

Omwati Degree College Hassanpur

NOTES

Subject:-Business Research methods

B.B.A Sem:-IV

Session: 2020-21

Prepared By:

Suman

Syllabus Covered as:-M.D.University, Rohtak

External Marks: 80
Internal Marks: 20
Time: 3 hrs.

BUSINESS RESEARCH METHODS

PAPER CODE: BBAN-403

UNIT-I

Business Research - Meaning, types, managerial value of business research; theory and research - components, concept, constructs, definition variables, proposition and hypothesis, deductive and inductive theory; nature and process and importance of problem definition, purpose and types of research proposal, ingredients of research proposal.

UNIT-II

Research Design - Meaning, classification and elements of research design, methods and categories of exploratory research, basic issues in experimental design, classification of experimental design; concept and their measurement, measurement scales.

UNIT-III

Sample design and sampling procedure, determination of sample size, research methods of collecting primary data, and issues in construction of questionnaire.

UNIT-IV

Statistical techniques of data analysis, nature and types of descriptive analysis, uni-variate and bivariate tests of statistical significance, meaning and types of research report, ingredients of research report.

SUGGESTED READINGS:

1. Shekharan Uma, Business Research Methods, John Wiley Publications
2. Zikmund, Business Research Methods, Cengage Publications
3. Copper, Business Research Methods, Tata McGraw Hill

Note:

1. **Instructions for External Examiner:** The question paper shall be divided into two sections. **Section 'A'** shall comprise of eight short answer type questions from who of the syllabus carrying two marks each, which shall be compulsory. Answer to each question should not exceed 50 words normally.
2. **Section 'B'** shall comprise of 8 questions (2 questions from each unit). The student will be required to attempt four questions selecting one question from each unit. All questions will carry equal marks.

UNIT-1

1. Introduction to Business Research
2. Theoretical Framework of Research
3. Research Process
4. Problem Definition
5. Hypothesis
6. Business Research Proposal.

UNIT-2

7. Research Design: An overview
8. Experimental Design
9. Measurement Scales

UNIT-3

10. Sampling
11. Method of Data Collection
12. Data Processing
13. Questionnaire Designing

UNIT-4

11. Analysis and Interpretation of Data
12. Multivariate Analysis
13. Statistical Models for Research
14. Research Report

UNIT-1Business Research

It can be described as a systematic and organised effort to investigate a specific problem that needs a solution. It is a process of planning, acquiring and analyzing relevant data and information. We can define Business Research as an organised, systematic, data based, critical, objective, scientific problem undertaken with the purpose of finding answers to it.

Definition

Redman and May →

"Business Research is a systematized effort to gain new knowledge."

Managerial value of Business Research

Research is fundamental to everything we do, so much so that we hardly make any significant decision without the benefit of some kind of market research. The risk is also big. The decision making process associated with the development and implementation of a strategy involves three interrelated stages.

1. Identifying Problems or Opportunities

It can help managers plan strategies by determining the nature of situations by identifying the existing problems or opportunities present in the organisation.

2. Selecting and implementing a course of action

After alternative courses of action have been identified, business research is often conducted

to obtain specific information that will help in evaluating the alternatives and in selecting the best course of action.

3. Evaluating Course of Action →

After a course of action has been implemented business Research may serve as a tool to inform managers whether planned activities were properly executed and whether they accomplished what they were expected to accomplish.

Importance of Business Research →

1. More competition
2. More Government interference
3. More complex decisions
4. Growth of business

Types of Business Research →

1. Exploratory Research →

These are conducted to clarify the ambiguous problems, ambiguity means the nature of problem to be solved is unclear.

2. Descriptive Research →

it is undertaken in order to ascertain and be able to describe the characteristics of variable of interest in a situation.

3. Causal Research →

The main purpose of this research is to identify the cause and effect relationship between variables. it is typical to have an expectation of the relationship to be explained such as predicting the influence of price, advertising etc. on sale.

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Concepts →

To understand and communicate information about objects and events there must be a common ground on the basis of which we can understand and communicate information. A concept serves this purpose. A concept is a generally accepted meaning associated with certain events, objects, conditions, situations and behaviours.

Constructs →

It is an image or abstract idea specifically invented for a given research. Table is an objective concept. we can point a table, and we have images of the characteristics of all tables in our mind.

4. Applied Research →

it is conducted when a decision to be made about a specific real life problem. it aims at finding a solution for an immediate problem facing a business organisation.

5. Basic Research →

it attempts to expand the limits of knowledge. it does not directly involve the solution to a particular problem, but it has been said, "There is nothing so practical as a good theory."

Definition →

Researchers struggle with two types of definitions:

Dictionary definitions and operational definitions.

In dictionary definitions, a concept is defined

with a synonym. For eg → a

customer is defined as a patron,

a patron, in turn, is defined as

a customer or client of an

organisation.

Operational definitions → It

is a

definition stated in terms of

specific criteria for testing or

measurement. Whether the object

to be defined is physical or

highly abstract, the definition

must specify the characteristics

and how they are to be

observed.

Propositions and Hypotheses →

Proposition may be defined as a statement about observable concepts

that may be judged as true or

false. When a proposition is

formulated for empirical testing,

we call it a hypothesis. A

hypothesis is an unproven propo-

sition of possible solution to a

problem. It asserts probable

answers to research questions.

Theory →

It is a set of system-

atically interrelated concepts,

definitions and propositions that

are advanced to explain and

predict the facts.

