

# Unit – V

- I. **EXPLAIN VARIOUS METHODS UNDER MULTI-VARIATE ANALYSIS IN MARKETING RESEARCH PROBLEMS.**
- II. **WHAT ARE THE BASIC REQUIREMENT FOR PREPARING AND PRESENTING A RESEARCH REPORT?**

# I. EXPLAIN VARIOUS METHODS UNDER MULTIVARIATE ANALYSIS IN MARKETING RESEARCH PROBLEMS

## A. MULTIVARIATE ANALYSIS METHODS

These are used in the evaluation and collection of statistical data to clarify and explain relationships between different variables that are associated with this data.

Multivariate tests are always used when more than three variables are involved and the context of their content is unclear. The goal is to both detect a structure, and to check the data for structures.

## B. TYPES OF MULTIVARIATE ANALYSIS METHODS

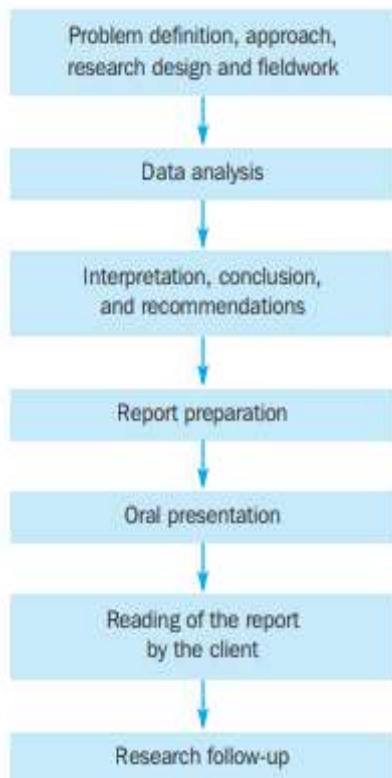
- 1. Factor analysis:** Reduces the structure to relevant data and individual variables. Factor studies focus on different variables, so they are further subdivided into main component analysis and correspondence analysis.
- 2. Cluster analysis:** Observations are graphically assigned to individual variable groups and classified on the basis of these. The results are clusters and segments, such as the number of buyers of a particular product, who are between 35 and 47 years old and have a high income.
- 3. Regression Analysis:** Investigates the influence of two types of variables on each other. Dependent and nondependent variables are spoken of. The first describes the actual state on the basis of data, the second explains this data by means of dependency relationships between the two variables.
- 4. Variance analysis:** Determines the influence of several or individual variables on groups by calculating statistical averages. Here you can compare variables within a group as well as different groups, depending on where deviations are to be assumed. For example: Which groups most often click on the 'Buy Now' button in your shopping cart?

**5. *Discriminant analysis:*** Used in the context of variance analysis to differentiate between groups that can be described by similar or identical characteristics. For example, by which variables do different groups of buyers differ?

## II. WHAT ARE THE BASIC REQUIREMENT FOR PREPARING AND PRESENTING A RESEARCH REPORT?

### Preparation and presentation process

Figure 25.1 illustrates report preparation and presentation.



### 1. REPORT PREPARATION

- Researchers differ in the way they prepare a research report. The personality, background, expertise, and responsibility of the researcher, along with the decision maker (OM) to whom the report is addressed, interact to give each report a unique character.
- In short or repetitive projects, an extensive formal written report of the type we describe here may not be prepared. Nonetheless, there are guidelines for writing reports and designing tables and graphs that should be generally followed!

## **2. TITLE PAGE**

The title page should include the title of the report, information (name, address, email, and telephone) about the researcher or organization conducting the research, the name of the client for whom the report was prepared, and the date of release. The title should indicate the nature of the project, as illustrated in the following example.

## **3. LETTER OF TRANSMITTAL**

A formal report generally contains a letter of transmittal that delivers the report to the client and summarizes the researcher's overall experience with the project, without mentioning the findings.

The letter should also identify the need for further action on the part of the client, such as implementation of the findings or further research that should be undertaken.

## **4. TABLE OF CONTENTS**

The table of contents should list the topics covered and the appropriate page numbers. In most reports, only the major headings and subheadings are included. The table of contents is followed by a list of tables, list of graphs, list of appendices, and list of exhibits.

## **5. APPROACH TO THE PROBLEM**

This section should discuss the broad approach that was adopted in addressing the problem. This section should also contain a description of the theoretical foundations that guided the research, any analytical models formulated, research questions, hypotheses, and the factors that influenced the research design.

## **6. RESULTS**

This section is normally the longest part of the report and may comprise several chapters. Often, the results are presented not

only at the aggregate level but also at the subgroup-(market segment, geographical area, etc.) level.

The results should be organized in a coherent and logical way.

## **7. CONCLUSIONS AND RECOMMENDATIONS**

Presenting a mere summary of the statistical results is not enough. The researcher should interpret the results in light of the problem being addressed to arrive at major conclusions. Based on the results and conclusions, the researcher may make recommendations to the decision makers.