blinkit Analysis



Project Overview

This project aims to analyze Blinkit's sales performance, customer satisfaction, and inventory distribution. The objective is to extract key insights and optimization opportunities using various KPIs and Power BI visualizations.

Steps in the Project

- 1. Requirement Gathering / Business Requirements
- 2. Data Walkthrough
- 3. Data Connection
- 4. Data Cleaning / Quality Check
- 5. Data Modeling
- 6. Data Processing & DAX Calculations
- 7. Dashboard Layouting
- 8. Charts Development and Formatting
- 9. Dashboard / Report Development
- 10. Insights Generation

Business Requirements

The goal is to conduct a comprehensive analysis of Blinkit's data using Power BI to measure sales performance, customer satisfaction, and inventory efficiency.

KPI 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.

Data Acquisition and Processing

Get Data

Power BI Desktop makes data discovery easy by allowing you to import data from a wide variety of sources. Once connected, you can shape the data to match your analysis and reporting needs.

Create Relationships and Enrich Your Data Model

When importing two or more tables, relationships between them need to be established. Power BI Desktop provides the **Manage Relationships** dialog and **Relationships View**, where relationships can be automatically detected or manually created. Additionally, you can create custom measures, calculations, and data formats to enrich your dataset.

Chart's Requirements

1. Total Sales by Fat Content

- **Objective:** Analyze the impact of fat content on total sales.
- Additional KPI Metrics: Assess how Average Sales, Number of Items, and 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 Average Sales, Number of Items, and 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:** Analyze 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.

Report Creation and Publishing

Create Reports

Power BI Desktop includes the **Report View**, allowing you to select fields, add filters, and choose from a variety of visualizations. You can format reports with custom colors, gradients, and other options for enhanced presentation.

Save and Publish Reports

Reports created in Power BI Desktop can be saved as **.pbix** files. These reports can be uploaded to Power BI online or published directly from Power BI Desktop for collaboration and further analysis.

Technologies Used

- Power BI for data visualization and insights generation
- DAX for calculations and modeling
- Excel / CSV for data storage and processing
- Slicers and Filters for dynamic data analysis and interactive reporting
- Charts and Graphs for visual representation of data trends
- KPI Cards for displaying key performance metrics

Installation and Usage

- 1. Power Blinstallation:
- 2. https://www.microsoft.com/en-us/download/details.aspx?id=58494
- 3. Open the Power BI file and connect to your dataset, which is in Excel format.
- 4. Transform the data by going to the Power Query Editor.
- 5. Clean the data by removing errors, null values, and unwanted columns.
- 6. Change the improper formats to match suitable data types.
- 7. After data cleaning and modeling, click **Close & Apply** to save the changes.
- 8. In Table View, use **DAX Calculations** for:
 - a. Total Sales
 - b. Average Sales
 - c. Number of Items
 - d. Average Rating
- 9. In Report View:
 - a. Create **KPI Cards** to display Total Sales, Average Sales, Number of Items, and Average Rating.
 - b. Create a Matrix Table to consolidate key metrics.
 - c. Develop the following charts:
 - i. Donut Chart: Total Sales by Fat Content
 - ii. Bar Chart: Total Sales by Item Type
 - iii. Stacked Column Chart: Fat Content by Outlet for Total Sales

- iv. **Line Chart:** Total Sales by Outlet Establishment
- v. **Donut Pie Chart:** Sales by Outlet Size
- vi. Funnel Map: Sales by Outlet Location
- vii. Matrix Card: All Metrics by Outlet Type

10. Apply **Slicers and Filters**:

- a. Filters for **Total Sales, Average Sales, Number of Items, and Average Rating.**
- b. Additional filters for **Outlet Location**, **Outlet Size**, and **Item Type**.
- 11. To address the Remove Filter issue, an icon was created to reset all filters.