

E-Content

Research Methodology in Economics

Semester: V

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COURSE CONTENT

Course Code : XXXXXX

Course Name: Data structures using C

Research and statistics

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Statistics

Concerned with economic, political and demographic particulars of a country.

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Descriptive Statistics

Includes the procedure for collecting, classifying, summarizing and presenting data.

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inferential Statistics

It allow us to proceed beyond the collected data into the area of decision making through generalization and prediction.

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Characteristics of Statistics

- Its aggregate of facts
- Its affected to a marked extent by multiplicity of causes.
- Expressed numerically
- Its enumerated and estimated as per reasonable standard of accuracy.
- Collected in a systematic manner
- For a pre-determined purpose
- Must be placed in relation to each other.

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limitations of Statistics

- Do not deal with individual figures
- Does not study qualitative data
- Its laws are not exact
- Its interpretation require high quality of skills and understanding of the subject.

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First step in Statistics

- **Collection of DATA**
 - **MEANING, TYPE, CLASSIFICATION**
 - **OBJECTIVES, REQUISITE OF GOOD CLASSIFICATION, TYPES,**
 - **TABLES: objectives, essential parts of tables,**
 - **FREQUENCY DISTRIBUTION**

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Central tendency

- Arithmetic mean
 - Mean, median, mode
 - **MODE = 3 MEDIAN - 2 MEAN**
- Geometric mean
- Harmonic mean
- **AM ≥ GM ≥ HM**



Central tendency

➤ Properties of Arithmetic Mean:

1. The sum of the deviations taken from arithmetic mean is zero.
2. The sum of the squares of the deviations of the given set of the observations is minimum when taken from the arithmetic mean.
3. If each observation is increased / decreased by a constant “K” then mean of the new data set is increased / decreased by “k”.

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Central tendency

➤ Properties of Arithmetic Mean:

4. If each observation is multiplied by “k”, then the mean of the new data set is also get multiplied by “K”.

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TRADITIONAL METHODS OF DOING RESEARCH ...

QUANTITATIVE RESEARCH

- A Research that -
 - is objective in nature;
 - makes use of quantitative data;
 - is based on the assumption that the reality is not vague and ambiguous;
 - in which precision and reliability are considered to be an essential element of the scientific reality;
 - uses experimentation and controlled environment.
- In such research, Mathematical and Statistical tools are employed to derive meaningful results out of the data obtained.

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Quantitative research ...

- Quantitative research is based on the assumption that facts are true and the same for all the people at all the time.
- The output of such a research is always considered to be objective.
- The basic premise is - *“there exists definable and quantifiable social facts.”*

But, can we say that reality is always objective; can be expressed through numbers; same for all individuals especially when the reality is related to human being?

Modern methods of doing research ...

QUALITATIVE RESEARCH

- A research that is not subject to quantification and quantitative analysis.
- In it, the basic objective is to capture what people say and do as a product of how they interpret the complexity of their world to understand the events from the viewpoint of the participants.
- It accepts subjective reality as a valid reality.
- It may accept reality with different meanings.
- Under it, a contextual truth is a valid example of truth.
- Some of the examples of the tools of qualitative research- case studies, depth interview, action research etc.

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Some Methodologies of ... QUALITATIVE RESEARCH

- Focus Group
- Case Studies
- Observations/Field Studies
- In-depth Interviews
- Projective Tests
- Ethnography

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