Problem Statement

KPI'S REQUIREMENT:

1.**TOTAL SALES:** *PROBLEM STATEMENT:* ASSESS THE OVERALL FINANCIAL PERFORMANCE OF THE BUSINESS BY MONITORING THE TOTAL REVENUE GENERATED FROM SALES OVER A SPECIFIC PERIOD.

2.**TOTAL PROFIT:** *PROBLEM STATEMENT:* EVALUATE THE PROFITABILITY OF THE BUSINESS BY TRACKING THE TOTAL PROFIT DERIVED FROM SALES AFTER ACCOUNTING FOR COSTS AND EXPENSES.

3.**TOTAL CUSTOMERS:** *PROBLEM STATEMENT:* UNDERSTAND THE CUSTOMER BASE AND MARKET REACH BY ANALYZING THE TOTAL NUMBER OF UNIQUE CUSTOMERS WHO HAVE MADE PURCHASES.

4.**TOTAL PRODUCTS:** *PROBLEM STATEMENT:* GAUGE THE VARIETY AND SCALE OF THE PRODUCT OFFERING BY DETERMINING THE TOTAL COUNT OF DISTINCT PRODUCTS AVAILABLE FOR SALE.

5.**QUANTITY OF TOTAL PRODUCTS:** *PROBLEM STATEMENT:* MEASURE THE VOLUME AND AVAILABILITY OF PRODUCTS BY EXAMINING THE TOTAL QUANTITY OF ALL PRODUCTS IN STOCK OR SOLD.

6.**TOTAL ORDERS:** *PROBLEM STATEMENT:* ASSESS THE DEMAND AND TRANSACTIONAL ACTIVITY BY MONITORING THE TOTAL NUMBER OF ORDERS RECEIVED WITHIN A SPECIFIED TIMEFRAME.

7.**TOTAL EMPLOYEES:** *PROBLEM STATEMENT:* EVALUATE THE WORKFORCE AND ORGANIZATIONAL CAPACITY BY KEEPING TRACK OF THE TOTAL NUMBER OF EMPLOYEES INVOLVED IN SALES AND RELATED ACTIVITIES.

8.**TOTAL SHIPPED ORDERS:** *PROBLEM STATEMENT:* MONITOR THE EFFICIENCY OF ORDER FULFILLMENT AND LOGISTICS BY ANALYZING THE TOTAL NUMBER OF ORDERS THAT HAVE BEEN SUCCESSFULLY SHIPPED TO CUSTOMERS.

9.**TOTAL CANCELLED ORDERS:** *PROBLEM STATEMENT:* IDENTIFY AND ADDRESS ISSUES AFFECTING CUSTOMER SATISFACTION AND OPERATIONAL EFFICIENCY BY TRACKING THE TOTAL NUMBER OF ORDERS THAT HAVE BEEN CANCELLED.

THESE PROBLEM STATEMENTS SERVE AS A FOUNDATION FOR DEVELOPING KEY PERFORMANCE INDICATORS (KPIS) IN A SALES ANALYSIS DASHBOARD. THE CORRESPONDING VISUALIZATIONS AND METRICS DERIVED FROM THESE KPIS WILL PROVIDE INSIGHTS INTO DIFFERENT ASPECTS OF THE SALES PROCESS, HELPING STAKEHOLDERS MAKE INFORMED DECISIONS AND OPTIMIZE BUSINESS PERFORMANCE.

Problem Statement

Charts Requirement:

1.Clustered Chart (Top 5 Sales and Profit by Product Vendor): *Problem Statement:* Visualize and compare the top-performing product vendors by displaying a clustered chart that illustrates the sales and profit contributions of the top 5 vendors.

2.Pie Chart (Total Product Quantity by Product Line): *Problem Statement:* Represent the distribution of product quantity across different product lines through a pie chart to provide a clear understanding of the product mix.

3.Stacked Bar Chart (Total Sales by Product Line): *Problem Statement:* Analyze the contribution of each product line to total sales using a stacked bar chart to showcase the relative importance of product lines in driving revenue.

4.Clustered Column Chart (Top 5 Sales and Profit by Product Name): *Problem Statement:* Explore the sales and profit performance of individual products by creating a clustered column chart that highlights the top 5 products based on these metrics.

5.Donut Chart (Total Profit by Product Line): *Problem Statement:* Communicate the proportion of total profit attributed to each product line with a donut chart, emphasizing the relative significance of each category in overall profitability.

6.Area Chart (Total Orders by Year): *Problem Statement:* Track the trend in order volumes over time by visualizing total orders using an area chart, providing insights into yearly patterns.

7.Area Chart (Total Orders by Month): *Problem Statement:* Dive deeper into temporal trends by depicting the monthly variation in total orders using an area chart, aiding in identifying seasonality or cyclical patterns.

Problem Statement

8.Clustered Column Chart (Top 7 Customers by Orders): *Problem Statement:* Highlight the most valuable customers based on order quantity by presenting a clustered column chart that showcases the top 7 customers.

9.Clustered Bar Chart (Top 7 Employees by Orders): *Problem Statement:* Evaluate the performance of employees in terms of order fulfillment by displaying a clustered bar chart that identifies the top 7 employees based on order count.

10.Stacked Column Chart (Total Credit Limit and Customers by Limit Category): *Problem Statement:* Illustrate the distribution of customers based on credit limit categories using a stacked column chart, aiding in managing credit risk.

11.Clustered Bar Chart (Top 5 Counties by Customers): *Problem Statement:* Identify and compare the significance of customer bases in different counties by utilizing a clustered bar chart that highlights the top 5 counties by customer count.

12.Clustered Column Chart (Top 5 Customers by Credit Limit): *Problem Statement:* Display the credit limit distribution among customers by showcasing a clustered column chart featuring the top 5 customers with the highest credit limits.

13.Pie Chart (Total Payments and Customers by Payment Category): *Problem Statement:* Present a visual breakdown of payments categorized by payment methods and the corresponding customer distribution through a pie chart.

14.Waterfall Chart (Total Payments by Quarters): *Problem Statement:* Illustrate the cumulative effect of payments over quarters using a waterfall chart, offering a visual representation of financial flows and highlighting any notable changes.

These problem statements provide a clear direction for creating effective and insightful visualizations in a sales analysis dashboard.

USING FUNCTIONALTIES:

- ✓ Connecting to My SQL
- ✓ Date Cleaning
- ✓ Date Model
- ✓ Data Processing
- ✓ Power Query
- ✓ Dax
- ✓ Date Functions
- ✓ Text Function
- ✓ Filter Function
- ✓ Calculate
- ✓ SUM/SUMX
- ✓ Creating KPI'S
- ✓ Card Visuals
- ✓ Creating Charts
- ✓ Formatting visuals
- ✓ Creating Functions
- ✓ Navigations

SOFTWARES USED

MySQL Work Bench : Version 8.0
Microsoft Power Bi : Version 2.120.963.0 64-bit (August, 2023)