

BLINKIT SALES PERFORMANCE ANALYSIS – PROJECT DOCUMENT

Power BI Case Study | Data Analyst Portfolio Project

1. Project Title

Blinkit Sales Performance Analysis Using Power BI

2. Problem Statement

Blinkit wants to understand key drivers behind its grocery sales performance across different product categories, outlet characteristics, customer ratings, and time periods.

The goal of this project is to build an interactive Power BI dashboard to uncover business insights and support data-driven decisions in inventory planning, outlet management, and marketing.

3. Objectives

This project aims to:

1. Analyze overall sales performance and trends.
 2. Evaluate product category-wise contributions.
 3. Compare outlet performance across size, type, and location tiers.
 4. Understand customer preferences (fat content, item type, ratings).
 5. Provide strategic business recommendations based on insights.
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4. Business Questions

The analysis answers the following business questions:

1. **Which outlet locations (Tier 1/2/3) generate the highest sales?**
2. **Which outlet sizes and types perform best?**
3. **What item categories contribute the most revenue?**
4. **Does fat content affect product sales (Low Fat vs Regular)?**
5. **What is the overall trend of sales over time?**
6. **Which outlets or product categories need improvement?**

7. What recommendations can improve sales performance and customer satisfaction?

5. Dataset Description

The dataset contains Blinkit's grocery sales transactions from multiple outlets. Key features include:

- Item_Identifier
- Item_Weight
- Item_Fat_Content
- Item_Type
- Item_MRP
- Outlet_Identifier
- Outlet_Size
- Outlet_Location_Type
- Outlet_Type
- Outlet_Establishment_Year
- Item_Outlet_Sales
- Rating

6. Data Cleaning & Preparation (Power Query)

Performed using **Power Query Editor**:

✓ Data Type Corrections

- Converted textual, numeric, and date columns to correct data types.

✓ Handling Missing Values

- Filled missing Outlet_Size values based on outlet type.
- Removed incorrect or inconsistent entries in Item_Fat_Content.

✓ Standardizing Category Labels

- Replaced inconsistent labels:
 - “LF”, “low fat”, “Low Fat” → **Low Fat**

- “reg”, “Regular”, “regular” → **Regular**

✓ Removing Duplicates

- Checked for and removed duplicate rows.

✓ Creating a Clean Data Model

- Built a single fact table with calculated measures (DAX) for reporting.
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7. DAX Calculations (Used in Dashboard)

Total Sales = SUM('BlinkIT Grocery Data'[Item_Outlet_Sales])

Avg Sales = AVERAGE('BlinkIT Grocery Data'[Item_Outlet_Sales])

No of Items Sold = SUM('BlinkIT Grocery Data'[Quantity])

Avg Rating = AVERAGE('BlinkIT Grocery Data'[Rating])

Contribution % = DIVIDE([Total Sales], CALCULATE([Total Sales], ALL('BlinkIT Grocery Data')))

Rating Weighted Sales = SUMX('BlinkIT Grocery Data', 'BlinkIT Grocery Data'[Item_Outlet_Sales] * 'BlinkIT Grocery Data'[Rating])

These measures power KPIs and dynamic visuals.

8. Dashboard Design Overview

The dashboard follows a **clean, minimal Blinkit-branded layout** with:

- Yellow header for brand identity
- Interactive slicers (Outlet Type, Item Type, Outlet Size, Location Type)
- KPI cards (Total Sales, Avg Sales, Items Sold, Avg Rating)
- Trend chart for sales progression

- Category-wise and outlet-wise comparison visuals
 - Insights box summarizing findings
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9. Key Insights (Summary of Findings)

Sales Trends

- Sales increase significantly over time, with major peaks in **2017 and 2020**.

Product Insights

- **Low Fat items** contribute the highest revenue.
- Top categories include **Fruits & Vegetables, Snack Foods, and Household Items**.
- Least performing item categories include **Seafood, Breakfast, and Hard Drinks**.

Outlet Insights

- **Tier 3 outlets** outperform Tier 1 and Tier 2 in total sales.
- **Medium-sized outlets** generate the highest revenue.
- Grocery stores underperform compared to Supermarket Type 1.

Customer Insights

- Average customer rating of **3.92** reflects strong customer satisfaction.
 - Higher ratings correlate with higher sales for certain categories.
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10. Business Recommendations (Based on Insights)

1. Focus Expansion in Tier 3 Cities

They generate the highest total sales → invest in more stores, inventory, and promotions.

2. Increase Inventory of Top-Selling Categories

Specifically:

- Fruits & Vegetables
- Snacks
- Household Items

These categories should receive priority in restocking and marketing campaigns.

3. Promote Low-Fat Products

Low Fat items consistently outperform Regular Fat items → introduce promotions or bundles.

4. Improve Strategy for Underperforming Categories

Seafood, Breakfast, and Hard Drinks could benefit from:

- Discounts
- Better placement
- Targeted ads

5. Optimize Outlet Format Strategy

Medium-sized outlets show best performance → consider expanding medium-format stores.

6. Enhance Customer Experience in Low-Rated Outlets

Improving service quality can boost repeat sales and ratings.

11. Conclusion

This Power BI project provides a comprehensive analysis of Blinkit's sales and outlet performance.

It demonstrates the ability to:

- Clean and prepare data
- Create DAX measures
- Build visually appealing dashboards
- Extract valuable insights
- Make impactful business recommendations

This project showcases end-to-end data analysis skills critical for Data Analyst roles.

12. Dashboard Screenshots