It is theoretical framework

is the foundation on which the

entire research project is based,

it is a logically developed netwo-

described and elaborated netwo-

rk of associations among the

variables deemed relevant to

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Propositions and Hypotheses →

Proposition may be defined as a statement about observable concepts that may be judged as true or false. When a proposition is formulated for empirical testing, we call it a hypothesis. A hypothesis is an unproven proposition of possible solution to a problem. It asserts probable answers to research questions.

Theory →

It is a set of systematically interrelated concepts, definitions and propositions that are advanced to explain and predict the facts.

It is theoretical framework is the foundation on which the entire research project is based, it is a logically developed network of associations among the variables deemed relevant to

the problem situation and identified through interviews observations and literature surveys

eg → in marketing, the product life cycle has four stage i.e., introduction, growth, maturity and decline.

Deduction and Induction
Process in Research →

Deduction → it is process by which we arrive at a reasoned conclusion by logical generalisation of a known fact. eg → we know that all high performers are highly efficient in their jobs.

if Rann is a job performer, we then conclude that he is highly efficient in his job.

Induction →

it is a process we logically establish a general proposition based on observed facts. In

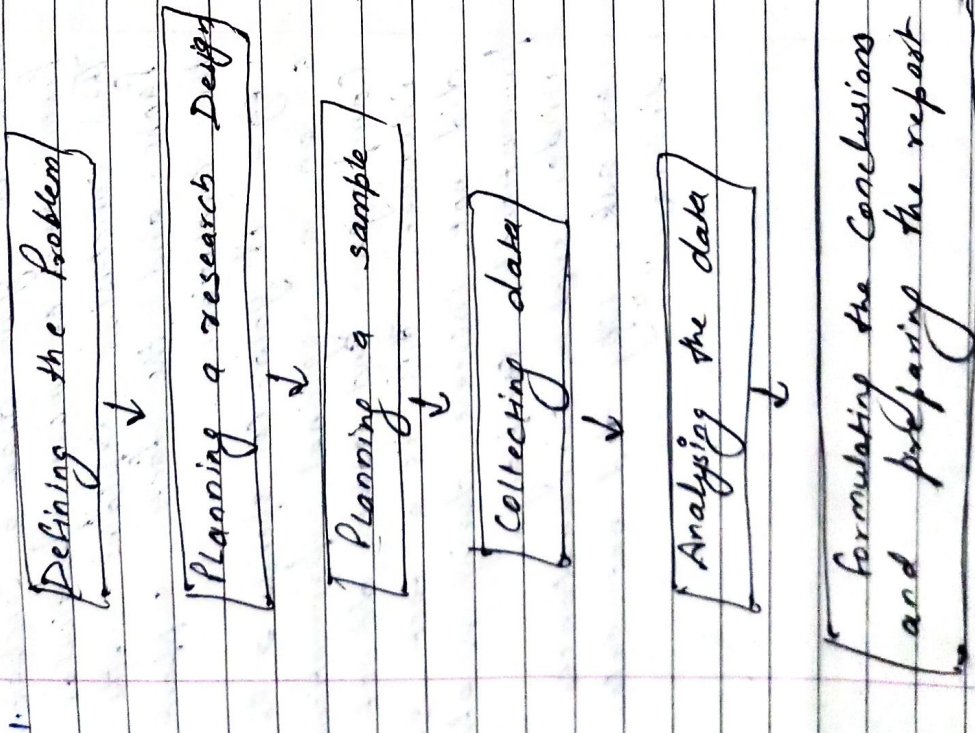
induction you draw a conclusion from one or more particular facts. The conclusion explains the facts and the facts support the conclusion.

eg - if your Co. spends ₹ 20 lakh on a regional promotional campaign and sales do not increase, this is a fact sales did not increase during or after promotional campaign.

Under such circumstances, we ask, "why did not sales increase?"

The Research Process

Stages in Research Process →



Techniques for obtaining insight and clearer idea of a problem.

1. Secondary data analysis

2. Pilot studies

3. statement of research objectives.

2. Planning a Research design → four

basic design techniques →

1. Surveys

2. Experiments

3. secondary data

4. Observations.

Formulating the conclusions
and preparing the report

Problem definition →

[Formulating the Problem]

A Problem does not mean that something is seriously wrong with the current situation that needs to be rectified immediately.

A research problem generally refers to some difficulty which a researcher faces in the context of practical situation and wants to obtain solution for the same.

Importance of Problem definition →

1. A proper definition of research problem will enable the researcher to be in the right direction whereas ill defined problem may create hurdles.

2. A well defined problem gives the

answers to the questions like
 (i) what data are to be collected?
 (ii) which techniques are to be used for the purpose?

(iii) what relations, among variables, are to be explored?
 (iv) what kind of study is required?

3. A well defined problem provides basic for research design.

4. Problem definition facilitates research process.

5. It indicates a specific managerial decision area that will be clarified by answering some research questions.

Business ResearchProposals →

Meaning → it is a written statement of the research design. it includes a statement explaining the purpose of the study or a definition of the problem. it systematically outlines the particular research methodology and procedures that will be used at each stage of the research process.

Purpose of Research Proposal →

1. To present the management question to be researched.
2. To discuss the previous research efforts of others who have worked on the same management questions.
3. To suggest the data necessary for solving the right question.

