



# **SNS COLLEGE OF ENGINEERING**

**Kurumbapalayam (Po), Coimbatore - 641 107**

**An Autonomous Institution**

**Accredited by NBA - AICTE and Accredited by NAAC - UGC with 'A' Grade**

**Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai**



## **DEPARTMENT OF MANAGEMENT STUDIES**

**COURSE NAME : 19BA106 FUNDAMENTALS OF DATA ANALYSIS**

**I YEAR /I SEMESTER**

**Unit 2 - SAMPLING AND ESTIMATION**

**Topic 2: FDA - Survey and Sampling**



# SURVEY

➤ A survey is a research method used for collecting data from a predefined group of respondents to gain information and insights into various topics of interest.





# SURVEY

There are four modes of survey data collection that are commonly used.

- Face-to-face surveys
- Telephone surveys
- paper and pencil surveys
- computer surveys (typically online)



# HOW TO CREATE A SURVEY WITH A GOOD DESIGN

**Define objective:** The survey would have no meaning if the aim and the result unplanned before deploying it.

**Simple language:** One factor that can cause a high survey dropout rate is if the respondent finds the language difficult to understand.

**Question types -** multiple-choice questions help increase the survey response rate.

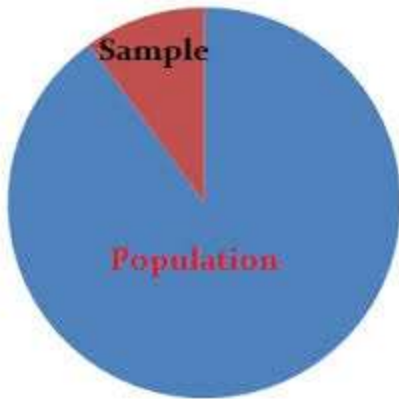


# HOW TO CREATE A SURVEY WITH A GOOD DESIGN

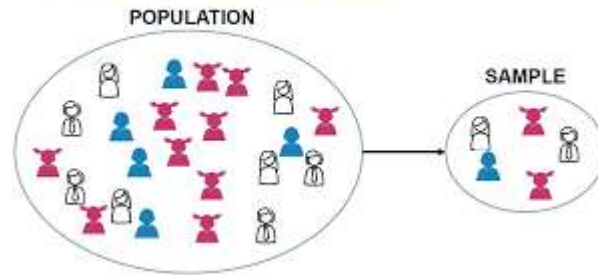
- **Consistent scales:** If you use rating scale questions, make sure that the scales are consistent throughout the research study. Using scales from -5 to +5 in one question and -3 to +3 in another question may confuse a respondent.



# SAMPLE VS. POPULATION



## Population and Sample





# SAMPLE VS. POPULATION

- A **population** is the entire group that you want to draw conclusions about.
- A **sample** is the specific group that you will collect data from. The size of the sample is always less than the total size of the population
- In research, a population doesn't always refer to people. It can mean a group containing elements of anything you want to study, such as objects, events, organizations, countries, species, organisms, etc.



# SAMPLE VS. POPULATION

- To study the job satisfaction of IT employees in India
- To analyze the shopping experience of a customer in Phoenix Mall
- A critical analyses of work stress in hospital industry





# REASONS FOR SAMPLING

- **Necessity:** Sometimes it's simply not possible to study the whole population due to its size or inaccessibility.
- **Practicality:** It's easier and more efficient to collect data from a sample.
- **Cost-effectiveness:** There are fewer participant, laboratory, equipment, and researcher costs involved.
- **Manageability:** Storing and running statistical analyses on smaller datasets is easier and reliable.



# SAMPLE SIZE

- The number of individuals in your sample depends on the size of the population, and on how precisely you want the results to represent the population as a whole.
- In general, the larger the sample size, the more accurately and confidently you can make inferences about the whole population.





# SAMPLING METHODS

➤ To draw valid conclusions from your results, you have to carefully decide how you will select a sample that is representative of the group as a whole

**i) Probability sampling** - Probability sampling means that every member of the population has an equal chance of being selected.

**ii) Non-probability sampling** involves non-random selection based on convenience or other criteria, allowing you to easily collect initial data.



**RECAP**

**QUESTIONS???**

**THANK YOU**

