Unit-1
Business Research

Handout No.1

Introduction

Research is a systematic and objective process of collecting, recording, organizing and interpreting data that aids in decision making.

Research is a diligent enquiry and careful search for new knowledge through systematic, scientific and analytical approach in any branch of knowledge. Constant search and research are the guiding factors of research which help to discover new facts. The search of new knowledge also helps to accept, reject or modify existing facts or knowledge. It is a systematic effort to gain knowledge, truth or broad principles in a verifiable and objective way.

According to Slessinger and Stevenson, social research aims to "extend, collect or verify knowledge", whether that knowledge aids in the construction of theory or in the practice of an art."

What is Business Research?

1. "Business research is a systematic inquiry whose objective is to provide information to solve managerial problems." Donald and Pamela.
2. "Research is the application of human intelligence to problems whose solutions are not available immediately"- Hertz
3. "Research is creative and original intellectual activity carried out in library, laboratory or in the filed in the light of previous knowledge"- Klopsteg
4. "Research is any organized inquiry carried out to provide information for the solution of a problem. Business research is a systematic inquiry aimed at providing information to solve managerial problems" – Emory and Cooper
5. "Business research is a function which links the organization, the customer, and the public through information – information used to identify opportunities and define problems; generate evaluate and refine actions; and monitor performance" American Marketing Association.
6. "Business research is a formalized means of designing, gathering, analyzing, and reporting information that may be used to solve a specific management problem" – Burns and Bush.

The study of business research provides with the knowledge and skills one need to solve the problems and meet the challenges of a fast-paced decision-making environment.

Role and scope of business research

Most of the modern organizations face problems which are beyond the control of the management to solve it and lack training to take adequate measures on those problems that cripple the smooth running of the organization. Business research provides training in a disciplined process for conducting an inquiry into those managerial problems. There are three factors that stimulate interest in a scientific approach to decision making;

1. The manager's increased need for more and better information.
2. The availability of improved techniques and tools to meet this demand.

3. The resulting information overload if discipline is not employed in the process.

Business research is used;

- To identify and define market opportunities. Business research helps to define those wants and needs in the market that is not being met by the competition. Managers need information through research to help them identify market opportunities.
- To generate and refine management actions. Business research help managers to determine which plan or strategy will best meet opportunities.
- To monitor strategies and plans. Any control system requires feedback of information to management. Business research brings that information to management personnel, allowing them to compare actual performance with desired performance standards.

Managerial value of business research

The last two decades have witnessed dramatic changes in the business environment. These changes have created new knowledge needs for managers and new publics to consider when evaluating any decision. Other knowledge demands have arisen from problems with mergers, trade policies, protected markets, technology transfers, and macroeconomic savings-investment issues. The trend toward complexity has increased the risk associated with business decisions, making more importance for a sound information base. Some factors are mentioned below which characterize the complex business decision-making environment, demand that managers have more and better information on which to base decisions;

- There are more variables to consider in every decisions
- More knowledge exists in every field of management.
- Global and domestic competition is more vigorous.
- The quality of theories and models to explain tactical and strategic results is increasing.
- Workers, shareholders, customers and the general public are demanding to be included in company decision-making.
- Organizations are increasingly practicing data mining, learning to extract meaningful knowledge from volumes of data contained within internal databases.
- Use of computers gave capability to analyze data to deal with today's complex managerial problems.
- Communication and measuring techniques within research have been enhanced.

Importance of research in any field:

The ultimate goal of research in any field is:

1. To generate accurate information for use in decision making to solve economic, social, environmental and managerial problems
2. To generate theories and principles in the given field and to increase the pace of knowledge development in the field.
3. To reduce the risk of making wrong decisions by reducing the uncertainty of decisions.

When Business Research is to be conducted?

The question refers to the feasibility of research project:

(i) The research *topic should be researchable*

(ii) *The research problem should be new*: There is no need to study a problem that had already successfully studied by other researchers. In order to avoid such duplications it is necessary to assess thoroughly the record of the previous studies related to the selected topic. However, this doesn't mean that a problem which has been studied in the past or somewhere else no longer worth of study. The problem can be repeated to verify the significance and conclusions or to extend its validity in a situation completely different from the previous one.

