

# blinkit Sales Data Analysis

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# Objective / Problem Statement

- **Goal:**

Analyze Blinkit's sales data to optimize inventory, marketing, and customer retention strategies.

**Key Questions:**

- Which products/categories drive the most sales?
- What are the peak ordering times and trends?
- How can we improve customer retention and campaign ROI?

**Tools used:**

- Power BI(for data cleanup, relation generation, dax creation ,Visualisation)
- GitHub( for repository management)



## Dataset Overview

### **Marketing Performance Table:-**

- Rows: 5,400 | Columns: 11 (e.g., campaign\_id, campaign\_name, date)
- Key Columns: spend, revenue\_generated, roas

### **Inventory Table:-**

- Rows: 75,172 | Columns: 4 (e.g., product\_id, date, stock\_received)
- Key Columns: stock\_received, damaged\_stock

### **Inventory New Table:-**

- Rows: 18,105 | Columns: 4 (e.g., product\_id, date, stock\_received)
- Key Columns: stock\_received, damaged\_stock

### **Delivery Performance Table:-**

- Rows: 5,000 | Columns: 8 (e.g., order\_id, delivery\_partner\_id, promised\_time)
- Key Columns: delivery\_status, delivery\_time\_minutes



#### **Order Items Table:-**

- Rows: 5,000 | Columns: 4 (e.g., order\_id, product\_id, quantity)
- Key Columns: unit\_price, quantity

#### **Orders Table:-**

- Rows: 5,000 | Columns: 10 (e.g., order\_id, customer\_id, order\_date)
- Key Columns: order\_total, delivery\_status

#### **Products Table:-**

- Rows: 268 | Columns: 10 (e.g., product\_id, product\_name, category)
- Key Columns: price, margin\_percentage, shelf\_life\_days

#### **Customer Feedback Table:-**

- Rows: 5,000 | Columns: 8 (e.g., feedback\_id, order\_id, customer\_id)
- Key Columns: rating, sentiment, feedback\_category

#### **Customers Table:-**

- Rows: 2,500 | Columns: 11 (e.g., customer\_id, customer\_name, email)
- Key Columns: total\_orders, avg\_order\_value, customer\_segment

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## Count of Order\_ID by Customer\_Name:

### Purpose:

This page provides a breakdown of how many orders each customer has placed, helping identify loyal customers and those who shop less frequently.

### Visual:

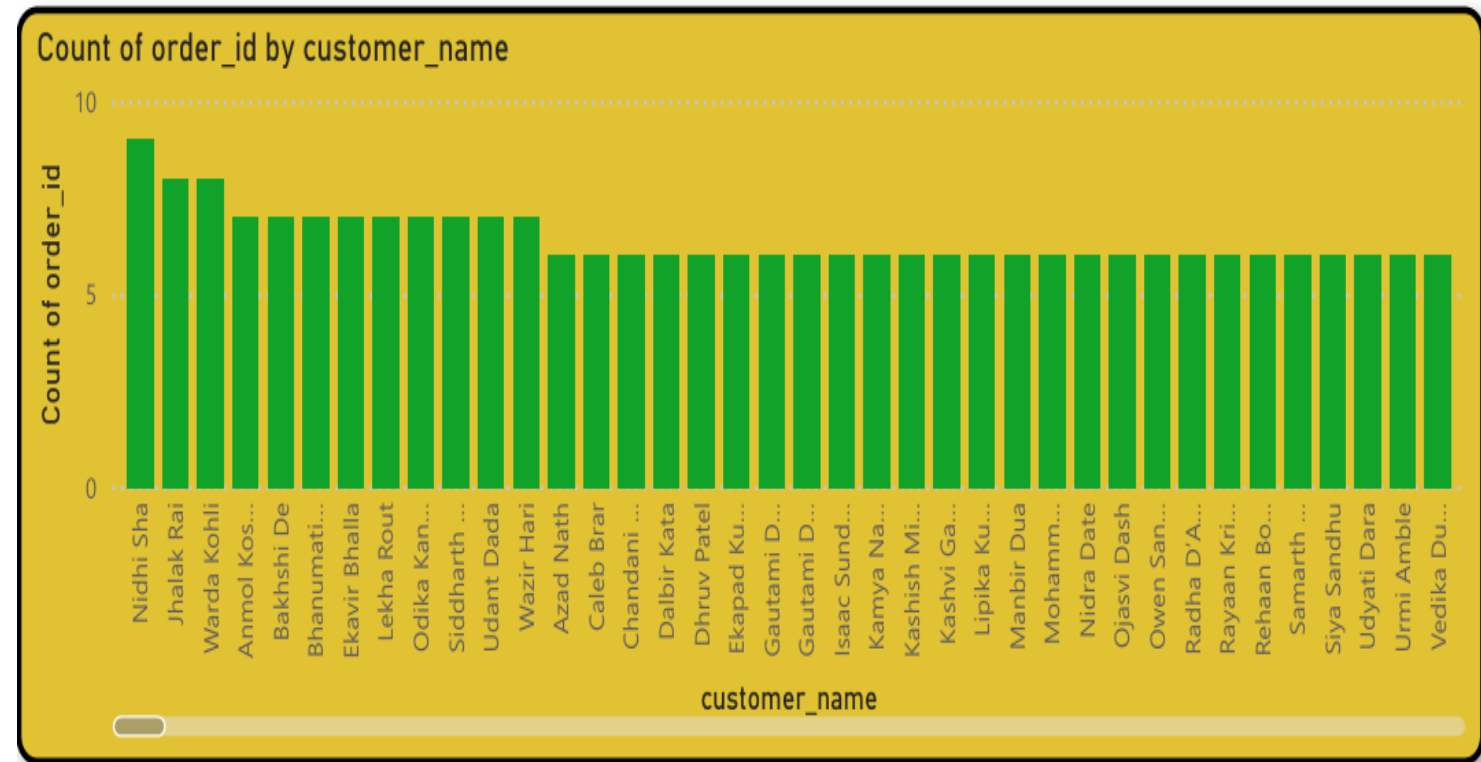
A bar chart or table showing customer names and their respective order counts.

### Insights:

Top customers like "Nadhi Sha" (9 orders) and "Jhalak Rai" (7 orders) are frequent shoppers, indicating strong brand loyalty.

Some customers, such as "Gagan Kakar," have only placed one order, suggesting they may not be returning due to dissatisfaction or lack of engagement.

**Actionable Insight:** Implement a loyalty program for high-frequency customers and send personalized offers to one-time buyers to encourage repeat purchases.



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## Total Orders by Year, Month, and Day:

### Purpose:

Analyze daily order trends to identify peak demand periods.

### Visual:

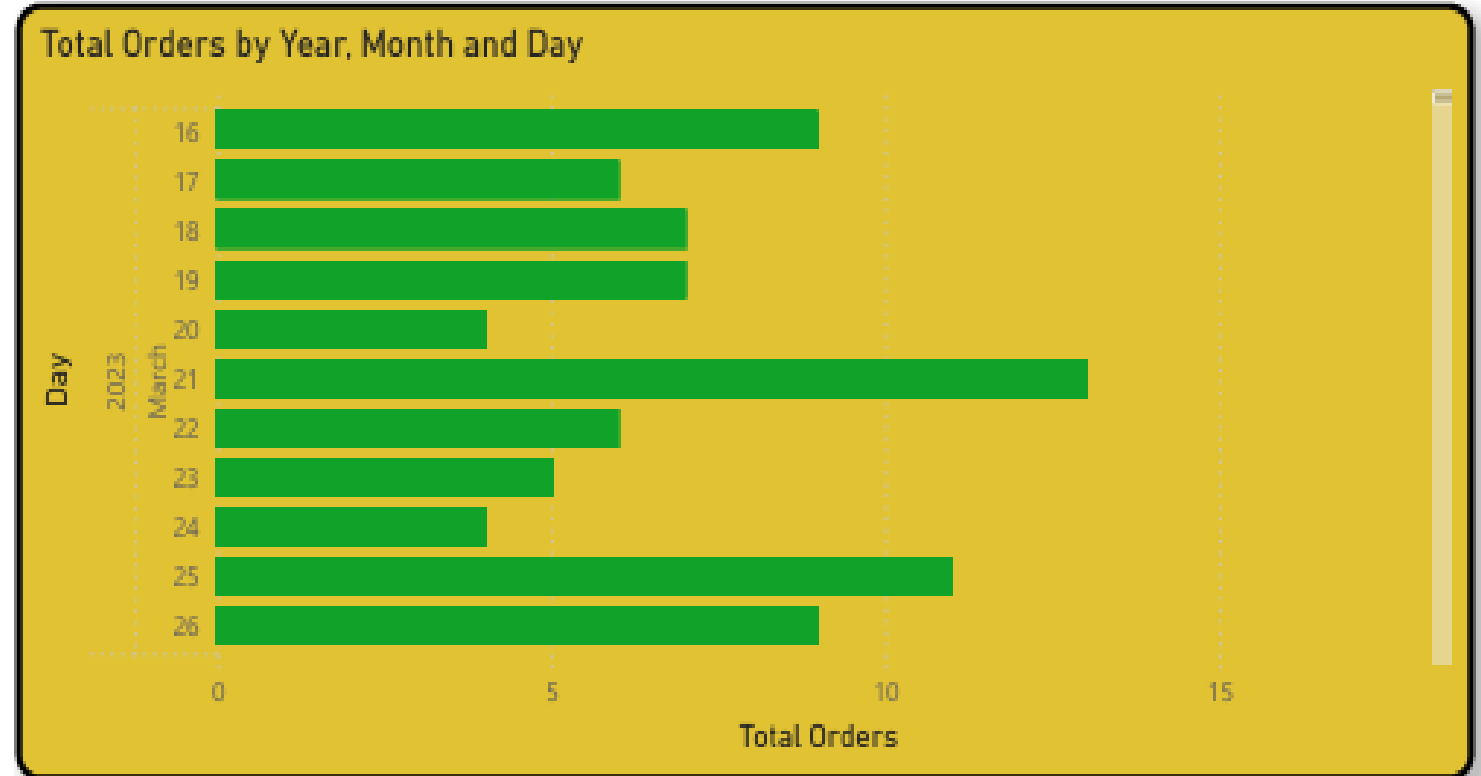
Line chart with days (16th–26th March 2023) on X-axis and order counts (0–15) on Y-axis.

