

Case Study: Sales Data Analysis and Report Preparation

Background:

SmartBuy Retail Pvt Ltd. is a mid-sized retail company with a network of stores across major cities in India. Over the past few months, the management has observed fluctuations in sales and customer acquisition rates across various regions. They have hired you, a data analyst, to help them uncover insights from their sales data and present actionable recommendations to improve performance. Your primary tasks will include analyzing the provided dataset, preparing a detailed report, and presenting your findings in a professional manner.

Scenario:

The dataset provided includes 100 rows of transactional data for 2025. The data captures essential details such as the region, product category, sales revenue, profit margin, customer acquisition cost, and payment methods. The management is particularly interested in:

1. Identifying the best- and worst-performing regions.
2. Understanding which product categories drive the most revenue and profitability.
3. Analyzing trends in payment methods used by customers.
4. Highlighting any irregularities or inconsistencies in the data.

Your Objectives:

1. Analyze the Sales Data Using MS Excel

- Format the provided Dataset properly, use features from Groups: Font, Alignment and Number Format.
- Apply data cleaning techniques (e.g., removing duplicates, standardizing text, or fixing inconsistent entries).
- Use functions such as SUM, AVERAGE, COUNT to perform initial calculations and bring whole data together from both the tables.
- Sort and filter the data by region, product category, or revenue.
- Create at least two charts or graphs to visualize the data, such as:
 - A bar chart showing revenue by region.
 - A pie chart depicting the share of payment methods used.

2. Prepare a Professional Report Using MS Word

- Write a report summarizing your analysis.
- Include an executive summary, key findings, and actionable recommendations.
- Format the document professionally with styles, headers, and bullet points.

3. Create a Presentation Using MS PowerPoint

- Develop a concise presentation to showcase your findings.
- Include key slides, such as:
 - Introduction to the dataset.

- Visualizations of trends and patterns.
- Recommendations for stakeholders.
- Use transitions, animations, and appropriate templates to make the presentation engaging.

Dataset Overview:

Here is a brief description of the dataset fields you will work with:

| Column Name | Description |
|-------------------------------|---|
| Region | The geographical region of the sale (e.g., North, South, East). |
| Product Category | The category of the product sold (e.g., Electronics, Apparel). |
| Sales Revenue (₹) | Total revenue generated from the sale. |
| Profit Margin (%) | Percentage of profit margin on the sale. |
| Customer Acquisition Cost (₹) | Cost incurred to acquire the customer for the sale. |
| Payment Method | Method of payment (e.g., Credit Card, UPI, Cash). |
| Units Sold | Number of units sold in the transaction. |
| Date of Transaction | Date on which the transaction took place. |

Deliverables:

1. A cleaned and formatted Excel file with analysis and visualizations.
2. A well-structured Word report (2-3 pages, including cover page) summarizing your findings, paste charts for better explanation, wherever required.
3. A PowerPoint presentation (2-4 slides, including Intro and End Slide) highlighting your key insights.

Evaluation Criteria:

- Accuracy and completeness of the analysis.
- Presentation of visualizations (clarity, relevance, and aesthetics).
- Professionalism and structure of the report.
- Creativity and impact of recommendations.

Hints for Success:

- Pay attention to trends, patterns, and outliers in the data.
- Ensure all documents are formatted professionally (use consistent fonts, colors, and styles).
- Use appropriate tools and techniques covered in your training.
- Think from the perspective of a stakeholder: What information would help them make decisions?

Good luck, and remember to apply the skills you've learned throughout this training!

Note: Use the dataset provided in an excel file to solve this case study.