Chapter 8: Surveys

Descriptive designs and surveys in quantitative research

- Used when the nature of the research problem is to describe the specific characteristics of market situations, target populations, or other phenomena of interest.
- Usually undertaken after exploratory research.
- Research design is descriptive based on
    1. Nature of the descriptive problem
    2. The set of research questions
    3. The research objectives

- **Variable:** an observable, measurable element of object or event
- **Relationship:** a consistent and systematic link between two or more variables
- **Construct:** concept or idea about an object, an attribute or a phenomenon that is worthy of measurement when solving a decision problem with marketing research
- **Independent variable:** predicts or explains the outcome variable. The value of this variable is generally able to be directly manipulated by the researcher
- **Dependent variable:** measures of effect or outcome that occur during the experiment, or measures of change in the conditions that exist after the experiment is completed.
- **Positive relationship:** association between two variables in which they increase and decrease together.
- **Negative relationship:** association between two variables where one increases while the other decreases.
- **Null hypothesis:** a statement that there is no statistically significant relationship perceived to exist between two questions, dimesons or subgroupings of attributes.
- **Alternative hypothesis:** statement that is the opposite of the null hypothesis, where the difference is not simply due to random error.

Survey Research Methods

- **Survey Research Methods:** Research procedures for collecting large amounts of data using question-and-answer formats.
    - Descriptive and causal research
    - The need to collect data from large groups (eg 100>)
    - Individuals answer the same predetermined set of questions and that responses selected from a set of possible answers ne recorded in a structured, precise manner.
    - Findings used to
        1) Make accurate predictions about relationships between market factors and customer behaviours
        2) Understand the relationships and differences
        3) Validate the existing relationships

Advantages of survey methods	*Disadvantages of survey methods*
- Accommodate large sample sizes; results generalised to defined target population - Produce precise enough estimates to identify even small differences - Easy to administer and record structured questions - Facilitate advanced statistical analysis - Concepts and relationships not directly measurable and can be studied	- Questions that accurately measure respondent attitudes and behaviours can be challenging to develop - Richness of details and in-depth data difficult to obtain - Timeliness of data is a challenge - Low response rates can be a problem

Types of error in survey research

- Errors reduce the accuracy and quality of the data collected by researchers.

- **Sampling error:** any error in a survey that occurs because a sample is used; it is mainly attributed to mistakes in either drawing a sample of determining the sample size.
    - Error reduced or controlled by increasing the sample size and using an appropriate sampling method.

- **Non-sampling error:** any error/ type of bias that occurs in a research study or survey, expect those attributable to mistakes in either drawing a sample or determining the sample size.
    - Respondent errors, measurement or questionnaire design errors, faulty or incorrect problem definition errors and project administration errors.
    - Systematic error not consider a natural occurrence of the surveyed respondents.
    - Imperfections of survey design or mistakes in research process.
    - Errors are CONTROLLABLE- human error.

    - *Respondent error*
        - **Non-response error:** systematic bias that occurs when the final sample differs from the planned sample.
        - **Response error:** tendency of respondents to answer a question in a particular and unique systematic way that distorts their answers and true thoughts.
        - **Faulty recall:** the inability of a person to accurately remember the specifics about the behaviour under investigation.
        - **Averaging:** assuming the norm behaviour or belief to be the reality.
    - *Measurement and design error:*
        - **Construct development error:** a type of non-sampling (systematic) error that is created when the researcher is not careful in fully identifying the concepts to be included in the study.
        - **Scale measurement error:** occurs when researchers do not develop or use the appropriate scales to measure the constructs
        - **survey instrument error:** type of error that occurs when the survey instrument induces some type of systematic bias in the response
        - **data analysis error:** family of non-sampling errors that is created when the researcher subjects the data to inappropriate analysis procedures.
        - **misinterpretation error:** inaccurate transformation of data analysis results into usable bits of information for the decision maker
        - **interpretative bias error:** error that occurs when the wrong inference about the ral world or defined target population is made by the researcher or decision maker due to some type of extraneous factor.
        - **selective perception bias:** error that occurs in situations where researchers or decision makers use only a selected portion of the survey results to paint a tainted picture of reality.
    - *Faulty problem definition error*
        - **Faulty problem definition error:** an incorrect definition of what the marketing problem really is
    - *Projection administration error:*
        - **projection administration error:** bias that can stem form data processing mistakes, interviewer distortion of the respondents answers or systematic inaccuracies created through using a faulty sampling design.
        - **data processing error:** occur when researches are not accurate or complete in transferring data from respondents to computer files.
        - **coding error:** caused by assigning the wrong computer code to a response
        - **data entry error:** incorrect assignment of a computer codes to their predesignated location on the computer data file.
        - **interviewer error:** created in situations where the interviewer distorts information in a systematic way from respondents during or after the interviewer respondent encounter.
        - **editing error:** results of carelessness in verifying coding or data entry procedures
        - **unconscious misrepresentation:** occurs when interviewers induce a pattern of responses that does not represent the target population.