Research Metho

14MBA23

Module 1

Objectives of Course

- To provide an understanding on the concepts of research methods.

- To expose the students to the role th plays in business decisions.

Meaning

- Research in common man's language
  " Search for knowledge"

- Research is an art of scientific invest

- It is also a systematic design, collect
  and the reporting the findings ad sol
  problems of business

Definition

- Systematic approach towards pu investigation.

Definition

- According to Robert Ross, "research

an investigation, a recording and a

evidence for the purpose of gaining l

Features of Good researc

- **Objectivity** : must answer resear question

- **Control** : all variables – data, sa

- **Generalisability** : same result w identical method

- **Free from personal bias** :

- **Systematic** :

Features of Research

- ✓ Is essentially an investigation

- ✓ Is related with the solution of a problem

- ✓ It is based on observation or experimenta

- ✓ It demands accurate observation or exper

- ✓ In research, the researchers try to find ou

unsolved questions

- ✓ It should be carefully recorded and repor

Types of Research

- Grouped under two categories

- 1   **Fundamental research**
  - The science of psychology

- 2   **Applied research**
  - Apply the psychology

Types of Research

- **Exploratory research**
  - At beginning when the problem i
    cleared

  Eg: sales decline in a company   m
        inefficient service

                price

                promotion

                quality

Types of Research

- Exploratory research
  - Expert surveys, focus groups, cas
    and observation methods.

Types of Research

- **Descriptive Research**
  - It is fact finding investigation.
  - Describes the state of view as it e
    present
  - It does not establish cause and re

  Eg: consumption of soft drinks wir
  socioeconomic character – age, far

Types of Research

- **Applied research**
  - Deals with real life situation
  - Aims at finding immediate solution problems.

  - Eg: why the sales decreased during

  - Use of fibre body for cars instead of

Types of Research

- **Pure/ Fundamental or basic**
  - Gathering knowledge

Eg: theory of relativity by Einstei

Types of Research

- **Conceptual Research**
  - It is generally used by philosoph
  - It is related to some abstract ide

Eg: ideology of 'isms'
                 Gandhism

Types of Research

- **Casual Research**

- To determine the cause and effec
  relationship between the two va

Eg: effect of advertisement on sal

Types of Research

- **Historical Research**
  - Study of past records and data's

Eg: value of shares of company is the historical research

Types of Research

- **Ex-post facto Research/ Emp**
  - Examination of relationship that
    between independent and depend
    variable

Eg: what has happened because o
    what is happening because of

Types of Research

- **Action research**
  - Research is done directly by actio
  - Geographical location is identifie
  - Samples are selected
  - Response is collected

  Eg: test marketing

Types of Research

- **Evaluation Research**
  - It is an applied research.
  - It is conducted to find out how w
    programmes are implemented

  Eg: "Success of Midday Meal Prog
       " Swatch Bharat Abhiyan"

Types of Research

- **Library Research**
  - It is done to gather secondary da

Eg: consumption of soft drinks wit
socioeconomic character – age, fam

Process of Research

1. Defining the research problem and re literature

2. Formulation of hypothesis

3. Research Design

4. Collecting data

5. Analysing data and testing hypothesi

6. Preparation of report and preliminar

7. Interpreting and reporting the findin

Research Pro

1. Problem formulation
2. Method of inquiry
3. Research method
4. Research design
5. Select data collection techniques(s
6. Sample design
7. Data collection
8. Analysis and Interpretation
9. Findings, conclusions and recomm
10. Research report

1.Defining Research Prol

- Converting Management problem into Res

- M P : want to increase sales of product A

- R P : what is the current the sale of produ

1.Defining Research Pro

- Followings to be considered

- 1   Determine the objective of the stu

- 2.   Consider various Environmental
  **Purchasing habits, competitors, brand ima
  market and target customers**

- 3.   Nature of the problem
  **Brand image, not buying, why to competitors p
  audience?**

- 4.   Stating the alternatives
  Developing hypothesis

1.Defining Research Prob

- Reviewing the literature

2. Formulation of Hypot

- A hypothesis is a proposition – a ten
  assumption which a researcher want
  its logical or empirical consequences

- Eg.

