UNIT -1 INTRODUCTION TO BUSINESS RESEARCH

1.1 Bhartiya Knowledge in Research methodology

What is Pramana?

Pramana (प्रमाण) in Sanskrit means "**proof,**" "**means of knowledge,**" or "**instrument of knowledge.**" In Indian philosophy, it refers to the methods by which a person can **acquire true, valid, and reliable knowledge** about the world.

Different philosophical systems (like Nyaya, Mimamsa, Vedanta) define varying numbers of pramanas, but commonly six are recognized:

Detailed Explanation of Each Pramana and Modern Research Connection

1. Pratyaksha (Perception/Direct Observation)

- **Definition:** Knowledge gained directly through the five senses — seeing, hearing, touching, tasting, and smelling.
- **Example (Traditional):** Knowing that fire burns because you have seen it.
- **Modern Research Parallel:**
    - **Observation, Experiments, Field Studies**
    - Scientists gather data through experiments, lab observations, surveys, and field visits.
    - **Example:** In medical research, observing symptoms or patient responses directly.

Significance in Research: Fundamental to empirical research, data collection, and evidence-based findings.

2. Anumana (Inference)

- **Definition:** Knowledge obtained by **logical deduction** from observed facts.
- **Example (Traditional):** Seeing smoke on a hill and inferring there is fire.
- **Modern Research Parallel:**
    - **Hypothesis Testing, Statistical Inference, Deductive Reasoning**
    - Inferring relationships between variables through data analysis.
    - **Example:** If smoking is statistically correlated with lung cancer, researchers infer causation after controlled testing.

Significance in Research: Essential for creating hypotheses, predicting outcomes, and building theories.

3. Upamana (Comparison or Analogy)

- **Definition:** Knowledge gained through analogy or comparison.
- **Example (Traditional):** Knowing a new animal by comparing it to a known animal's description.
- **Modern Research Parallel:**
    - **Comparative Studies, Modeling, Analogical Reasoning**
    - Used when studying unfamiliar phenomena by comparing them to known cases.
    - **Example:** Comparing the behavior of a new drug to an existing one with similar chemical structures.

Significance in Research: Helps in transferring knowledge across domains, building models, or using case studies.

4. Shabda (Verbal Testimony / Authoritative Sources)

- **Definition:** Knowledge acquired through **credible verbal sources** like scriptures, experts, or recognized authorities.
- **Example (Traditional):** Learning Vedic knowledge through a guru.
- **Modern Research Parallel:**
    - **Literature Review, Secondary Data, Expert Interviews**
    - Academic research builds on previous studies, peer-reviewed journals, or authoritative databases.
    - **Example:** Quoting WHO data in a health study.

Significance in Research: Builds a **theoretical foundation** and ensures the research is informed by existing credible sources.

5. Arthapatti (Postulation / Presumption)

- **Definition:** Knowledge derived through presumption when existing evidence is insufficient but inference is necessary.
- **Example (Traditional):** If a person who is fasting all day is still gaining weight, you presume they are secretly eating at night.
- **Modern Research Parallel:**
    - **Theoretical Assumptions, Modelling, Indirect Proof**
    - Used in economics, psychology, or physics where direct observation is not possible.
    - **Example:** The postulation of dark matter in astrophysics based on gravitational effects.

Significance in Research: Helps explain **hidden or unobservable phenomena** when direct evidence is lacking.

6. Anupalabdhi (Non-Perception / Non-Cognition)

- **Definition:** Knowledge gained from the **absence of something** that should be perceivable.
- **Example (Traditional):** If there is no pot on the table, one knows its absence by not perceiving it.
- **Modern Research Parallel:**
    - **Negative Testing, Null Hypothesis, Absence of Evidence**
    - In science, proving a **null hypothesis** (e.g., "There is no relationship between X and Y").
    - **Example:** When no side effects are reported for a drug after testing, its safety is inferred.

Significance in Research: Validates research through **disproving or negating hypotheses**.