4. To suggest how the data will be collected, analysed and interpreted.

Types of Research proposals →1. Internal Proposals →1. Exploratory

study

II Small scale study

III Large scale study

2. External Proposals →1. Problem statements2. Research objectives3. Benefits of study4. Research design5. Budget6. Schedule7. Qualification of

Researchers

Ingredients of Research Proposals →

1. Executive Summary → it is an informative abstract. It highlights the essential points of the proposal.

2. Problem Statement → This section of research proposal clarifies the management of question (Problem) and importance of answering the management question.

3. Research objective → This section of research proposal states the objective of investigation. In a descriptive study, the objectives can be stated as the research question.

4. Literature Review → The literature review section examines recent studies, company data or industry reports that act as a basis for the proposed study.

5. Benefits of the study → In this section, you describe benefits that will accrue from your study.

6. Research design → The proposal has presented the study's value and benefits. The research design describes what you are going to do in technical terms.

7. Data Analysis

8. Forms of Results

9. Qualifications of Researchers

10. Budget

11. Schedule

12. Facilities and special Research.

13. Project management

14. Bibliography

UNIT-2

Research Design

Meaning →

1. Research design is an activity and time based plan.

2. Time based plan is formulated on the basis of Research questions.

3. It is a guide for selecting sources and types of information.

4. It provides framework for specifying the relationships among the variables.

5. It is a procedural outline for every activity. It describes the procedure to be followed for every Research activity.

Elements of Research Design →

1. Purpose of Study →

1. Exploratory study
2. Descriptive study
3. Hypothesis testing

2. Types of Investigation →

A manager should decide whether a casual or correlational study is needed to find an answer to the issue at hand.

Causal Investigation is done when it is necessary to establish a cause and effect relationship.

3. Extent of researcher interference →

The extent of interference by researcher with normal flow of work at the workplace has direct impact on whether the study undertaken is casual or correlational.

4. Study Setting →

study setting involves field studies, field experiments and lab experiments.

5. Unit of analysis →

The units of analysis may be individual, dyads (set of two), groups.

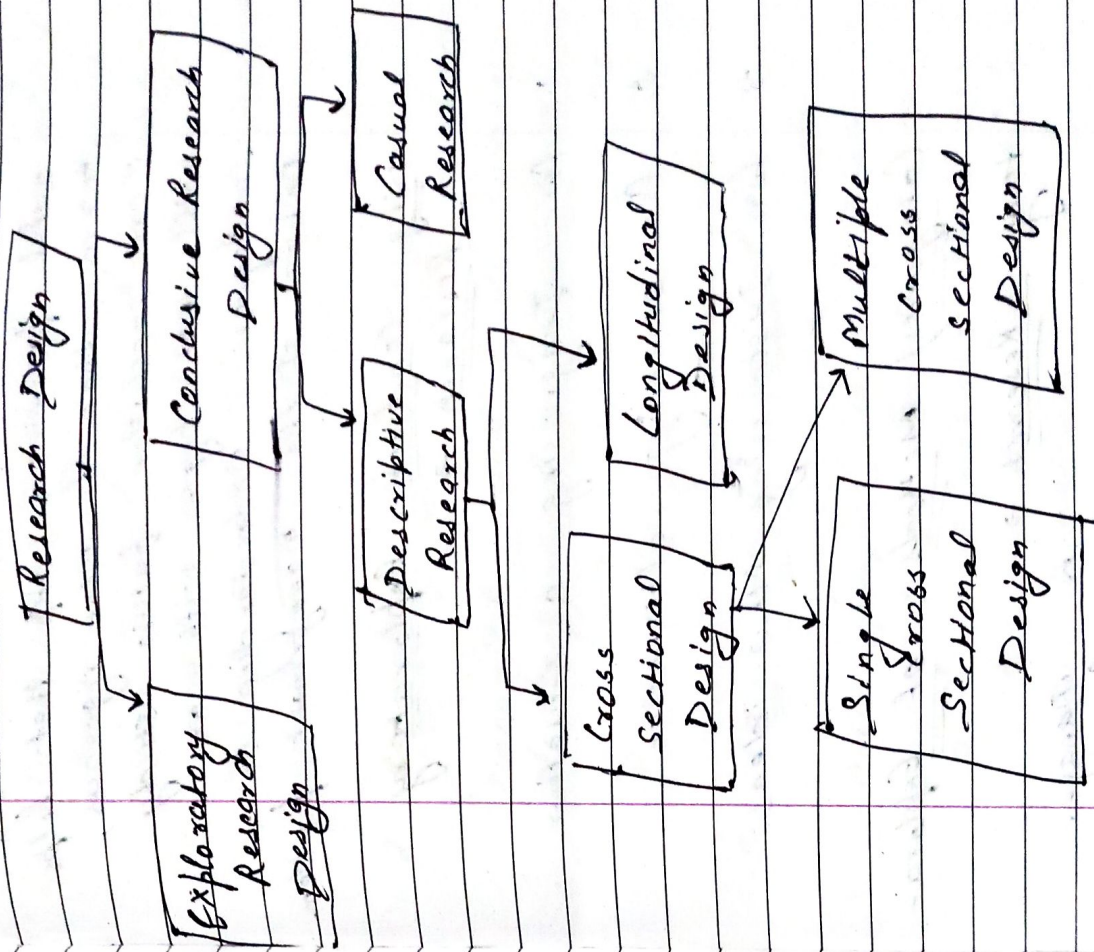
The unit of analysis refers to the level of aggregation of the data collected.

6. Time horizon →

it includes cross-sectional and longitudinal studies from period point of view.

Cross sectional or one shot studies are those studies for which data are collected just once, perhaps over a period of days or weeks or months.

