MKT500 Week2:

Research Design

- **Research Design** is a set of advance decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information

Why is research design important?

- Good research design is the “first rule of good research”
- Knowledge of the needed research design allows advance planning so that the project may be conducted in less time and typically at a cost savings due to efficiencies gained in preplanning

Objectives of Research Design

- To gain background information and to develop hypotheses
- To measure the state of a variable of interest
- To test hypotheses that specify the relationships between 2 or more variables

Comparing Qualitative and Quantitative Research:

Qualitative Research	Research Aspect	Quantitative Research
Discover Ideas, Used in Exploratory Research with General Research Objects	Common Purpose	Test Hypotheses or Specific Research Questions
Observe and Interpret	Approach	Measure and Test
Unstructured, Free-Form	Data Collection Approach	Structured Response Categories Provided
Researcher Is Intimately Involved. Results Are Subjective.	Researcher Independence	Researcher Uninvolved Observer. Results Are Objective.
Small Samples—Often in Natural Settings	Samples	Large Samples to Produce Generalizable Results (Results That Apply to Other Situations)
Exploratory Research Designs	Most Often Used	Descriptive and Causal Research Designs

3 Types of Research Designs:

- Exploratory
- Descriptive
- Casual

Exploratory Research:

- Usually conducted at the outset of research projects
- It is usually conducted when the researcher wants to discover new ideas

In-depth Interviews

- Well trained interview asks participant set of semi structured questions in a face to face setting to collect data
- Interviewers require interpersonal communication & listening skills
- Step involved:
    - Understand initial questions
    - Create a set of research questions
    - Determine the best environment for the interview

Focus Group Interview

- An unstructured, free-flowing interview with a small group (6-10) led by a moderator who encourages dialogue among respondents
- Advantages:
    - Relatively fast
    - Easy to execute
    - Allow respondents to piggyback off each other's ideas
    - Provide multiple perspective
    - Flexibility to allow more detailed descriptions
    - High degree of scrutiny

Analyzing and Reporting the Results

- **Debriefing analysis:** researchers and moderator discuss the subjects' responses to the topics that outlined the focus group session
- **Content analysis:** involves grouping individual responses into larger theme categories or patterns

Other Qualitative Data Collection Methods

- **Ethnography**
    - Records behaviour in natural settings to understand how social and cultural influences affect individuals behaviours and experiences
    - **Participant observation:** extended observation of behaviour in natural settings in order to fully experience cultural or subcultural contexts
- **Case study:** intensively investigates one or several existing situations
    - Similar to the current problem or opportunity

Projective Techniques

- Enable a subjects to project beliefs and feelings toward:
    - Third party
    - Task situation
    - Inanimate object
- Types of projective techniques

- **Word Association test:** subject is presented with a list of words or short phrases, one at a time, and asked to respond with the first word that comes to mind
- **Sentence completion test:** subjects are given a set of incomplete sentences and asked to complete them in their own words

Social Media Monitoring and the Listening Platform

- **Social Media Monitoring:** research based on conversations in social media
- **Listening platform or post:** monitors and analyzes social media sources
    - To provide insights that support marketing decision making
- **Sentiment analysis (opinion mining)**
    - Applies technology to identify, extract, and quantify subject information in textual data
- **Netnography:** requires deep engagement with online communities
    - Characteristics
        - Extensive contact and analysis of online communities
        - Use of participant observation

Descriptive Research

- Is undertaken to describe answers to questions of who, what, where, when, and how
- It is desirable when we wish to project a study's findings to a larger population, if the study's sample is representative

Classifications:

- **Cross-sectional** studies:
    - Measures units from a sample of the population at only one point in time (or "snapshot")
    - Sample surveys are cross-sectional studies whose samples are drawn in such a way as to be representative of a specific population
    - Those studies are usually presented with a margin of error
- **Longitudinal** studies:
    - Repeatedly measure the same sample units of population over time
    - Since they involve multiple measurements over time, they are often described as "movies" of the population

Causal Research

Causality may be thought of as understanding a phenomenon in terms of conditional statements of the form "If x, then y."

- Causal relationships are often determined by the use of experiments

Experiments - is defined as manipulating an independent variable to see how it affects a dependent variable, while also controlling the effects of additional extraneous variables

Independent variables are those variables which the researcher has control over and wishes to manipulate (4 P's)

- Eg. level of ad expenditure; type of ad appeal; display location; method of compensating salespersons; price; type of product.

Dependent variables are those variables that are measured in response to changes in independent variable.
Extraneous variables are those variables that may have some effect on a dependent variable yet are not independent variables.