Summary Table: Pramana and Modern Research

Pramana	**Meaning**	**Modern Equivalent**
Pratyaksha	Direct perception	Observation, Experimentation
Anumana	Inference	Hypothesis Testing, Data Analysis
Upamana	Analogy/Comparison	Comparative Studies, Models
Shabda	Authoritative Testimony	Literature Review, Expert Opinion
Arthapatti	Postulation/Presumption	Theoretical Assumptions, Modeling
Anupalabdhi	Non-apprehension/Non-existence	Negative Testing, Null Hypothesis

Importance of Pramanas in Modern Research

- Promotes a **structured approach to knowledge validation**.
- Encourages the use of **multiple methods of investigation** — observation, inference, analogy, and expert input.
- Offers a **philosophical foundation for scientific inquiry**, showing that **traditional Indian epistemology aligns with modern scientific methods**.
- Strengthens the **epistemic rigor** in research by emphasizing both positive evidence (presence) and negative evidence (absence).

1.2 Concept & Definition of Business Research

1.Defination

2.Classification of Business research

Definition Research

According to Clovers & Balsley research is,

The Process of systematically obtaining accurate answer to significant & pertinent question by the use of scientific method of gathering & interpreting information.

1.3 Classification Of Research

1. Basic V/S Applied Research

Basic Research: It is also called fundamental research and one of the main objective is to expand the knowledge. **For example Maslow's need theory.**

Applied Research: It is design to solve a practical problem rather than acquiring knowledge, for example **A research is conducted to solve the problem of decrease in sales**.

2.Quantitative V/S Qualitative research

Quantitative research is "explaining phenomena by collecting numerical data that are analyzed using mathematically based **methods** (in particular statistics). **Example Census counting research**

Qualitative research seeks to answer questions about why and how people behave in the way that they do. It provides in-depth information about human behavior. **Example research conducted to find out customer satisfaction, buying Behaviour, attitude, etc.**

3.Problem Identifying V/S Problem solving research.

Problem-identification research helps marketing teams identify what types of problems they might have, (**Example Decrease in sales may have multiple reason so first problem needs to clarify than solution)** while **problem-solving research** helps identify ways to solve those problems.

4. Longitudinal V/S cross-sectional studies

Longitudinal studies differ from one-off, or cross-sectional, studies. The **main difference** is that cross-sectional studies **interview a fresh sample (Example any business research)** of people each time they are carried out, whereas longitudinal studies follow the **same sample of people over time. (TRP Research)**

1.4 Method of Knowing

Various non scientific methods & Scientific methods

1.Various non scientific methods

1. **Method of Tenacity (Belief)**

The **method of tenacity** is generally based of belief of individual, based on old belief or reference from someone. Example if in past problem of low sales was solved by reducing price than same solution is applicable whenever such problem arises based on belief.

2. **Method of Appeal to Authority (Expert opinion)**

In this method expert are contacted to solve specific problem, in this case authority can be highly respected source of information or highly experience and qualified.

3. **Method of self evident truth**.

A **self-evident** proposition is a proposition that is known to be true by understanding its **meaning** without proof, by ordinary human.

4. **Method of Intuition. (Sixth sense)**

According to this method solution for any problem are purely based on strong inner feeling to be happening like that.

2. Scientific Method / Basis of Scientific method / Feature of Scientific method / Quality of a good research

1. Reliance on empirical evidence.
2. Commitment to Objectivity
3. Involvement of Qualified people.
4. Procedural & systematic
5. Ethical Neutrality

6. Accuracy
7. Exhaustive
8. Generalization
9. Verifiability
10. Logical reasoning process

1) Reliance on empirical evidence :

Conclusion is admitted, only when it is based on evidence. Scientific method involves a systematic process. The answer to the question is not decided by intuition or imagination. Relevant data are collected, their validity & reliability are checked & the data are analyzed using appropriate methods. Conclusion is reached on the basis of the result of analysis

2) Commitment to objectivity:

Objectivity is the hallmark of scientific method. It means that judgment is unbiased by personal impressions. The conclusion should not vary from person to person. It should the same for all persons.

