Blinkit Sales & Outlet Performance Dashboard Documentation

Project Title

Blinkit Outlet Sales & Performance Analysis – Power BI Dashboard
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Context: Portfolio Project / Business Insights Dashboard

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1. Problem Statement / Objective

Problem

Blinkit's management lacked clarity on:

- Sales performance across **outlet types (Supermarket, Grocery, etc.)**
- Impact of **outlet size and outlet location (Tier 1/2/3)** on revenue
- Understanding **fat content preference** across customers
- Identifying **high-performing vs low-performing item types**
- Tracking **yearly outlet establishment performance trends**
- Recognizing **item visibility, rating patterns, and no. of items distribution.**

Objective

To build an **interactive Power BI dashboard** that provides:

- Complete **sales insights across outlet attributes**
- **Item-type behavior** with Avg Sales, Ratings, No. of Items
- **Outlet growth trends** over time
- **Comparison of outlet types and sizes**
- Actionable insights for **strategic business decisions**

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2. Data Overview

Data Sources

- Excel dataset containing outlet sales & product details
- CSV data for item type and fat content
- Dimension tables for outlet size, location, and type

Dataset Size

- **Rows:** ~8,000
- **Columns:** ~12
- Time Period: **2010 – 2022**

Key Fields

- Outlet Type
- Outlet Size
- Outlet Location
- Item Type
- Fat Content
- Sales Amount
- Visibility
- Ratings

- Number of Items

Data Cleaning Challenges
- Missing ratings for some item types
- Null values in visibility column
- Inconsistent outlet size categories
- Incorrect date formatting in outlet establishment year

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3. Data Preparation (ETL – Power Query)
Steps Performed
- Removed duplicate outlet entries
- Standardized outlet size categories (Small / Medium / High)
- Replaced missing ratings with grouped averages
- Converted establishment year to proper datetime format
- Trimmed and formatted item type names
- Merged datasets based on Outlet ID / Item ID
- Added calculated fields:
    - **Avg Sales**
    - **Visibility Range**
    - **Outlet Tier Category**
    - **Yearly Sales Trend**

4.Data Model Overview

Fact Table
- **Fact_Sales** (Outlet-level & Item-level sales transactions)

Dimension Tables
- Dim_Outlet
- Dim_Item
- Dim_FatContent
- Dim_OutletType
- Dim_OutletLocation
- Dim_Year

Relationships
- OutletType (1) — (Many) Sales
- OutletLocation (1) — (Many) Sales
- Item (1) — (Many) Sales
- Year (1) — (Many) Sales

Purpose
- Enables slicing by outlet size, type, location, and item categories
- Supports cross-filtering and deep-dive analysis
- Ensures flexible comparison across dimensions

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5. Key DAX Measures

Primary Measures
Total Sales = SUM(Sales[Sales_Amount])
Avg Sales = AVERAGE(Sales[Sales_Amount])
Total Items = COUNTROWS(Sales)
Avg Rating = AVERAGE(Sales[Rating])

Category-Based Measures
Sales by Outlet Type = CALCULATE([Total Sales], Sales[Outlet_Type])
Sales by Fat Content = CALCULATE([Avg Sales], Sales[Fat_Content])

Trend Measure
YoY Growth =
VAR CY = [Total Sales]
VAR PY = CALCULATE([Total Sales], SAMEPERIODLASTYEAR('Date'[Date]))
RETURN DIVIDE(CY - PY, PY)

