POWER BI Project:

Requirements:

1. **Descriptive Statistics:**

    • Mean, Median and Mode of sales, profit, quantity, and discount.

    • Count of unique orders, products, categories, and sub-categories.

    • Distribution of sales and profit by category or sub-category.

2. **Time-Series Analysis:**

    • Trends in sales and profit over time (using order date).

    • Seasonal patterns in sales and profit.

    • Monthly or yearly sales growth rates.

3. **Product Analysis:**

    • Best-selling products (based on quantity sold or total sales).

    • Products with the highest profit margins.

    • Products with the most significant discounts.

4. **Category/Sub-Category Analysis:**

    • Category or sub-category with the highest sales and profit.

    • Category or sub-category with the most significant discounts.

    • Growth trends for different categories.

5. **Discount Analysis:**

    • Effect of discounts on sales and profit.

    • Calculate the discount rate distribution.

    • Identify if certain products or categories are more sensitive to discounts.

6. **Profitability Analysis:**

    • Calculate the overall profit margin (total profit divided by total sales).

    • Profitability by product, category, or sub-category.

    • Identify products or categories with low profitability.

7. **Quantity Analysis:**

- Quantity sold for each product, category, or sub-category.

- Quantity sold over time to identify trends.

- Correlation between quantity sold and other variables (e.g., profit, discount).

8. **Order Analysis:**

   - Average order value (total sales divided by the number of orders).

   - Distribution of order values.

   - Customer segmentation based on order size.

9. **Geographic Analysis:**

   - Sales and profit by region or location.

   - Identify regions with the highest and lowest performance.

10. **Cost Analysis:**

    - Calculate the cost of goods sold (COGS) for products.

    - Analyze cost vs. profit to optimize pricing and product selection.

Remember that the choice of analyses and KPIs should align with your business goals and objectives. It's also important to visualize the data through charts, graphs, and dashboards to make the insights more accessible and actionable.

NOTES:

1. Name the file by your name – full name preferable.
2. If you encounter full duplication – Remove It
3. Deal with errors as you see fit.
   a. If you feel it is a partial error fix it
   b. If you feel it is a complete error – remove it.
4. We need a complete dashboard.
   a. Answer the above questions in a storytelling manner.
   b. Please don't answer questions with only one visual per page.
5. Please create as many measures as you see fit and in accordance with the business question.
6. You cannot solve the project together as a team.
   a. Please note that there is a committee in Epsilon AI that is responsible for detecting possible copy and paste.
   b. In case of copy-paste confirmed. The committee automatically fails both projects.