3) Involvement of qualified people :

In scientific method, qualified people are involved for research work.Ex. In marketing research agencies, they have team of qualified marketing experts. They decide research design & construct questionnaire. Even other team collects data from the field. There is also a team for statis tical analysis with computer knowledge. Qualified person is not necessary in non scientific method.

4) Procedural & systematic:

Scientific research method is more procedural & systematic. In it. various activities are done in particular sequence. Firstly, problem is identified. After

that, research design is decided. Then data are collected by using proper methods. After collecting data, they are going for processing like editing, coding, tabulation etc. for the purpose of effective analysis. Finally, conclusion is drawn from analysis. On the basis of conclusion, further decisions are taken in business.

5) Ethical neutrality: (Sense of right or wrong):

Science does not pass normative judgment on facts. It does not say that they are good or bad. Science state, science never impose anything. Science aims to make true & adequate statements about its objects.

6) Accuracy:

Scientific research method is more accurate (without error) than non-scientific method. Because in scientific method before arriving in any conclusion, proper research design is prepared, data are collected by applying proper tools, they are properly analyzed by using statistical methods. In this way, more accuracy is maintained in scientific research method.

7) Exhaustive: (Covering all aspect):

Scientific method is exhaustive. In scientific method, conclusion is not derived by listening one or two people. Enough no. of samples from the population are collected, analyzed & decision is taken

8) Generalization:

Generalization means result of particular location or situation is applicable to any other location or situation with similar result.

9) Verifiability:

The conclusions arrived by scientific method should be verifiable. Researcher must make known to others how he arrived at his conclusions. Researcher

should expose his own methods & conclusions for scrutiny When others test his conclusion under the same conditions, then it is accepted as correct.

10. Logical Reasoning Process

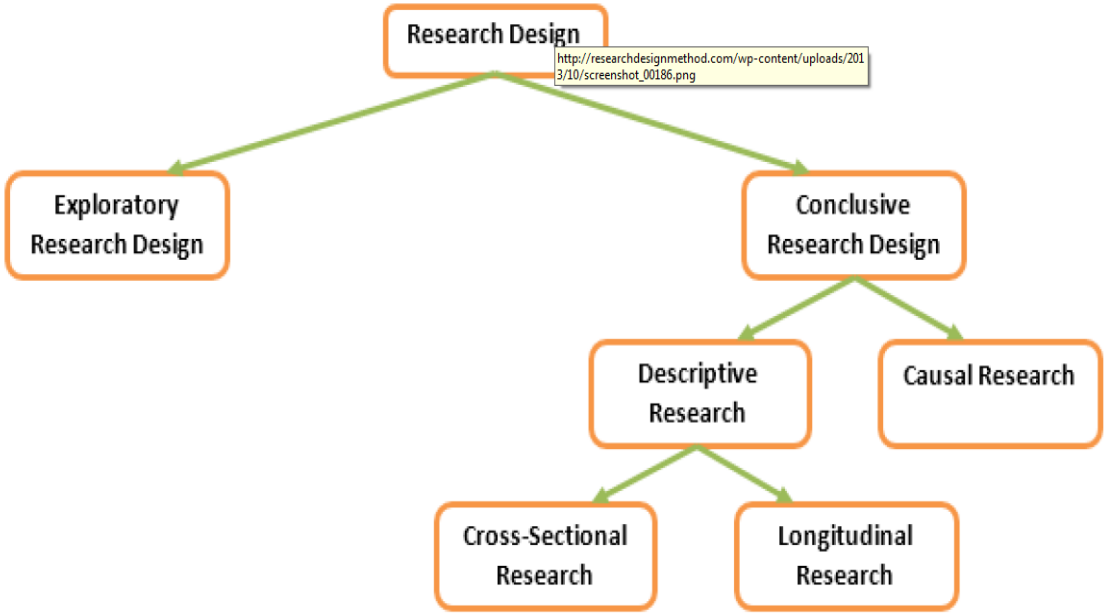
1.Deductive logic: It is reasoning process of applying generally accepted principle to specific individual case falling under that general principle. Which establish a logical relationship between major premises, minor premises and conclusion.