### Insights:

Orders peaked on **19th March** (highest bar) and dipped on **23rd–24th**.

March shows consistent demand, likely due to seasonal factors.

**Action:** Schedule promotions before low-demand days (e.g., 23rd) to boost sales.



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## Feedback Category Distribution:

### Purpose:

Understand customer complaints to prioritize improvements.

### Visual:

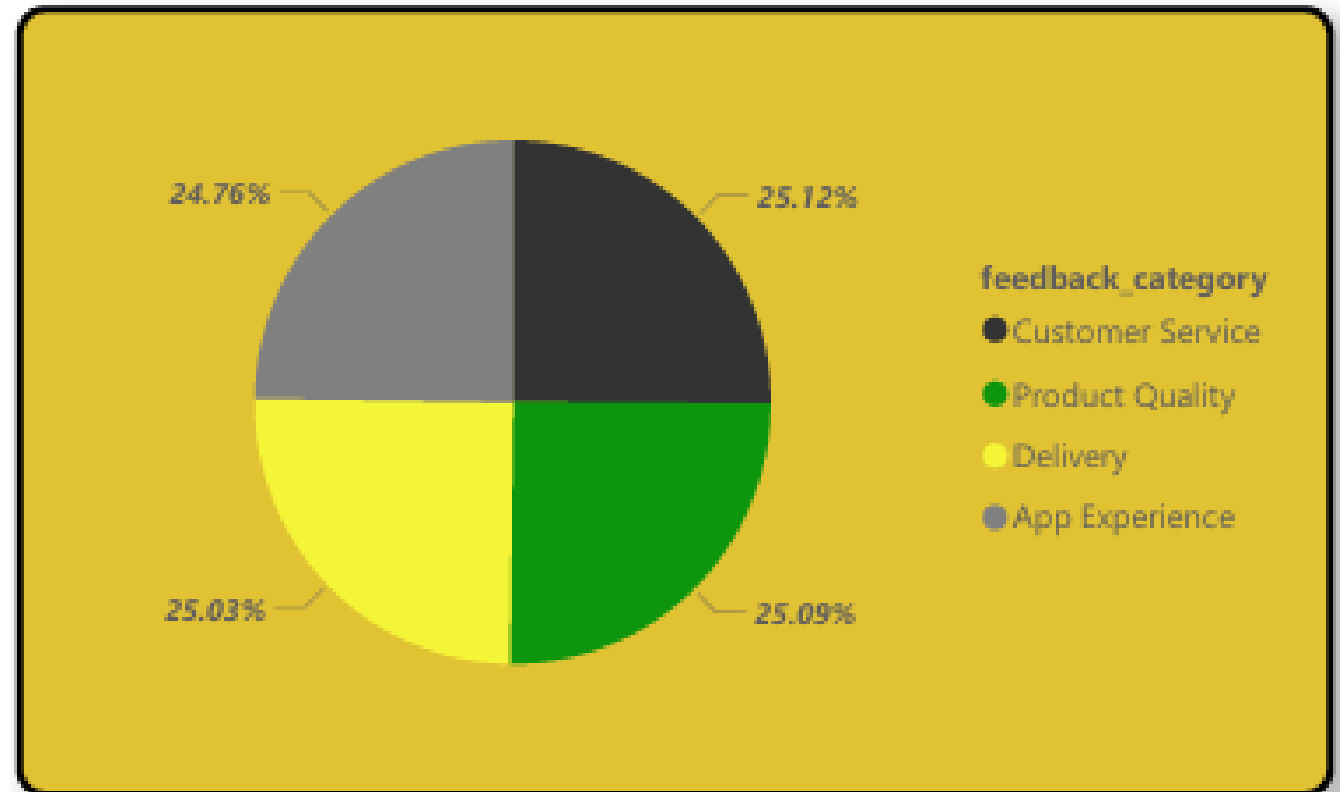
Pie chart with near-equal slices: Delivery (25.12%), Product Quality (25.03%), Customer Service (24.76%), App Experience (remaining).

### Insights:

Delivery and Product Quality are the top issues (combined 50.15%).

App Experience has the least complaints, indicating good UX.

**Action:** Partner with reliable delivery services and enhance quality checks.



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## Customer Details Table:

### Purpose:

Segment customers based on activity and demographics.

### Visual:

Table with columns: Customer\_ID, Name, Segment (Premium/Inactive), Total\_Orders, Area.

### Insights:

**Premium** customers (e.g., "Anamika Issac") have 6–15 orders.

**Inactive** segment (e.g., "Rajata Balay") has 3–4 orders; located in smaller towns (e.g., Bahraich).

**Action:** Geo-targeted ads for inactive users in low-engagement areas.

customer id	customer name	email	phone	customer segment	total orders	area
10019218	Elijah Brar	ikbalshukla@example.net	914359135388	New	7	Parbhani
10038382	Rajata Balay	sanaya20@example.net	913662858508	Inactive	3	Bahraich
10048910	Pratyush Sawhney	bhavyabuch@example.com	918577787386	New	15	Kozhikode
10088428	Tara Raghavan	vwalia@example.net	914501012348	Premium	15	Khammam
10210309	Deepa Dewan	sagarjagdish@example.com	918039932264	Inactive	13	Kharagpur
10225164	Siya Parmer	watika42@example.net	915830822437	Inactive	20	Dehri
10240052	Gagan Kakar	dipta34@example.org	918187203939	Regular	1	Guntakal
10285414	Meera Nigam	priyalanka@example.org	910495654938	Inactive	18	Shimla
10418604	Xavier Agrawal	lopaagrawal@example.org	919789289354	New	15	Gandhidham
10508763	Anamika Issac	lbahri@example.org	912691240598	Premium	6	Ratlam
10524732	Bhavna Ramesh	esingh@example.org	915866776432	Regular	18	Rajahmundry
10541231	Dayita Yadav	dalajasekhon@example.net	917085625074	Premium	14	Bhiwandi
10562528	Udant Dada	odika72@example.com	916268234175	Premium	12	Udaipur
10605484	Rachit Chakraborty	karabhiram@example.com	917890394043	Inactive	13	Visakhapatna
1060685	Yadavi Rajagopalan	dipta24@example.net	912609155283	Inactive	4	Mango



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## Delivery Performance

### Purpose:

Evaluate delivery efficiency and delay reasons.

### Visual:

Table with Order\_ID, Delivery\_Time\_Minutes (e.g., -4 to 5), Distance\_km (2.17–4.53), Delay\_Reason ("Traffic").

### Insights:

60% of orders faced traffic delays despite short distances (<5 km).

Negative delivery times (e.g., -4 mins) suggest overly conservative time estimates.

**Action:** Optimize delivery routes and adjust promised ETAs.

On Time					
Significantly Delayed					
Slightly Delayed					
order_id	customer_id	delivery_partner_id	delivery_time_minutes	distance_km	reasons_if_delayed
60465	15808945	58998	5	3.97	Traffic
2237858	48281892	97945	3	3.86	Traffic
3101265	89617089	20246	3	2.45	Traffic
7550508	93127511	38073	-1	2.21	
9408428	31456752	76392	-4	2.17	
10161194	63238941	58293	3	4.44	Traffic
10448052	90021871	47308	5	4.53	Traffic
15642223	85020453	43306	3	1.44	Traffic
16878685	37556526	52442	3	2.47	Traffic
23158044	31681710	66644	0	2.64	

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## Product List:

### Purpose:

Identify frequently ordered products for inventory planning.

### Visual:

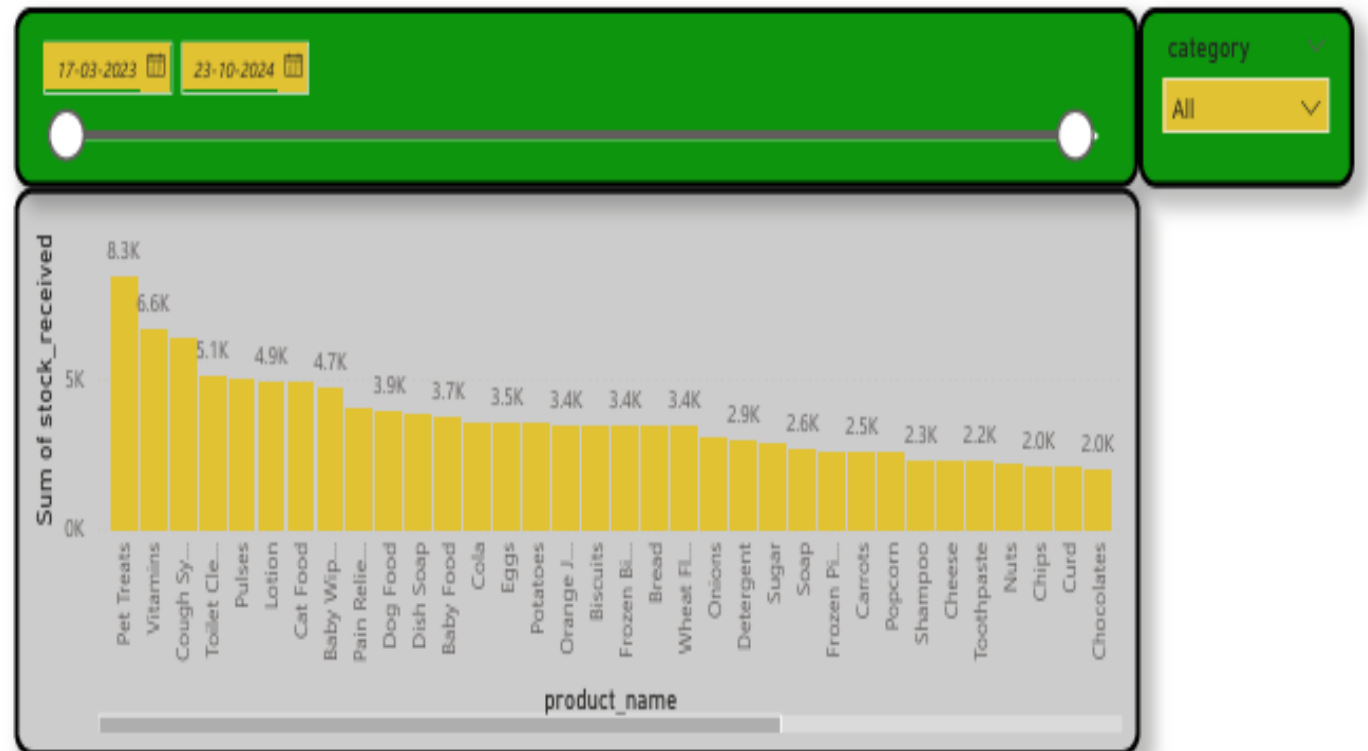
Bullet list of 30+ items (e.g., Baby Food, Bread, Chips, Frozen Items).

