POWERB BI DASHBOARD PROJECT : Blinkit Grocery Data Analysis

**1. Project Overview**

**1.1 Project Name:**

Blinkit Grocery Data Analytics Dashboard

**1.2 Objective:**

The objective of this project is to analyze grocery sales data from Blinkit, identify key insights, and provide strategic recommendations to improve sales performance, outlet efficiency, and customer satisfaction.

**1.3 Scope:**

* Analysis of total sales and revenue trends.
* Evaluation of sales distribution across product categories.
* Assessment of outlet performance by location, type, and size.
* Understanding customer preferences based on fat content.
* Identifying peak sales periods and overall revenue trends.

**1.3 Steps in Project:**

Requirement Gathering / Business Requirements

Data Walkthrough

Data Collection

Data Cleaning / Quality Check

Data Modelling

Data Processing

DAX Calculations

Dashboard Lay outing

Charts Development and Formatting

Dashboard / Report Development

Insights Generation

**2. Data Sources & Methodology & Requirement**

**2.1 Data Sources:**

* Grocery transaction data from Blinkit.
* Sales, revenue, and item distribution reports.
* Customer rating and purchasing trends.

**2.2 Methodology:**

Data Cleaning & Processing: Organized and structured data for accurate visualization.

Exploratory Data Analysis (EDA): Identified trends, outliers, and performance metrics.

Visualization & Dashboard Creation: Developed an interactive Power BI dashboard.

Insight Generation: Derived key insights from sales trends and customer behavior.

Recommendation Formulation: Provided strategic actions to improve business performance.

**2.3 BUSINESS REQUIREMENT :**

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

**3. Chart and Visual Types**

Visual Types : Cards , Metrics , Donut Chart , Clustered Bar Chart , Funnel Chart , Line Chart , Matrix.

Chart's Requirement:

1.Total Sales by Fat content:

Objectives : Analyze the impact of fat content on total sales.

Additional KPI Metrics : Assess how other KPI'S (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 items types in terms of total sales.

Additional KPI Metrics : Assess how the other KPI's (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 the other KPI's (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 influence total

sales.

Chart Type : Line chart

5. Sales by Outlet Size:

Objective : Analyze the correlation between the 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 biew of all key metrics (Total Sales , Average Sales , Number of Items , Average Rating ) broken down by different outlet types.

Chart Type : Matrix Card

**4. Key Findings**

**4.1 Sales Performance**

Total Sales: $1.20M

Average Sales Per Transaction: $141

Total Items Sold: 8,523

Average Rating: 3.9

**4.2 Top Performing Product Categories**

Fruits & Vegetables: $178.12K

Snack Foods: $175.43K

Household Items: $135.98K

Frozen Foods: $118.56K

Lowest Performing Category: Seafood - $9.08K

**4.3 Outlet Performance**

Outlet Locations:

Tier 3 outlets lead in sales ($472.13K), followed by Tier 2 ($393.15K) and Tier 1 ($336.40K).

Outlet Size Contribution:

Medium-sized outlets generate the highest sales ($444.79K), followed by small-sized outlets ($248.99K).

Outlet Type Performance:

Supermarket Type 1 contributes the highest total sales ($787.55K), followed by Grocery Stores ($151.94K).

Average sales values are consistent across outlet types ($140-$142 per transaction).

**4.4 Fat Content-Based Sales Analysis**

Regular Fat Products Generate Higher Revenue ($776.32K) compared to Low Fat ($425.36K).

Tier 3 Outlets have the highest sales for both fat content types.

**4.5 Sales Trends Over Time**

Sales peaked in 2018 at $205K, followed by a decline and recent stabilization around $131K (2022).

**5. Key Insights:**

**5.1 Fat Content Insights**

Preference for Low Fat Products: The significant difference in sales between low fat (64.6%) and regular fat content (35.4%) indicates a strong consumer preference for low fat options.

**5.2 Item Type Analysis**

2.High Value in Fruits and Vegetables: Fruits and vegetables have the highest sales among item types at $178,125 compared to seafood at just $9,000. This suggests a potential area for growth in seafood marketing or product development.

**5.3 Outlet Establishment Trends**

3.Sales Growth Trend: The peak sales year was in 2018 ($205,000), followed by a decline in subsequent years. Analyzing the factors contributing to this decline could provide insights for recovery strategies.

**5.4 Outlet Size Performance**

4. Medium and Small Outlets Leading: Medium-sized outlets are performing best (42.27%), followed closely by small outlets (37%). Large outlets are underperforming at only 20.74%. This suggests that medium and small outlets may be more effective in catering to local consumer needs.

**5.5 Location-Based Insights**

5. Tier City Performance: Tier 3 cities outperform both Tier 1 and Tier 2 cities in sales ($472,133). This could indicate a growing market potential in Tier 3 cities that may require targeted marketing strategies.

**5.6 Outlet Type Effectiveness**

6.Dominance of Supermarkets: Supermarket Type 1 generates the highest sales ($787,551), indicating it is likely the most effective outlet type for this market segment. There may be opportunities to enhance offerings or expand supermarket types to capture more market share.

**6. Recommendations:**

1.Focus on Low Fat Product Lines: Given the consumer preference for low fat products, consider expanding this range or promoting these items more aggressively.

2.Enhance Marketing for Seafood Products: Investigate ways to boost seafood sales through marketing campaigns or product bundling with high-selling items like fruits and vegetables.

3.Investigate Decline Post-2018: Conduct a thorough analysis of market conditions post-2018 to identify potential causes for the decline in sales and develop strategies to address them.

4.Leverage Medium-Sized Outlets: Consider strategies that enhance the performance of medium-sized outlets while exploring ways to improve large outlet performance.

5.Target Tier 3 Cities: Develop marketing strategies tailored to Tier 3 cities to capitalize on their strong sales performance.

6.Expand Supermarket Offerings: Explore opportunities to expand Supermarket Type 1 or replicate its successful elements in other outlet types.

**7. Conclusion**

This analysis provides valuable insights into sales trends, outlet performance, and customer purchasing behavior in the Blinkit Grocery ecosystem. Implementing these recommendations can improve revenue, optimize inventory, and enhance overall sales efficiency.