1. **Customer & Sales Insights Dashboard– Analyze revenue, customer demographics, and product sales.**

**2. Brand Sentiment & Social Media Analysis Dashboard – Track sentiment trends, analyze social media engagement, sentiment distribution and complaint patterns, competitor mentions.**

**3. Customer Complaints & Crisis Management Dashboard – Monitor product recalls, crisis, response, and complaint trends.**

**Aim :**

**1. Monitor Social Media Conversations: Continuously monitor social media platforms for mentions of the company and its products.**

**2. Sentiment Analysis: Analyze sentiment in social media conversations to identify positive and negative trends.**

**3. Customer Issue Resolution: Identify and prioritize customer complaints and issues for swift resolution.**

**4. Crises Detection: Implement early warning systems to detect potential crises and take proactive measures.**

**Step 1: Load And Clean Data**

**Step 2: Deep Data Analysis, Sql Queries Post Gre Sql**

**Step 3: Import, Load And Transform Data In Power Bi**

**Step 4: Create Visualizations**

**Step 5: Create slides for presentation.**

* Click **File → Save As** to save your .pbix Power BI file.
* To publish:
  + Go to **Home → Publish → My Workspace** (requires Power BI account)
  + Or export to PDF using **File → Export → PDF**

**Visualizations**

**A. Customer & Sales Insights Dashboard– Analyze revenue, customer demographics, and product sales.**

**Revenue Analysis**

**1. Total Revenue (Card Visual):**

* Visual: **Card**
* Field: SUM(PurchaseAmount)

**2. Revenue by Product:**

* Visual: **Bar Chart**
* Axis: ProductPurchased
* Value: SUM(PurchaseAmount)

3. Monthly Revenue Trend"

**Visual:** Line Chart

* **X-axis:** TransactionDate (set as Date hierarchy or month)
* **Y-axis:** Sum of PurchaseAmount

**🔹 B. Customer Demographics**

**a. By Age Group:**

* **Visual:** Clustered Column Chart
* **X-axis:** Age groups (create bins: 18-30, 31-45, 46-60, 60+)
* **Y-axis:** Count of CustomerID
* **Title:** "Customer Distribution by Age Group"

**Create age groups**

**In Power BI, click Home > Transform data to open Power Query Editor.**

**Select the Age column.**

**On the top ribbon, click “Add Column” > “Conditional Column”**

**In the dialog that appears:**

* **Name the column: AgeGroup**

**Power query code: = Table.AddColumn(#"Removed Columns", "AgeGroup", each**

**if [Age] >= 18 and [Age] <= 30 then "18-30"**

**else if [Age] > 30 and [Age] <= 45 then "31-45"**

**else if [Age] > 45 and [Age] <= 60 then "46-60"**

**else if [Age] > 60 then "60+"**

**else "Unknown"**

**)**

**4. Customers by Region:**

* **Visual:** Pie Chart or Map **or Bar Chart**
* **Legend:** Region
* **Values:** Count of CustomerID
* **Title:** "Customer Distribution by Region"

**🔹 C. Product Sales Insights**

**1. Sales per Product Type:**

* **Visual:** Bar Chart or **Stacked Column Chart**
* **X-axis:** ProductPurchased
* **Y-axis:** Sum of PurchaseAmount
* **Title:** "Revenue by Product"

**2. Sales by Customer Type:**

* Visual: **Clustered Column Chart**
* Axis: CustomerType
* Legend: ProductPurchased
* Value: SUM(PurchaseAmount)

**B. Brand Sentiment & Social Media Analysis Dashboard – Track sentiment trends, analyze social media engagement, sentiment distribution and complaint patterns, competitor mentions.**

**1. Sentiment Trend Over Time**

* **Line Chart**
  + Axis: Month-Year
  + Values: Count of Sentiment grouped by sentiment categories
  + Filter: Use slicers for Region/ Legend: Region

Dax Column: MonthYear = FORMAT('YourTableName'[InteractionDate], "YYYY-MM")

**2. Sentiment Distribution**

* **Pie or Donut Chart**
  + Values: Count of Sentiment
  + Legend: Sentiment categories

**3. Engagement by Platform**

* **Clustered Column Chart**
  + Axis: Platform
  + Values: Sum of EngagementLikes, EngagementShares, EngagementComments

**4. Influencer Impact**

* **Scatter Chart**
  + X-axis: InfluencerScore
  + Y-axis: Total Engagement (sum of likes + shares + comments)
  + Size: UserFollowers

Dax column : TotalEngagement =

'public Br'[EngagementLikes] +

'public Br'[EngagementShares] +

'public Br'[EngagementComments]

* + Tooltip: CustomerName, PostType, etc.

**5. Top Mentioned Competitors**

* **Bar Chart**
  + Axis: CompetitorMention
  + Values: Count of mentions

6. Influencer Impact by post

Stacked bar: post type vs Influencer Impact

EngagementRate =

DIVIDE('public Br'[TotalEngagement], 'public Br'[UserFollowers])

InfluencerImpact =

'public Br'[TotalEngagement] \* 'public Br'[InfluencerScore]

**C: Customer Complaints & Crisis Management Dashboard**

**Monitor product recalls, crisis, response, and complaint trends.**

**1. Product Recalls Over Time**

* **Line Chart**
  + Axis: Month-Year
  + Values: Count of ProductRecalled = TRUE

Dax measure: ProductRecalls = CALCULATE(COUNTROWS('public Br'), 'public Br'[ProductRecalled] = TRUE())

**2. Complaints by Region/Customer Type**

* **Stacked Column Chart**
  + Axis: Region / CustomerType
  + Values: Count of CustomerComplaint

Dax measure: CustomerComplaint =

CALCULATE(

COUNTROWS('YourTableName'),

'YourTableName'[Sentiment] = "Negative"

)

**3. Average Crisis Response Time**

**ResponseTimeInHours** = FirstResponseTime - CrisisEventTime (in hours)

* **Card or KPI**
  + Value: Average of ResponseTimeInHours

Dax column: ResponseTime Minutes =

DATEDIFF('YourTableName'[CrisisEventTime], 'YourTableName'[FirstResponseTime], MINUTE)

Dax measure: AverageResponseTimeFormatted =

VAR AvgMinutes = AVERAGE('YourTableName'[ResponseTimeMinutes])

VAR Hours = INT(AvgMinutes / 60)

VAR Minutes = MOD(AvgMinutes, 60)

RETURN

FORMAT(Hours, "0") & " hrs " & FORMAT(Minutes, "00") & " mins"

**5. NPS Distribution**

* **Histogram or Gauge**
  + Values: NPSResponse

**5 : Create Presentation Slides**

**Step 1: Export Dashboard Images**

1. In Power BI Desktop or Power BI Service:
   * Use **Snipping Tool** or **Export to PDF** option.
   * Capture each dashboard view or visual.

**Step 2: Structure Slide Deck**

**Slide 1: Title & Objectives**

* Title: Customer Insights & Brand Strategy Report
* Objectives: Understand brand sentiment, customer behavior, and response effectiveness

**Slide 2–3: Brand Sentiment Overview**

* Key trends in positive/negative sentiment
* Competitor comparison
* Engagement highlights

**Slide 4–5: Complaint & Crisis Insights**

* Product recall trends
* Resolution and response time effectiveness
* Customer loyalty & NPS

**Slide 6: Key Insights & Strategic Recommendations**

* Where brand sentiment is improving/declining
* Suggestions: Improve crisis response time, engage high-performing influencers, address common complaints

**Slide 7: Appendix**

* Additional charts or data context if needed