



# AtliQ Mart Sales and Promotion Analysis

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**Domain:** FMCG  
**Function:** Sales / Promotions

**CodeBasics Resume Project Challenge 9**

# Introduction



## Overview of AtliQ Mart's Promotional Analysis

- **Context:** AtliQ Mart, a retail giant in southern India, conducted massive promotions during Diwali 2023 and Sankranti 2024 across its 50 stores. Director wants to analyze these promotions to inform future marketing strategies.
- **Objective:** To identify which promotions were successful and which were not, providing actionable insights to the Sales Director for informed decision-making on future promotional activities and marketing strategies.



# Methodology

## Data Sources and Analysis Approach

- **Data Import:** Imported the 'retail\_events\_db' database into MySQL Workbench, ensuring access to comprehensive promotional data.
- **SQL Queries:** Crafted SQL queries to generate reports on product pricing, store distribution, campaign revenue, and incremental sales metrics, addressing business questions.
- **Dashboard Design:** Created a self-explanatory dashboard to visually represent key metrics and insights, facilitating easy understanding for the Sales Director.





# Analysis of Diwali 2023 and Sankranti 2024 Promotions

## Tasks:

1. Store Performance: Identify top and bottom performers by Incremental Revenue and Sold Units. Analyze variations by city to blueprint success.
2. Promotion Analysis: Evaluate promotion types for maximum revenue impact and optimal balance between sales volume and profit margins.
3. Product and Category Insights: Pinpoint categories and products with significant sales uplift. Tailor promotions for maximum effectiveness.

# AtliQ Mart Presence





# Store Performance Analysis:

Which are the top 10 stores in terms of Incremental Revenue (IR) generated from the promotions?

Top 10 Stores by IR %			
store_id	IR	IR %	City
STCHE-7	5999008	184.14%	Chennai
STBLR-7	6124481	182.54%	Bengaluru
STMYS-1	6446961	182.15%	Mysuru
STMDU-0	4852087	181.15%	Madurai
STBLR-0	6158906	181.09%	Bengaluru
STCBE-2	4145314	180.91%	Coimbatore
STCHE-4	6317711	177.62%	Chennai
STMYS-3	5721938	177.53%	Mysuru
STCHE-3	5707253	177.07%	Chennai
STBLR-6	6008349	176.51%	Bengaluru

Which are the bottom 10 stores when it comes to Incremental Sold Units (ISU) during the promotional period?

Bottom 10 Stores by ISU %			
store_id	ISU	ISU %	City
STVSK-3	2209	66.16%	Visakhapatnam
STHYD-1	3187	66.49%	Hyderabad
STCHE-1	3281	67.41%	Chennai
STVSK-4	2469	70.46%	Visakhapatnam
STMYS-2	3411	73.93%	Mysuru
STMYS-0	3344	74.39%	Mysuru
STMLR-0	1952	76.94%	Mangalore
STBLR-1	3770	78.07%	Bengaluru
STCBE-4	2927	79.71%	Coimbatore
STHYD-3	4015	80.51%	Hyderabad

# Store Performance Analysis:



How does the performance of stores vary by city? Are there any common characteristics among the top-performing stores that could be leveraged across other stores?

