asked to respond to each with the first that comes to mind.**
 - The words of interest, **called test words**, are interspersed throughout the list which also contains some neutral, or filler words to disguise the purpose of the study. Responses are analyzed by calculating:
 - (1) The frequency with which any word is given as a response;
 - (2) The amount of time that elapses before a response is given; and
 - (3) The number of respondents who do not respond at all to a test word within a reasonable period of time.
-

Completion Techniques: In **sentence completion**, respondents are given incomplete sentence and asked to complete them. Generally, they are asked to use the first word or phrase that comes to mind.

A person who shops at Sears is _____

A person who receives a gift certificate good for Sak's Fifth Avenue would be _____

J.C. Penny is most liked by _____

Completion Techniques: In **story completion**, respondents are given of a story – enough to direct attention to a particular topic but not to hint at the ending.

They are required to give the conclusion in their own words.

Construction Techniques:

- With a **picture response**, the respondents are asked to describe series of pictures of ordinary as well as unusual events. The respondent's interpretation of the pictures gives indications of that individual's personality.
 - In **Cartoon tests**, cartoon characters are shown in a specific situation related to the problem. The respondents are asked to indicate what one cartoon character might say in response to the comments of another character. Cartoon tests are simpler to administer and analyze than picture response techniques.
-

Expressive Techniques:

- In **expressive techniques**, respondents are presented with a verbal or visual situation and asked to relate the feelings and attitudes of other people to the situation.
 - **Role Playing.** Respondents are asked to play the role or assume the behavior of someone else.
 - **Third-Person Technique.** The respondent is presented with a verbal or visual situation and the respondent is asked to relate the beliefs and attitudes of a third person rather than directly expressing personal beliefs and attitudes. "This third person may be a friend, neighbor, colleague, etc....."
-

Advantages of Projective Techniques:

- They may obtain responses that subjects would be unwilling or unable to give if they knew the purpose of the study.
 - Helpful when the issues to be addressed are personal, sensitive, or subject to strong social norms.
 - Helpful when underlying motivations, beliefs, and attitudes are operating at a subconscious level.
-

Disadvantages of Projective Techniques:

- Suffer from many of the disadvantages of unstructured direct techniques, but to a greater extent.
 - Require highly-trained interviewers.
 - Skilled interpreters are also required to analyze the responses.
 - There is a serious risk of interpretation bias.
 - They tend to be expensive.
 - May require respondents to engage in unusual behavior.
-

Guidelines for Using Projective Techniques:

- Projective techniques should be used because the required information cannot be accurately obtained by direct methods.
 - Projective techniques should be used for exploratory research to gain initial insights and understanding.
 - Given their complexity, projective techniques should not be used naively.
-

Comparison of focus groups, depth interviews, and projective techniques:

CHECK BOOK FOR TABLE (IMPORTANT)

Analysis of Qualitative Data:

1. Data reduction:
 2. Data Display:
 3. Conclusion drawing and verification:
-

Ethical Issues:

- Ethical issues related to the respondents and the general publics are of primary concern.
 - Disguise can violate the respondents' right to know and result in psychological harm.
 - The use of qualitative research results for questionable purposes raises ethical concerns.
 - Deceptive procedures that violate respondents' right to privacy and informed consent should be avoided.
 - Video or audio-taping the respondents without their prior knowledge or consent raises ethical concerns
 - The comfort level of the respondents should be addressed.
-
-

Chapter 6: Descriptive Research Design: Survey and Observation

Surveys:

- A survey involves interviews with a large number of respondents using a predesigned questionnaire.
- Four Basic Survey methods:
 - Person-Administered Surveys
 - Computer-Assisted Surveys
 - Self-Administered Surveys
 - Mixed-Mode (hybrid) Surveys

Questionnaire Types:

- **Structured Data Collection:** Use of a formal questionnaire that presents open answering questions in a prearranged order. (Open Answers)
- **Fixed- alternative questions:** A questions that require respondents to choose from a set of predetermined answers. (Closed- Multiple Choices)
- **Mixed Model:** is a design of open-closed answer.

Survey Methods:

Traditional Telephone Interviews: Involves phoning of respondents and asking them some predesigned questions.