Classification of Research design →



① focus group in interview

② Group composition →
a) Environmental Conditions

b) The moderator

c) short coming

d) word Association

③ Third person technique and

Role playing - almost literally,

"mask" is the basic idea

behind the third person

technique. Respondents

are asked why a person

(e.g., one's neighbour)

does or thinks about a person,

event, or concept.

Experimentation →

Experiments are studies

done by researchers to find out

the variable and observe how

it affects the subjects being

studied. Research methods that

answer such questions are called

causal methods.

Experiments fall into two

categories such as field experiments

and another category is lab

experiments.

1. field experiments

2. Lab experiments

Basic Issues in Experimental

Design →

Following are the

basic issues in Experimental

design →

1. Control.

2. Manipulation (Treatment)

3. Controlling the nuisance variables.

→

4. Matching group
5. Randomization

4. Validity in Experimentation

5. Field Experiments
6. Laboratory Experiments

Validity in Experimentation →

1. Internal

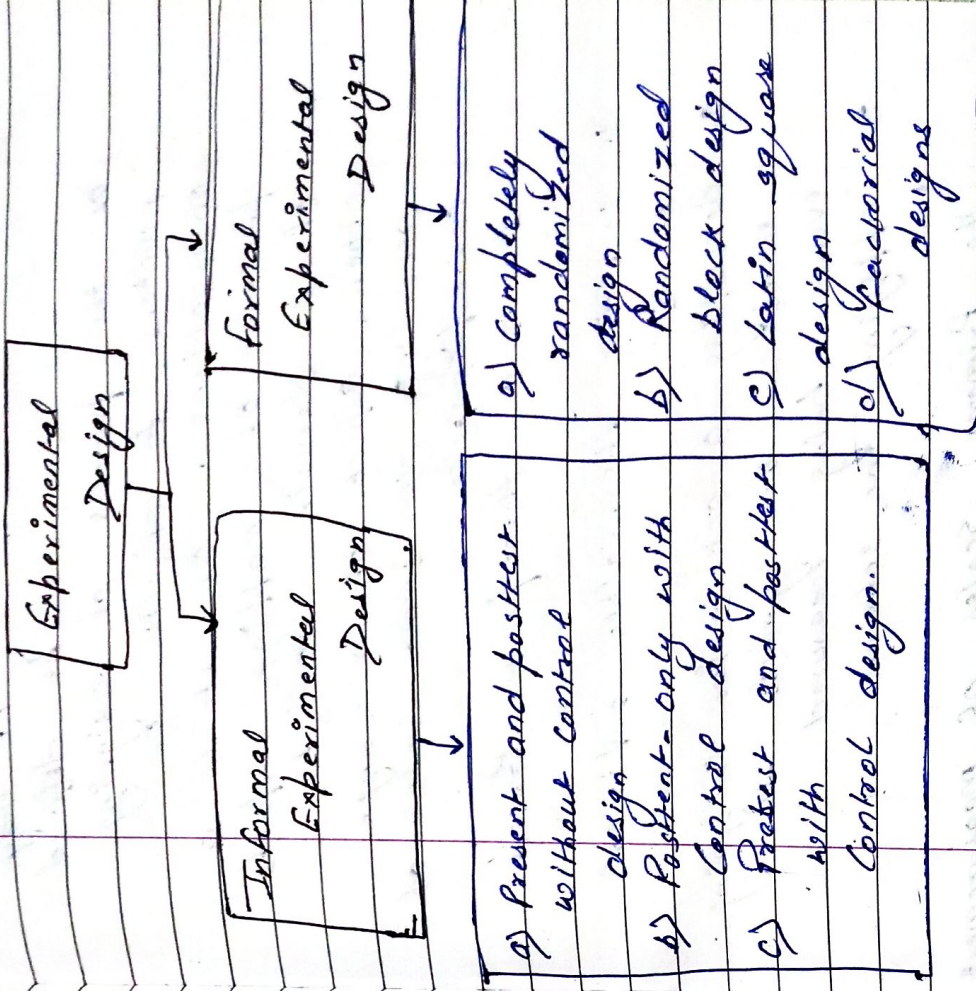
validity

2. External validity

Factor affecting internal validity

-
- A) History effects
 - B) Maturation effects
 - C) Testing effects
 - D) Instrumentation effects
 - E) Selection Bias Effects
 - F) Statistical Regression
 - G) Mortality

Classification of Experimental Design →



Measurement Scale → it may be defined as the process of assigning numbers to objects or observations. Or it is a process of mapping aspects of a domain to other aspect of a range of according to some rule of correspondence.

It is a three part process

1. selecting observable empirical events
2. developing a scheme for assigning numbers or symbols to events being measured
3. applying the scheme

The Primary Scales of measurement are :-

1. Nominal scale
2. Ordinal scale

3. Interval scale

4. Ratio scale

Scaling techniques →

1. Comparative scaling techniques →

A. Paired Comparisons

B. Rank order scaling

C. Q-sort and scaling

2. Non-comparative Scales →

A. Graphic

rating scaling

B. Itemized rating scale

UNIT-3SAMPLING →

It is the selection of certain percentage of a group of items according to a predetermined plan.

Bogrdus

A sample as the name applies, is a ~~smaller~~ smaller, representative of a large whole.