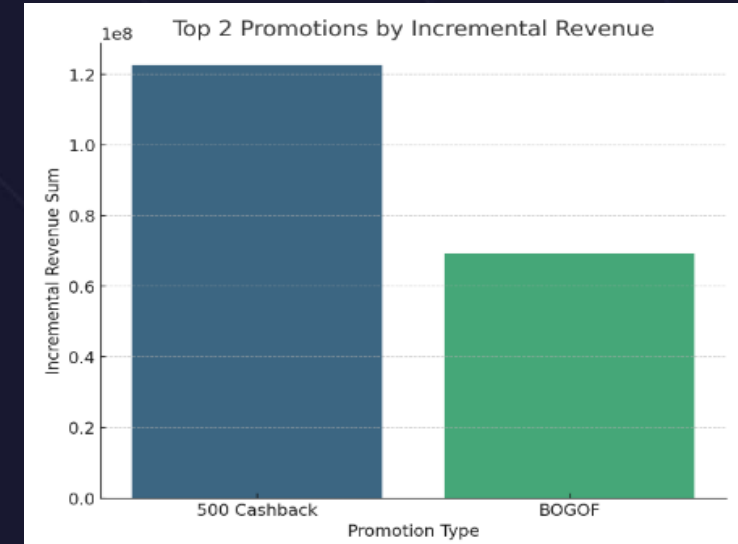
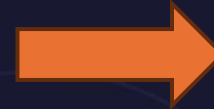
city	Store Count by City	IR	IR %	ISU	ISU %
Madurai	4	16.4M	158.26%	16.7K	115.58%
Bengaluru	10	50.8M	154.10%	56.0K	113.83%
Chennai	8	40.5M	154.08%	43.8K	110.79%
Vijayawada	2	5.4M	151.01%	5.8K	109.67%
Coimbatore	5	18.2M	148.49%	20.8K	114.33%
Trivandrum	2	4.7M	145.73%	5.3K	110.43%
Mysuru	4	18.9M	145.64%	18.9K	101.79%
Hyderabad	7	30.8M	135.99%	35.0K	101.96%
Mangalore	3	6.7M	133.86%	7.4K	98.29%
Visakhapatnam	5	14.9M	129.68%	16.7K	97.47%
<b>Total</b>	<b>50</b>	<b>207.2M</b>	<b>147.23%</b>	<b>226.4K</b>	<b>108.31%</b>

A total of 50 stores are distributed across various cities, with Bengaluru, Chennai, and Hyderabad boasting the highest concentration. The 'combo 1' and 'grocery' categories are primary revenue drivers for these top stores. Notably, Madurai and Mysuru achieve the highest ROI (Return on Investment) percentage, despite having an equal number of stores.

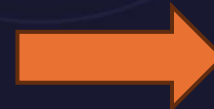


# Promotion Type Analysis:

1. What are the top 2 promotion types that resulted in the highest Incremental Revenue?



2. What are the bottom 2 promotion types in terms of their impact on Incremental Sold Units?







## Promotion Type Analysis:

3. Is there a significant difference in the performance of discount-based promotions versus BOGOF (Buy One Get One Free) or cashback promotions?

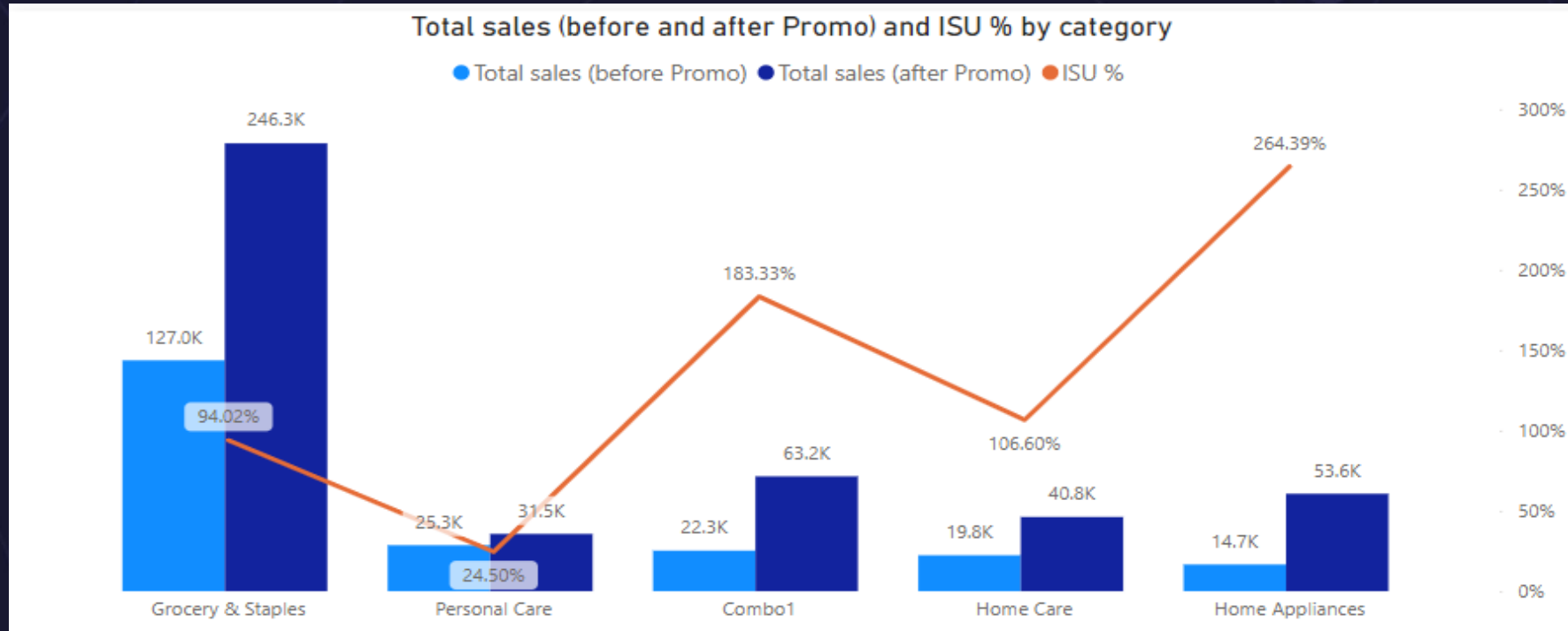
Cashback and BOGOF promotions were responsible for substantially more sales and revenue compared to discount-based promotions, accounting for over 50% of the total.