- To increase the sales whether to introduce

- Hypothesis: The acceptance of Sachet by c
  increase the sales by 20%

Formulating Hypothesis

- Hypothesis are generally concerned with the phenomenon or a relationship between two or

- We make certain assumptions to about the pa tested- these assumptions are known as Hypo

Formulating Hypothesis

- Null Hypothesis Ho : introducing sachet w
sales by 20%

- *This is tested against*

- Alternative Hypothesis H 1 : introducing sa
increase sales

- Decisions to be taken whether Null Hypoth
Accept or **Reject**

- Error 1
  - Rejecting the null hypothesis when the fa
- Error 2
  - Accepting the null hypothesis when the f

2. Method of In

- Qualitative – subjectivity: This is u those data which cannot be quantifi in exploratory research. Responde small compare to quantitative rese

- Quantitative – objectivity : major of data.

3. Research M

- **Experimental :**

extraneous variables are controll

Eg: Which print advertisement i
Is it the front page, Middle page

- **Non Experimental:**

cannot control extraneous variab

4. Research Desi

"Specific methods and procedures
Information needed"

Based on research method, research

Exploratory – identification of proble

Descriptive – describes characteristic

Causal- predictive, reasons why, rela

5. Data collection To

- What data to collect?

- How to collect the data?

Secondary:

Primary:
- Communication – questionnair
- Observation

6. Sample De

- Where the sample is to be selected?　- the population

- Process of selection – Probability/Non p

- Size of the sample – n?

7. Analysis and Inte

- Descriptive statistical measures – c
  percentage, proportion, mean, varia

- Univariate Analysis:

  - Z-test (n>30), t-test (n<=30),(for cor

  - Chi-square goodness of fit test (for

- Bivariate Analysis:

  - Cross tabulation with chi-
categorical)

