

STATISTICAL DESCRIPTION OF DATA

Introduction

Latin Italian German French

Status Statista Statistiek Statistique

Meaning

Singular

Method

Plural

Data

Application of Statistics

Economics

Business Management

Industry

Commerce

Collection of Data

Primary

Collected for the first time

Secondary

Already Collected

Primary Data

Interview

Mailed Questionnaire method

Observation

Questionnaire sent by Enumerator

Personal

Bests Costly TimeConsuming Natural

Indirect

Not reliable Rail Accident

Telephonic

Quickand Non expensive Non-response Non-Interview

Secondary Data

International Sources

Government Sources

Private and Quasi Sources

Unpublished Sources

Classification (Organisation) of Data

Chronological or Temporal or Time Series

Non-frequency group

Geographical or Spatial Series

Non-frequency group

Qualitative or Qualial Data

frequency group

Quantitative or Cardinal Data

frequency group

Qualitative or Attribute

Eg.

Nationality Defining habit Beauty intelligent



# **dovely Italian Girl friend**

#

**limitations**

Qualitative  
Cannot  
deal

Individuals  
Go't deal

Depends on  
future  
Prediction

True  
Only on  
Average



STATISTICAL DESCRIPTION OF DATA

Mode of Presentation of Data

Textual

Paragraph or Not Paragraphs

Tabular

Logical and Systematic Arrangement

Diagrammatic

Provided by charts, Diagrams & Figures

Line Diagram

Logarithmic Ratio chart

Wide range of fluctuation

Multiple line chart

Two or more related series same unit

Multiple Axis chart

Two or more related series different units

Parts of Table

Caption

Upper Part Columns and Sub-Columns

Box-head

Entire upper Part. Including Columns and Sub Columns Unit of Measurement

Stub

Left Part Provide description of Rows

Body

Main Part Contain Numerical figures

Footnote & Sources

Bottom Part of the table

Bar Diagram

Horizontal Bar diag.

Qualitative Data or Data Varying Over space

Vertical Bar diag

Quantitative Time-Series Data

Multiple or Grouped

Used to compare related series

Component or Sub-divided

Representing Data Divided into No of Components

Divided or Percentage

Compare different components and their Relation to whole

Types of Diagrams

Line Diagram

or Histogram

Bar Diagram

Scarfing of Data

Accuracy Consistency

Pie chart

Columns of Table

Variable

Eg. height Age

Tally

Block of five

Frequency

No of time an obs occurs

One Dimensional

Bar

Two Dimensional

Pie Rectangle

Three Dimensional

Cube



STATISTICAL DESCRIPTION OF DATA

Graph of Frequency Distribution

Histogram  
or  
Area Diagram

Containing Set  
of Rectangles  
width  $\rightarrow$  class Interval  
height  $\rightarrow$  frequency

frequency Density,  
if class-intervals are  
unequal

mode can  
be calculated

class-interval  
should be in  
exclusive form

Frequency  
Polygon

joining  
mid-points  
of top  
horizontal  
side of  
rectangles  
in a  
Histogram

Can be drawn  
(i) By pre-  
fixing  
Histogram  
(ii) Direct

Cumulative  
Frequency Curve  
or Ogive

less than  
ogive

More than  
ogive

Point of Intersection  
is Median.

Frequency  
Curve

Bell  
Shaped

U-sh  
open  
T-sh  
open  
Mixed

Inclusive Series  
 $\Rightarrow$  Upper and lower  
Both limit  
included

Exclusive Series  
 $\Rightarrow$  Upper limit  
Excluded

Class Boundaries  
Actual class limit

Lower Class  
Boundaries

$LCL - \frac{1}{2}$  the gap

Upper class  
Boundaries

$UCL + \frac{1}{2}$  the gap

Lower  
Class  
Limit

Upper  
Class  
Limit

End values of class

Class limit

Class-Mark or  
Mid Point or  
Mid value

$\frac{LCL + UCL}{2}$  or  $\frac{LCL + UCL}{2}$

Relative frequency

$\frac{\text{Class frequency}}{\text{Total frequency}}$

Frequency Density

Freq. of that class Interval  
Class length

Cumulative frequency  
Distribution

less than type

More than type

No of classes

$\frac{\text{Range}}{\text{Class Size}}$

Percentage frequency

$\frac{\text{Class frequency} \times 100}{\text{Total frequency}}$