- The Interviewer in traditional interview uses tools like papers, pen, pencils... to take notes and recording the required answers.

Computer – Assisted Telephone Interviews: Uses computerized questionnaire administered respondents. The Interviewer uses technological tools to take notes.

Advantages:

- 1- The computer systematically guides the interview, it saves time, efforts, costs, make the process smoothly, and reducing errors.
 - 2- May be there is no need to translate the answers in numerical meaning because the computer does encoding records directly.
-

Personal Methods for Surveys:

- **Personal-In Home Interview:** Respondents are interviewed in their home directly in real time face to face.
 - The process implicates time, efforts, high costs.
 - **Mall-Intercept Personal Interview:** Respondents are intercepted while they are shopping, which may be an effective way to avoid the disadvantages above mentioned.
 - **Computer – Assisted Personal Interviewing:** Respondent may be asked to sit in front of the PC to answer the questionnaire in the mall.
-

Mail Methods

- **Traditional Mail Interviews:** Used when questionnaires are mailed to potential respondents, where there is no verbal interaction between the researcher & the respondent.
 - The mail interview package consists of the outgoing envelope, cover letter, the questionnaire, return envelope, and possibly some incentives.
- **Mail Panel:** Consist of a large nationally representative sample of households who have agreed to periodically participate in mail questionnaires, product tests, and telephone surveys.

(Mail Panel can be used to obtain information from the same respondents repeatedly.)

Electronic Methods: To Conduct an E-Mail survey.

This way has several limitations:

- Lack of control
- Some E-Mails software limit the length of the body of the message.
- Rapid Changes in the potential respondents E-Mail Addresses.
- The Non Interest in the Subject from respondents' side to answer the questionnaire may make them to delete the message.

Internet Interview: The interview may be conducted by these ways:

- As hyper text markup language of (HTML) in the website.
- Using video conference, or VOIP, or some IRC Software.

Criteria for Evaluating Survey Methods:

Task Factors:

1. Diversity of Questions and Flexibility of Data Collection:

- The flexibility of data collection is determined primarily by the extent to which the respondent can interact with the interviewer and the survey questionnaire.
- The Diversity of questions that can be asked in a survey depends upon the degree of interaction the respondents has with the interviewer and the questionnaire, as well as he ability to actually see the questions.

2. Use of Physical Stimuli:

- The ability to use physical stimuli such as the product, a product prototype, commercials, or promotional displays during the interview.

3. Sample Control: Sample control is the ability of the survey mode to reach the units specified in the sample effectively and efficiently.

4. Quantity of Data: The ability to collect large amounts of data.

5. Response Rate: Survey response rate is broadly defined as the percentage of the total attempted interviews that are completed.

Situational Factors:

1. Control of the Data Collection Environment: The degree of control a researcher has over the environment.

2. Control of Field Force:

3. Potential for the Interviewer Bias

4. Speed

5. Cost

Respondent Factors:

1. Perceived Anonymity

2. Social Desirability / Sensitive Information

3. Low Incidence Rate

4. Respondent Control

(CHECK TABLE 6.2 in Book: A Comparative Evaluation of Survey Methods)

Observation Methods: Structured Vs. Unstructured Observations

- For **Structured Observation**, the researcher specifies in detail what is to be observed and how the measurements are to be recorded, e.g., an auditor performing inventory analysis in a store.
- In **Unstructured Observation**, the observer monitors all aspects of the phenomenon that seem relevant to the problem at hand, e.g., observing children playing with new Toys.

Observation Methods: Disguised Vs. Undisguised

- In **Disguised Observation**, the respondents are unaware that they are being observed. Disguise may be accomplished by using one-way mirrors, hidden cameras, or inconspicuous mechanical devices. Observers may be disguised as shoppers or sales clerks.
- In **Unstructured Observation**, the respondents are aware that they are under observation.

