

DegreeLive

B.Com Honours

Semester III

Calicut University

DATA ANALYTICS WITH STATISTICAL SOFTWARE

Course Code: COM3MN210 • Module 1 Notes

Module I: An Introduction to SPSS

SPSS (Statistical Package for the Social Sciences) is a comprehensive GUI-driven software platform used for data management, statistical analysis, and empirical business research.

Unit 1: SPSS Meaning, Applications, & Uses in Business

1. Meaning: A powerful statistical package providing automated menus for descriptive statistics, cross-tabulation, hypothesis testing, and multivariate modeling.

2. Applications: Market research survey analysis, consumer segmentation, credit scoring, HR employee turnover studies, and academic research.

Unit 2: SPSS Features, Merits, & Limitations

Merits: User-friendly graphical interface, comprehensive statistical test library, seamless integration with Excel files.

Limitations: Commercial licensing cost, lower flexibility compared to custom programming languages, memory limits on huge datasets.

Unit 3: Comparison of SPSS with Other Statistical Tools

Evaluating SPSS against R (open-source scripting), Python (machine learning automation), SAS (enterprise data mining), and Microsoft Excel (basic business spreadsheets).

Unit 4: Installation Guide & Interface Navigation

Dual View Interface:

Data View: Spreadsheet grid displaying raw respondent data (rows = cases/subjects, columns = variables).

Variable View: Metadata definition grid specifying variable attributes and measurement levels.

Unit 5: Creating & Editing Data Files – Variable Properties

Defining 10 Core Variable Attributes: Name, Type (Numeric, String, Date), Width, Decimals, Label, Values (Value Labels for coded survey responses), Missing, Columns, Align, and Measure (Nominal, Ordinal, Scale).

Practical Case Framework (SPSS Variable View Metadata Setup Guide): Define variable properties for a customer satisfaction survey dataset in SPSS Variable View.

SPSS Variable View Metadata Specification Table:

Variable Name	Data Type	Measure Level	Value Labels Assigned	Research Purpose
Cust_ID	Numeric	Nominal	None (Unique ID)	Respondent Identification Number
Gender	Numeric	Nominal	1 = Male, 2 = Female, 3 = Other	Demographic Segmentation
Edu_Level	Numeric	Ordinal	1 = High School, 2 = Graduate, 3 = Post-Grad	Ordered Education Ranking
Sat_Score	Numeric	Ordinal	1 = Very Dissatisfied ... 5 = Very Satisfied	5-Point Likert Scale Satisfaction Rating
Monthly_Spend	Numeric	Scale (Continuous)	None (Rupee Value)	Continuous Purchase Amount (In Rupees)

DegreeLive

Acing your exams is just a click away!

Visit www.degreeelive.in to download the next module for free.

DegreeLive