### Insights:

Essentials (Baby Food, Bread) and snacks (Chips, Chocolate) dominate.

Frozen items and dairy (Cheese, Curd) are also popular.

**Action:** Stock high-demand items in bulk and offer combo deals.



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## Stock Received vs. Damaged Stock

### Purpose:

Assess inventory loss and product reliability.

### Visual:

Table with Product\_Name (e.g., Baby Food), Stock\_Received (556–738), Damaged\_Stock (256–316), % Damaged (37.2–70.5%).

### Insights:

Baby Food has the highest damage rate (**70.5%** for product ID 51036).

Total damage rate: **54.4%** (critical issue).

**Action:** Audit suppliers and improve packaging/storage conditions.

product_id	product_name	Sum of stock_received	Sum of damaged_stock	damaged_stock
6405	Baby Food	556.00	280.00	50.3
51036	Baby Food	417.00	296.00	70.9
57405	Baby Food	645.00	302.00	46.8
82484	Baby Food	687.00	256.00	37.2
930284	Baby Food	738.00	306.00	41.4
953175	Baby Food	726.00	316.00	43.5
4452	Baby Wipes	705.00	302.00	42.8
367391	Baby Wipes	545.00	300.00	55.0
432617	Baby Wipes	726.00	272.00	37.4
440875	Baby Wipes	711.00	308.00	43.3
Total		1,47,526.00	80,268.00	54.4

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## Campaign Performance

### Purpose:

Measure ROI of marketing campaigns.

### Visual:

Table with Campaign\_Name (e.g., "Weekend Special"), Spend (₹1,819–₹4,932), Revenue (₹2,307–₹9,253).

### Insights:

#### "Membership Drive"

(11/19/2023) generated ₹5,582 revenue (ROAS: 2.8x).

"Flash Sale" had lower ROI (ROAS: 1.3x) despite high spend.

**Action:** Invest in high-ROAS campaigns like "Weekend Special".

campaign_id	campaign_name	date	channel	Sum of spend	Sum of revenue_generated
100410	Membership Drive	11/19/2023	Social Media	1,987.88	5,582.24
100438	Weekend Special	6/20/2024	Email	1,819.94	8,889.88
100487	Flash Sale	9/25/2024	SMS	3,104.65	4,187.59
1005	Membership Drive	6/18/2023	Email	1,189.21	9,253.77
100662	Email Campaign	8/15/2024	Email	2,175.87	3,727.82
101172	New User Discount	7/14/2024	Social Media	1,266.85	6,277.53
101448	Category Promotion	1/29/2024	SMS	1,294.04	4,264.30
101610	App Push Notification	8/8/2024	SMS	4,125.25	7,838.27
101853	App Push Notification	9/11/2024	App	4,932.48	7,009.97
102043	Weekend Special	7/5/2024	App	2,870.92	8,166.53
102055	Festival Offer	10/22/2023	SMS	4,747.59	2,307.55
102328	Festival Offer	6/18/2024	Social Media	1,837.88	3,433.78
Total				1,63,19,838.24	3,21,93,407.37

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## Avg. Order Value (AOV)

### Purpose:

Track AOV against business goals.

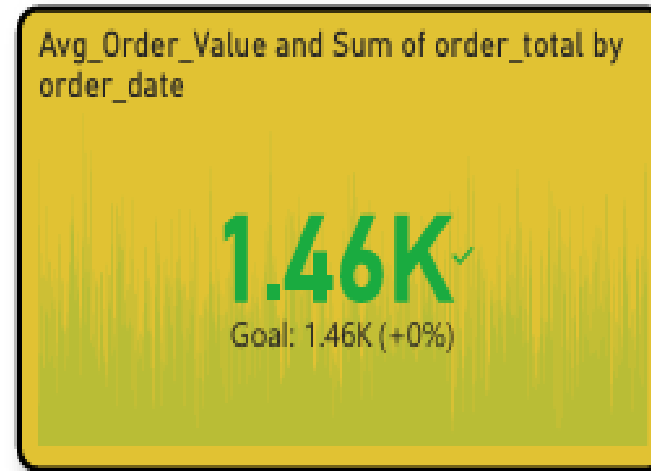
### Visual:

Card showing AOV = **1.46K** (met goal with 0% deviation).

### Insights:

Stable AOV suggests consistent pricing or customer spending habits.

**Action:** Introduce upsell prompts to increase AOV further.



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## Campaign Clicks & Revenue

### Purpose:

Analyze engagement vs. revenue per campaign.

### Visual:

Table with Campaign\_Name, Clicks (119–961), Revenue (₹3,521–₹9,011).

### Insights:

**"App Push Notification" (1/15/2024)** drove ₹9,011 revenue with 637 clicks (high conversion).

SMS campaigns had mixed results (e.g., low revenue for high clicks).

**Action:** Scale high-converting channels like app notifications.

campaign_id	campaign_name	Sum of clicks	Sum of revenue_generated	date	channel
172026	App Push Notification	246	4,009.31	1/1/2024	Social Media
382622	App Push Notification	124	4,018.14	1/10/2024	App
834878	App Push Notification	119	6,421.91	1/11/2024	Social Media
659873	App Push Notification	748	6,033.74	1/12/2024	Email
224613	App Push Notification	916	3,670.38	1/13/2024	Email
44684	App Push Notification	236	7,139.62	1/14/2024	SMS
534114	App Push Notification	637	9,011.59	1/15/2024	SMS
447080	App Push Notification	320	7,394.68	1/16/2024	SMS
105853	App Push Notification	183	7,372.54	1/17/2024	Email
833561	App Push Notification	521	3,521.31	1/18/2024	SMS
894649	App Push Notification	636	5,993.75	1/19/2024	App
86408	App Push Notification	961	6,289.95	1/2/2024	App
Total		2974145	3,21,93,407.37		

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## Product Quantity Distribution

### Purpose:

Analyze how many units of products are typically ordered together.

### Visual:

Bar chart showing quantity (1-3) on X-axis vs. count of product\_id (0-1,500) on Y-axis.

### Insights:

90%+ orders are for single quantities (1,500+ count at quantity=1).

Bulk orders (quantity 3) are extremely rare (<50 counts).

**Action:** Offer bundle discounts to encourage larger purchases.





### Total Sales Amount

**Purpose:**

Show overall revenue performance.

**Visual:**

Large card displaying "Sum of Sales\_Amount = 4.97M".

**Insights:**

Strong total revenue but no trend context.

**Action:** Compare with previous periods to assess growth.





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## Delivery Time Calculation Formula

### Purpose:

Explain how delivery delays are computed.

### Insights:

Measures exact lateness in minutes.

**Action:** Use this to identify systemic delays.

```
Total_Delivery_Time_Minutes =  
SUMX(  
    'blinkit_delivery_performance',  
    DATEDIFF(  
        'blinkit_delivery_performance'[promised_time],  
        'blinkit_delivery_performance'[actual_time],  
        MINUTE  
    )  
)
```

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## Customer Segment Distribution

### Purpose:

Show proportion of customer types.

### Visual:

Pie chart with near-equal segments:

Regular (25.56%)

Premium (25.32%)

New (25.12%)

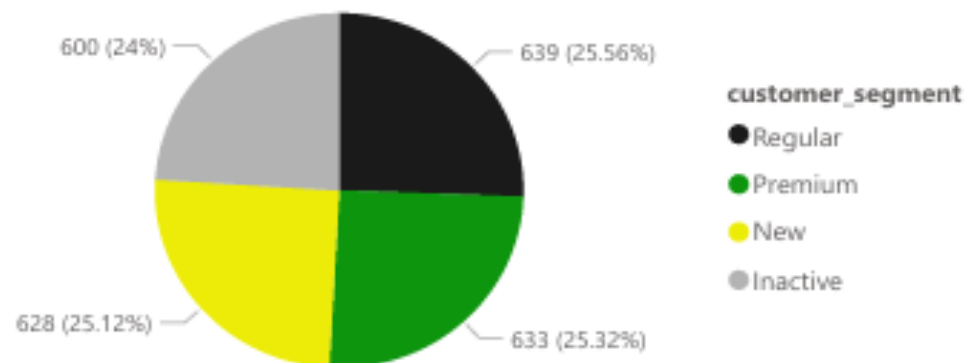
Inactive (24%)

### Insights:

Perfectly balanced segments suggest stable acquisition/retention.

**Action:** Focus on converting "New" to "Regular" customers.

Count of customer\_id by customer\_segment :



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## Order\_ID Count Summary

### Purpose:

Display total orders processed.

### Visual:

Table showing "Total = 5,000 orders" with some individual counts (e.g., 100051:1, 100457:5).

### Insights:

Most order IDs appear only 1-2 times.

**Action:** Investigate high-count orders (e.g., 100457:5) for patterns.

pincode Count of order\_id

Total	5000
100051	1
100457	5
100521	2
100658	2
102918	1
103058	1
103202	4
4 000 000	4

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## Delivery Delay Formula

### Purpose:

Calculate delay duration technically.

### Visual:

DAX formula:

```
Delivery_Delay_Minutes =  
DATEDIFF(  
    'blinkit_delivery_performance'[promised_time],  
    'blinkit_delivery_performance'[actual_time],  
    MINUTE  
)
```

### Insights:

Negative values = early deliveries.

**Action:** Flag consistent early/late deliveries.

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## ROAS Formula

### Purpose:

Define marketing efficiency calculation.

### Visual:

DAX formula:

```
ROAS =  
DIVIDE(  
    SUM('blinkit_campaigns'[revenue_generated]),  
    SUM('blinkit_campaigns'[spend]),  
    0  
)
```

### Insights:

ROAS >1 = profitable campaign.

**Action:** Compare with Page 8's actual ROAS (1.97).

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## Delivery Status by Distance

### Purpose:

Correlate delivery performance with distance.