Observation Methods: Natural vs. Contrived (Artificial) Observation

- **Natural Observation** involves observing behavior as it takes place in the environment. For example, one could observe the behavior of respondents eating food at Burger King.
- In **Contrived Observation**, respondents' behavior is observed in an artificial environment, such as a test kitchen. *(Contrived is suitable when combined with Undisguised observation)*

A Classification of Observing Methods:

- Personal Observation.
- Mechanical Observation
- Audit
- Content Analysis
- Trace Analysis

Observation Methods Classification: Personal Observation

- A researcher observes actual behavior as it occurs.
- The observer does not attempt to manipulate the phenomenon being observed but merely records what takes place.

- For example, a researcher might record traffic counts and observe traffic flows in a department store.

Observation Methods Classification: Mechanical Observation

Does NOT require respondents' direct participation.

- Turnstiles that record the number of people entering or leaving a building.
- On-Site Cameras (Still, Motion Picture, or Video)
- Optical Scanners in Supermarkets

Does REQUIRE respondent involvement

- Eye-Tracking Monitors
- Pupilometers
- Pshchogalvanometers
- Voice Pitch Analyzers
- Device Measuring Response Latency

Observation Methods Classification: Audit

- The researcher collects data by examining physical records or performing inventory analysis.
- Data are collected personally by the researcher.
- The data are based upon counts, usually to physical objects.
- Retail and wholesale audits conducted by marketing research suppliers where discussed in the context of syndicated data in chapter 4.

Observation Methods Classification: Content Analysis

- The objective, systematic, and quantitative description of the manifest content of a communication.
- The unit of analysis may be words, characters (individuals or objects), themes (propositions), space and time measures (length or duration of the message), or topics (subjects of the message).
- Analytical categories for classifying the units are developed and the communication is broken down according to prescribed rules.

Observation Methods Classification: Trace Analysis

Data collection is based on physical traces, or evidence, of past behavior.

- The selective erosion of tile in a museum indexed by the replacement rate was used to determine the relative popularity of exhibits.
- The number of different fingerprints on a page was used to gauge the readership of various advertisements in a magazine.
- The position of the radio dials in cars brought in for services was used to estimate share of listening audience of various radio stations.
- The age and condition of cars in a parking lot were used to assess the affluence of customers.
- The Magazines people donated to charity were used to determine people's favorite magazines.
- Internet visitors leave traces which can be analyzed to examine browsing and usage behavior by using cookies.

LOOKUP Table 6.4 in Book (IMPORTANT)

Relative Advantages of Observation:

- They permit measurement of actual behavior rather than reports of intended or preferred behavior.
- There is no reporting bias, and potential bias caused by the interviewer and the interviewing process is eliminated or reduced.
- Certain types of data can only be collected through observations.
- If the observed phenomenon occurs frequently or is of short duration, observational methods may be cheaper and faster than survey methods.

Relative Disadvantages of Observation:

- The reasons for the observed behavior may not be determined since little is known about the underlying motives, beliefs, attitudes, and preferences.
- Selective perception (Bias in the researcher's perception) can bias the data.
- Observational data are often time-consuming and expensive, and it is difficult to observe certain forms of behavior.
- In some cases, the use of observational methods may be unethical, as in observing without their knowledge or consent.

It is best to view observation as a complement to survey methods, rather than as being in competition with them.

Chapter 7: Causal Research Design: Experimentation

Demonstrating Causation:

- **Causal Research:**

- The only types of research that has the potential to demonstrate that a change in one variable causes some predictable change in another variable.

- **To Demonstrate Causation:**

- Concomitant Variation (Correlation)
 - Appropriate Time order of occurrence.
 - Elimination of Other possible Causal Factors
-

Concept of Causality:

A statement such as "x causes y" will have the following meaning to an ordinary person and to a scientist.

Ordinary, General & Normal Meaning	Scientific Meaning
X is the only cause of Y	X is only one of a number of possible causes of Y
X Must always lead to Y (X is a deterministic cause of Y)	The occurrence of X makes the occurrence of Y more probable. (X is a probabilistic cause of Y).
It is Possible to prove that X is a cause of Y	We can never confirm that X is a cause of Y. At best, we can infer and suppose that X is a cause of Y.

