# CHAPTER - 4

# ORGANISATION OF DATA

"Organisation of the data refers to the arrangement of figures in such a form that comparison of the mass of similar data may be facilitated and further analysis may be possible. An important method of organisation of data is to distribute these into different classes on the basis of their characteristics. This process is called classification of data.

## CLASSIFICATION

The collected data (either primary or secondary method) are always unorganised form in schedules or questionnaire or another written form.  It is necessary to make them available for comparison, analysis and appreciation by proper and suitable grouping and arranged in Logical and systematic manner Condense form. The process of grouping into different classes or sub-classes according to Characteristics is called classification

## According to this definition, the chief features of classification are:-

1. Data are divided into different group. All the units having similar Characteristics are placed in one class or group.

2. The classification may be actual or notional.

3. The basis of classification is unity in diversity.

4. Classification is grouping of data according to their identity, similarity or resemblance.

5. The data become comparable.

## OBJECTIVE OF CLASSIFICATION

**1. To present the facts in a simple form: -** Classification process eliminates unnecessary details and makes the mass of complex data, simple, brief, logical and understandable.

**2. To bring out clearly points of Similarity and dissimilarity: -** Classification bring out clearly the point of similarity and dissimilarity of the data so that they can be easily arranged.

**3. To facilitate Comparison: -** Classification of data enables one to make comparison, draw inferences and locate facts. This is not possible in an unorganised and unclassified data.

**4. To prepare the basis of tabulation: -** Classification prepared the basis for tabulation and statistical analysis of data. Unclassified data cannot be presented in tables

**5. Attractive and effectives: -** classification makes data more attractive and effective.

## ESSENTIAL OF AN IDEAL CLASSIFICATION

**1. Classification should be unambiguous.**

**2. The classes must not overlap.**

3. Classification should be stable - The classification must proceed at every stage in accordance with one principle and that principle should be maintained throughout.

4. Classification should be flexible: - It should be flexible and should have the capacity of adjustment to new situation and circumstances.

5. Classification should be according to the object of enquiry.

6. Classification should have arithmetical accuracy.

## METHOD OF CLASSIFICATION

Statistical data can be classified according to their characteristics.

1. According to time (Chronological Classification)

2. According to area (Geographical classification)

3. According to attributes (Qualitative classification)

4. According to magnitude or Variables (Quantitative classification)

5. According to Conditions (Conditional Classification)

## 1. Chronological classification

When data are classified on the basis of time, it is known as chronological classification. In such classification, data are classified in ascending or descending order with reference to time.

## 2. Geographical classification

The collected data are grouped with reference to location or geographical division, such as, countries, States, cities, districts, colonies etc.

## 3. Qualitative classification

Data are grouped with reference to quality or attributes which cannot be measured, such as nationality, literacy, employment, religion etc.

## 4. Quantitative classification

The collected data are grouped with reference to Characteristics which can be measured and numerically described such as height, weight, sales, import, age, income etc.

## 5. Conditional Classification

When data are classified with respect to condition the type of classification is called conditional classification.

## 2. CONCEPT OF VARIABLE

A characteristic or a phenomenon which is capable of being measured and changes its value overtime is called a variable. Thus, a variable refers to that quantity which is subject to change and which can be measured by some unit. If we measure the weight of students of Class XI, then the weight of the students will be called variable. A variable may be either discrete or continuous.

**(1) Discrete Variable:** Discrete variables are those variables that increase in jumps or in complete numbers.

**2) Continuous Variable:** Variables that assume a range of values or increase not in jumps but continuously or in fractions are called continuous variables.

## Attributes

The Characteristics which are not capable of being measured quantitatively are called attributes. For example, blindness, deafness, literacy, sickness, tall & short, black and blue eyes, intelligence etc.

## RAW DATA

A mass of data in its crude form is called raw data. It is an unorganised mass of the various items. These are collected by the investigator. They are in their original form.

## SERIES

Raw data are classified in the form of series. Series refer to those data which are presented in some order and sequence. Arranging of data in different classes according to a given order is called series.

## TYPES OF STATISTICAL SERIES

Broadly, statistical series are classified in the following heads:

1. Individual series

2. Discrete series

3. Continuous series

## (1) Individual Series

Individual series are those series in which the items are listed individually.

## (2) Discrete Series

When items are arranged in groups showing definite breaks from one to another and when they are exactly measureable, they form a discrete series.

## (3) Continuous series

When items are arranged in groups or classes but they are not exactly measureable, they form a continuous series.

## OTHER STATISTICAL SERIES

## EXCLUSIVE AND INCLUSIVE SERIES

### 1. Exclusive series

When the class intervals are fixed that the upper limit of one class interval is the lower limit of the next class interval, it is called an exclusive series.

### 2. Inclusive series

In inclusive series, the upper limit of one class interval is not equal to lower limit of its next class interval.

## NON CUMULATIVE OR SIMPLE AND CUMULATIVE SERIES

## Non-cumulative or simple

In a non-cumulative or simple series, the frequency corresponding to each class interval is shown separately and individually.

## Cumulative series

In a cumulative frequency series the frequencies are progressively totaled and aggregates are shown.