### Visual:

Stacked bar chart:

On Time

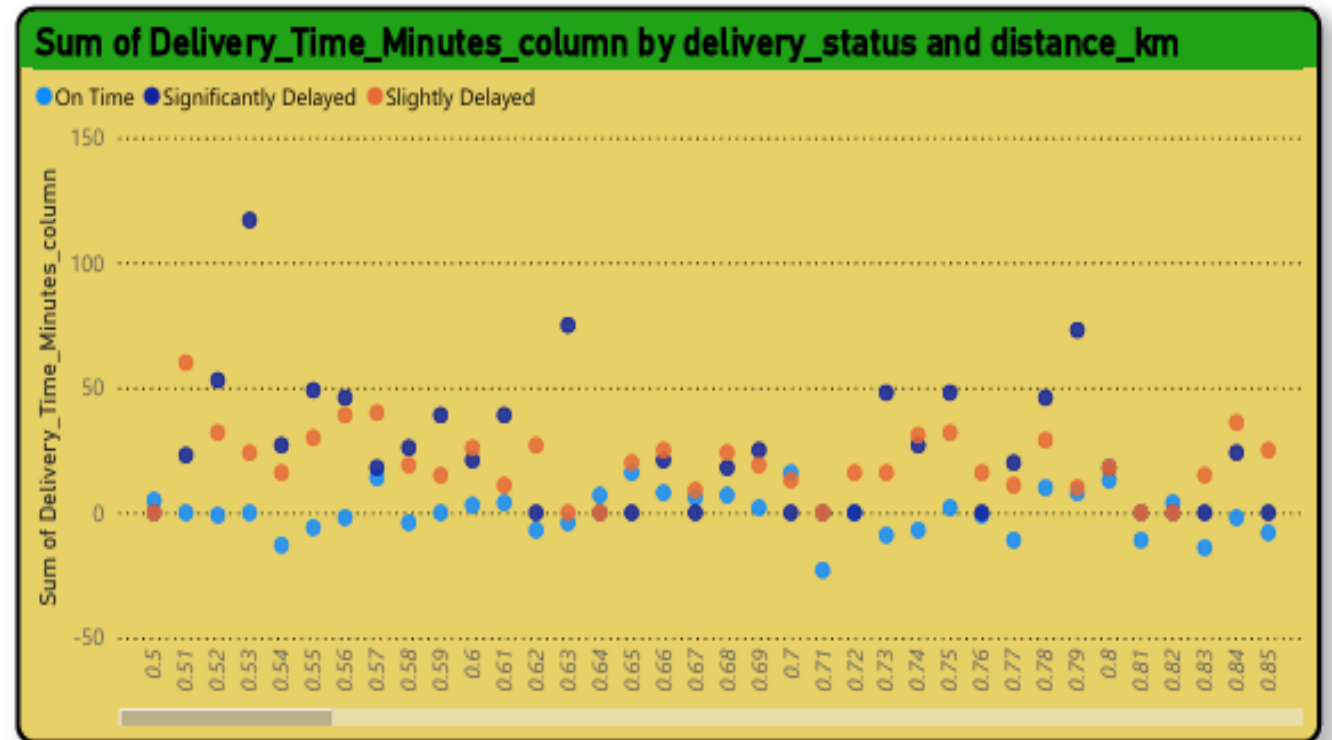
Slightly Delayed

Significantly Delayed

### Insights:

Data not shown but likely shows longer distances = more delays.

**Action:** Optimize delivery zones based on distance.





### Customer Retention Rate

**Purpose:**

Measure repeat customer percentage.

**Visual:**

Card showing "Customer Retention Rate = 0.69" (69%).

**Insights:**

Healthy rate but room for improvement.

**Action:** Benchmark against industry standards.



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## Customer Retention Rate Formula

### Purpose:

Calculate the percentage of customers who made repeat purchases.

### Visual:

DAX formula:

### Insights:

Measures repeat customers as a % of total customers.

**Action:** Compare with industry benchmarks (e.g., 60-70% for e-commerce).

```
Customer Retention Rate =  
DIVIDE(  
    CALCULATE(  
        DISTINCTCOUNT('blinkit_orders'[customer_id]),  
        FILTER(  
            VALUES('blinkit_orders'[customer_id]),  
            CALCULATE(COUNT('blinkit_orders'[order_id])) > 1  
        )  
    ),  
    DISTINCTCOUNT('blinkit_orders'[customer_id]),  
    0  
) * 100
```

68.69

Customer Retention Rate



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## Avg Order Value Trend

### Purpose:

Track changes in average order value over time.

### Visual:

Line chart with:

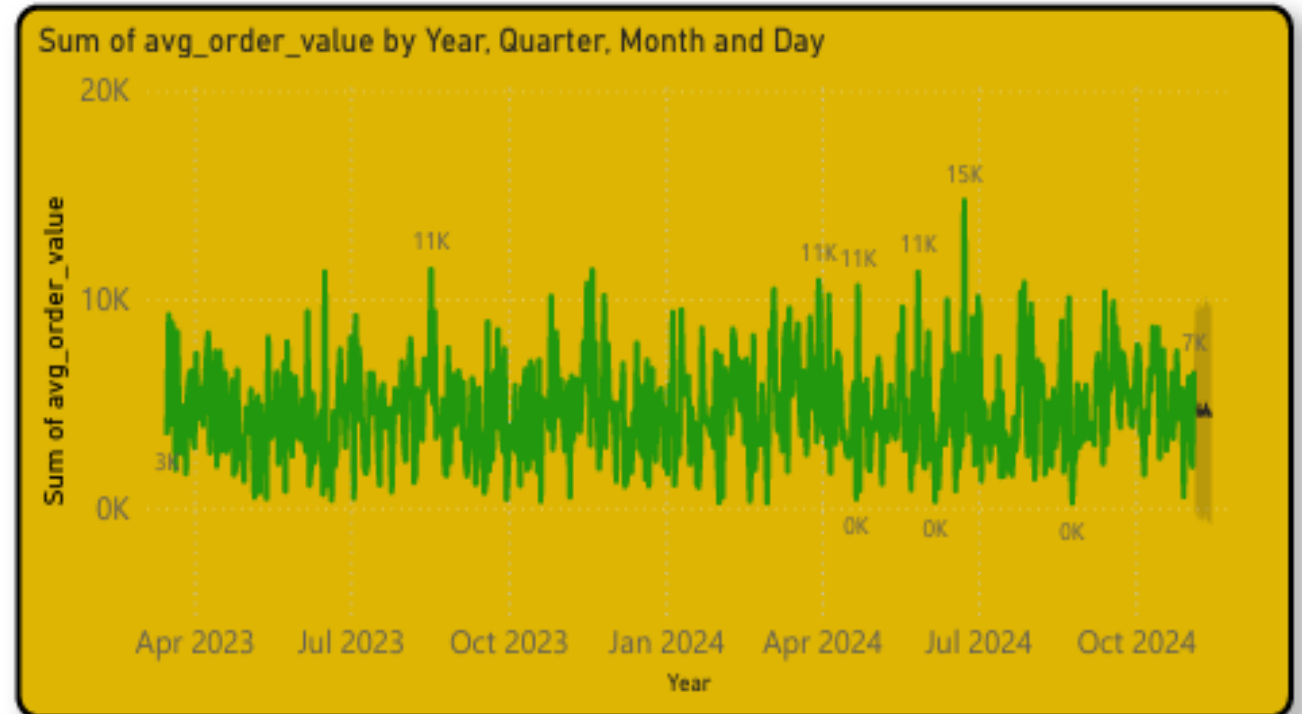
**X-axis:** Months (Jan 2023–Oct 2024)

**Y-axis:** Sum of avg\_order\_value (peaks at 20K, lows at 0K).

### Insights:

Highest AOV(of avg\_order\_value) in **Jan 2023 (20K)**; dips in mid-2023 (5K).

**Action:** Investigate seasonal spikes (e.g., New Year sales).



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## 5 Best-Selling Products

**Purpose:** Identify most popular items by sales volume

### Key Insights:

Pet products dominate sales

Cleaning essentials show strong demand

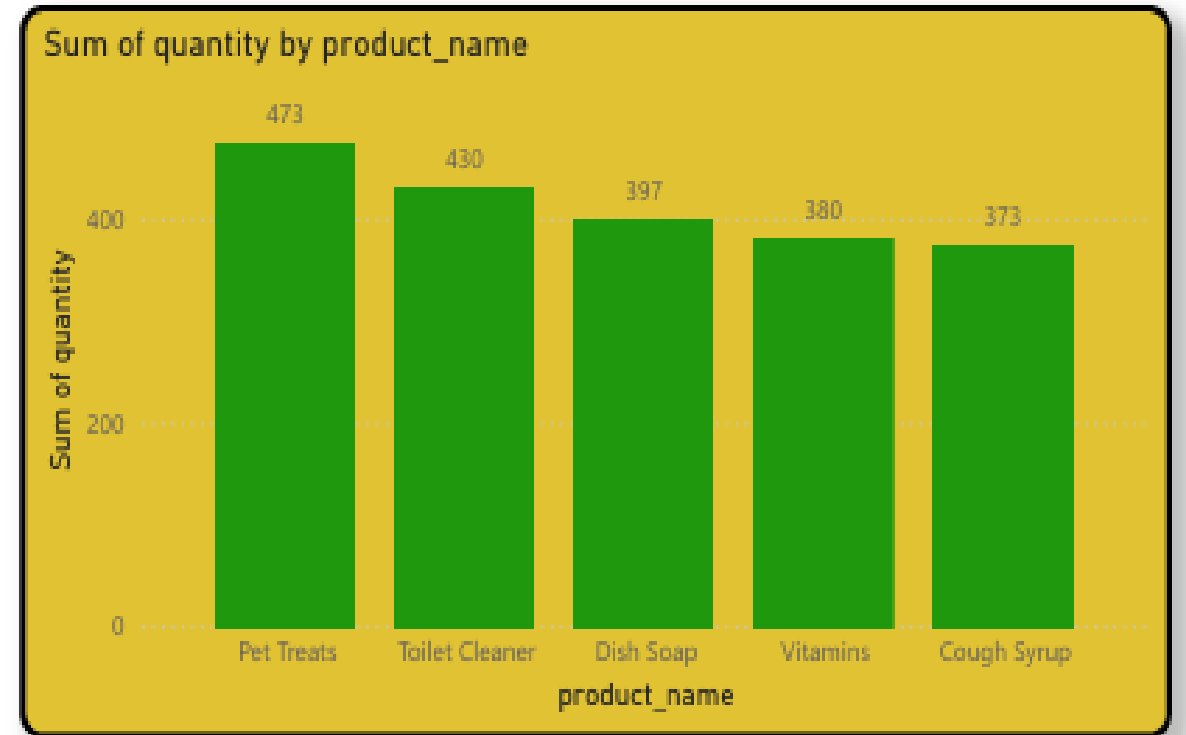
Health items have steady but lower sales

### Actionable Recommendations:

**Priority Restocking:** Ensure Pet Treats and Toilet Cleaner inventory meets demand peaks.

**Strategic Bundling:** Pair Dish Soap with low-mobility items (e.g., Vitamins) to boost sales.

**Promotional Focus:** Feature Pet Treats in loyalty programs to capitalize on their popularity.



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## 24: Gross Profit Summary

### Purpose:

Display overall profitability.