Major premises: All Regular student are sincere
Minor premises: Mr. A is a regular student.
Conclusion: Mr. A is sincere.
2.Inductive Logic: Inductive logic is a reasoning from the specific out come to a generalized conclusion.

1.5 Types of research design

Definitions

1. ***Kerlinger (1986):***
   "Research design is the plan, structure, and strategy of investigation conceived so as to obtain answers to research questions or problems."
2. ***V. Redman and A. V. H. Mory:***
   "Research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose with economy in procedure."



Types of research design

1. Exploratory Research Design:

Exploratory research is defined as a research used to investigate a problem which is not clearly defined or not familiar or researcher have little or no knowledge about problem, It is conducted to have a better understanding of the existing problem.

Objective:

1.To generate new idea

2. To increase the familiarity with the problem.

3. To make the precise formulation of the problem.

4. To decide weather it is feasible to attempt to study or not.

Types of Exploratory research

1. Literature review.

2. Experience survey

3. Analysis of case

2. Conclusive research design

1.Descriptive research: Descriptive research aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, when, where, when and how questions. (detailed study of different variable to be studied)

a) Cross sectional research: Cross sectional research means a set of same or different variable are studied on different respondent

b) Longitudinal research: A fixed sample of elements from the population are measured repeatedly on the same variable.

3. Causal Research design: This research design investigate the cause-and-effect relationship between two variable, where independent variable is a cause and dependent variable is effect. Example effect of promotional scheme (Independent variable) on sales(dependent variable)

1.6 Different types of error in business research

1. Sampling Error

2. Non sampling Error

1.Sampling error:

1.Unbiased error

2.Biased error

2. Non sampling error:

1.Non response rate:

- unwillingness
- Inability
  * Out of knowledge
  * Laps of memory

2. Response error:

- Researchers error
- Data collector error
- Respondents error

1.Researchers' error

1.Population definition error.

2.Sampling frame error.

3.Measurement error.

4.Surrogate information error.

5.Analysis error

2. Data collectors error

1. Not skilled or not qualified

2. Himself fill up the questionnaire

3. Data are collected from other member than selected.

4.Responses are recorded with inaccuracy.

5. Way of conducting research is wrong.

3. Respondents error

1. Misinterpretation.

2. Unwillingness

3. Inability

1.Sampling Error: sampling error occurs when the sample used in the study is not representative of the whole population

1.Unbiased error:

This error occur just because of bad luck, when by mistake wrong member of population is selected as a sample.

2.Biased error:

Sampling bias is a possible source of sampling errors, wherein the sample is chosen in a way that makes some individuals less likely to be included in the sample than others.

2.Non sampling Error : Non-sampling error is caused by factors other than those related to **sample** selection. It refers to the presence of any factor, whether systemic or random, that results in the data values not accurately reflecting the 'true' value for the population.

1. Non-response error occurs when Sampled units typically do not **respond** because they are unable, unavailable, or unwilling to do so.

a) Unwillingness: where respondents are aware of the answer but they are not willing to answer because the question is relate to *personal problem, personal health, bad habit, family problem, income related question*, etc.

b)Inability: This error occur because respondent is not able to give the answer because of following reason.

1.Out of knowledge are of respondent: College student may not be able to answer the question of family investment pattern.

2.Laps of memory: Such error occur because respondent tend to forget past event or information, if any question regarding past information is asked such as what was your electricity consumption in last 2 year.

2.Sampling frame error: The sampling frame is the list from which units are drawn for the sample. Frame error results when the sampling frame is not an accurate and complete representation of the population of interest.

Example, if college student is to be surveyed than attendance list of college can be a sampling frame, *similarly telephone directory, voters list, aadhar card list, map* etc. can be a sampling frame and error occur because above list may be old, not updated, faulty etc.

3. Measurement Error: This error occur when researcher measured entirely different variable than one which is to be measured.

Example: Instead of measuring customer satisfaction for particular product, researcher measure expectation of customers, which may occur because of use of wrong scale or question.

4.Surrogate information error:

This error occurs because researcher have called/ asked for the information, which is not related to original research objective.

