**DAX Query:**

**1. Total Sales Revenue:**

Calculate the total sales revenue across all transactions.

dax

Copy code

TotalSalesRevenue = SUM('SalesData'[TotalRevenue])

**2. Total Profit:**

Calculate the total profit from all sales.

dax

Copy code

TotalProfit = SUM('SalesData'[Profit])

**3. Average Discount Percentage:**

Calculate the average discount applied to products.

dax

Copy code

AvgDiscount = AVERAGE('SalesData'[Discount%])

**4. Total Quantity Sold:**

Calculate the total number of products sold.

dax

Copy code

TotalQuantitySold = SUM('SalesData'[QuantitySold])

**5. Average Price:**

Find the average price of products sold.

dax

Copy code

AvgPrice = AVERAGE('SalesData'[Price])

**6. Count of Sales Transactions:**

Count the total number of sales transactions.

dax

Copy code

SalesTransactionCount = COUNTROWS('SalesData')

**7.Average Feedback Score:**

Find the average customer feedback score.

dax

Copy code

AvgFeedbackScore = AVERAGE('SalesData'[CustomerFeedbackScore])

**8**. **Count of Distinct Customers:**

Count the number of distinct customers.

dax

Copy code

DistinctCustomers = DISTINCTCOUNT('SalesData'[CustomerID])

**9**. **Count of Returned Products:**

Count the number of returned sales transactions.

dax

Copy code

ReturnedSalesCount = COUNTROWS(FILTER('SalesData', 'SalesData'[ReturnStatus] = "Yes"))

**10**. **Max Quantity Sold in a Single Transaction:**

Find the maximum number of products sold in a single transaction.

dax

Copy code

MaxQuantitySold = MAX('SalesData'[QuantitySold])

**11**. **Min Price of Product Sold:**

Find the minimum price of a product sold.

dax

MinProductPrice = MIN('SalesData'[Price])

**12.Average Profit per Transaction:**

Find the average profit generated per transaction.

Dax

Copy code

AvgProfitPerTransaction = AVERAGE('SalesData'[Profit])

13. **Sum of Discounts:**

Calculate the total discount given across all transactions.

dax

Copy code

TotalDiscount = SUM('SalesData'[Discount%])

**Visualization:**

1.KPI Cards for Key Metrics:

* Purpose: Display key performance indicators (KPIs) such as total sales, total profit, total transactions, and customer count.
* Fields:
  + Total Sales (TotalRevenue)
  + Total Profit (TotalProfit)
  + Total Transactions (SalesTransactionCount)
  + Customer Count (DistinctCustomers)
* Visualization: Card
* Insight: Gives a quick overview of your business performance at a glance.

2. Sales Trend Over Time:

* Purpose: Track how sales are changing over a period (daily, weekly, monthly).
* Fields:
  + X-axis: Date (DateOfSale)
  + Y-axis: Total Revenue (TotalRevenue)
* Visualization: Line Chart
* Insight: Understand how sales are trending and detect any seasonality or growth patterns.

3. Sales by Product Category:

* Purpose: Show which product categories are generating the most revenue.
* Fields:
  + X-axis: Product Category (Category)
  + Y-axis: Total Revenue (TotalRevenue)
* Visualization: Bar Chart
* Insight: Compare product category performance and see where most sales are coming from.

**4.sales by Payment Method:**

* **Purpose**: Show the distribution of sales based on different payment methods.
* **Fields**:
  + **Legend**: Payment Method (PaymentMethod)
  + **Values**: Total Revenue (TotalRevenue)
* **Visualization**: **Pie Chart**
* **Insight**: Understand customer payment preferences.

**5.. Profit by Product Category**

* Purpose: Identify which product categories contribute most to profit.
* Fields:
  + X-axis: Product Category (Category)
  + Y-axis: Profit (Profit)
* Visualization: Column Chart
* Insight: Compare profitability across categories to focus on high-margin products**.**

**6.Gender-Based Sales Distribution**

* Purpose: Show the sales revenue contributed by different gender categories.
* Fields:
  + Category: Gender (Gender)
  + Values: Total Revenue (TotalRevenue)
* Visualization: Donut Chart
* Insight: Allows for understanding of which gender contributes most to sales, aiding in demographic targeting for promotions.

**7.Tree Map**

* **Purpose:** Visualize how revenue is distributed across categories.
* **Fields:**
  + **Group:** Product Category (Category)
  + **Values:** Total Revenue (TotalRevenue)
* **Visualization Placement:** Add Category to the **Group** or **Category** section and Total Revenue to the **Values** section.

**Page 2:**

**1. Sales Distribution by Product Category**

* **Purpose:** Show the share of total revenue contributed by each product category.
* **Fields:**
  + **Category:** Product Category (Category)
  + **Values:** Total Revenue (TotalRevenue)
* **Visualization:** Donut Chart
* **Insight:** Highlights the proportion of sales from each product category, helping to identify the dominant categories driving revenue.

**2.Ribbon Chart**

* **Purpose:** Visualize rank changes of product categories over time.
* **Fields:**
  + **Axis:** Date of Sale (DateOfSale)
  + **Values:** Total Revenue (TotalRevenue)
  + **Legend:** Product Category (Category)
* **Visualization Placement:** Use "Axis" for **Date of Sale**, "Values" for **Total Revenue**, and "Legend" for **Product Category**.

**3. Waterfall Chart**

* **Purpose:** Show incremental changes in profit.
* **Fields:**
  + **Category:** Product Category (Category)
  + **Y-axis:** Profit (Profit)
* **Visualization Placement:** Place the **Profit** field in the "Y-axis" and **Category** in the "Category" section to see step-by-step changes.

**4.Decomposition Tree**

* **Purpose:** Break down total revenue into detailed subcategories to understand the contributions.
* **Fields:**
  + **Analyzed Field:** Total Revenue (TotalRevenue)
  + **Explained By:** Product Category (Category), Store Location (StoreLocation), Age Group (grouped from Age), Payment Method (PaymentMethod)
* **Visualization Placement:** Add the **Analyzed Field** to the "Analyze" section, and add the **Explained By** fields one by one to the "Explain By" section.

**5.Funnel Chart Alternative: Sales Pipeline by Product Category**

* **Purpose:** Represent a simplified sales pipeline using different product categories.
* **Fields:**
  + **Category:** Product Category (Category)
  + **Values:** Total Revenue (TotalRevenue) or Count of Sales (SalesID)
* **Visualization Placement:** Use the **Category** field for the funnel steps and **Total Revenue** or **Count of Sales** for the metric.
* **Insight:** Shows the distribution of sales across different product categories, which can mimic a pipeline by illustrating how certain categories perform relative to others.