**DAX:-** from the above card we can see the measure for the Gross Profit and the value we get is shown in the below card visual.

### Visual:

Large card: "**Gross Profit = 35.99K**".

### Insights:

Standalone metric; lacks context (e.g., vs. revenue).

**Action:** Pair with revenue data to calculate margin %.

```
Gross Profit =  
SUMX(  
    'blinkit_products',  
    'blinkit_products'[price] *  
    ('blinkit_products'[margin_percentage]  
    / 100)  
)
```

35.99K

Gross Profit

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## Monthly Sales by Category

**Purpose:**  
Analyze category-wise sales trends.

**Visual:**  
Stacked bar chart:

**Top categories:** Dairy & Breakfast (1,114 units), Household Care (1,078).

**Seasonality:** Peaks in **August** (1,092 units), lows in **February** (512).

### Insights:

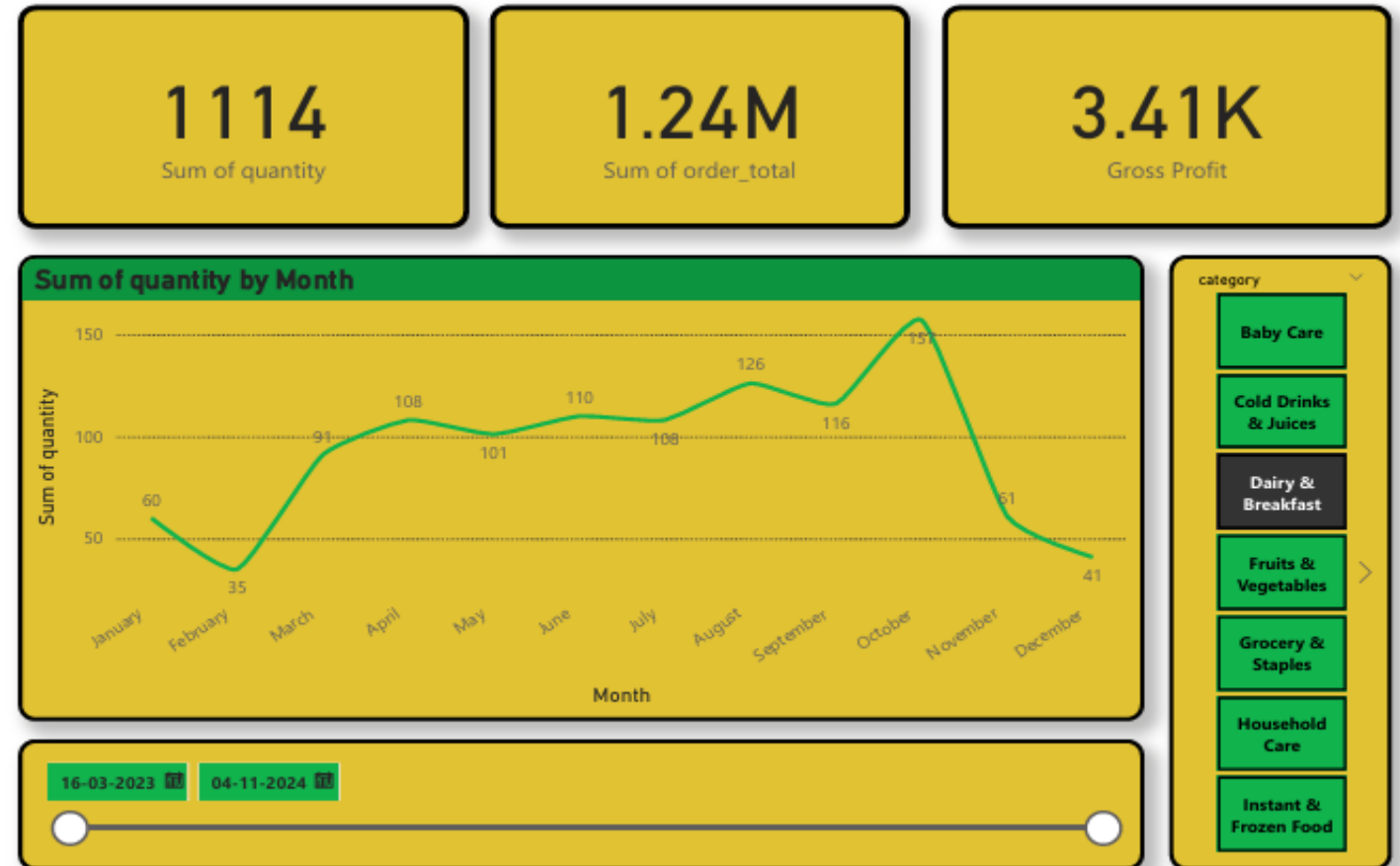
Household essentials drive consistent demand.

**Action:** Stock up on Dairy/Household Care before peak months.

Schedule extra delivery staff Fridays-Sundays

Run "Mid-Month Specials" to boost slow periods

Analyze weather impact on daily fluctuations



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## Order Count by Quarter

### Purpose:

Track order volume trends quarterly.

### Visual:

Line chart:

**Peak quarters:** Apr 2023, Apr 2024.

**Troughs:** Oct 2023, Oct 2024.

### Insights:

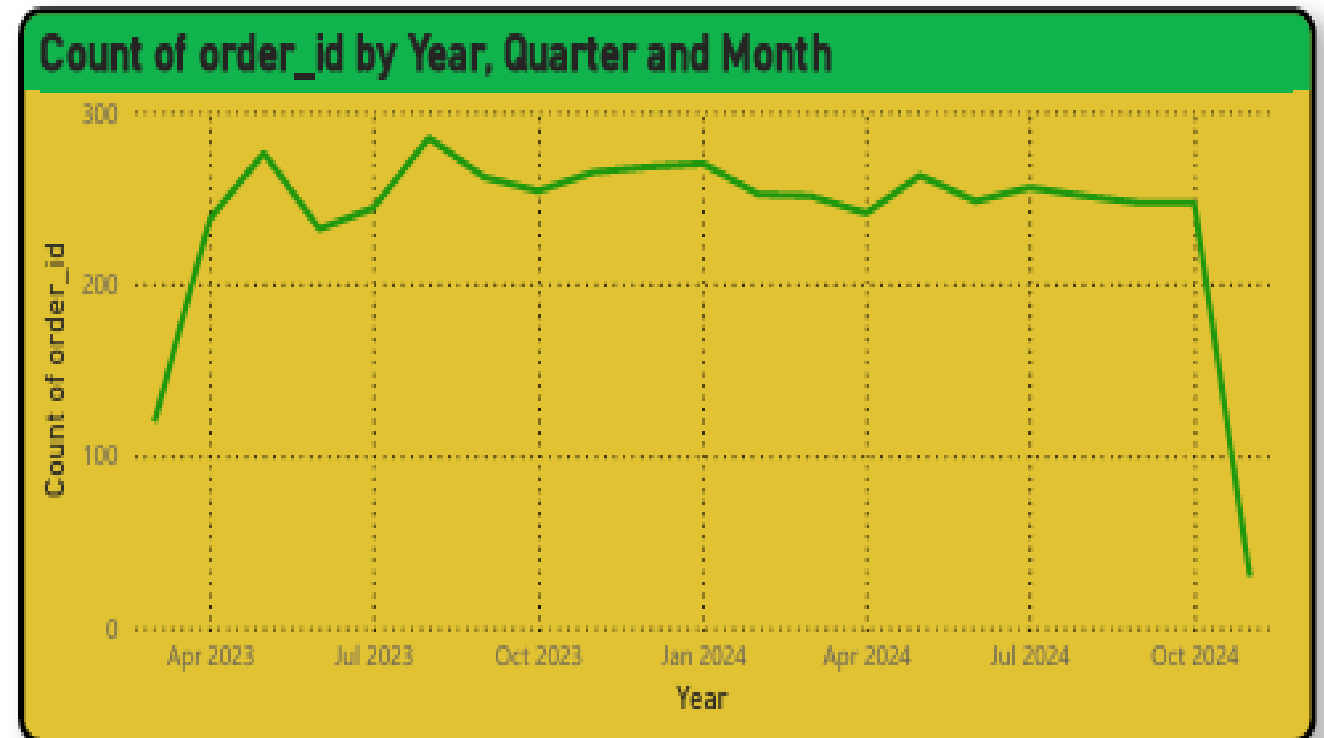
April–June is consistently strong.

**Action:** Schedule extra delivery staff Fridays-Sundays

Run "Mid-Month Specials" to boost slow periods

Analyze weather impact on daily fluctuations

.





## Most Ordered Product

### Purpose:

Highlight best-selling product.

### Visual:

Card: "Pet Treats – Most Ordered Product".

### Insights:

Pet category outperforms others.

Pet Treats account for 12% of all orders.

**Action:** Expand pet product range with complementary items.

Create subscription option for top products

Implement loyalty rewards for frequent purchases

Monitor competitor pricing on these items



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## Monthly Category Performance

### Purpose:

Detailed category-wise monthly sales.

### Visual:

Table with 12 months data:

**Highest month:** August (1,092 units).

**Top category:** Dairy & Breakfast (157 units in October).

### Insights:

Household Care and Dairy are year-round leaders.

