CREATING DASHBOARD USING POWER BI

TITLE

Blinkit Grocery Sales Dashboard

DOCUMENTED By

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Blinkit Grocery Sales Dashboard

Problem statement :

Retail grocery chains often struggle with understanding sales performance across outlets, item categories, and product visibility. Decision-makers lack clear visibility into product popularity, outlet type contribution, and rating effectiveness. This Power BI project helps Blinkit analyze product sales, outlet performance, and item types to optimize inventory, marketing, and pricing strategies.

Abstract :

The Blinkit Grocery Dashboard visualizes key business metrics such as total sales, item counts, average ratings, outlet performance, and item visibility across various outlet types and product categories. Built using Power BI, it empowers managers to filter insights by outlet location, size, and item type for strategic planning. The dashboard presents trends over time, fat content influence, and product group-wise analysis.

Introduction

With over 8,500 rows of retail data, the project aims to deliver dynamic, real-time insights into Blinkit's grocery operations. This includes tracking fat content preference, outlet size/category analysis, and product sales rankings. The dashboard allows drill-downs by item type, outlet geography (tier system), and fat classification (low fat vs regular), helping management optimize product strategy and supply chain.

Tools and Technologies Used :

- Power BI – dashboard creation
- Excel – data cleaning
- Power Query – data transformation
- DAX – calculated KPIs
- CSV file – grocery sales data (8,523 rows)

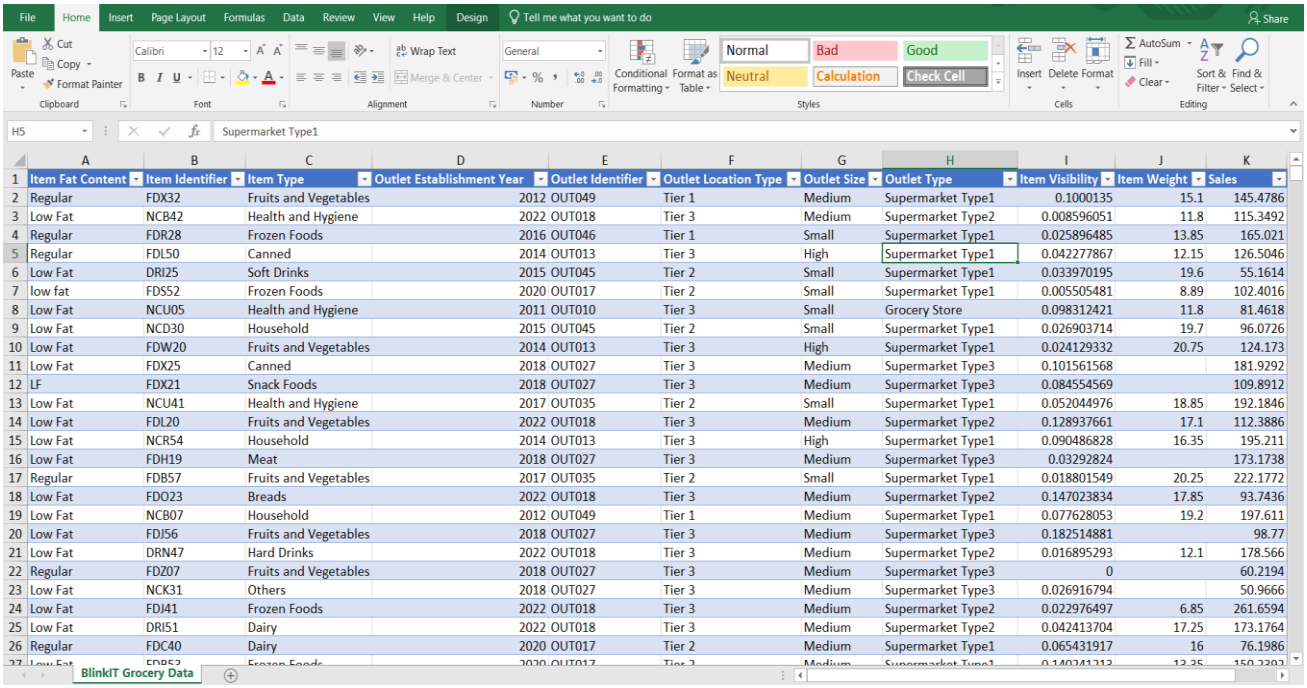
Methodology

Data Collection :

- Source: Blinkit internal sales data (CSV format)
- Fields: Item Type, Fat Content, Outlet Type, Sales, Ratings, etc.

