

Ch-1 Introduction

(Statistics for Economics)

* Define Economics.

* Define Economic Problem

Q. Who is a consumer?

Ans. A consumer is one who consumes goods and services for the satisfaction of his wants.

Q. Who is a Producer?

Ans. A producer is one who produces and/or sells goods and services for the generation of income.

Q. What is Saving?

Ans. It is that part of income which is not consumed.

Q. What is Investment?

Ans. It is expenditure by the producers on the purchase of such assets which help to generate income.

Q. What is Economic Activity?

Ans. The buying and selling of goods and services with the motive of earning money is called Economic Activity. For eg. A teacher teaching in school. etc.

Q. What are Non-economic Activities?

Ans. The activities which are done out of love, affection, sympathy, care etc. are called Non-economic activities. No money is involved in these type of activities. For eg. A mother teaches his own son.

* Economic Activities are classified as:

1. Production: Production is the process of converting raw material into useful things. Things become useful as they acquire utility value in the production process.
For e.g. - converting cloth into shirt is an activity of production.

Study of Production: Producers have limited means. Given prices of different inputs, how do they choose such combinations which are least expensive. Also, given prices of different goods, how do they choose to produce those goods which offers them maximum revenue.

2. Consumption: Consumption is that economic activity which is related to the use of goods and services for the direct satisfaction of individual and collective wants. There would have been no production if there was no consumption.

For e.g.: drinking water or milk, services of teacher etc.
Study of Consumption: As consumers, people have limited means or income on the purchase of different goods and services and their wants are unlimited. So how do they allocate their given income so that their satisfaction is maximised?

3. Distribution: Distribution is that economic activity which relates to determination of prices of factors of production. This is known as "Factor Pricing".
Distribution is the study to know how national income is distributed through rent, wages, interest and profits.

* What is Statistics?

Ans Statistics means "data" or facts in figures
But it is used in two distinct senses.

- (a) Singular sense
- (b) Plural sense.

(a) Statistics in Singular sense:

"Statistics may be defined as a science of collection, presentation, analysis and interpretation of numerical data."

* Stages of Statistical study:

1. Collection of data: This is the first step in a statistical enquiry. So, data should be collected by the investigator himself or obtained from - published or unpublished sources.
2. Organisation of data: Data that are collected by an investigator need to be organised according to the purpose of enquiry.
3. Presentation of data: Data collected and organised are presented in some systematic manner to make it clear for the user. Tables, diagrams and graphs etc can be used to present data.
4. Analysis of data: Various methods are used to analyse the data such as averages (mean, median, mode), dispersion, correlation etc.
5. Interpretation of data: It implies the drawing of conclusions on the basis of analysis of data. On the basis of this conclusion, certain decisions can be taken.

b) Statistics in Plural sense:

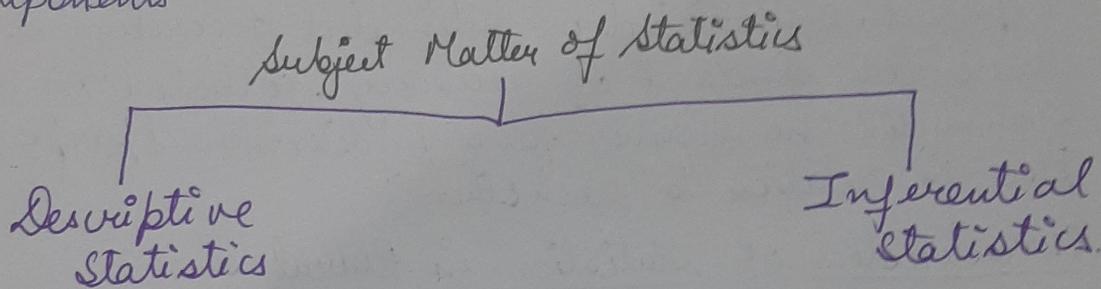
"By statistics we mean aggregate of facts affected to a marked extent by multiplicity of causes, numerically expressed, enumerated or estimated according to a reasonable standard of accuracy, collected in a systematic manner for a predetermined purpose and place in relation to each other."

* Characteristics of Statistics in Plural sense:

1. Statistics are aggregate of facts. A single observation does not constitute statistics. No conclusion can be drawn from it.
2. Statistics are expressed in terms of numbers. Qualitative aspects are not called statistics.
3. Statistics are not affected by any single factor, but are influenced by many factors.
4. A reasonable degree of accuracy must be kept in view while collecting statistical data.
5. Statistics should be collected systematically. Statistics not collected in a systematic manner would lead to misleading conclusions.
6. The purpose of collection of data should be decided in advance. Data collected without purpose will be misleading.
7. For the purpose of comparison, data collected must be homogeneous.

* Subject Matter of Statistics :

Subject matter of statistics includes two components



a) Descriptive Statistics : This deals with use of statistical methods to make a problem under study comparable and easily understandable using past and present data

b) Inferential Statistics : This deals with use of statistical methods to draw conclusions and take decisions with various social, political and economic problems

* Functions of Statistics :

1. Helps in understanding economic problem
2. Presentation of facts in definite form.
3. Establishes relation between factors
4. Helps in formulation of plans and policies
5. Helps in evaluation of impact of policies
6. Inter-sectoral and inter-temporal comparisons.
7. Construction of Economic Theories or Economic Models.

* Limitations of Statistics :

1. Statistics does not study individuals.
2. Statistics deals with numerical facts only.
3. Statistics needs special expertise.
4. Homogeneity of data is essential.
5. Without reference, Results may prove to be wrong.
6. Prone to Misuse.

* Distrust of Statistics :

Distrust of Statistics arises not because there is anything wrong with Statistics as a subject matter. It arises because the users of Statistics tend to manipulate it to support their pre-drawn conclusions or observations.

Main causes for the distrust of Statistics are as under:

1. Different kinds of Statistics are obtained in respect of a given problem.
2. Statistics can be altered to match the predetermined conclusions.
3. When Statistics are collected in a partial manner, the results are generally wrong.

Consequently, people lose faith in them.

* Extra Questions:

Ques. "Oil prices are rising globally." How will statistics help us to know how much oil should be imported?

Ans. In the present time of rising global oil prices, it might be necessary to decide how much oil India should import in 2013. The decision to import could depend on the expected domestic production of oil and the likely demand for oil in 2013. Without the use of statistics, it cannot be determined what the expected domestic production of oil and the likely demand for oil would be. Thus, the decision to import oil cannot be made unless we know the actual requirement of oil.

Ques. "The Govt. and policy makers use statistical data to formulate suitable policies of economic development." Illustrate with example.

Ans. Now-a-days we increasingly use statistics to analyse serious economic problems such as rising prices, growing population, unemployment etc. to find measures that can solve such problems. Further it also helps evaluate the impact of such policies in solving the economic problems.

Example:

Statistical methods help to analyse if progressive taxation can solve problem of unequal distribution of income or not.