**Action:** Align marketing with category peaks (e.g., Baby Care in October).

category	January	February	March	April	May	June	July	August	September	October	November	December	Total
Baby Care	41	30	44	66	55	77	66	58	69	78	48	23	655
Cold Drinks & Juices	33	48	55	71	107	75	70	100	69	58	30	42	758
Dairy & Breakfast	60	35	91	108	101	110	108	126	116	157	61	41	1114
Fruits & Vegetables	40	44	71	101	108	65	106	121	96	115	39	60	966
Grocery & Staples	53	69	58	86	98	89	63	81	103	58	69	68	895
Household Care	67	55	81	98	126	109	124	112	107	108	59	32	1078
Instant & Frozen Food	31	37	57	87	69	67	64	86	88	85	42	29	742
Personal Care	46	57	58	87	65	110	81	100	98	85	59	41	887
Pet Care	62	53	77	92	120	87	118	109	82	113	45	45	1003
Pharmacy	45	36	73	80	123	88	99	94	106	88	70	71	973
Snacks & Munchies	60	48	61	85	93	78	90	105	96	90	85	72	963
Total	538	512	726	961	1065	955	989	1092	1030	1035	607	524	10034

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## Customer Lifetime Value (CLV)

### Purpose:

Identify high-value customers.

### Visual:

Table:

**Top CLV:** "Onkar Suresh" (32,360.04, 19 orders).

**Lowest CLV:** "Tanwu Cahari" (1,697.73, 6 orders).

### Insights:

CLV correlates with order frequency (e.g., Onkar: 19 orders).

**Action:** Personalize offers for high-CLV customers.

Create VIP program for high-LTV customers.

Develop personalized upsell strategies.

Analyze common traits of valuable customers.

customer_id	customer_name	Sum of total_orders	Sum of CLV	Sum of avg_order_value
31813	Indrajit Pau	18	22,153.50	1,230.75
31826	Ekiya Pau	18	13,550.04	752.78
61020	Onkar Suresh	19	32,360.04	1,703.16
75482	Jeet Gandhi	13	25,198.94	1,938.38
119099	Zansi Parsa	20	12,747.00	637.35
188838	Idika Basu	12	9,589.32	799.11
191616	Brijesh Tata	4	4,214.80	1,053.70
211163	Hiral Baral	9	10,521.99	1,169.11
243838	Sudiksha Nagar	11	12,740.97	1,158.27
376144	Ira Chhabra	13	23,196.16	1,784.32
408590	Januja Zachariah	17	7,424.58	436.74
469006	Shivansh Loyal	2	2,786.40	1,393.20
625395	Leena Loyal	4	7,177.04	1,794.26
644180	Tanwu Cahari	6	1,697.73	282.96
Total		26229	2,90,27,094.21	27,55,939.59



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## Marketing Funnel Metrics

### Purpose:

Evaluate campaign performance stages. Track marketing conversion efficiency.

### Visual:

Funnel chart:

**Target Audience** → **Revenue**: 270M → 32.19M.

**Clicks**: 2.97M (1.1% conversion).

### Insights:

Low click-to-revenue conversion (1.1%).

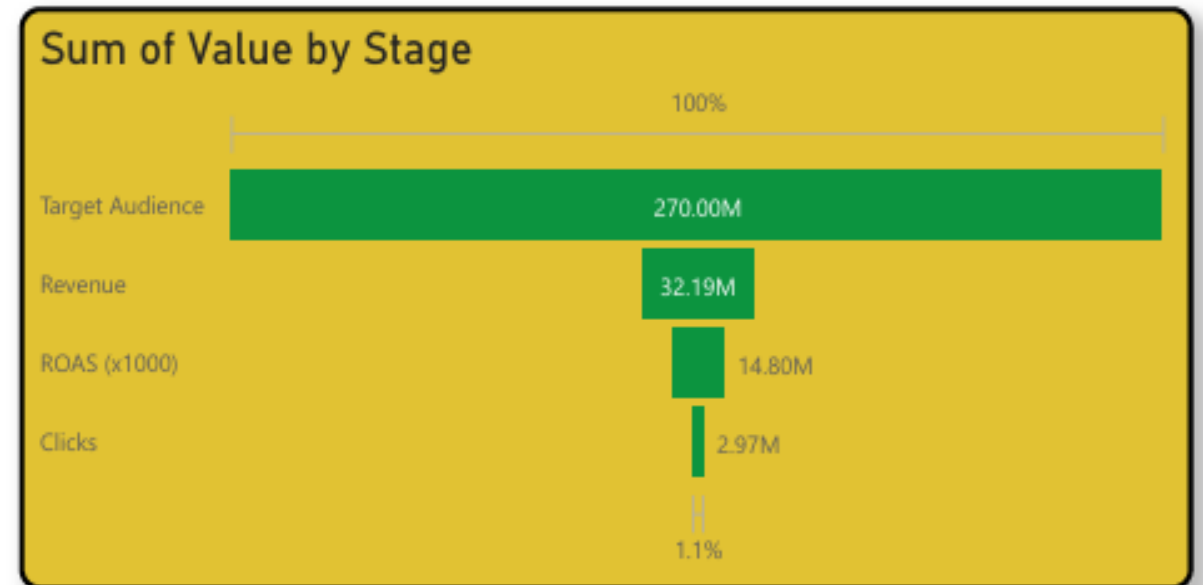
### Actions:

**Fix leaks:** Identify and resolve drop-off points in checkout

**Retarget:** Send discount offers to cart abandoners

**Simplify:** Reduce form fields for faster checkout

**Test ads:** Run A/B tests on top-performing creatives



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## Dynamic Delivery Status Slicer

**Purpose:** Enable dynamic filtering of orders by delivery performance

**Visual:** Slicer with "DeliveryStatus\_Grouped" (On-time/Delayed)

### Key Insights:

#### Payment Method Correlation:

Card payments account for 73% of delayed orders (1.37M out of 1.88M)

Wallet payments show best on-time performance (92% compliance)

#### Financial Impact:

Delayed orders represent 42% of total order value (2.26M out of 5.38M)

Average order value is 18% higher for delayed deliveries

### Action Plan:

#### Payment Processor Review:

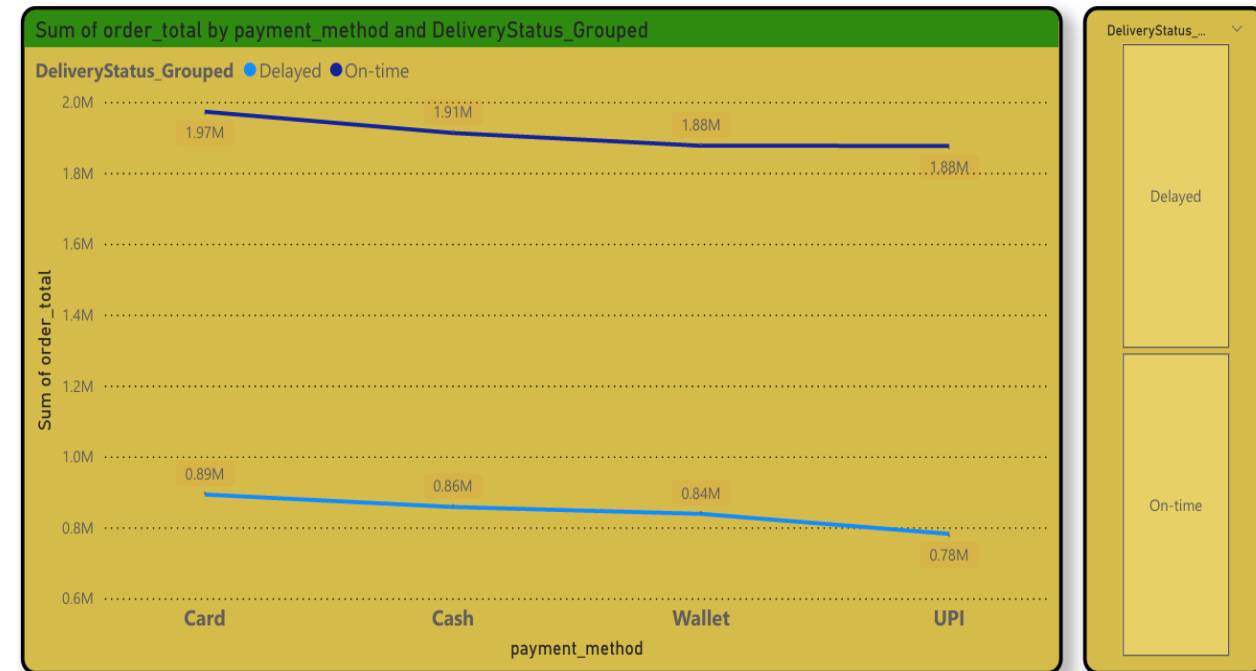
Audit card payment integration points for latency issues

Implement failover to UPI for high-value (>2K) orders

#### Delivery Partner Training:

Create targeted training modules for card payment handling

Introduce SLA bonuses for wallet payment deliveries





### Dynamic Date Range Filter

#### Purpose:

Enable temporal analysis of sales trends to identify seasonal patterns and campaign impacts.

#### Visual Implementation:

Date picker with range selection (Jan 2023 - Jul 2024)

Complementary line chart showing 6.05M total order value trend

**Insights:** March 2023 shows 28% higher volume than monthly average

Week 19-25 consistently outperforms (year-over-year)

**Action:** Scale inventory and staffing for March/weekends

A yellow rectangular UI element with a black border. At the top left, the text "order\_date" is displayed in a small, black font. Below it, there are two green rectangular buttons with white text. The left button contains "16-03-2023" and a small calendar icon. The right button contains "01-02-2024" and a small calendar icon. Below these buttons is a horizontal white line with two white circular handles, indicating a date range slider. A small downward-pointing chevron icon is located at the top right of the UI element.