Data Cleaning & Preprocessing (Excel) :

- Standardized “Fat Content” (e.g., "LF", "low fat" → "Low Fat")
- Removed blank or duplicate rows
- Formatted numeric columns

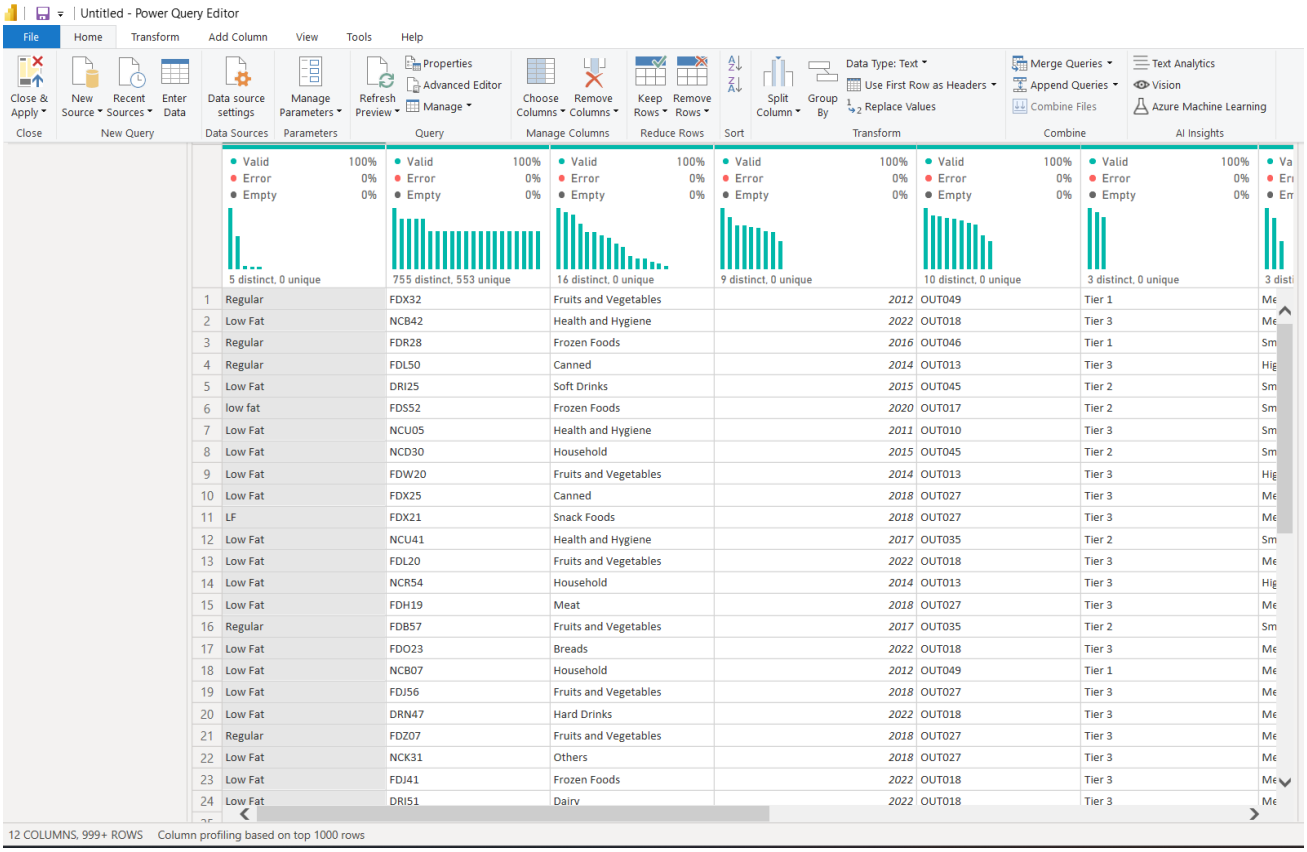


Item Fat Content	Item Identifier	Item Type	Outlet Establishment Year	Outlet Identifier	Outlet Location Type	Outlet Size	Outlet Type	Item Visibility	Item Weight	Sales
Regular	FDX32	Fruits and Vegetables	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.1000135	15.1	145.4786
Low Fat	NCB42	Health and Hygiene	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.008596051	11.8	115.3492
Regular	FDR28	Frozen Foods	2016	OUT046	Tier 1	Small	Supermarket Type1	0.025896485	13.85	165.021
Regular	FDL50	Canned	2014	OUT013	Tier 3	High	Supermarket Type1	0.042277867	12.15	126.5046
Low Fat	DRI25	Soft Drinks	2015	OUT045	Tier 2	Small	Supermarket Type1	0.033970195	19.6	55.1614
low fat	FDS52	Frozen Foods	2020	OUT017	Tier 2	Small	Supermarket Type1	0.005505481	8.89	102.4016
Low Fat	NCU05	Health and Hygiene	2011	OUT010	Tier 3	Small	Grocery Store	0.098312421	11.8	81.4618
Low Fat	NCD30	Household	2015	OUT045	Tier 2	Small	Supermarket Type1	0.026903714	19.7	96.0726
Low Fat	FDW20	Fruits and Vegetables	2014	OUT013	Tier 3	High	Supermarket Type1	0.024129332	20.75	124.173
Low Fat	FDX25	Canned	2018	OUT027	Tier 3	Medium	Supermarket Type3	0.101561568		181.9292
LF	FDX21	Snack Foods	2018	OUT027	Tier 3	Medium	Supermarket Type3	0.084554569		109.8912
Low Fat	NCU41	Health and Hygiene	2017	OUT035	Tier 2	Small	Supermarket Type1	0.052044976	18.85	192.1846
Low Fat	FDL20	Fruits and Vegetables	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.128937661	17.1	112.3886
Low Fat	NCR54	Household	2014	OUT013	Tier 3	High	Supermarket Type1	0.090486828	16.35	195.211
Low Fat	FDH19	Meat	2018	OUT027	Tier 3	Medium	Supermarket Type3	0.03292824		173.1738