(An error formed by an inconsistency between the information sought by the researcher and the information that is needed to solve a problem.)

Example: Researcher wants to collect students opinion regarding the syllabus of research subject but if questions are not designed properly than there is higher chances of getting information about liking and disliking of a subject teacher.

In above example the information asked by the researcher is not useful to solve the given problem .

5.Analysis error:

This Error occurred when analysis is incorrectly executed, this may be because of simple mathematical error or computerized error.

1.7 Meaning of term Concept, Construct & Definition in relation to business research.

In **business research**, the terms **Concept**, **Construct**, and **Definition** are essential for understanding, measuring, and analyzing business-related phenomena systematically and scientifically.

In business research, a **Concept** is a general idea or phenomenon that represents aspects of business reality, such as customer satisfaction, leadership, or market share. A **Construct** is a specific, research-defined version of a concept that is abstract and not directly measurable but is quantified through various indicators or scales, such as employee engagement or brand loyalty. A **Definition** provides a clear and precise explanation of a concept or construct, ensuring that it is consistently understood and accurately measured within the research context.

In simple terms, a Concept is a basic idea we want to study in business, like customer satisfaction or profit. A Construct is that idea made measurable, like using surveys to measure satisfaction. A

Definition clearly explains what the concept or constructs means in the study, so everyone understands it the same way.

1. Concept in Business Research

Meaning:

A Concept is a broad, general idea that represents an aspect of business reality. It helps in identifying and describing phenomena related to business operations, behaviors, or markets.

Examples in Business:

- Customer Satisfaction
- Market Share
- Profitability
- Employee Turnover

Role in Business Research:

- Concepts form the foundation for developing research problems and questions.
- They help in creating business theories, models, and strategies.
- For example, the concept of "Brand Loyalty" guides companies in developing customer retention strategies.

2. Construct in Business Research

Meaning:

A Construct is a research-specific, well-defined version of a concept, designed to be measured in business studies. Constructs are often abstract ideas that cannot be directly observed but can be assessed through specific indicators or metrics.

Examples in Business:

- Customer Loyalty: Measured by repeat purchase behavior, Net Promoter Score.
- Employee Engagement: Assessed through surveys, performance metrics.

- Brand Perception: Measured via customer surveys or brand equity models.

Role in Business Research:

- Constructs are essential for quantifying abstract business concepts.
- They help in developing measurement instruments like questionnaires, surveys, or KPIs.
- For example, "Service Quality" is a construct often measured using the SERVQUAL scale in business research.

3. Definition in Business Research

Meaning:

A **Definition** provides a **clear and precise explanation** of a concept or construct within the **context of business research**. It ensures **consistency and clarity** in how terms are understood and measured.

Types of Definitions in Business Research:

1. **Conceptual Definition:**
    - Explains the **theoretical meaning** of a term.
    - *Example:* "Customer Satisfaction is the overall contentment of a customer with a company's products and services."
2. **Operational Definition:**
    - Describes **how the concept will be measured** in the study.
    - *Example:* "Customer Satisfaction is measured using a 5-point Likert scale on survey responses regarding service experience."

Role in Business Research:

- Prevents **misinterpretation of terms across different studies.**
- Ensures **replicability and reliability** in business research methods.
- Provides a **basis for data collection and analysis**.

Term	Meaning in Business Research	Example
Concept	Broad idea or phenomenon	Leadership, Customer Loyalty

Term	Meaning in Business Research	Example
	related to business	
Construct	Research-defined, measurable representation of a concept	Service Quality, Brand Equity
Definition	Clear, precise explanation of a concept or construct	Defining Brand Loyalty as "the tendency of customers to repeatedly purchase a brand"

1.8 Types of VARIABLES in business research

Variables represent the measurable traits that can change over the course of a scientific experiment.

A variable is a measurable characteristic that varies; it may change from group to group, person to person, or even within a same person over a period of time.

Example: height, income, temperature, age, etc.

There are 5 types of variable.

1.Independent Variable (IV):

Independent variable are those variable which are measured, manipulated or selected by the researcher to decide its relationship with dependent variable, it is a cause for dependent variable to occur.