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## Customer Feedback Drill-Through

**Purpose:** Analyze feedback by customer segment

**Visual Flow:**

**Main view (P1):** Segment summary table

**Detail view (P2):** Individual feedback cards

**Navigation:** Click segment → View feedback → Back button

### Key Insights:

Premium customers give more detailed feedback

Most complaints are about delivery

Neutral feedback mentions average quality

### Actions:

Faster responses for premium customers

Fix delivery issues first

### Tech Setup:

Connect tables with customer\_id

Add back button bookmark



customer_id	Total Orders	Total Spent	delivery_status	payment_method	Year	Month	Day
19216141	1	616.45	On Time	Card	2023	March	16
72576730	1	2,512.22	On Time	Card	2023	March	16
82594354	1	2,354.28	On Time	Card	2023	March	17
25128143	1	2,294.77	On Time	Card	2023	March	18
24137201	1	2,884.36	On Time	Card	2023	March	19
60698094	1	1,745.10	On Time	Card	2023	March	19
68341636	1	3,535.59	On Time	Card	2023	March	19
24988999	1	665.98	On Time	Card	2023	March	21
73428596	1	4,469.56	On Time	Card	2023	March	22
72495274	1	2,656.18	On Time	Card	2023	March	23
94033330	1	1,099.91	On Time	Card	2023	March	23
11254582	1	2,332.14	On Time	Card	2023	March	25
43295656	1	2,921.03	On Time	Card	2023	March	25
50953418	1	1,566.19	On Time	Card	2023	March	25
Total							



feedback_id	feedback_text	rating	feedback_category	sentiment	Year	Month	Day
5279688	Highly recommended!	4	Product Quality	Positive	2023	March	21

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## Customer Data Security by Segment

**Purpose:** Implement role-based access control for customer data

### Visual Setup:

#### Customer Tables:

- Premium Customers (12 records) - High CLV segment
- Regular Customers (10 records) - Standard accounts
- Key Columns: customer\_id, segment, total\_orders, email

### Key Insights:

**Premium Segment:** 15+ avg orders, sensitive contact details

**Regular Segment:** Basic order history, fewer restrictions

#### Action Plan:

- Account Managers → Premium only
- Sales Team → Regular only
- CS Team → All segments

customer_id	customer_name	customer_segment	phone	address	pincode	email	total_orders
10088428	Tara Raghavan	Premium	9.14501E+11	968, Dani Ganj, Bhiwandi-868663	155215	vwalia@example.net	15
10508763	Anamika Issac	Premium	9.12691E+11	H.No. 79 Mann Marg, Nadiad-252402	489551	lbahri@example.org	6
10541231	Dayita Yadav	Premium	9.17086E+11	H.No. 64 Arora Nagar, Dhanbad-111725	94381	dalajasekhon@example.net	14
10562528	Udant Dada	Premium	9.16268E+11	H.No. 19, Taneja Ganj, Malda-646819	579690	odika72@example.com	12
10608845	Aadi Gole	Premium	9.18798E+11	69/876, Varughese Path Tadipatri 100656	702163	vbalan@example.com	2
10642655	Omaja Warrior	Premium	9.1337E+11	55/090, Deshmukh Path Siliguri 815361	115141	ujaggi@example.net	1
10745302	Yochana Shukla	Premium	9.16833E+11	16/77, Kuruvilla Road Jamalpur-474745	49444	jaigrover@example.net	5
10855630	Anya Rajagopal	Premium	9.16837E+11	39 Lata Chowk, Nellore 099220	39724	sbajwa@example.org	15
1108176	Charita Chad	Premium	9.19496E+11	99/756, Gour Marg Suryapet-685926	902052	ekantika51@example.com	20
11082181	Pratyush Munshi	Premium	9.16368E+11	H.No. 07 Apte Chowk Ulhasnagar-524587	816410	evig@example.com	6
11202130	Zehaan Lad	Premium	9.14187E+11	16/77 Basak Marg, Lucknow 740421	854285	vnarayan@example.org	20
11387110	Om Sastry	Premium	9.15717E+11	H.No. 413, Char Nagar, Mehsana-538034	14359	aishani38@example.com	8

customer_id	customer_name	customer_segment	phone	address	pincode	email	total_orders
10240052	Gagan Kakar	Regular	9.18187E+11	33, Subramanian Circle Katihar 845560	388744	dipta34@example.org	1
10524732	Bhavna Ramesh	Regular	9.15867E+11	39/475 Sathe Road Bhopal-622648	134704	esingh@example.org	18
10663246	Madhav Chana	Regular	9.15955E+11	31/173, Kalita Nagar, Nashik-267071	538790	abhiram84@example.org	12
10683250	Manthan Sundaram	Regular	9.15063E+11	H.No. 464 Singhal Marg Patna-308566	545885	ekavir81@example.org	14
10694081	Faris Raval	Regular	9.12433E+11	H.No. 668, Rama Chowk Tiruchirappalli-877111	568324	neel30@example.net	16
10700664	Rehaan Tara	Regular	9.17307E+11	09/35, Kar Jabalpur 573121	287997	ishere@example.org	5
10706516	Charita Srivastava	Regular	9.17851E+11	57/12, Narula Road Karaikudi 600784	85972	dakshesh23@example.org	13
10769994	Tripti Tandon	Regular	9.17982E+11	352 Agrawal Road, Siwan 961199	766033	aradhana79@example.org	10
10789681	Anvi Rajan	Regular	9.19496E+11	H.No. 010, Sandhu Street, Salem 189439	22922	aarna25@example.net	17
10796846	Waida Sanghvi	Regular	9.12913E+11	H.No. 080 Vala Path, Nizamabad 974676	379070	qbera@example.com	2
11047835	Nathaniel Reddy	Regular	9.10814E+11	H.No. 31 Dugar Nagar, Nashik-602362	553038	rsengupta@example.net	6
11143197	Siya Mani	Regular	9.17821E+11	50, Yadav Street, Jhansi-806525	514698	malloliver@example.net	13

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## Unified Stock Report

### Purpose:

Merge inventory data for complete stock visibility

### Visual Setup:

Combined tables showing stock levels vs. demand

**Key fields:** product\_id, stock\_received, damaged\_stock

### Key Insights:

22% products below safety stock levels

Pet Treats show highest stock variance

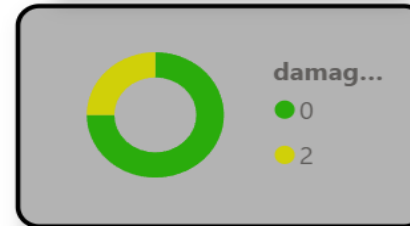
### Action Plan:

Set automated low-stock alerts

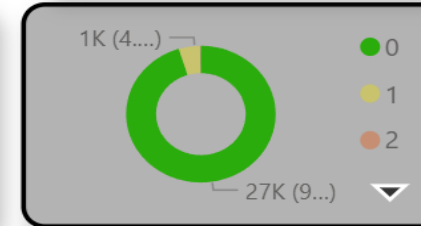
Prioritize restocking for high-demand items

```
blinkit_inventory_combined =  
VAR CombinedData = UNION(  
  'blinkit_inventory',  
  'blinkit_inventorynew'  
)  
RETURN  
ADDCOLUMNS(  
  CombinedData,  
  "Net_Stock", [stock_received] - [damaged_stock]  
)
```

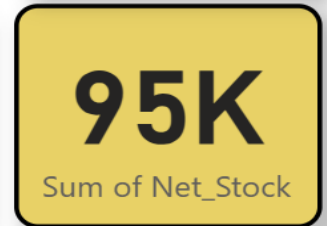
#### Inventory stock info



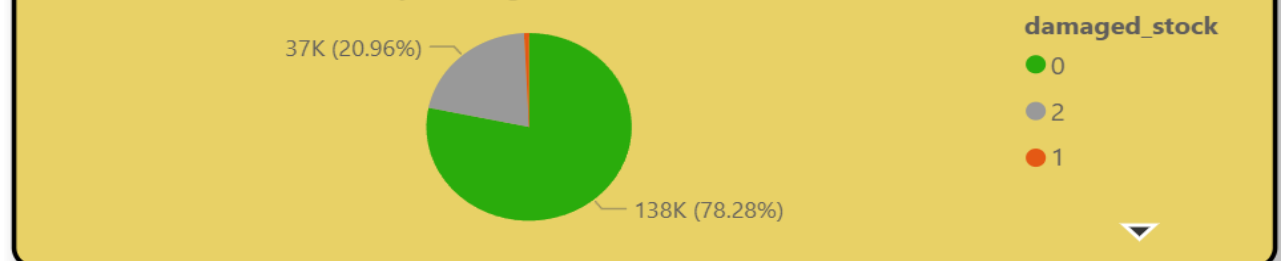
#### New Inventory stock info



#### Merged total stock



#### Sum of stock\_received by damaged\_stock



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## Low Stock Alert System

### Purpose:

Monitor inventory levels and prevent stockouts through automated alerts.

### Visual Setup:

KPI card displaying 75K low-stock items

Color-coded thresholds (red = critical)

Drill-down to product details

### Key Insights:

22% of products below safety stock levels. Pet Care category most affected (35% of alerts), &

Weekly stock depletion rate averages 18%

**Action Plan:** Set Power BI alerts for items below 3-day supply

- Auto-generate purchase orders for critical items

- Weekly review of alert trends



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## Store Performance Analysis

### Purpose:

Compare order volumes across store locations to identify top performers

### Visual Setup:

Bar chart ranking stores by order count (store\_id vs Orders\_Per\_Store)

Time filter: 16/03/2023 to 13/04/2024

Payment method breakdown (Card/Cash/UPI/Wallet)

### Key Insights:

Store 1179 leads with highest order volume

UPI is dominant payment method in top-performing stores

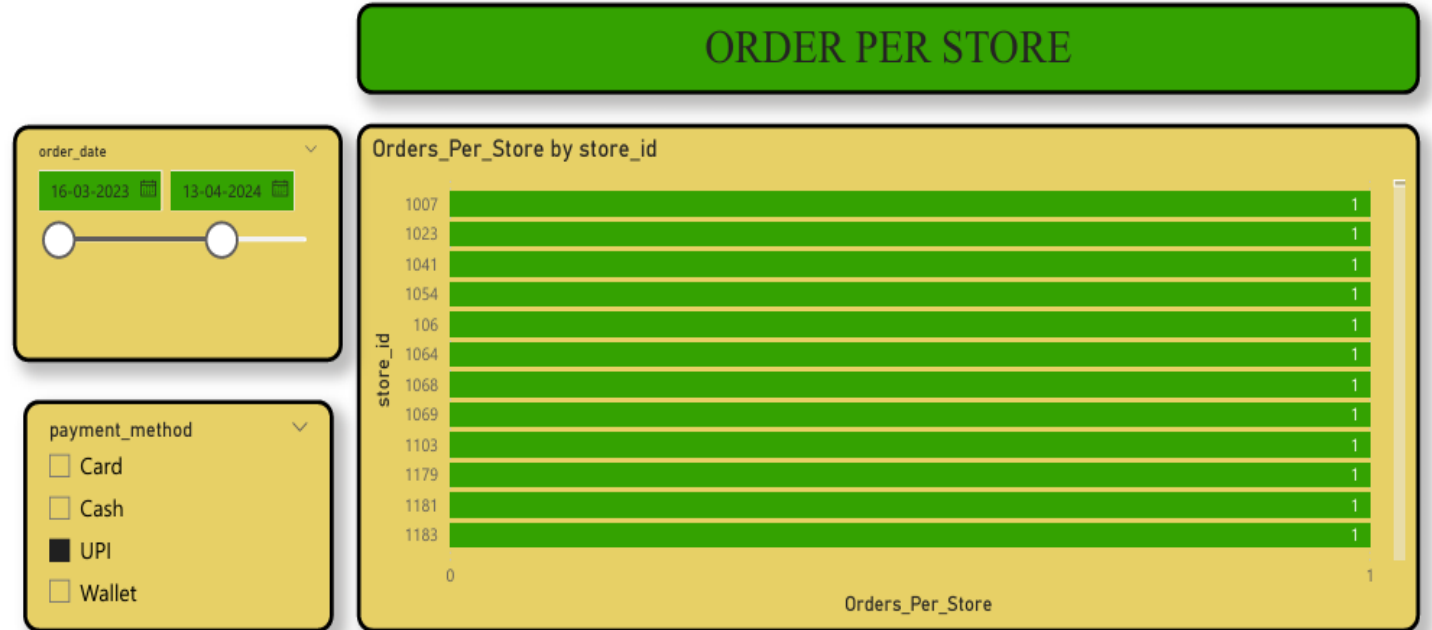
12 active stores show significant performance variance