Regular	FDB57	Fruits and Vegetables	2017	OUT035	Tier 2	Small	Supermarket Type1	0.018801549	20.25	222.1772
Low Fat	FDO23	Breads	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.147023834	17.85	93.7436
Low Fat	NCB07	Household	2012	OUT049	Tier 1	Medium	Supermarket Type1	0.077628053	19.2	197.611
Low Fat	FDJ56	Fruits and Vegetables	2018	OUT027	Tier 3	Medium	Supermarket Type3	0.182514881		98.77
Low Fat	DRN47	Hard Drinks	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.016895293	12.1	178.566
Regular	FDZ07	Fruits and Vegetables	2018	OUT027	Tier 3	Medium	Supermarket Type3	0		60.2194
Low Fat	NCK31	Others	2018	OUT027	Tier 3	Medium	Supermarket Type3	0.026916794		50.9666
Low Fat	FDJ41	Frozen Foods	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.022976497	6.85	261.6594
Low Fat	DRI51	Dairy	2022	OUT018	Tier 3	Medium	Supermarket Type2	0.042413704	17.25	173.1764
Regular	FDC40	Dairy	2020	OUT017	Tier 2	Medium	Supermarket Type1	0.065431917	16	76.1986

Data preparation Using Excel

Data Transformation (Power Query)

- Created calculated columns for visibility buckets, fat categories, and totals
- Handled column formatting and missing values



Power Query Editor

Data Modeling :

Used a single table model and created the following DAX measures:

```
DAX

Total_Sales = SUM(Sales)

Avg_Rating = AVERAGE(Rating)

No_of_Items = COUNT('Item Identifier')

Avg_Sales = AVERAGE(Sales)
```

Dashboard Analysis :

- **Supermarket Type 1** had the highest sales (~$787K)
- **Tier 3** locations performed best in revenue (~$472K)
- Low Fat products were sold more frequently in Tier 2 and Tier 3 outlets
- Top-selling items: Fruits & Vegetables, Snack Foods, Household
- 2018 was the peak year in terms of outlet establishment and sales

Implementation Steps :