Geode and Hart

Principles of Sampling →

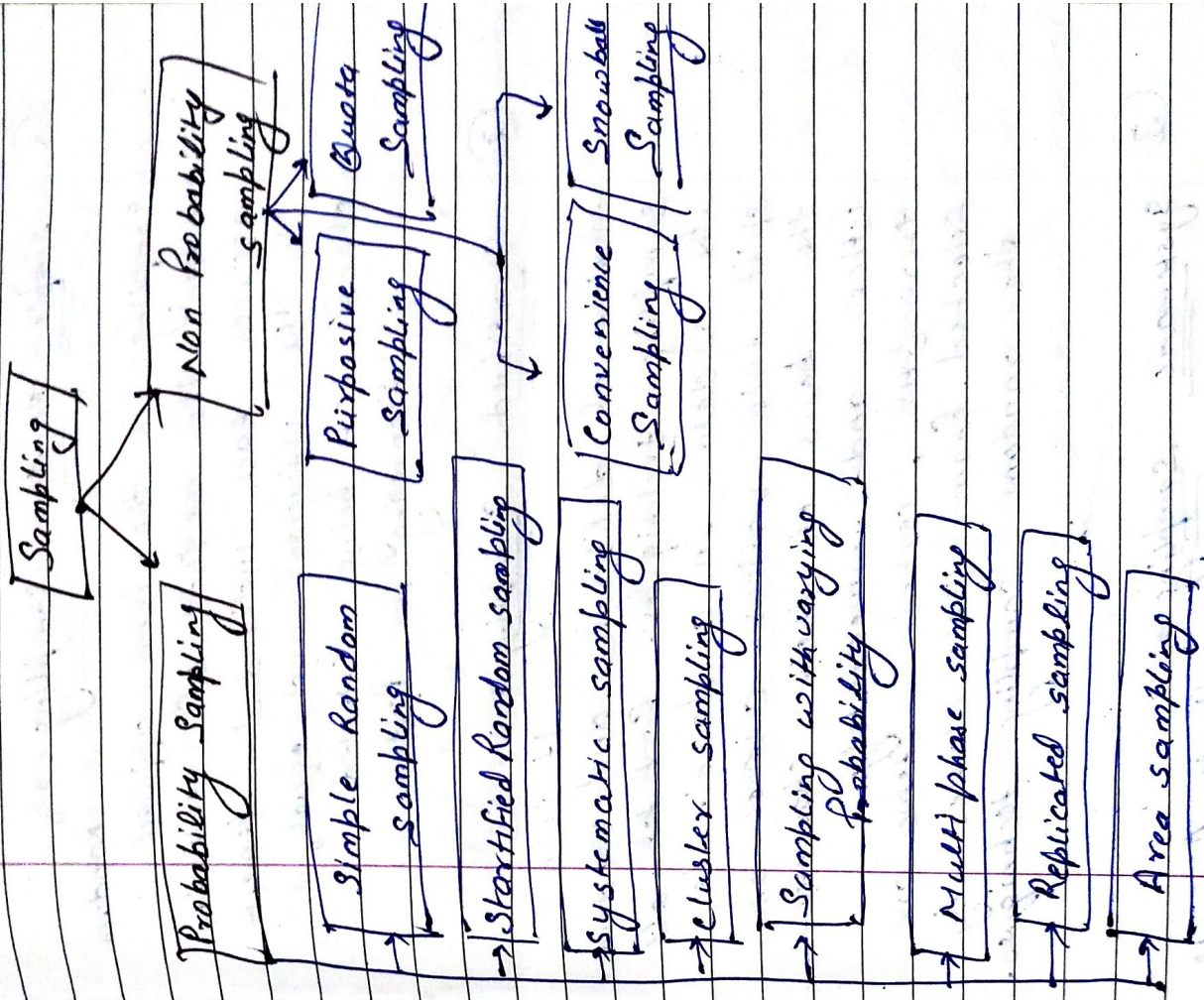
- (a) Law of Statistical Regularity
- b) Law of Interval of large numbers.

Limitations of sampling →

1) Not

2) Give the accuracy not feasible

3) accuracy and reliability affected

Types of sampling →

Methods of Probability Sampling1 Simple Random Sampling → Random

Sampling is the term applied when the method of selection assures each individual element in the universe an equal chance of being selected. According to Pearson.

2 Stratified Sampling →

It is a mixture of deliberate and random sampling techniques. First of all the data in a domain is split into various classes on the basis of their characteristics and immediately thereafter, certain items are selected from these classes by the random sampling techniques.

3 Systematic Sampling →

It is frequently

used sampling plan. Sample is taken from a list prepared on a systematic arrangement either on the basis of alphabetic order, or on house number or any other method.

4 Cluster Sampling →

In this various units comprising the population are grouped in clusters and the sample selection is made in such a way that each cluster has an equal chance of being drawn.

5 Area Sampling →

It is similar to multistage cluster sampling. In this the area to be covered by a survey is divided into a number of smaller ones, of which a sample is selected by random.

⑥ sampling with varying probabilities

⑦ Replicated sampling

⑧ Multi phase sampling

Methods of Non Probability
sampling →

① Purposive Sampling

② Quota Sampling

③ Convenience Sampling

④ Snowball sampling

Sampling design →

it refers to the technique or procedure the researcher would adopt in selecting it seems for the sample. it is determined before data are collected. There are many sample designs from which a researcher can choose.

Size of samples →

It means the number of

sampling units selected from the population for investigation.

For eg - ~~same~~ the sample size should be 5% of the size of the population while others say that it should be 10%.