Conditions for Causality:

- **Concomitant Variation** is the extent to which a cause, X, and an effect, Y, occur together or vary together in the way predicted by the hypothesis under consideration.
- The **Time order of occurrence** condition states that the causing event must occur either before or simultaneously with the effect; cannot occur afterwards. (e.g. Price & Sales)
- The **absence of other possible causal factors** means elimination of other possible causal factors, that the factor or variable being investigated should be the only possible causal explanation.

Definitions and Concepts:

- **Independent Variable:** are variables or alternatives that are manipulated and whose effects are measured and compared, e.g., **Price levels, Promotion campaigns.**
 - **Test Units:** are individuals, organizations, or other entities whose response to the independent variables or treatments is being examined, e.g., **consumers or stores.**
 - **Dependant Variable:** are the variables which measure the effect of the independent variables on the test units, e.g., **Sales, Profits, and Market Shares**
 - **Extraneous Variable:** are variables other than the independent variable that may bear any effect on the behavior of the dependant variable.
 - **Experiment:** The process of manipulating one or more independent variables to determine their effect on the dependant variable, controlling for the effect of extraneous factors.
-

Experimental Design is a set of procedures specifying:

- The test units and how these units are to be divided into homogeneous subsamples.
 - What independent variables or treatments are to be manipulated.
 - What dependent variables are to be measured.
 - How the extraneous variables are to be controlled.
-

A Classification of Experimental Designs:

- **Pre-Experimental Designs** do not employ randomization procedures to control for extraneous factors: **the one-shot case study, the one-group pretest-posttest design, and the static-group.**
- **True Experimental Design:** The researcher can randomly assign test units to experimental groups and treatments to experimental groups: **The pretest-posttest control group design, the posttest-only control group design, and the Solomon four-group design.**

- **Quasi-Experimental Designs** result when the researcher is unable to achieve full manipulation of scheduling or allocation of treatments to test units but can still apply part of the apparatus of true experimentation: **time series and multiple time series designs.**
 - **A Statistical Design:** is a series of basic experiments that allows for statistical control and analysis of external variables: **randomized block design, Latin square design, and factorial designs.**
-

One-Shot Case Study: X O₁

- A single group of test units is exposed to a treatment X.
 - Single Measurement on the dependent variable is taken (O₁)
 - There is no random assignment of test units.
 - The one-shot case study is more appropriate for exploratory than for conclusive research.
-

One-Group Pretest-Protest Design: O₁ X O₂

- A group of test units is measured twice.
 - There is no control group
 - The treatment effect is computed as $O_2 - O_1$
 - The validity of this conclusion is questionable since extraneous variables are largely uncontrolled.
-

Static Group Design:

EG: X O₁

CG: O₂

- A two group experimental design.
 - The experimental group (EG) is exposed to the treatment, and the control group (CG) is not.
 - Measurements on both groups are made only after the treatment.
 - Test units are not assigned at random.
 - The treatment effect would be measured as $O_1 - O_2$
-

True Experimental Designs: Pretest-Posttest Control Group Design:

EG: R O₁ X O₂

CG: R O₃ O₄

- Test units are randomly assigned to either the experimental or the control group.
- A pretreatment measure is taken on each group.
- The treatment effect (TE) is measured as: $(O_2 - O_1) - (O_4 - O_3)$
- Selection bias is eliminated by randomization.
- The other extraneous effects are controlled as follows:

$$O_2 - O_1 = TE + H + MA + MT + IT + I + SR + MO$$

$$O_4 - O_3 = H + MA + MT + I + SR + MO$$

= EV (Extraneous Variables)

- The experimental result is obtained by:

$$(O_2 - O_1) - (O_4 - O_3) = TE + IT$$

- Interactive testing effect is **NOT** controlled.
-

Posttest-Only Control Group Design:

EG: R X O₁

CG: O₂

- The treatment is obtained by: $TE = O_1 - O_2$
 - Except for pre-measurement, the implementation of this design is very similar to that of the pretest-posttest control group design.
-

Quasi-Experimental Designs: Time Series Design

O₁ O₂ O₃ O₄ O₅ X O₆ O₇ O₈ O₉ O₁₀

- There is no randomization of test units to treatments.
 - The timing of treatment presentation, as well as which test units are exposed to the treatment, may not be within the researcher's control.
-

Multiple Time Series Design:

EG: O₁ O₂ O₃ O₄ O₅ X O₆ O₇ O₈ O₉ O₁₀

CG: O₁ O₂ O₃ O₄ O₅ X O₆ O₇ O₈ O₉ O₁₀

Statistical Design:

Statistical designs consist of a series of basic experiments that allow for statistical control and analysis of external variables and offer the following advantages:

- The effect of more than one independent variable can be measured.
- Specific extraneous variables can be statistically controlled.
- Economical Designs can be formulated when each test unit is measured more than once.

