Blinkit Data Analytics Project Report

1. Introduction

This report presents an end-to-end data analytics project on Blinkit datasets.
The objective is to analyze customer behavior, delivery performance, marketing efficiency, and product inventory to derive actionable insights that can help improve business decisions.
The tools used include **Excel, SQL, Python, and Power BI.**

2. Data Overview

The project uses 8 multiple datasets including customers, orders, order items, products, delivery performance, marketing performance, and inventory.
Each dataset was cleaned, standardized, and linked through keys such as customer_id, order_id, and product_id.

3. Methodology

- **Excel**: KPI calculations, Pivot tables analyzing the relation between various metrics in tables.

- **SQL**: Joins, KPI queries and queries to find out several insights like AOV (Average Order Value), New order share, GMV (Gross Merchandise Value)

- **Python:** Data cleaning, standardization, Data Dictionary (column types, % nulls, duplicates)

- **Power BI:** Dashboard creation (KPIs, trends, insights)

4. KPI Analysis

Key metrics analyzed:

- **New Order Share** = New Customers / Total Customers → **43.5%**

- **Repeat Customer Rate** = Customers with >1 order / Total Customers → **69%**

- **Average Order Value (AOV)** = Revenue / Orders → **₹2201**

- **Low Rating %** = Orders with rating <=3 / Total Ratings → **49.5%**

- Delivery On-time % = On-time Deliveries / Total Deliveries → **69.4%**

- Marketing ROI = Revenue from Campaigns / Marketing Spend

5. Insights

- Customer **retention rate is moderate**; loyalty programs can help.

- Delivery delays are concentrated in peak hours; optimization is needed.

- **Low product ratings** cluster in certain categories, requiring quality review.

- Marketing spend effectiveness varies across campaigns; reallocation needed.

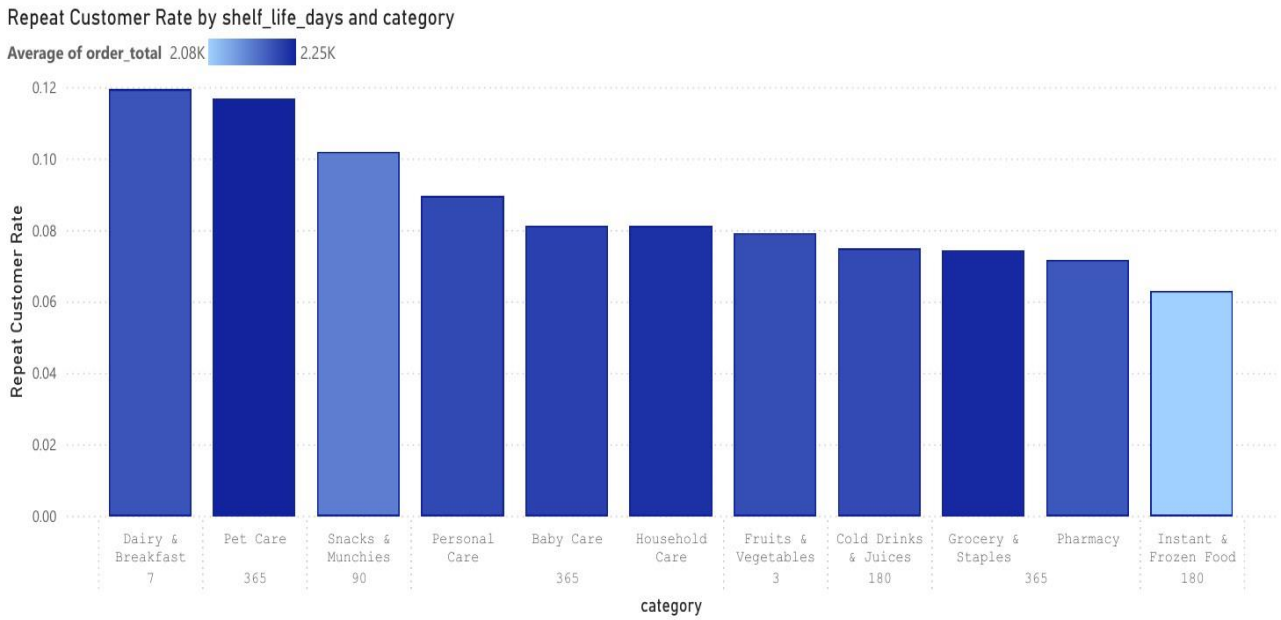
- The given **clustered column chart** shows us the

Repeat Customer Rate by shelf_life_days and the Category of the products and tells us the following:

1. **Dairy and Breakfast** products are the one having **Most Repeat Customers**.

2. Arranged be the **Highest Average Order_Total**:

    1. Pet Care
    2. Household Care products
    3. Grocery and Staples



6. Recommendations

- Launch **loyalty programs** to **increase repeat customer rate**.

- **Improve delivery scheduling** to minimize peak-hour delays.

- Work with vendors to **improve product quality in low-rated categories**.

- **Optimize marketing spend** by focusing on high ROI channels.

7. Conclusion

This project highlights how structured analytics can reveal
customer, delivery, inventory, and marketing insights for Blinkit.
Implementing the above recommendations can improve retention, delivery performance, and overall customer satisfaction.

Appendix: Sample Data Dictionary

Column	Type	% Nulls
customer_id	Integer	0%
order_id	Integer	0%
order_date	Date	0%
product_id	Integer	2%
rating	Integer	5%
order	Integer	0%
order_total	Integer	0%
payment_method	String	0%
delivery_partner_id	Integer	0%