

**WELCOME**

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# ***SAMPLING***

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# ***Contents...***

- Meaning of sampling
- Characteristics of sample
- Why sampling
- Sampling techniques or methods

# ***Meaning ;***

- Sampling means obtaining information from a portion of a larger group or from universe.
- Elements are selected in a manner that they yield all most all information about the whole universe, if and when selected according to some scientific principles and procedures.

## ***Definition of Sample;***

**Ya – Lun – Chou** defines a sample “ as a collection of primary sampling units, select as a representative microcosm, from which references about the population may be made.”

# *Characteristics of Good Sample*

- Representativeness
- Accuracy
- Precision
- Size

# *Why Sampling???*

## *Advantages of Sampling*

- Sampling reduces the time and cost of research studies.
- Sampling saves labour.
- Sampling helps to collect vital information more quickly.
- Sampling is easier.
- Accuracy is concerned in sampling

## *Disadvantages of Sampling*

- It demands a thorough knowledge of sampling methods and procedures.
- It is not feasible.
- Sampling procedures must be correctly designed and followed.
- Reliability depends up on the representativeness of the sample.
- It requires service of sampling experts or statisticians.

# **Sampling Techniques or Methods**

Sampling techniques or methods may be classified in two generic types:-

1. Probability or Random Sampling
2. Non Probability or Non Random Sampling

# **SAMPLING METHODS**

## ***Non – Probability Sampling***

- Convenience or Accidental Sampling
- Purposive or Judgment Sampling
- Quota Sampling
- Snow Ball Sampling

## ***Probability Sampling***

### ***Simple Designs***

- Simple Random Sampling
- Stratified Random Sampling
- Systematic Random Sampling

### ***Complex Design***

- Cluster and Area Sampling
- Multi Stage and Sub Sampling
- Double Sampling and multi Face Sampling
- Replicated Sampling

# *Probability Sampling Techniques*

- Based on the theory of probability.
- Every population has a chance of being selected.
- Such a chance is a probability.

## **Non – Probability Sampling**

- It does not ensure a selection chance to each population unit.
- The selection probability is unknown.
- It may not be a representative one.

# **Types of Probability Sampling**

## **1. Simple Random Sampling**

- This type of sampling gives all units of the target population an equal chance of being selected.
- The sample units are selected by means of a number of methods.

# **Random Sampling Procedure**

- The Lottery Method
- The Random Numbers Method
- The Computer Method
- Grid Method

## *Advantages of Random Sampling*

- It is the easiest method.
- All elements have an equal chance of being selected.
- Sampling errors can be easily computed.

## *Disadvantages*

- It is often impractical
- It is time consuming
- Units are arranged in specific order
- It is difficult in the case of field surveys

## **2. Stratified Random Sampling**

- This is a special form of simple random sampling
- The population is divided into a number of strata
- The division of population is based on one or more criteria.

## **Steps in Stratified Random Sampling**

- Target population is divided into a number of strata
- Sampling frames for each groups are identified
- Drawing sample from each group
- The sub samples are merged in to one sample

## **Types of Stratified Random Sampling**

- Proportionate Stratified Sampling
- Disproportionate stratified Random Sampling

## *Proportionate Stratified Sampling*

- It is a very popular method
- Drawing a sample from each stratum
- It gives proper representation to each stratum

## *Advantages*

- Proper representation to all sub groups
- Higher statistical efficiency
- It is easy to carry out

## *Disadvantages*

- A prior knowledge is required
- It is very expensive
- Sometimes it lead to classification errors

# **Disproportionate Stratified Random Sampling**

- It does not give proportionate representation to strata
- Over representation and under representation are in this method.

## **Advantages**

- It is less time consuming
- It gives weightage to particular group

## **Disadvantages**

- Proportionate representation is not given to each stratum
- It requires a prior knowledge
- It is subject to classification errors

# *Systematic Sampling or Fixed Interval Method*

- It is an alternative to random sampling
- Selection of sample units is dependent on the selection of a previous one
- It is sometimes called a “pseudo – random “ sampling

## *Advantages*

- It is much simpler than random sampling
- It is useful to field investigations
- It requires less time
- It is cheaper than simple random sampling

## *Disadvantages*

- It cannot be considered to be a probability sampling
- Each element do not have an equal chance of being selected
- Sometimes it gives a biased sample

# ***Conclusion***

- Sampling is one of the most fundamental elements of research, and one that has attracted the interest of many social researchers and alike.
- Sampling is the method of choosing the respondents of a study and one which is widely used in social research.
- Some form of sampling is employed by quantitative and qualitative researchers, although to a different extent and in a different form.

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