(iii) The *expected research result should be significant***.** The researcher has to be convinced that the final result of the research will contribute a lot for solving a problem or formulating strategies and development policies.

(iv) *Sufficient time should exist*: Systematically conducting research takes time. Thus if sufficient time is not available for the whole research endeavor, research should not be conducted.

(v) The *data to the research problem should be easily available.*

(vi) The *methods and procedures of data collection and analysis should be manageable.* Methods of data collection have to be exactly known by the researcher and data analysis tools should also be within the capacity of the researcher.

(vii) The research problem should be *financially feasible.* The value of the research information should exceed the cost of conducting research. (Cost benefit analysis).

(viii) *Optimum administrative facilities with minimum discomfort.* To complete the research project successfully, there should exist optimum administrative facilities from the very beginning of research planning to its final completion.

Different types of Business research studies

The different types of business research studies can be classified as;

1. **Reporting**

A reporting study may be made only to provide an account or summation of some data or to generate some statistics. The task may be quite simple and data may be readily available. Such a study usually requires little inference or conclusion drawing. A reporting study calls for knowledge and skill with information sources and gatekeepers of information sources.

2. **Descriptive**

A descriptive study tries to discover answers to the questions who, what, when, where and sometimes, how. The researcher attempts to describe or define a subject, often by creating a profile of a group of problems, people, or events. Such studies may involve the collection of data and the creation of a distribution of the number of times the researcher observes a single event or characteristic (research variable), or they may involve relating the interaction of two or more variables. Descriptive studies may or may not have the potential for drawing powerful inferences. Organizations that maintain databases of their employees, customers and suppliers already have significant data to conduct descriptive studies using internal information.

3**. Explanatory**

An explanatory study goes beyond description and attempts to explain the reasons for the phenomenon that the descriptive study only observed. Research that studies the relationship between two or more variables is also referred to as a correlational study. In an explanatory study, the researcher uses theories or at least hypothesis to account for the forces that caused a certain phenomenon to occur.

4. Predictive

If we can provide a plausible explanation for an event after it has occurred, it is desirable to be able to predict when and in what situations the event will occur. A predictive study is just as rooted in theory as explanation. This type of study often calls for a high order of inference making. In business research, prediction is found in studies conducted to evaluate specific courses of action or to forecast current or future values.

Types of Research in Management

There are two general categories of research: Basic research and applied research.

Basic Research: Also known as pure research, it is usually conducted to develop principles, theories and models and is used to expand the limits of knowledge. It is also used to evaluate theories and models. It is too challenging and requires the accumulation of knowledge and is mostly used for elder scientists and professors.

Applied Research: Also known as action research, development research, empirical research conducted when decisions must be made about a specific real life problem. Applied research has a problem-solving emphasis. It is conducted when there is a desire to formulate developmental strategies and policies; when you need action to combat the existing or possible problems.

Therefore basic research tries to extend the knowledge in a given field and applied research tries to solve problems. Applied research is directed much more to making immediate managerial decisions.

Types of Applied research:

Applied research can be classified on the basis of either technique (methods) or purpose (function):

Research by their technique (or method) can be further classified as experimental, survey and observation.

1. **Experimental: (or controlled experiment):** A researcher would at first create two matched groups as similar as possible to test his/her hypothesis. One group is considered as the experimental group, while the other would be designated as the control group. The experimental group is the one on which the tests are conducted. The role of the control group is very critical since it serves to isolate the experimental stimulus as the single source of change among the experimental stimulus.

2. **Survey (Case study):** It represents a comprehensive description and explanation of many components of a given social system. The researcher seeks to collect and examine as much data as possible regarding the subject of his study.
3. **Observation:** The researcher seeks to become a member of the social event or group under study. He may or may not reveal his research role. By impressing himself in the actual social events in progress, the researcher will be in a position to obtain a far greater depth of knowledge.

