**STEPS IN THE PROJECT:**

✓ Requirement Gathering/ Business Requirements

✓ Data Walkthrough

✓ Data Connection

✓ Data Cleaning / Quality Check

✓ Data Modelling

✓ Data Processing

✓ DAX Calculations

✓ Dashboard Lay outing

✓ Charts Development and Formatting

✓ Dashboard / Report Development

✓ Publishing the dashboard

✔ Insights Documentation

**BUSINESS REQUIREMENT (I)**

To conduct a comprehensive analysis of Twiggy Instamart’s sales performance, customer satisfaction, and inventory distribution to identify key insights and opportunities for optimization using various KPIs and visualizations in Power BI.

KPI's Requirements

1. Total Sales: The overall revenue generated from all items sold.

2. Average Sales: The average revenue per sale.

3. Number of Items: The total count of different items sold.

4. Average Rating: The average customer rating for items sold.

**BUSINESS REQUIREMENT (II)**

Chart's Requirements

1. Total Sales by Fat Content:

Objective: Analyse the impact of fat content on total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content. Chart Type: Donut Chart.

2. Total Sales by Item Type:

Objective: Identify the performance of different item types in terms of total sales.

Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content. Chart Type: Bar Chart.

3. Fat Content by Outlet for Total Sales:

Objective: Compare total sales across different outlets segmented by fat content. Additional KPI Metrics: Assess how other KPIs (Average Sales, Number of Items, Average Rating) vary with fat content. Chart Type: Stacked Column Chart.

4. Total Sales by Outlet Establishment:

Objective: Evaluate how the age or type of outlet establishment influences total sales. Chart Type: Line Chart.

5. Sales by Outlet Size:

Objective: Analyse the correlation between outlet size and total sales. Chart Type: Donut/ Pie Chart.

6. Sales by Outlet Location:

Objective: Assess the geographic distribution of sales across different locations. Chart Type: Funnel Map.

7. All Metrics by Outlet Type:

Objective: Provide a comprehensive view of all key metrics (Total Sales, Average Sales, Number of Items, Average Rating) broken down by different outlet types.

Chart Type: Matrix Card.

**Insights**

1. **Total Sales by Fat Content (Donut Chart)**
   * **Insight**: Items with "Regular" fat content generate significantly higher sales compared to "Low Fat" items. This suggests that customers might prefer regular-fat products.
   * **Additional KPIs**:
     + The average rating for regular-fat products is generally high, indicating customer satisfaction.
     + The number of items sold in the regular-fat category is higher, contributing to the overall sales.
   * **Actionable Insight**: Consider optimizing inventory for regular-fat products and promoting healthier alternatives (low-fat items) through targeted marketing.
2. **Total Sales by Item Type (Bar Chart)**
   * **Insight**: Certain item types, like "Fruits and Vegetables" and "Frozen Foods," dominate sales. On the other hand, categories like "Health and Hygiene" show lower sales.
   * **Additional KPIs**:
     + Categories with high sales also have higher average ratings, indicating customer preference and satisfaction.
   * **Actionable Insight**: Focus promotional efforts on underperforming categories and consider bundling strategies for high-demand categories to drive more sales.
3. **Fat Content by Outlet for Total Sales (Stacked Column Chart)**
   * **Insight**: Outlets in Tier 1 locations contribute the most to sales, with regular-fat products being the most popular.
   * **Additional KPIs**:
     + Tier 1 outlets have higher average ratings and a higher number of items sold.
   * **Actionable Insight**: Invest more in outlets located in Tier 1 areas and optimize product placement based on popular fat content.
4. **Total Sales by Outlet Establishment Year (Line Chart)**
   * **Insight**: Outlets established in earlier years, such as 2012 and 2014, generate higher total sales compared to newly established outlets.
   * **Actionable Insight**: Newer outlets might benefit from increased brand awareness campaigns and localized marketing efforts to improve their sales performance.
5. **Sales by Outlet Size (Donut/Pie Chart)**
   * **Insight**: Outlets categorized as "Medium" size generate the highest sales, followed by "Small" and then "High" size outlets.
   * **Actionable Insight**: Medium-sized outlets appear to strike a balance between inventory capacity and customer demand. Consider this when planning new outlet setups.
6. **Sales by Outlet Location (Funnel Map)**
   * **Insight**: Tier 1 locations generate the highest sales, followed by Tier 2 and Tier 3.
   * **Actionable Insight**: Continue to focus on Tier 1 areas for expansion while exploring growth opportunities in Tier 2 locations.
7. **All Metrics by Outlet Type (Matrix Card)**
   * **Insight**: "Supermarket Type1" consistently shows higher total sales, average sales, and customer ratings compared to other outlet types.
   * **Actionable Insight**: Replicate the successful strategies from "Supermarket Type1" across other outlet types and locations to improve performance.

**Recommendations to Stakeholders**

1. **Product Inventory Management**: Optimize stock levels of regular-fat products, particularly in Tier 1 outlets, as they show the highest demand and customer satisfaction. Additionally, create marketing campaigns focused on promoting low-fat alternatives.
2. **Targeted Marketing Strategies**: Tailor marketing campaigns based on item types and customer preferences. For underperforming categories like "Health and Hygiene," consider promotions or cross-category bundles.
3. **Expansion Focus**: When considering opening new outlets, prioritize Tier 1 locations and medium-sized formats as they demonstrate a strong correlation with higher sales performance.
4. **Customer Experience Enhancement**: Maintain high customer satisfaction by ensuring consistent product quality and availability, especially for high-demand categories. This can lead to increased ratings and customer loyalty.
5. **Localized Strategies for New Outlets**: Implement localized marketing and promotional strategies for recently established outlets to accelerate growth and market penetration.