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Application of Research Design in Business Research

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Abstract: Research Design is a comprehensive plan of the operations that a researcher intends to carry out to achieve the objectives of a research study. The basis objective of a research design is to ensure maximum information that is needed for decision –making through a research study.
Keywords: Achieve objectives, Need for decision and Plan of Operation.

I. INTRODUCTION

The research is a group of assumptions, a strategy for knowing and a belief system about evidence. It is an established body of knowledge, a collection of methods, tools and techniques, a purposeful or functional activity and a process carried on by the people.
A research design comprises the blueprint of the methodology for
Collection of data
Measurement of data units
Analysis of data

A. Types of Research Design

1) Exploratory Design
2) Descriptive Design
3) Explanatory Design
4) Experimental Design
a) One –Factor Experiment
b) Two –Factor Experiment
c) Two –Factor Experiment with Interactions
d) Latin Square Design
e) Factorial Designs
f) Quasi-Experimental Design
g) Ex Post Facto Design
5) Cross –Sectional Studies
6) Longitudinal Studies
7) Action Studies

B. Exploratory Design

When the research topic is new and not much is researched about the topic the exploratory research is undertaken. It can be qualitative or quantitative approach.
Eg: Impact of new policy implementation

C. Descriptive Design

This type of research deals with describing the data, variables and characteristics of what is being studied. The main purpose of this descriptive study is to study frequencies, averages and other statistical calculations.
Eg: Behavior of customer
Customer's satisfaction on product

D. Explanatory Design

This type of study arises only when there exists correlation between two variables. For eg, if there is a correlation between two variables, say sales and advertising expenses may like to study which of the two is the cause and which is the effect. In this case advertising expenditure is the cause(called independent variable) and sales (called dependent variable) is the effect.

Eg: Motivation and performance of salesman
Advertising expenditure and sales turnover of a company

E. Experimental Design

In this type of research data is generated through experimentation or by conducting experiment whose basic objective is to make a discovery
Eg: In Medical research continuing medication for better treatment
Impact of fertilizers and seed on different crops

F. One –Factor Experiment

The yield of crop depends on several factors like fertilizers, variety and quality of seeds, soil, methods of cultivation, climate, etc. Out of many factors suppose the researcher is interested in any one factor, say variety of rice it is called one factor experiment.

G. Two –Factor Experiment

Suppose it is claimed that the yield of any variety of rice depends not only on the variety itself, but also on the type of fertilizers used.

H. Two –Factor Experiment with Interactions

While dealing with two factors, one could argue that the yield depends not only on variety of rice and type of fertilizer but also on the interaction between variety of rice and type of fertilizer. It could happen one particular type of fertilizer gives more yield for one variety of rice as compared to the other variety. Thus yield of rice could also depend on the combination of a variety of rice and a type of fertilizers.

I. Two factors with Interaction

It has been observed that there are variations in the pay packages offered to MBA students. These variations could either be due to interaction between the institute and the field of specialization.

J. Latin Square Design

A latin square is an n multiplied with n table filled with n different symbols in such a way that each symbol occurs exactly once in each row and exactly once in each column.

A	B	C
B	C	A
C	A	B

With the Latin square design, a researcher is able to control variation in two directions. It is developed in the context of agricultural experiments.

K. Factorial Design

A factorial experiment is an experiment whose design consists of two or more factors, each with discrete possible values or levels and whose experiments units take on all possible combinations of these levels across such factors. Such an experiment allows studying the effect of each factor on the response variable, as well as the effects of interactions between factors on the response variable.

L. Quasi-Experimental Design

A quasi-experiment is a scientific research method primarily used in social sciences. Quasi means likeness or resembling, and therefore quasi-experiments share characteristics of true experiments which seek interventions or treatments.
Eg: Comparison between subjects or group of subjects that are naturally organized

M. Ex Post Facto Design

In an experimental approach an investigator has direct control or can manipulate atleast one dependent variable. He can choose his experimental units at random and assign treatments to groups at random.
Eg: Study related to cause of crime, drug addiction, family breakdown etc

N. Cross-Sectional Studies

These studies are conducted over a group of companies or organizations over the same point of time. It could also be made to study the relationship among several variables relating to an entity over the group of similar entities like all automobile manufacturers. The main advantage of cross-sectional study is cheaper and faster to conduct such a study.

Eg: Changes in sales and net profit and the interrelationship in several similar companies in a particular sector.