  - Z-test, t-test, ANOVA(for c

  - Chi-square test (for catego

  - correlation, regression

**Data Can be analyzed throug
charts, Graphical representa**

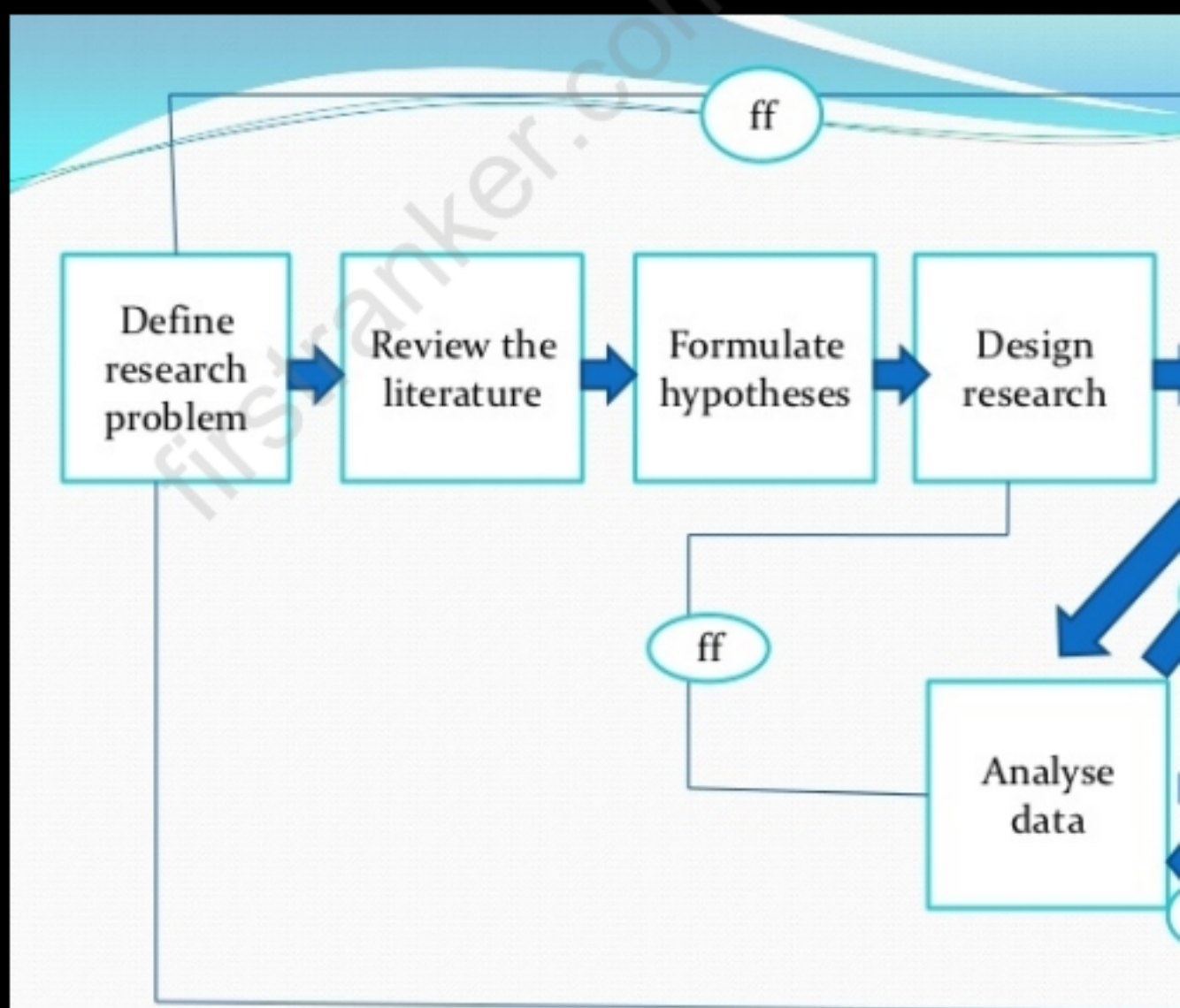# 8. Research Re

- Written Report

7 STEPS OF RESEARCH PI

- Step One: Define research problem
- Step Two: Review of literature
- Step Three: Formulate hypotheses
- Step Four: Preparing the research desig
- Step Five: Data collection
- Step Six: Data analysis
- Step Seven: Interpretation and report v

ff

| Define research problem | → | Review the literature | → | Formulate hypotheses | → | Design research |

ff

Analyse data

Where   f = feed back(helps in controlling the sub system
        ff= feed forward(serves the vital function of providing criter

Step One: Define Research

There are two types of research problem, v

- relate to states of nature
- relationship between variables.

Essentially two steps are involved in d
problem, viz.,

- understanding the problem thoroughly a
- rephrasing the same into meaningful t
point of view.

Step Two: Review of Lite

- Once the problem is define, a brief su should be written down. It is comp research worker writing a thesis for a Pl write a synopsis of topic and submit it committee or the research board for app

Step Three: Formulate Hyp

- Formulate hypothesis is tentative assump order to draw out and test its logical consequences. Hypothesis should be very limited to the piece of research in hand b to be tested.

The role of the hypothesis is to guide the delimiting the area of research and to kee right track.

Step Four: Preparing the Re[search] Design

- The function of research design is to pro[vide] collection of relevant evidence wi[th] expenditure of effort, time and money.

- Research purpose may be grouped categories, viz., (1) Exploration, (2) D[escription] Diagnosis, and (4) Experimentation.

Step Five: Data Collectio

- Primary data can be collected through:

  By Observation

  Through personal interview

  Through telephone interview

  By mailing of questionnaries

  Through Schedules

Step Six: Data Analysis

The analysis of data requires a number of c
operations such as establishment of categ

This stage mainly include :

1. Coding
2. Editing
3. Tabulation

Step Seven: Interpretation
Report Writing

Researcher has to prepare the report of w
done by him.

Writing of report includes:

1. the preliminary pages;

2. the main text, and

3. the end matter.

Explain various Research A
Business Decision m

- https://www.youtube.co h?v=7AMyRwMC0eo