

Introduction

In this assignment, you will be working with a dataset containing information about customer orders and sales data. The dataset includes fields such as Order ID, Customer ID, Order Date, Ship Date, Ship Mode, Segment, Region, Category, Sub-Category, Product Name, Sales, Quantity, Discount, and Profit. Your task is to create an interactive dashboard in Power BI to analyse and visualise the data.

Dataset Description

- Order ID: A unique identifier for each order.
- Customer ID: A unique identifier for each customer.
- Order Date: The date of the order placement.
- Ship Date: The date the order was shipped.
- Ship Mode: The shipping mode for the order (e.g. standard, same-day).
- Segment: The customer segment (e.g. Consumer, Corporate, Home Office).
- Region: The region where the customer is located (e.g. West, Central, East).
- Category: The category of the product purchased (e.g. Furniture, Technology, Office Supplies).
- Sub-Category: The sub-category of the product purchased (e.g. Chairs, Desktops, Paper).
- Product Name: The name of the product purchased.
- Sales: The sales revenue for the product purchased.
- Quantity: The number of units of the product purchased.
- Discount: The discount applied to the product purchased.
- Profit: The profit generated by the product purchased.

Instructions

- Download the provided dataset and load it into Power BI.
- Create a new report and add a new page for each question to build the dashboard. Finally Prepare a single report where all the visualisation at one place named it as "Dashboard".Arrange it well organised.
- Use appropriate visualisations to represent the data effectively.
- Provide necessary filters and interactions to make the dashboard interactive.
- Include titles, axis labels, and data labels as required for clarity and understanding.
- Ensure the visualisations are well-organised and visually appealing.
- Use DAX expressions where necessary to perform calculations for specific visualisations.

Questions

1. Create a line chart showing the trend of sales over time (Order Date) for all product categories. Add appropriate titles and axis labels to the chart. Only Add year and month on the x-axis.
2. Build a bar chart to display the total sales for each region. Sort the regions in descending order based on sales.
3. Create a donut chart to visualise the proportion of sales from different product categories. Include labels showing the percentage of sales for each category.
4. Build a stacked bar chart to compare the quantity sold for each product category across different segments (Consumer, Corporate, Home Office).
5. Create a multi-row card to display the total profit, total sales, and average discount for all orders.
6. Build a scatter plot to visualise the relationship between sales and profit for each product. Add tooltips to display the product name when hovering over data points.
7. Create a table to display the top 10 products with the highest sales. Include columns for Product Name, Sales, and Quantity.
8. Build a funnel chart to analyse the conversion rate of orders from different ship modes. Include data labels to show the percentage of orders at each stage.
9. Create a stacked area chart to visualise the sales trend over time (Order Date) for each product sub-category. use small multiples to show each separate visualisation
10. Build a waterfall chart to analyse the contribution of each sub-category to the total profit. Add data labels to display the profit amount for each sub-category.

Using above visualisation/reports , collate and Built a beautiful and interactive dashboard which gives lots of insights.