Digital research using secondary data

MKTG 202

- Secondary data research
    - Data that has been previously collected for some purpose other than the one at hand
    - Advantages: availability, also always faster and less expensive
    - Disadvantages: not designed specifically to meet researchers needs, units of measurement (data conversion), cross-check data
- Typical objectives for secondary data research designs
    - Fact finding
        - Identification of consumer behaviour for a product category
        - Trend analysis, market tracking: the observation and analysis of trends in industry volume and brand share over time
        - Environmental scanning: information gathering and fact-finding that is designed to detect indications of environmental changes in their initial stages of development
    - Model building
        - The use of secondary data to help specify relationships between two or more variables
        - Estimating market potential for geographic areas
        - Use of secondary data with survey data
    - Data mining
        - The use of powerful computers to dig through volumes of data to discover patterns about an organisations customers and products
        - Neural network: a form of artificial intelligence in which a computer is programed to mimic the way that the human brain processes information
        - Market basket analysis: a form of data mining that analyses anonymous point-of-sale transaction databases to identify coinciding purchases or relationships between products purchased and other retail shopping information
        - Customer discovery: involves mining data to look for patterns identifying who is likely to be a variable customer
    - Database marketing and customer relationship management
        - Database marketing: the use of customer databases to promote one-to-one relationships with customers and crease precisely targeted promotions
- Sources of secondary data
    - Internal and proprietary data sources: organisations financial reporting etc.
    - External data: data created, recorded or gathered by an entity other than the researchers organisation
    - Information's as a product and its distribution channels

Planning the sample

- Sample: a subset, or some part, of a larger population
- Population: an complete group of entities that share some common set of characteristics
- Population element: an individual member of a population

Why sample?

- Budget
- Time constraints
- Inaccessibility
- Accurate and reliable results
- May not want to corrupt too many people in the population
- Accurate only when researchers have taken care to properly draw representative samples
- Census introduces a greater likelihood of non-sampling errors

Practical sampling concepts

1. Define the target market: relevant population
2. Select a sampling frame: a list of elements from which a sample may be drawn; also called working population. When a list is infeasible then the sampling frame is a highly detailed explanation of how a representative subset of the target population will be contacted
    - Sampling frame error: an error that occurs when certain sample elements are not listed or are not accurately represented in a sampling frame

- Random sampling error: the difference between sample result and the result of a census conducted using identical procedures; a statistical fluctuation that occurs because of chance variation in the elements selected for a sample
- Systematic (non-sampling) error: error resulting from some imperfect aspect of the research design, such as mistakes in sample selection, sampling frame error or nonresponses from persons who were not contacted or refused to participate
- Nonresponse error: the statistical difference between a survey that includes only those who responded and a prefect survey that would also include those who failed to respond

Probability sampling: a sampling technique in which every member of the population has a known, non-zero probability of selection

- Simple random sampling: a sampling procedure that assures each element in the population of an equal chance of being included in the sample
- Systematic sampling: a sampling procedure in which a starting point is selected by a random process and then every nth number on the list is selected
- Stratified sampling: a probability sampling procedure in which simple random subsamples that are more or less equal on some characteristic are drawn from within each stratum of the population