

(XI Economics Part B

(text book page 41 to 53)

Chapter - 3

Census and Sample Method of Collection of Data

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1. Concepts of Census and Sample

- In Statistics, universe or Population simply refers to an aggregate of items to be studied for an investigation. Ordinarily, the term population is used to mean total number of the people living in a country.
- But in Statistics the term population means the aggregate of all items about which we want to obtain information.
- To Illustrate: There are 2000 students in a particular college. If an investigation relates to all the 2000 students, then 2000 would be taken as universe or population. Each unit of these 2000 is called Item.
- So, If a statistical inquiry is based on all items of the universe, it is called a census enquiry.

(See Fig 1. page 42)

2. Census Method

- **Census method is that method in which data are collected covering every item of the universe or population relating to the problem under investigation.**
- **Census method implies complete enumeration of the universe or population. Census of population is the most suitable example of the census method of a statistical enquiry.**
- **To Illustrate: You may be interested in the investigation of colour composition of the Maruti Cars in India. According to the Census method, you are required to collect data on the colour of each and every Maruti Car Sold in India.**
- **Merits:**
 - **Reliability and Accurate**
 - **Less Biased**
 - **Extensive Information**
 - **Study of diverse characteristics**
 - **Study of complete investigation**
 - **Indirect Investigation**

- **Demerits:**
 - Costly
 - Large manpower
 - Not Suitable for Large Investigation

3. Sample Method (text book page 44-46)

- **Sample method** is that method in which data is collected about the sample on a group of items taken from the population for examination and conclusions are drawn on their basis.
- **Merits:**
 - Economical
 - Time Saving
 - Identification of Error
 - Large Investigation
 - Administrative Convenience
 - More Scientific
- **De-merits:**
 - Partial
 - Wrong Conclusion
 - Difficulty in selecting representative sample
 - Difficulty in framing a sample
 - Specialised knowledge

- **Essential of a Sample**

- **Representative**
- **Independent**
- **Homogeneity**
- **Adequacy**

Method of Sampling

(See Text book page 47-51 for detail studies)

Random Sampling:

- It is that method of sampling in which each and every item of the universe has equal chance of being selected in the sample.
- In other words, there is an equal probability for every item of the universe being selected in the sample.

Purposive or Deliberate Sampling:

- It is that method in which the investigator himself makes the choice of the sample items which in his opinion are the best representative of the universe.

Stratified or Mixed Sampling:

- According to this method of sampling, population is divided into different strata having different characteristics and some of the items are selected from each strata, so that the entire population gets represented.

Systematic Sampling:

- According to this method, units of the population are numerically, geographically and alphabetically arranged. Every nth item of the numbered items is selected as a sample item.

Quota Sampling:

- In this method, the population is divided into different groups or classes according to different characteristics of the population.

Convenience sampling:

- In this method, Sampling is done by the investigator in such a manner that suits his convenience.

Census and Sampling Methods: A Comparative Look (or Difference)

- **Coverage**
- **Suitability**
- **Accuracy**
- **Cost**
- **Time**
- **Nature of Items**
- **Verification**

(See text book page 51 and 52 for details)

Assignments:

Short:

1. What is universe?
2. What is Systematic Sampling?
3. What is quota sampling?
4. What are the uses of Census Method?
5. Name the different method of sample.

Long:

1. What is meant by census method? Give its merits and demerits.
2. What is Sample Method? What are its advantages and disadvantages?
3. What is random sampling. What are its merits and demerits?
4. What is Stratified or Mixed Sampling? What are its merits and demerits?
5. Compare the census and sample methods of collecting data.

Note: Students are informed to make respective notes from the given assignments in their note book or PDF or Word file for ready submission.

Things to remember

1. Students are informed to read text book (page 41 to 53) as much as possible for self learning.
2. Students are informed to make respective notes from the given assignments in their note book or PDF or Word file for ready submission.
3. Internal marks/Internal assessment will be made based on their respective notes/assignments and online objective test.
4. If any query, kindly feel free to contact any time through phone/ internet/WhatsApp group/email.

Thank You