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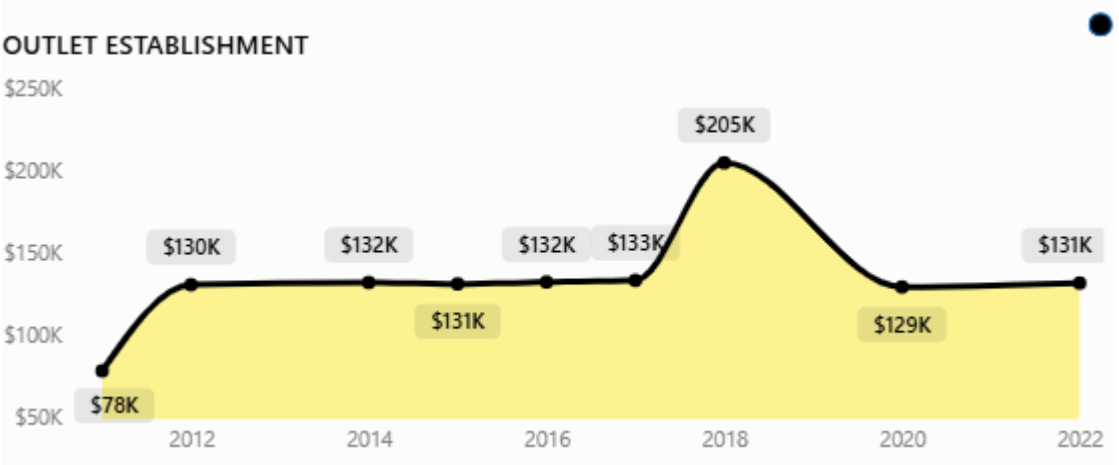
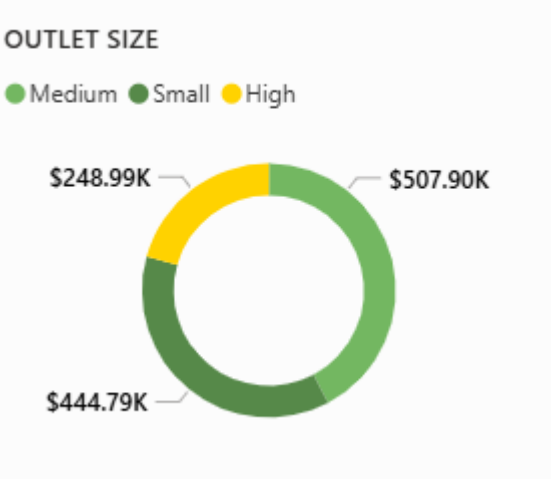
6. Dashboard Design / Layout

KPI Cards
- **$1.20M – Total Sales**
- **$141 – Avg Sales**
- **3.9 – Avg Rating**
- **8523 – Number of Items**

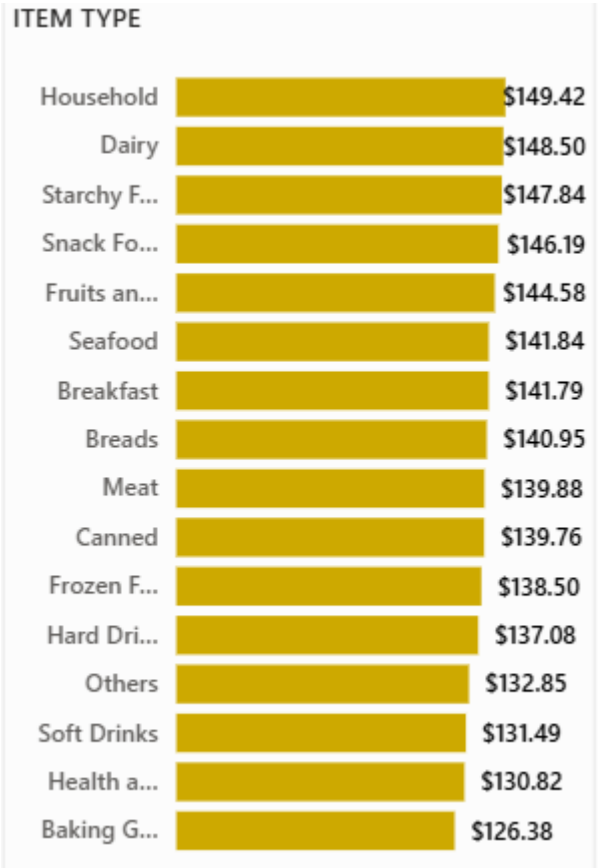
Visuals Included
- **Line Chart:** Outlet Establishment Trend (2010–2022)