Ex. Introduction of **5 day work per week** (IV) will lead to increase **productivity of worker** (DV)

Ex. Introduction of **online teaching style** (IV) will lead to **increase in attendance** (DV)

2. Dependent variable (DV): Such variable are those variable which are observed and measured to determine the effect of independent variable.

- ✓ Ex. Introduction of **5 day work per week** (IV) will lead to increase **productivity of worker** (DV)
- ✓ Ex. Introduction of **online teaching style** (IV) will lead to **increase in attendance** (DV)

3. Moderating variable (MV):

Moderating variable are such variable which are measured, manipulated or selected by the researcher to discover weather it modifies the relation ship of independent & dependent variable, it is a special type of independent variable.

- ✓ Ex. Introduction of **5 day work per week** (IV) will lead to increase **productivity of worker** (DV) **especially among the young workers**.(MV)

4. Extraneous variable (EV): Extraneous variable are those variable which have a little impact on dependent variable, but such variable are not controlled & dangerous for the study, this may damage validity of study by making it impossible to know weather the effect is caused by independent variable, moderating variable or extraneous variable.

- ✓ Ex. Introduction of **5 day work per week** (IV) will lead to increase **productivity of worker** (DV) **especially among the young workers**.(MV)

  In above case there are so many extraneous variable such as **working condition in a company (EV)**

5. Intervening variable (IVV): The effect of such variable cannot be directly observed, in other way it is the variable that affect the dependent variable but cannot be seen, measured, or manipulated.

- ✓ Ex. Introduction of **5 day work per week** (IV) will lead to increase **productivity of worker** (DV) because of **job satisfaction (IVV)** of employee increases.

1.9 Hypothesis

Meaning

1. A hypothesis is a precise, testable statement of what the researcher predict will be the outcome of the study.

2. A supposition or proposed explanation made on the basis of limited evidence as a starting point for further investigation.

3. A hypothesis is preposition which the researcher wants to verify, it is the tentative answer of research question, it is tentative because its validity can be evaluated only after it has been tested empirically.

Role of Hypothesis in Research

- ✓ Hypothesis helps in making an observation and experiments possible.
- ✓ It becomes the start point for the investigation.
- ✓ Hypothesis helps in verifying the observations.
- ✓ It helps in directing the inquiries in the right directions.
- ✓ Formation of question
- ✓ Doing background research
- ✓ Designing an experiment
- ✓ Collection of data
- ✓ Result analysis
- ✓ Summarizing the experiment
- ✓ Communicating the results

Types of Hypothesis

1. Simple Hypothesis

It shows a relationship between one dependent variable and a single independent variable.

For example – If you eat more vegetables, you will lose weight faster. Here, eating more vegetables is an independent variable, while losing weight is the dependent variable.

2. Complex Hypothesis

It shows the relationship between two or more dependent variables and two or more independent variables.

Example: Eating more vegetables and fruits leads to weight loss, glowing skin, reduces the risk of many diseases such as heart disease, high blood pressure and some cancers.

3. Directional Hypothesis

It shows how a researcher is intellectual and committed to a particular outcome. The relationship between the variables can also predict its nature.

For example- children aged four years eating proper food over a five-year period are having higher IQ levels than children not having a proper meal. This shows the effect and direction of effect.

4. Non-directional Hypothesis

It is used when there is no theory involved. It is a statement that a relationship exists between two variables, without predicting the exact nature (direction) of the relationship.

5. Null Hypothesis

A null hypothesis is a hypothesis that says there is no statistical significance between the two variables. It is usually the hypothesis a

researcher or experimenter will try to disprove or discredit. Null hypothesis is symbolized by H0

An alternative hypothesis is one that states there is a statistically significant relationship between two variables. alternative hypothesis is often symbolized by HA or H1.

6.Associative and Causal Hypothesis

Associative hypothesis occurs when there is a change in one variable resulting in a change in the other variable. Whereas, causal hypothesis proposes a cause and effect interaction between two or more variables.