Experimental Design is a procedure for devising an experimental setting such that a change in a dependent variable may be attributed solely to the change in an independent variable
Symbols of Experimental Design:

- O = **measurement,** or observation, of a dependent variable
- X = **manipulation,** or change, of an independent variable
- R = **random assignment** of subjects to experimental and control groups
- E = **experimental effect** (change in the dependent variable due to independent variable)

Pretest and Posttest

- Pretest refers to the measurement of the dependent variable taken prior to changing the independent variable
- Posttest refers to measuring the dependent variable after changing the independent variable

Control Group: control of extraneous variables is typically achieved by the use of a second group of subjects
Experimental group: the change that has been exposed to a change in the independent variable
Before-After with Control group: design may be achieved by randomly dividing subjects of the experiment in 2 groups

How Valid are Experiments?
An experiment is **valid** if:

- The observed change in the dependent variable is due to the independent variable;
- The results of the experiment apply to the "real world" outside the experimental setting

2 forms of validity are used to assess the validity of an experiment:

- **Internal validity** is concerned with the extent to which the change in the dependent variable is actually due to the change in the independent variable
- **External Validity** refers to the extent that the relationship observed between the independent and dependent variables during the experiment is generalizable to the "real world"

Types of Experiments

- **Laboratory Experiments** are those in which the independent variable is manipulated and measures of the dependent variable are taken in a contrived, artificial setting for the purpose of controlling the many possible extraneous variables that may affect the dependent variable.
- **Field Experiments** are those in which the independent variables are manipulated and the measurements of the dependent variable are made on test units in their natural setting.

Test Marketing - is the phase commonly used to indicate an experiment, study, or test that is conducted in a field setting.

- Main uses of test markets:
    - To test sales potential for a new product or service
    - To test variations in the marketing mix for a product or service

Pros & Cons of Test Marketing

Advantages:

- Test marketing allows for the most accurate method of forecasting future sales, and it allows firms the opportunity to pretest marketing-mix variables

Disadvantages:

- Test markets do not yield infallible results
- Competitors may intentionally try to sabotage test markets
- Test markets bring about exposure of the product to the competition
- Test markets may create ethical problems

Secondary Data & Packaged Information

What is 'Big Data'?

- Big Data can be defined simply as large amounts of data from multiple sources
- The term has been popularized in recent years in response to the numerous types and huge amounts of data to which companies now have access in real time

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

Classification of secondary data:

- **Internal secondary data** are data that have been collected within the firm, such as sales records, purchase requisitions, and invoices
- Internal secondary data is used for database marketing
- **Database marketing** is the process of building, maintaining customer (internal) databases and other (internal) databases for the purpose of contacting, transacting, and building relationships. Eg. data mining

Internal Databases

- **Internal databases** consist of info gathered by a company, typically during the normal course of business transactions
- Companies use their internal databases for purposes of direct marketing and to strengthen relationships with customers, which is referred to as **customer relationship management (CRM)**
- **Data mining** is the name for software that helps managers make sense out of seemingly senseless masses of info contained databases
- **Micromarketing** refers to using a differentiated marketing mix for specific customer segments, sometimes fine-tuned for the individual shopper

<u>Ways companies use databases</u>:

- To identify prospects
- To decide which customers should receive a particular offer
- To deepen customer loyalty
- To reactivate customer purchases
- To avoid serious mistakes

External Secondary Data

External databases are databases supplied by organizations outside the firm:

- Published sources
- Official data
- Data aggregators: services or vendors that organize and package information on focused topics

Advantages of Secondary Data:

- Are obtained quickly
- Are inexpensive
- Are readily available
- Enhance existing primary data
- May achieve research objective

Disadvantages of Secondary Data:

- Reporting units may be incompatible
- Measurement units do not match
- Class definitions are not usable
- May be outdated

- May not be credible

What is Packaged Information?

- **Packaged info** is a type of secondary data in which the data collected and/or the process of collecting the data are prepackaged for all users
- There are 2 broad classes of packaged information:
    - **Syndicated Data:** a form of external, secondary data that are supplied from a common database to subscribe for a service fee
    - **Packaged services:** a prepackaged marketing research process that is used to generate information for a particular user

- marketing applications of Packaged Info:
    - measuring consumer attitudes and opinions
    - market segmentation (often using geodemographics)
    - monitoring media usage and promotion effectiveness
    - market tracking studies

Social Media Data

- **Social Media data,** also known as **user-generated content (UGC),** is any info that is created by users of online systems and intended to be shared with others
- Eg. reviews, tips, new users, competitors

advantages : currency, inexpensive, unprompted, can track trends
Disadvantages: audience may not be representative, consumers not identifiable, review websites subject to manipulation, shallow content

The internet of things

- **The internet of things (IoT)** is defined as the network of physical objects that are embedded with software or sensors that allow them to gather and distribute data
- **Passive Data** are info that is collected without overt consumer activity
- **Wearables** or wearable technology, are clothing or accessories that are equipped with computer technology or sensors that allow the collection and sharing of data