The most common statistical designs are randomized block design, the Latin square design, and the randomized block.

Randomized Block Design:

- Is useful when there is only one major external variable, such as store size, that might influence the dependant variable.
- The units are blocked, or grouped, on the basis of the external variable.
- By blocking, the researcher ensures that the various experimental and control groups are matched closely on the external variable.

TREATMENT GROUPS

Block Number	Store Patronage	Commercial A	Commercial B	Commercial C
1	Heavy	A	B	C
2	Medium	A	B	C
3	Low	A	B	C
4	None	A	B	C

Latin Square Design:

- Check Book for Definition:

Store Patronage	High	Medium	Low
1	B	A	C
2	C	B	A
3	A	C	B

Factorial Design:

- Is used to measure the effects of two or more independent variables at various levels.
- A factorial design may also be conceptualized as a table.
- In a two-factor design, each level of one variable represents a row and each level of another variable represents a column.

The Experimental Setting: Laboratory or Field (To Learn about experimental setting):

- **Laboratory Experiments:**
 - Conducted in a controlled setting.
- **Advantages of laboratory experiments:**
 - Ability to control all variables
 - Greater internal validity
- **Disadvantages of Laboratory Experiments:**
 - Low External Validity
 - Not Transferrable to the actual marketplace.

- **Field Experiments:**
 - Test conducted outside the laboratory
- **Advantages of field experiments:**
 - Creates Realism of the environment
- **Disadvantages of field Experiments:**
 - Internal Validity
 - No control over fakes factors
 - Action of competitors - Societal Trends
 - Weather - Political Climate
 - Economy

Comparison between lab and field experiments:

Factor	Laboratory	Field
Environment	Artificial	Realistic
Control	High	Low
Reactive Error	High	Low
Demand Artifact	High	Low
External Validity	Low	High
Time	Short	Long
Number of Units	Small	Large
Ease of Implementation	High	Low
Cost	Low	High

Limitation of Experimentation: (Check Book for Elaboration)

- Experiments can be time consuming.
- Experiments are often expensive.
- Experiments can be difficult to administer.
- Competitors may deliberately contaminate the results of a field experiment.

Classification of Test Marketing:

- **Test marketing** is an application of a controlled experiment, done in a limited but carefully selected part of the marketplace called **Test Markets**, which involves a replication of the planned national marketing program of a product.
 - In a **standard test market** the product is sold through regular distribution channels.
 - The company's own **sales force** is responsible for **distributing the product, stock the shelves, and taking inventory** at regular intervals.
 - **A Controlled test marketing** program is conducted by an outside research company. The research company is responsible for all activities associated with the test market.
 - **Simulated test markets** yield mathematical estimates of market share based on initial reaction of the consumers to the new product.
-

Criteria for the Selection of Test Markets: (Controlled or Simulated)

Test Markets should have the following qualities:

1. Be large enough to produce meaningful projections. They should contain at least 2% of the potential actual population.
 2. Be representative demographically.
 3. Be representative with respect to product consumption behavior.
 4. Be representative with respect to media usage.
 5. Be representative with respect to competition.
 6. Be relatively isolated in terms of media and physical distribution.
 7. Have normal historical development in the product class.
 8. Have marketing research and auditing services available.
 9. Not be over-tested.
-

Chapter 10: Questionnaire & Form Design

- A **questionnaire** is a formalized set of questions information from respondents.