Factor affecting sample size →

- ① The size of universe.
- ② The Resources available
- ③ Degree of Accuracy
- ④ Nature of study

(5) Method of sampling adopted

(a) Nature of Respondents

Determination of sample size

(1) sample size when estimating a mean

$$\bar{x} \pm z \frac{\sigma_p}{\sqrt{n}}$$

$\bar{x}$ = sample mean

z = the value of standard variance at a given confidence level

n = size of samples

σ_p = standard deviation of the population.

(2) Sample size when estimating a Percentage or proportion

$$p \pm z \sqrt{\frac{p \cdot q}{n}}$$

p = Sample proportion

$$q = 1 - p$$

z = the value of standard variance at a given confidence level

n = size of sample.

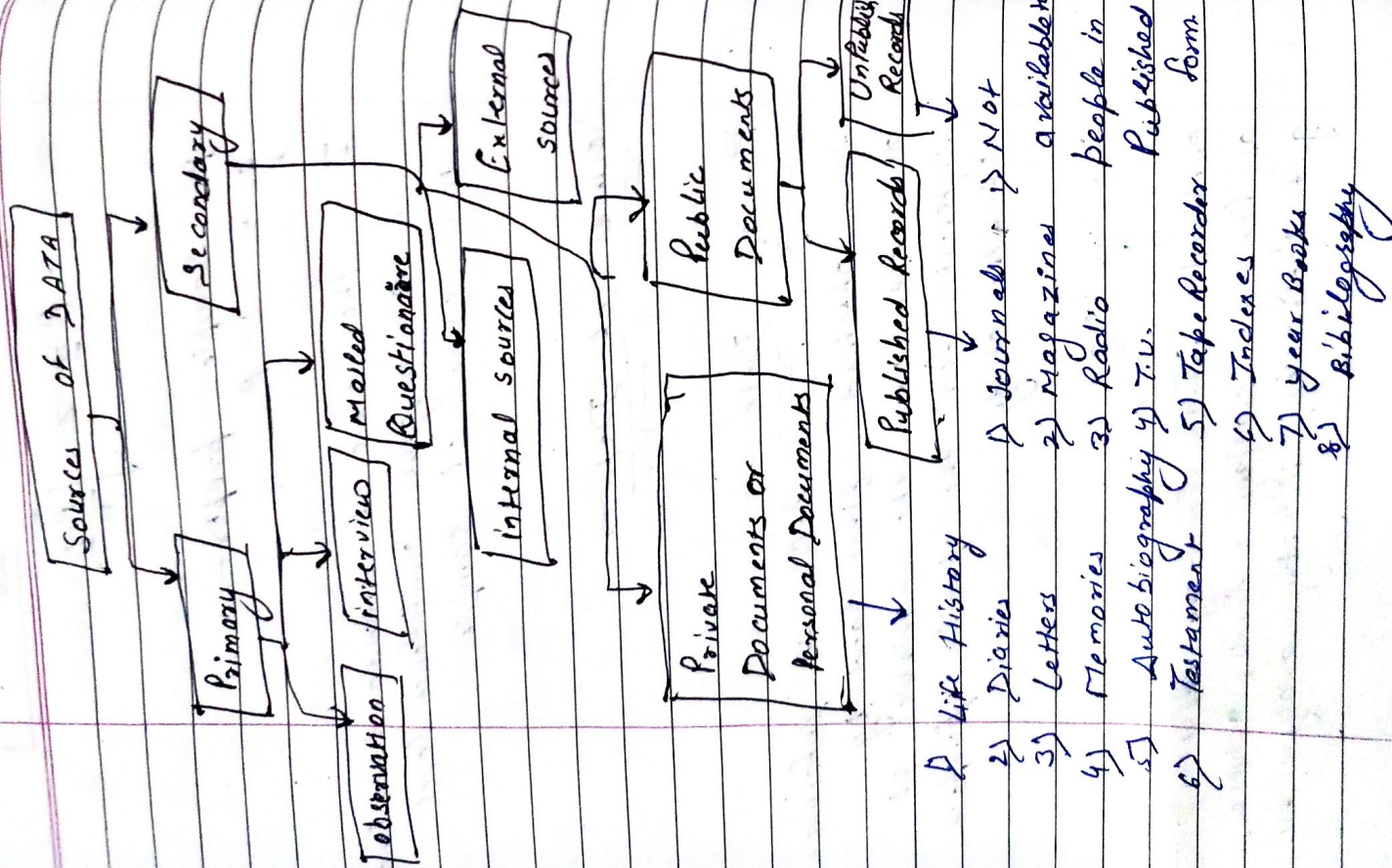
Sources of Data

(1) Primary Data

Refers to information obtained first hand by researcher on the variables of interest for the specific purpose of the study.

(2) Secondary Data

Data can also be obtained from secondary sources, as for eg - company records, achieves, govt. Publication, industry analyses etc



Questionnaire Designing → A Questionnaire is a form prepared and distributed to secure responses to certain questions. It is a device for securing answers to questions by using a form which the respondent fills by himself.

Types of Questions →

1. Open end Questions
2. closed Questions
3. pictorial Questions
4. Dichotomous Questions
5. Multiple choice Questions
6. Leading Questions.
7. Ambiguous Questions
8. Ranking items of Questions

Forms of Questionnaire



Issues in Questionnaire Preparation

1. illiterate and less educated → it

can be administered only on subjects with a considerable amount of education.

2. Proportions of return is usually

low → In a mailed questionnaire the proportion of return is

usually low. it may ~~some~~ items be as low as 10%.

