

Business Requirement Document

Business Requirement:

Create a Power BI report with **3 pages**:

- 1. Sales Summary**
- 2. Customer Analysis**
- 3. Product Analysis**

General Information:

- The report should be neat and easy to understand for the end users.**
- It should not provide any vague information without context**
- Should have a standard colour formatting across all the visuals**
- Should have standard font style and colours**

Calculated Columns Using Power Query

1. **Gross Sales** = **Units Sold** * **Unit Price**
2. **Discount** = **Gross Sales** * **Discount Rate**
3. **Net Sales** = **Gross Sales** – **Discount**
4. **COGS** = **COGS Per Unit** * **Unit Sold**
5. **Gross Profit** = **Net Sale** – **COGS**
6. **Net Profit** = **Gross Profit** – **Other Expenses**

Data Model

Create a data model using star schema methodology, there will be 4-dimension tables:

1. Dim_customers *connected to Facts sales via Customer ID(1:M)*
2. Dim_products *connected to Fact Sales via Product ID (1:M)*
3. Dim_regions *connected to Fact Sales via Postal Code (1:M)*
4. Dim_date *connected to Fact Sales via date and order date (1:M)*

Dim_Regions
Postal Code
City
State
Region
Country

Dim_Products
Product ID
Category
Sub-Category
Product Name

Fact_Sales
Order ID
Order Date
Ship Date
Ship Mode
Customer ID
Postal Code
Product ID
Sales per unit
Quantity
Discount Rate
COGS Per Unit
Other Expenses

Dim_Dates
Date
Year
Month

Dim_Customers
Customer ID
Customer Name
Customer Gender
Customer DoB
Segment

Sales Summary

Sales Summary should contain the following metrics and information:

1. A proper title for the report (e.g., *Sales Summary*).
2. **Key metrics**: Total Sales, Total Quantity Sold, Total Profit, Gross Profit Margin and Net Profit Margin.
3. A visual showing **Year-on-Year comparison of** Total Sales, Total Quantity Sold, Total Profit, Gross Profit Margin and Net Profit Margin.
4. A visual showing the **units sold by months compared to same month last year**.
5. A visual showing **State-wise Sales comparison**.
6. A visual showing **YTD sales by year and month and by Product category (use Matrix visual)**.
7. A visual showing **Total Sales by Category**.
8. A visual showing **top 10 states by units sold**.
9. At the bottom of the report provide **detailed table** showing **Order ID, Order Date, Ship Date, Ship Mode, Gross Sales, Unit sold, Discount, COGS, Net Sales, and Profit**.
10. Add slicers for **Date, Sales, Product Category and customer age category**

Customer Analysis

Customer Analysis Page should include the following metrics and information:

1. A clear and relevant title for the report e.g. *Customer Analysis*
2. **Key Metrics** : Total Customers, Average Age of Customers, Total Male Customers and Total Female Customers
3. Year-on-year comparison of customer count
4. Distribution of **customers across segments**
5. Distribution of **customers across regions**.
6. A visual showing **top 10 customers by units sold**.
7. Customer age profiling based on the following categories:
 - 5–10 Years**: Kids
 - 11–17 Years**: Teens
 - 18–24 Years**: Young Adults
 - 25–34 Years**: Adults
 - 35–54 Years**: Middle-Aged Adults
 - 55+ Years**: Seniors
8. **Detailed Customer Table**: Include the following fields: Customer ID, Name Gender, Age Category, Quantity Sold and Gross Sales, Net Sales,
9. Add slicers for **Date, Sales, Product Category and customer age category**

Product Analysis

Product Analysis Page should include the following metrics and information:

1. A clear and **relevant title** for the report e.g. *Product Analysis*
2. **Key Metrics** : **Total Number of products, Units sold.**
3. A visual showing to **10 top selling products.**
4. A visual showing **10 least selling products.**
5. Total **Number of products by category, and sub-category.**
6. A visual showing cumulative value of units sold.
7. **Detailed Customer Table:** Include the following fields: Product ID, Category, Sub-Category, Product Name, Units sold, Gross sales, Net Sales, Gross Profit and Net Profit
8. Add slicers for **Date, Sales, Product Category and customer age category**