On the basis of purpose (function) research can be classified as: Exploratory, descriptive and causal.

1. Exploratory Research: It is an initial research conducted to clarify and define the nature of an ambiguous problem. It is conducted to gain familiarity with a phenomenon or to achieve new insights into it. The researcher aims at formulating more precise questions that future research can answer, and discovering new insights. It may be the first stage in the sequence of studies. Its result may not be used as conclusive evidence to determine a particular course of action. It is usually conducted with the assumption that subsequent research will be required to provide conclusive evidence. It uses qualitative data and tends to be more open using range of evidence and discovering new issues.

Techniques of exploratory research are as follows:

1. **Experience survey:** It is an exploratory research technique in which individuals who are knowledge about a particular research problem are surveyed or asked.
2. **Secondary data analysis:** Literature review or literature survey, it deals with preliminary review of data collected for another purpose to clarify issues in the early state of a research effort.
3. **Case study:** Intensively investigates one or a few situations similar to the researcher's problem situations.
4. **Pilot survey:** It is a brief preliminary survey often using a small, convenience sample conducted to test the survey instruments and data collection method, before the project details are finalized and the formal survey conducted.

Much, but not certainly, research provides qualitative information. It will provide clue information; we can't say this much or this percentage. Generally the purpose of exploratory research is to clearly and precisely define the problem.

2. **Descriptive research:** The major purpose of descriptive research is to describe the characteristics of a population or phenomenon. It attempts to give answer to questions like who, what, when, where, how. The answer to questions to why is not given by descriptive research. Unlike exploratory research, descriptive studies are based on some previous understanding of the nature of the problem. Its purpose is to describe the state of affairs, as it exists at present. The researcher has no control over the variables, but only reports what has happened or what is happening.
3. **Causal research:** To identify the cause or effect relationship between variables where the research problem has already been narrowly defined. Ex: relationship between fertilizers application and land productivity, influences of price, packaging, advertising on the volume of sales of a product, the effect of training on labor productivity. Exploratory and descriptive research usually precedes cause and effect relationship studies.

Other types of research:

1. **Analytical Vs Descriptive research:** In analytical research, the researcher has to use facts or information already available, and analyze these to make a critical evaluation of the material.
2. **Active research Vs Evaluation research:** Both are parts of applied research. Active research- treats knowledge as a form of power and abolishes the line between research and social action, ex: the purpose of gender research may be to create social change or to contribute to the advancements of knowledge. It makes social impact analysis which attempts to estimate the likely consequences of planned change. It is mainly used for planning and making choice among alternative policies. Social impact analysis often includes cost benefit analysis.
   Evaluation research- address the question, "Did it work?" Ex: has the bonus system increase productivity?
3. **Quantitative Vs Qualitative Research:** Quantitative research is based on the measurement of quantitative figure or quantity or amount. i.e., it is applicable to phenomenon that can be expressed numerically.
   Qualitative research is concerned with qualitative phenomenon, i.e., phenomenon relating to or involving quality or kind. All kinds of motivation research, all kinds of attitude research or opinion research are different qualitative research studies. It is particularly important in behavioral sciences where the underlying motive is to discover the underlying motive of human behavior.
4. **Conceptual Vs Empirical research:** This classification is similar to the fundamental Vs applied research. Conceptual research is related to some abstract or theory, it is conducted by philosophers to develop new ideas or reinterpret the existing ones. Empirical research relies on experience or observation alone, without due regard to system or theory. It is data base research or also called experimental research, coming up with conclusions, which are capable of being verified by observations or experiments.

Time dimension in Research: In terms of time dimension, quantitative research may be divided in two groups: Cross sectional research (a single point of time) and Longitudinal research (multiple points of time).
Cross Sectional research: Takes a snap shot approach to social world. It is the simplest and less costly research approach. Limitation: It cannot capture social process or change
Longitudinal research: Examines feature of people or other unites more than one time. It is usually more complex and costly than cross-sectional but it is more powerful especially with respect to social changes.