Questionnaire Objectives:

- It must translate the information needed into a set of specific questions that the respondents can and will answer.
 - A questionnaire must uplift, motivate, and encourage the respondent to become involved in the interview, to cooperate, and to complete the interview.
 - A questionnaire should minimize response error.
-

Effect of Interviewing Method on Questionnaire Design: Department Store Project

Mail Questionnaire:

- Please rank order the following department stores in order of your preference to shop at these stores. Begin by picking out the one store that you like most and assign it a number 1. Then find the second most preferred department store and assign it a number 2. Continue this procedure until you have ranked all the stores in order of preference. The least ranked

Telephone Questionnaire:

- I will read to you the names of some department stores. Please rate them in terms of your preference to shop at these stores. Use a ten-point scale, where 1 denotes not so preferred and 10 denote greatly preferred. Numbers between 1 and 10 reflect intermediate degrees of preference. Again, Please remember that the higher the number.....

Personal Questionnaire:

- (Hand Department Store Cards to the respondents). Here is a set of department store names, each written on a separate card. Please examine these cards carefully. (Give Respondent Time). Now, Please examine these cards again and pull out that card which has the store you like the most.... Then 2nd most..... and so on.....

Electronic Questionnaire:

- This question for e-mail and Internet questionnaires will be similar to that for the mail questionnaire.
 - In All these methods, the questionnaire is self-administered by the respondent.
-

Individual Question Content – Are Several Questions Needed Instead of One?

- Sometimes, several questions are needed to obtain required information in an unambiguous manner. Consider the question:

"Do you think Coca-Cola is a tasty and refreshing soft drink?" (Incorrect)

- Such a question is called a double-barreled question, because two or more questions are combined into one. To obtain the required information, two distinct questions should be asked:
 - Do you think Coca-Cola is a tasty soft drink?
 - Do you think Coca-Cola is a refreshing soft drink?

(Correct)

Overcoming Inability To Answer – Is the Respondent Informed?

- In situations where not all respondents are likely to be informed about the topic of interest, **filter questions** that measure familiarity and past experience should be asked before questions about the topics themselves.
 - A "**don't know**" option appears to reduce uninformed responses without reducing the response rate.
-

Overcoming Inability To Answer – Can the respondent Remember?

- How many gallons soft drinks did you consume during the last four weeks? (**Incorrect**)
 - How often do you consume soft drinks in a typical week? (**Correct**)
-

Overcoming Inability to Answer - Can the Respondent Articulate?

- Respondents may be unable to articulate certain types of response, e.g., describe the atmosphere of a department store.
 - Respondents should be given aids, such as pictures, maps, and descriptions to help them articulate their responses.
-

Overcoming Unwillingness To Answer – Effort Required of the Respondents:

- Most respondents are unwilling to devote a lot of effort to provide information.
-

Overcoming Unwillingness To Answer

- Please list all the departments from which you purchased merchandise on your most recent shopping trip to a department store. **(Incorrect)**

In the list that follows, please check all the departments from which you purchased merchandise on your most recent shopping trip to a department store. **(Correct)**

Overcoming Unwillingness to Answer

Context:

- Respondents are unwilling to respond to questions which they consider to be inappropriate for the given context.
- The researcher should manipulate the context so the context so that the request..

Legitimate Purpose

Sensitive Information

Increase Willingness of Respondents

- Place sensitive topics at the end of the questionnaire.
- Preface the questions with a statement that the behavior of interest is common.
- Ask the question using the third-person technique (See Chapter 5): phrase the question as if it preferred to other people:

- Hide the question in a group of other questions which respondents are willing to answer. The entire list of questions can then be asked quickly.
 - Provide response categories rather than asking for specific figures.
 - Use randomized techniques.
-

Choosing Question Structure – Unstructured Questions

- **Unstructured Questions:** Are open-ended questions
 - **Structured Questions:** Are close-ended questions
- (Also Hybrid Questions, which is a mix of these two structures)
-

Choosing Question Structure – Multiple-Choice Questions:

Dichotomous Questions: Has only two response alternatives: Yes or No, Agree or Disagree, and So on.

- Yes/No/Don't know (Example)
-

Choosing Question Structure – Scales

Agreement Level Scale / Importance Level Scale / Frequency Level Scale / Preference Level Scale