Placement offers to MBA students of 2011 batch at all IIMs

O. Longitudinal Studies

Longitudinal research is conducted over a period of time. It is so popular in social and behavioral sciences, socio economic research, banking and finance etc

Eg: Closing price of RIL on BSE and NSE for 15 days in the same month and same year.

Quality life parameters of a state or a country.

P. Action Research

Action research is an interactive inquiry process that problem-solving actions implemented in a collaborative context with data-driven collaborative analysis or research to understand underlying causes enabling future predictions about personal and organizational changes.

Eg: Study on Improving classroom behavior by giving punishment.

CONCLUSION

Defining the objective, formulation of the problem, etc are conceptual part of a research process and involve mental thinking, the research design involve the physical work.

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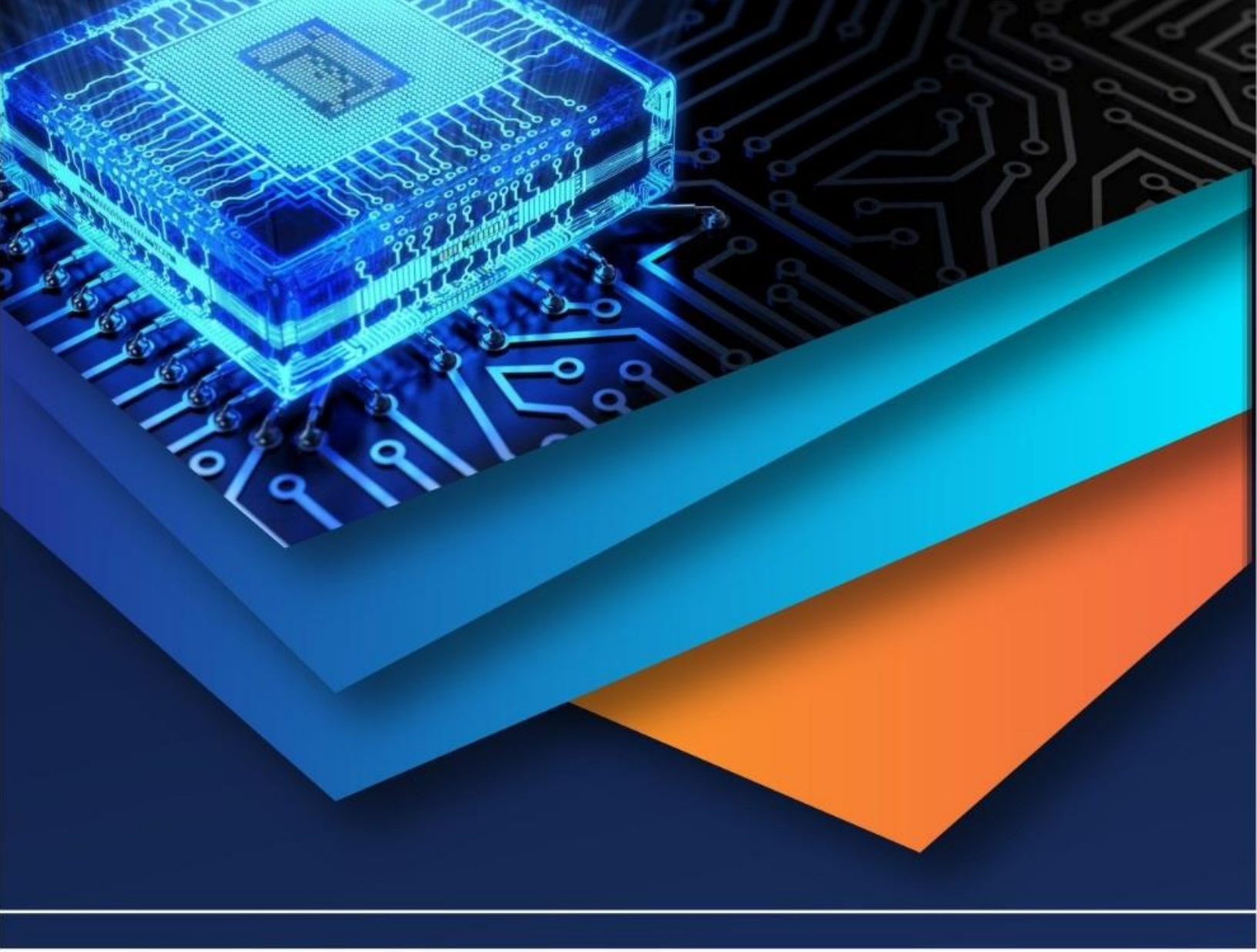

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