Logic in Research: research is usually conducted in two modes, i.e., by *inductive reasoning* and the other by *deductive reasoning*.
Inductive reasoning approach is said to be, "Particular to general approach", and it involves samples, i.e., studying a part of the entire population and the features which hold good for the sample are generalized for the entire population. Ex: to know whether a patient is suffering from malaria the physician uses a drop of the blood of the patient and concludes that the patient is suffering from malaria. i.e., a generalization of the disease throughout the body is made on the basis of the single drop of the blood (sample). To induce is to draw a conclusion from one or more particular facts or pieces of evidence.

In **deductive reasoning approach** it is said to be "General to particular", and it involves studying the entire population (census) for drawing conclusions. Deduction is the form of inference that purports to be conclusive- the conclusion must necessary follow from the reasons given.
The way a logical conclusion can be drawn from the following statements would make the concept clear.
E.g. 1. All regular employees can be trusted.
2. John is a regular employee
Conclusion: John can be trusted.

Scientific method in research

It is a way of obtaining knowledge based on objective observations. Science deals with phenomena that are observable. Scientific experiments are empirical and constantly explore new body of knowledge and discover new concepts and ideas. It is progressive in nature.

George Lundbery defines scientific research as "one consisting of systematic observation, classification and interpretation of data. Observation, hypothesis, and verification are the three important components of scientific enquiry.

The following are the steps in scientific research;

1. Observation: what to be studied
2. Recording: recording all relevant things observed
3. Classification: systematic arrangement of data collected in a logical manner
4. Generalization: based on the data analyzed after data collected make a conclusion.
5. Verification: the generalization made should be tested for its validity whether to accept or reject.

The two general traits characterize any research are;

1. Validity: It is the characteristic used to describe that measures what it claims to measure.
2. Reliability: It is characteristic that allows repeating the experiment again and again by any researcher- always with the same results. E.g experiments conducted in laboratories.

Distinction between scientific and non-scientific methods

Sl. No	Attributes	Scientific	Non-Scientific
1	Objectivity	Judgment on facts	Based on pre-conceived notions or intuitions
2	Accuracy of measurement	Maximum precision and accuracy due to measuring devices	Less accurate.
3	Continuity	Aggressive search for evidence and hence it is exhaustive and continuous.	The results are proved through hypothesis and hence results are reliable and hence less scope for continuity.

Characteristics of good research

Good research generates dependable data, being derived by practices that are conducted professionally and that can be used reliably for managerial decision making. Good research follows the standards of the scientific method. The characteristics of scientific method and the managerial dimensions of each are discussed below;

No	Characteristics of research	Managerial dimensions
1	Purpose clearly defined	• Researcher distinguishes between symptom of organization's problem, the manager's perception of the problem, and the research problem.
2	Research process detailed	• Researcher provides complete research proposal.
3	Research design thoroughly planned	• Exploratory procedures are outlined with constructs defined. • Sample unit is clearly defined along with sampling methodology. • Data collection procedures are selected and designed.
4	High ethical standards applied	• Safeguards are in place to protect study participants, organizations, clients, and researchers. • Recommendations do not exceed the scope of the study. • The study's methodology and limitations sections reflect researcher restraint and concern for accuracy.
5	Limitations frankly revealed	• Desired procedure is compared with actual procedure in report. • Desired sample is compared with actual sample in report. • Impact on findings and conclusions is detailed.
6	Adequate analysis for decision maker's needs.	• Sufficiently detailed findings are tied to collection instruments.
7	Findings presented unambiguously.	• Findings are clearly presented in words, tables and graphs. • Findings are logically organized to facilitate reaching a decision about the manager's problem. • Executive summary of conclusions is outlined. • Detailed table of contents is tied to the conclusions and findings presentation.
8	Conclusions justified	• Decision- based conclusions are matched with detailed findings.
9	Researcher's experience reflected	• Researcher provides experience/ credentials with report.