③ Misinterprets / unintelligible reply → In it if the respondent misinterprets a question or writes his reply unintelligibly there is very little that can be done to correct this.

④ Expensive

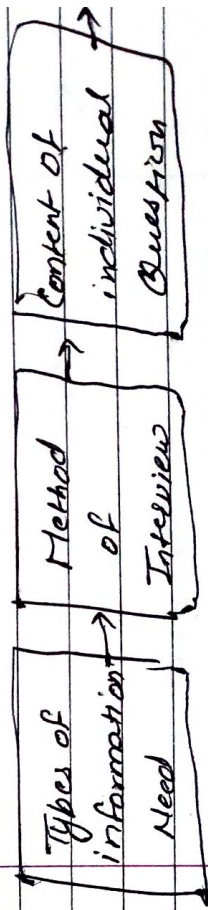
⑤ Time Consuming

⑥ Pressure on respondent

⑦ Not suitable for all

⑧ Uniformity

Questionnaire Design Process →



Question
Structure



Question
wording



Arranging
Questions
in order

UNIT-4

Analysis and Interpretation of Data

Meaning of Analysis of Data

It is a process under which the relationships or differences supporting or conflicting with original or new hypothesis should be, subjected to statistical tests of significance, determine with what validity data can be said to indicate any conclusion.

Purpose and Procedure for Analysis

- 1) It should be Productive
- 2) be readily disposed to quantitative treatment
- 3) have significance for some systematic theory

1) Can serve as a basis for broader generalization beyond the immediate content of the facts under study.

Procedure for Analysis →

1) An intensive review must be made of all the data collected for the project with reference to the study's objectives and hypothesis.

2) These data are then analysed with the help of techniques selected earlier.

3) The results emerging from these analyses are then related to the study's hypothesis and objectives.

Types of Analysis →

Descriptive Analysis

Causal Analysis

Correlative Analysis

Interferential Analysis

Bivariate Analysis

ii) Sequential Analysis

Multivariate Analysis

a) Multivariate Analysis

b) Multiple Regression analysis

c) Colonial Analysis

d) Multiple Discriminant Analysis

Descriptive Analysis →

it is

largely the study of distribution of one variable. it is also

called one dimensional analysis.

This analysis shows the benchmark data and measures the state or condition at any particular time.

Important techniques used inDescriptive Analysis →

① Bivariate Analysis

② Sequential Analysis

③ Multivariate Analysis →

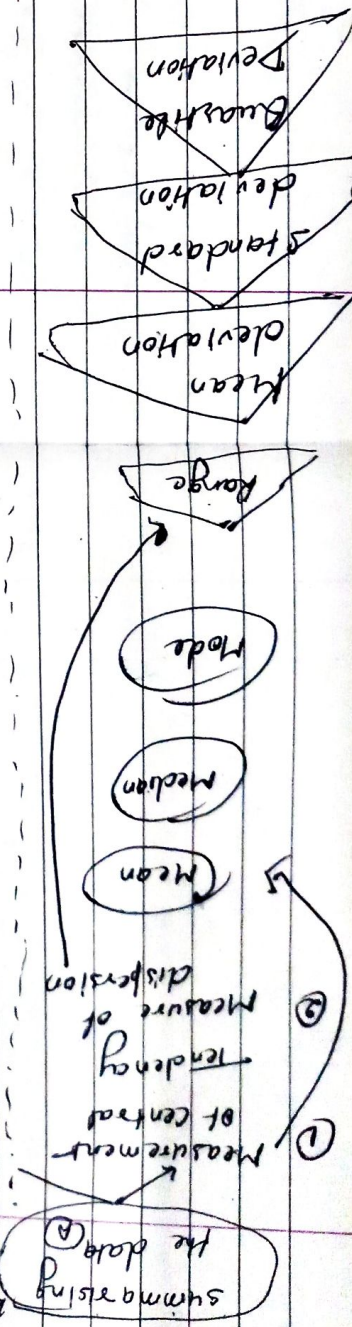
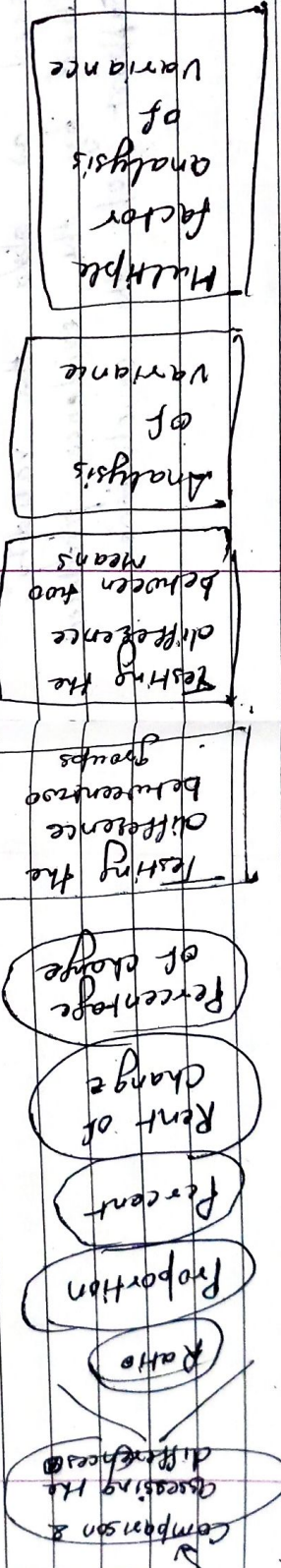
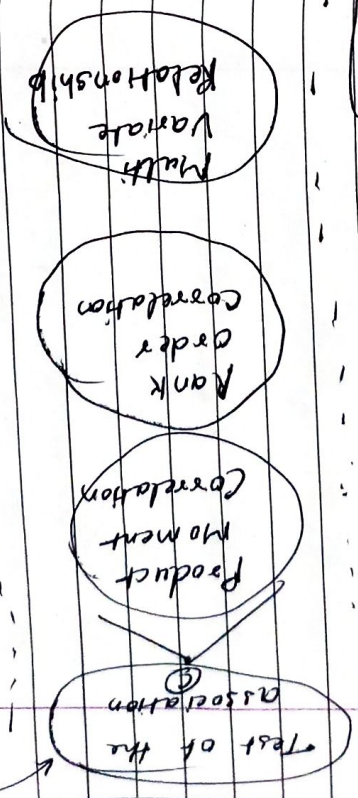
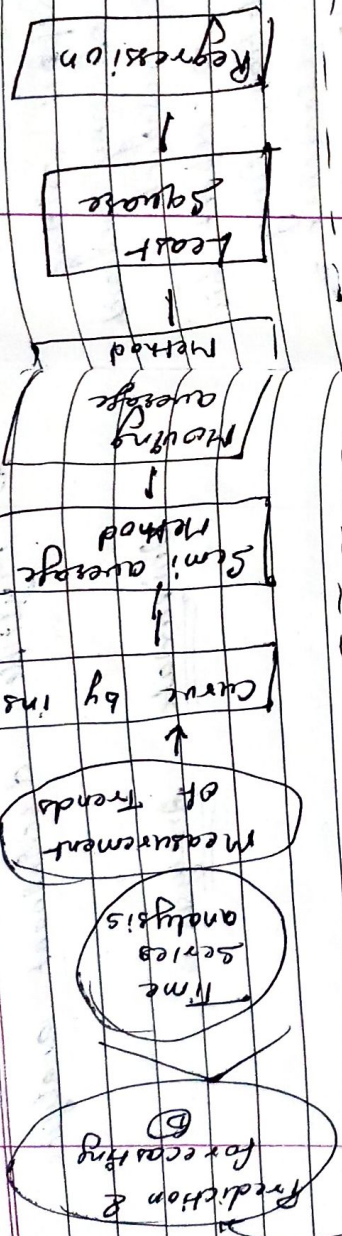
a) Multivariate Analysis of variance