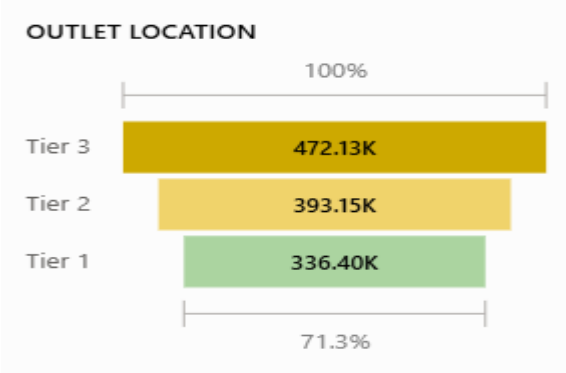
- **Donut Chart:** Outlet Size-wise Sales Contribution



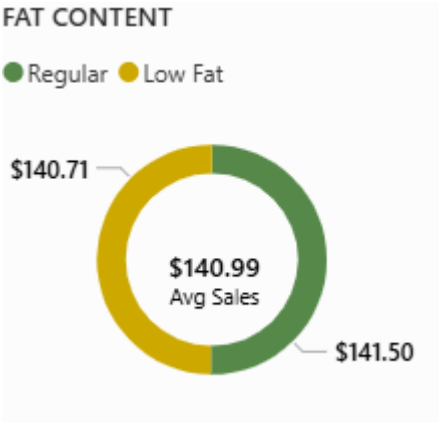
- **Bar Charts:**
  - Item Type Avg Sales



- Outlet Location Sales



- Fat Content Avg Sales



- **Table:** Outlet Type Summary
  - Total Sales
  - No. of Items
  - Avg Rating
  - Avg Sales
  - Item Visibility

OUTLET TYPE

Outlet Type	Total Sales	No of Items	Avg Rating	Avg Sales	Item Visibility
Supermarket Type1	$787.55K	5577	4	$141.21	0.06
Grocery Store	$151.94K	1083	4	$140.29	0.10
Supermarket Type3	$130.71K	935	4	$139.80	0.06
Supermarket Type2	$131.48K	928	4	$141.68	0.06

- **Slicers:**
  - Outlet Location Type
  - Outlet Size
  - Item Type

Design Principles

- Blinkit's **Yellow–Green theme**
- Icon-based navigation
- Clear contrast for KPI blocks
- Compact, modern card layout
- Cross-interaction enabled for all visuals

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7. Key Insights

A. Supermarket Type1 is the highest revenue contributor

- More than **$787K** total sales
- Also leads in **number of items (5577)**

B. Medium-sized outlets dominate sales

- Medium outlets generate the **highest contribution** (~$507K)

C. Tier 3 outlets outperform other tiers

- Tier 3 contributes **$472K**, highest among all location tiers

D. Household & Dairy items generate the highest Avg Sales

- Household: **$149.42**
- Dairy: **$148.50**

E. Fat Content preference is balanced

- Regular & Low Fat both show similar Avg Sales (~$140 each)
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F. 2018 recorded the highest outlet establishment Peak at $205K, followed by a decline

G. Some outlet types show low item visibility

- Outlet types 2 & 3 have visibility around **0.06**, indicating poor product discovery

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8. Business Recommendations

✓ Improve Visibility of Underperforming Outlet Types

Use targeted product placement and sorting.

✓ Focus Expansion on Tier 3 & Medium Outlets

They produce **high revenue per outlet**.

✓ Promote High-Performing Item Types

Household, dairy, and snack foods should be prioritized.

✓ Improve Rating Experience

Outlets with <4 rating require:

- Staff training
- Quality checks
- Faster delivery

✓ Optimize Fat Content Modeling

Since both fat categories perform similarly, Blinkit can:

- Bundle low-fat variants
- Increase health-focused inventory

✓ Enhance Product Discovery

Improve app UI & search tags for items with low visibility.

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9. Technical & Design Features Used

- Advanced **DAX** for time intelligence
- **Drill-through pages** for item categories
- **Bookmarks** for tab switching
- **Tooltip visuals** for richer context
- Custom **icons & color branding**
- Fully responsive layout

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10. Future Enhancements

- Real-time API integration
- Machine learning-based sales forecasting
- Outlet performance prediction model
- Customer segmentation using clustering
- Mobile-friendly report layout

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11. Conclusion

The Blinkit Sales & Outlet Performance Dashboard provides a clear, interactive, and actionable view of:

- Sales patterns
- Outlet-type performance
- Item-type comparisons
- Fat content preferences
- Yearly establishment trends