1. Load and clean dataset in Excel
2. Import the dataset into Power BI
3. Transform data in Power Query
4. Create DAX measures for KPIs
5. Build visuals and organize dashboard
6. Add slicers for filters like outlet size, location, item type

Visuals Created :

- Total Sales, Avg Rating, Avg Sales (KPI Cards)
- Fat Content (Donut Chart)
- Item Type Sales (Bar Chart)
- Outlet Size (Donut Chart)
- Sales Trend by Year (Area Chart)
- Outlet Location (Horizontal Bar)
- Summary Matrix for Outlet Types

Results and Discussion :

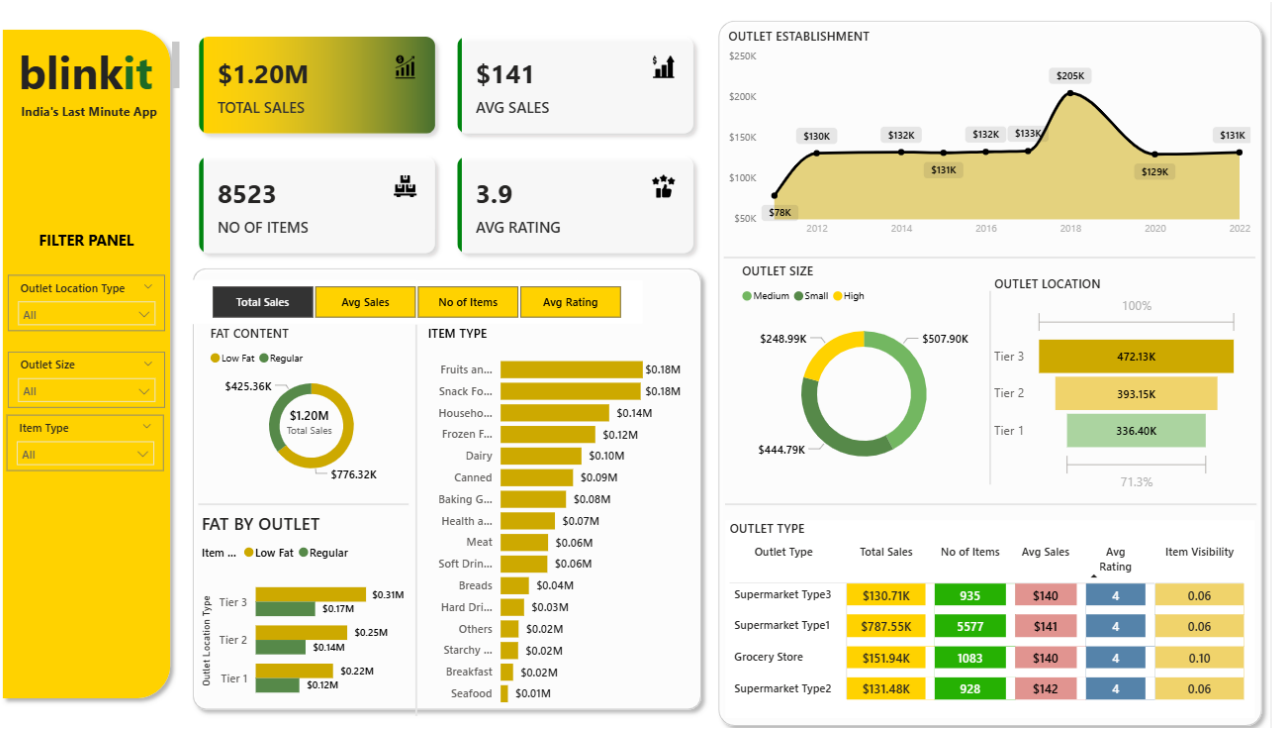
The dashboard helps identify which outlets and item types are performing best. It provides insight into how fat content and visibility affect product popularity, allowing for more informed inventory and marketing decisions.

Conclusion & Future Scope :

This Power BI dashboard provides useful insights for Blinkit's grocery operations. It simplifies sales analysis across outlets and items. In the future, this could be improved with:

- Live data refresh
- Forecasting future sales
- Customer behavior analysis
- Brand-wise breakdowns

OUTPUT :



Dashboard Overview