Quality of a Good Hypothesis

1. Power of Prediction

one of the valuable attribute of a good hypothesis is to predict for future. It not only clears the present problematic situation but also predict for the future that what would be happened in the coming time. So, hypothesis is a best guide of research activity due to power of prediction.

2. Closest to observable things

A hypothesis must have close contact with observable things. It does not believe on air castles but it is based on observation. Those things and objects which we cannot observe, for that hypothesis cannot be formulated. The verification of a hypothesis is based on observable things.

3. Simplicity

A good hypothesis need to be simple enough to be understood by a common man

4. Clarity

A hypothesis must be conceptually clear. It should be clear from ambiguous information's. The terminology used in it must be clear and acceptable to everyone.

5. Testability

A good hypothesis should be tested empirically. It should be stated and formulated after verification and deep observation. Thus testability is the primary feature of a good hypothesis.

6. Relevant to Problem

If a hypothesis is relevant to a particular problem, it would be considered as good one. A hypothesis is guidance for the identification and solution of the problem, so it must be accordance to the problem.

7. Specific

It should be formulated for a particular and specific problem. It should not include generalization. If generalization exists, then a hypothesis cannot reach to the correct conclusions.

8. Relevant to available Techniques

Hypothesis must be relevant to the techniques which is available for testing. A researcher must know about the workable techniques before formulating a hypothesis.

9. Fruitful for new Discoveries

It should be able to provide new suggestions and ways of knowledge. It must create new discoveries of knowledge

10. Consistency & Harmony

Internal harmony and consistency is a major characteristic of good hypothesis. It should be out of contradictions and conflicts. There must

be a close relationship between variables which one is dependent on other.

1.10 Business Research Process

Definition: The Process of systematically obtaining accurate answer to significant & pertinent question by the use of scientific method of gathering & interpreting information.

1. Formulation of research problem.
2. Literature review.
3. Development of hypothesis.
4. Choice of Research design.
5. Determine the information needed.
6. Design the data collection form.
7. Determine sample design and sample size.
8. Organizing & conducting field survey.
9. Analysis and interpretation of collected data.
10. Testing of hypothesis.
11. Preparation of Research report.

1. Formulation of research problem

Management problem	Research Problem
Allocation of advertisement budget to different media.	Research is to be conducted to find effectiveness of each media
How much bonus is to be given to factory worker.	Research study is to be conducted find out productivity of each worker.
Which of the three packaging should be adopted.	A consumer research study is called for preferences.
Weather to conduct training program which was conducted last year.	To conduct effectiveness of previously conducted training program.

2. Literature review:

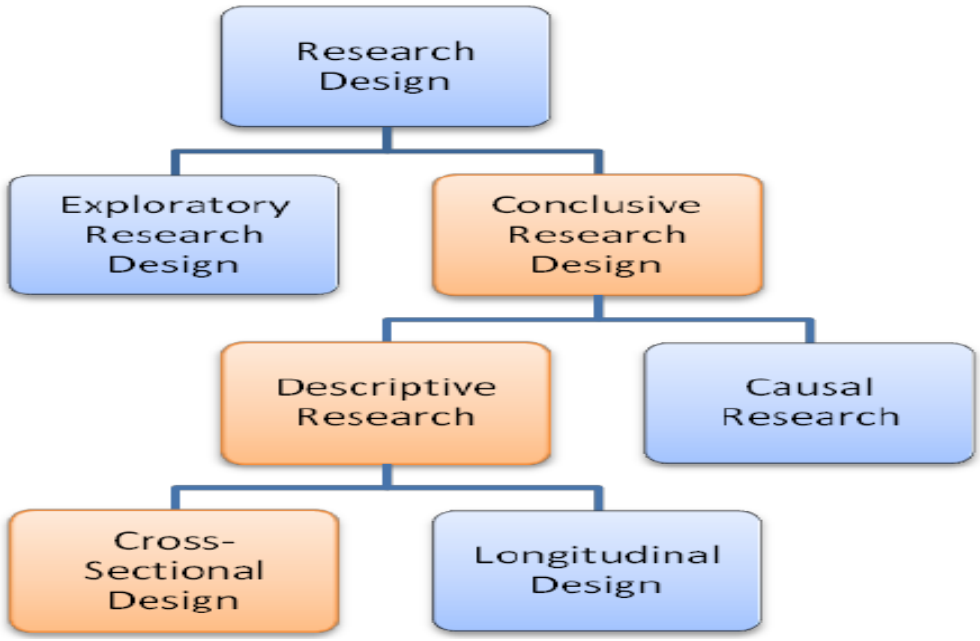
A literature review is a comprehensive summary of previous research on a topic. The literature review surveys scholarly articles, books, and other sources relevant to a particular area of research. The review should enumerate, describe, summarize, objectively evaluate and clarify this previous research. It should give a theoretical base for the research and help researcher to determine the nature of your research. The literature review acknowledges the work of previous researchers, and in so doing, assures the reader that your work has been well conceived. It is assumed that by mentioning a previous work in the field of study, that the author has read, evaluated, and assimilated that work into the work at hand.