b) Multiple regression analysis

c) Canonical Analysis

Multiple discriminant analysisUnivariate Analysis →

Statistical Devices used in Research

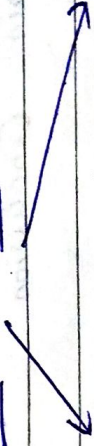


Research Report →Report writing

is the culmination of any research investigation, as the researcher is obligated to report his study on its completion. Only at this stage the researcher assembles the findings of the study, draw conclusions and evaluates his own findings by means of the research report the researcher is able to communicate to the readers his findings and conclusions in a form which is readily understood and assessed as also the validity verified by the evidence produced in support of the conclusions.

Steps in organisation of ResearchReport →

- ① Organising the research notes
- ② Reflecting thinking
- ③ formation of an outline

Types of Reports →

Technical Report

Popular Report

Technical Report →

it is written for fellow researchers and therefore should be organised on a different footing altogether. It consists of the following aspects →

① Major finding and contents

② Nature of Research works

③ Research Methodology

④ Data analysis

⑤ Presentation of findings

⑥ Main Conclusion

⑦ Bibliography - This contains main source of secondary data.

⑧ Technical appendices - it contains all technical matters relating to questionnaires, mathematical derivations, elaborations on Particular techniques of analysis and the like.

B.

Popular Report →

This stresses on simplicity and attractiveness.

Its writing is clear, with minimum statistical details

and the liberal use of charts and diagrams.

The following is the general outline of a popular report →

1. Major findings and conclusions →

The report will have findings of practical interest and their implications.

2. Follow-up actions →

it will suggest follow-up action on the basis of the findings of the study in this section.

3. Objectives of the study → Here

the problem is presented,

Along with the specific objectives of the study.

4. Methodology → a description and techniques used, including a short review of the data on which the study is based, is provided.

5. Results → This is the main body of the report, presented in clear and non technical terms with liberal use of all sorts of illustrations such as charts, diagrams and the like.

6. Appendices → it consists of detailed information on the methods used, forms, etc. Appendices are generally not included if the report is meant for general public.

Significance of Report writing →

R → Stands for Readable

E → Stands for Explanation

P → Stands for Particulars

O → Stands for objectivity

R → stands for Review of fact

T → Stands for technique

Contents of a Report →

A research report consists of 3 parts

① The Preliminaries
② The Text
③ The reference material

6) Summary and conclusions

c) Conclusion → it serves the important function of tying together the whole thesis.

3) The Reference Material →

a) Bibliography →

b) Appendix → it includes such matters as original data, tables that present supportive evidence, texts that have been constructed by the research students, parts of document or any supportive evidence.

c) Index → it a thesis is subsequently published as a book, monograph or bulletin, an index is necessary.

d) Footnotes → These are the reference to the sources from which ideas, data facts and opinions are borrowed from previous or current works.

e) Quotation → Almost every researcher includes certain quotations in the body of his report. Such material may be long or short quotation enclosed within double quotation marked, easily from a part of the usual text.