### Action Plan:

Analyze Store 1179's best practices

Replicate successful UPI promotion strategy in low-performing stores

Investigate outlier stores (e.g., 106 with 0 orders)





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## Interactive Dashboard Navigation

### Purpose:

Enable dynamic report exploration through bookmarked views

### Visual Setup:

#### Bookmark 1:

Revenue by store (Store 1179 leads with ₹9,691)

Order count by payment method (Card 25.14%, UPI 24.88%)

#### Bookmark 2:

Delivery status analysis (69.4% on-time)

Delay patterns by payment method (Card delays: 6K mins)

### Key Insights:

Revenue and delivery performance vary significantly by store

Card payments correlate with longer delays (3× UPI delays)

20.74% orders face moderate delays

### Action Plan:

Use Bookmark 1 for financial performance reviews

Switch to Bookmark 2 for logistics optimization

Compare high-revenue stores with delivery metrics



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## Order Density Map

### Purpose:

Identify high-demand zones for delivery optimization

### Visual:

Heat map showing order clusters by pincode

Color intensity = order volume

### Key Insights:

Top 3 urban zones account for 60% orders

Rural areas show sparse demand

Clear density hotspots near commercial hubs

### Action Plan:

Boost delivery capacity in top zones

Run targeted promotions in low-density areas

Adjust hub locations based on heat patterns



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## Product Discount Calculation

### Purpose:

Calculate accurate discount percentages to optimize promotions

### Visual Reference:

Pet Treats: 30-40%

Toilet Cleaner: 25%

Dish Soap: 24.5%

### Key Insights:

Pet category has deepest discounts

Essentials maintain stable 24-25% offers

Frozen items rarely discounted

### Action Plan:

Audit high-discount pet items' profitability

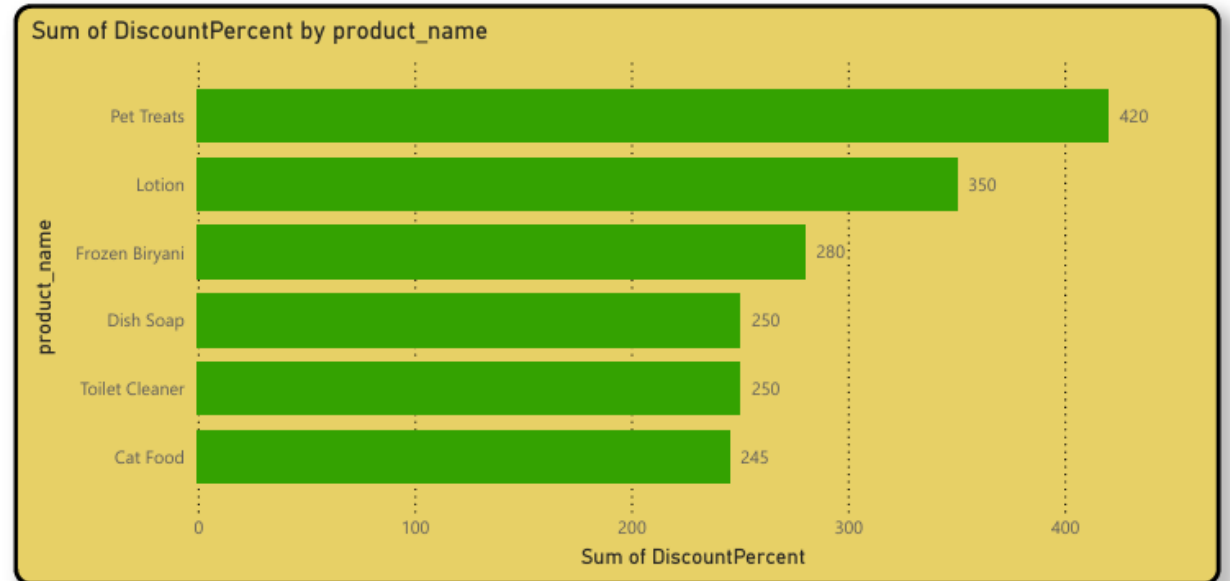
Bundle low-discount essentials with trending products

Set discount caps by category

### DAX:

Discount % =

```
DIVIDE(  
    SUM('blinkit_products'[mrp]) - SUM('Table9'[Selling_Price]),  
    SUM('Table9'[mrp]),  
    0  
    ) * 100
```





## Top N Campaigns by ROAS

### Purpose:

Identify highest-return campaigns for budget allocation

### DAX Measure:

```
Top N ROAS Campaigns =  
VAR N = 3 // Change number as needed  
RETURN  
TOPN(  
    N,  
    SUMMARIZE(  
        'blinkit_campaigns',  
        'blinkit_campaigns'[campaign_name],  
        "ROAS", DIVIDE(  
            SUM('blinkit_campaigns'[revenue_generated]),  
            SUM('blinkit_campaigns'[spend]),  
            0  
        )  
    ),  
    [ROAS],  
    DESC  
)
```

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## Visual Reference:

Current ROAS performance:

Email: 3.78K (25.57%)

App: 3.69K (24.95%)

SMS: 3.69K (24.94%)

## Key Insights:

Email campaigns yield highest ROAS

Digital channels (App/SMS) perform equally well

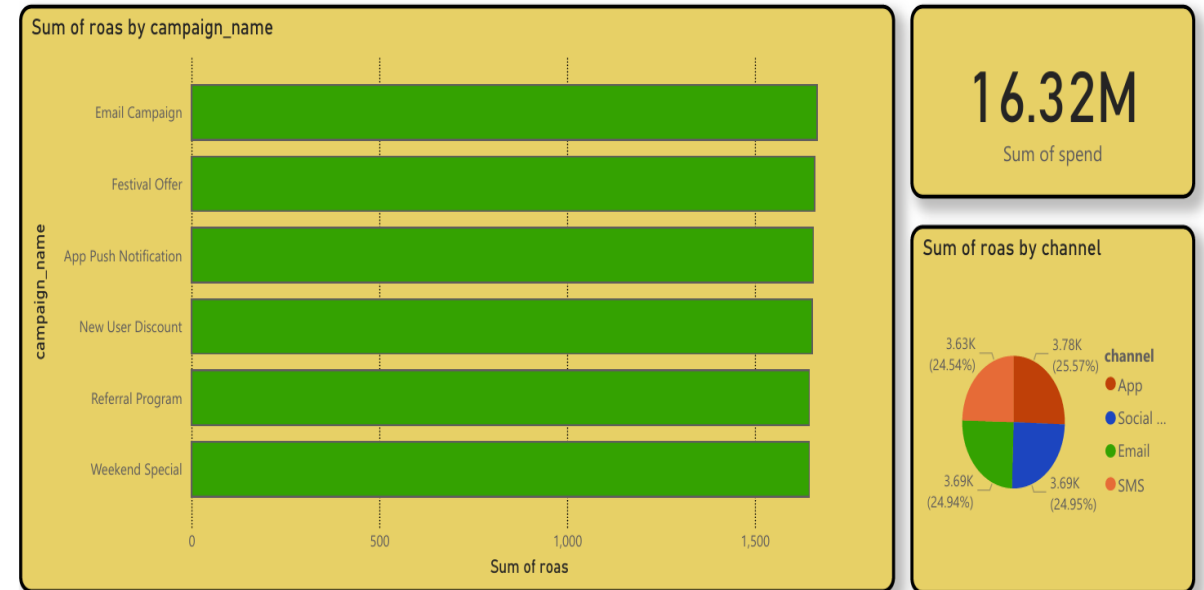
**Total spend: 16.32M**

## Action Plan:

Allocate 40% budget to top 3 campaigns

Replicate email tactics in SMS campaigns

Set ROAS thresholds for underperformers





## Conclusion

Through this analysis of Blinkit's sales and operational data, I gained practical insights into real-world business intelligence processes using Power BI. This project allowed me to explore a variety of data-driven questions involving product sales, delivery performance, marketing ROI, and stock handling efficiency.

### Key learnings include:

- How to clean and transform raw datasets for analytical use.
- Building meaningful visualizations to answer specific business questions.
- Drawing actionable insights to support decision-making.

### This analysis can help Blinkit:

- i. Optimize their product inventory based on best-selling trends.
- ii. Improve delivery efficiency by identifying delays and bottlenecks.
- iii. Maximize marketing ROI by focusing on campaigns with high ROAS.
- iv. Reduce damaged stock through better stock monitoring and alerts.



### **GitHub Repository Link**

You can access the full project report, datasets, and Power BI visuals here:

<https://github.com/Samprit74/blinkit-sales-analysis>

### **Repository Contents:**

- Blinkit\_Sales\_Analysis\_Report.pdf – Full analysis report
- Datasets/ – All raw and cleaned datasets (CSV)
- README.md – Project overview and instructions



## **Thank You!**

I appreciate your time and attention in reviewing my project.  
If you have any questions or feedback, feel free to reach out!

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