3.Devlopment of hypothesis

Hypothesis are tentative answer to research question, tentative because its evidence is yet to be tested. Hypotheses are often specific predictions about what will happen in a particular study. They are developed by considering

existing evidence and using reasoning to infer what will happen in the specific context of interest. Hypotheses are often but not always derived from theories.

4. Choice of Research design



The choice of research design is a crucial step in the research process where the researcher decides the overall plan for conducting the study. It involves selecting the type of research (exploratory, descriptive, analytical, or experimental), methods for data collection, sampling techniques, and tools for analysis. This step ensures that the research is structured in a way that effectively answers the research questions, tests hypotheses, and produces valid and reliable results. A well-chosen research design helps guide the entire study from data collection to interpretation.

5.Determine the information needed.

In this step researcher has to design different source of data collection, as any research can not be totally dependent on single source of data either primary or secondary, researcher has to collect both primary and secondary data.

Primary data : The data collected for the first time, sources observation, survey.

Secondary data: The data which are readily available, which are collected by someone else for some other purpose, sources are books, website, literature.

6. Design data collection form:

There are basically two types of method for data collection.

1.Observation.

In this method information are simply collected by observing a respondent without asking a question, it could be structured or unstructured, its main benefit is that it provide information about natural behavior.

2. Survey

This is one of the most popular method for data collection which can be of following type

1.Personal interview

2. Telephonic Interview

3. E-mail interview

4. Post mail interview.

7. Determine sample design and sample size.

Sample Design: At this point researcher has to take a decision regarding sample design, where he has to select a proper sample design from available two options,

1. Probability

2. Non- Probability

Where ***probability*** means each and every sample have equal chance of being selected and there will be no biasness.

Non probability sampling means each and every sample does not get equal chance of being selected, and there is possibility of biasness.

Sample Size:

In Sample size decision researcher has to decide how many respondent or sample is to be surveyed.

There are two approaches to decide sample size

1. Non scientific or practical approach (10% of target population)

2. Statistical or scientific approach (based on formula)

8. Organizing & conducting field survey:

After completing above step nest task is to conduct actual fieldwork, where following function need to be performed.

1. Interview with the respondent

2. Supervision of field work

Above task is one of the most difficult and time consuming task.

9. Analysis and interpretation of collected data.

Once the field work is completed next task is to convert the data into meaningful information, by using graphical presentation, percentage and advanced statistical tools such as co-relation, co-efficient, etc.

10. Testing of hypothesis

After analyzing of data researcher is in position to test of hypothesis, which was develop at the beginning of research, this will result in to either selection or rejection of hypothesis.

11. Preparation of research report

At the final step research report is to be prepared for the purpose of presentation in front of client or company, it must be prepared carefully by considering following point.

1.Preliminary pages: which include front pages such as declaration, acknowledgement, executive summary, index etc.

2.The main content: Which include research proposal, literature review, theoretical frame work, questionnaire and its analysis etc.

3.The end matter: Which include finding, conclusion, suggestion, bibliography, appendix, etc Such prepared report make the research more meaningful and easy to understand.