4. Which promotions strike the best balance between Incremental Sold Units and maintaining healthy margins?

Compared to other promotion types, '500 Cashback' offers the most favorable combination of increased sales and strong margins. In contrast, the '25% off' promotion generates the lowest margin, suggesting a need for optimization or alternative strategies.

# Product and Category Analysis:

1. Which product categories saw the most significant lift in sales from the promotions?



Home Appliances category saw the most significant lift in sales from the promotions. Personal Care saw the least significant lift in sales, with only a 12% increase. Grocery & Staples and Home Care also saw significant lifts in sales, with 183.33% and 106.60% increases, respectively. Combo1 saw a 94.02% increase in sales.



# Product and Category Analysis:

## 2. Are there specific products that respond exceptionally well or poorly to promotions?

product_name	Total sales (before Promo)	Total sales (after Promo)	ISU %	IR	IR %
Atliq_waterproof_Immersion_Rod	6468	23685	266.19%	17561340	266.19%
Atliq_High_Glo_15W_LED_Bulb	8245	29928	262.98%	7589050	262.98%
Atliq_Double_Bedsheet_set	4203	15058	258.27%	12917450	258.27%
Atliq_Curtains	4592	16317	255.34%	3517500	255.34%
Atliq_Home_Essential_8_Product_Combo	22299	63180	183.33%	122643000	183.33%
Atliq_Farm_Chakki_Atta (1KG)	32340	81290	151.36%	18248700	168.16%
Atliq_Sunflower_Oil (1L)	31309	74478	137.88%	8711196	155.57%
Atliq_Masoor_Dal (1KG)	26040	37341	43.40%	1943772	43.40%
Atliq_Sonamasuri_Rice (10KG)	37281	53235	42.79%	13720440	42.79%
Atliq_Doodh_Kesar_Body_Lotion (200ML)	5257	7022	33.57%	335350	33.57%
Atliq_Lime_Cool_Bathing_Bar (125GM)	7718	10280	33.20%	158844	33.20%
Atliq_Cream_Beauty_Bathing_Soap (125GM)	6380	7697	20.64%	89520	22.74%
Atliq_Body_Milk_Nourishing_Lotion (120ML)	5949	6505	9.35%	70560	11.74%
Atliq_Scrub_Sponge_For_Dishwash	5762	4985	-13.48%	-42735	-13.48%
Atliq_Fusion_Container_Set_of_3	5207	4472	-14.12%	-305025	-14.12%
<b>Total</b>	<b>209050</b>	<b>435473</b>	<b>108.31%</b>	<b>207158962</b>	<b>147.23%</b>

### Insights: Products Responding Exceptionally Well to Promotions

1. Products like immersion rods, LED bulbs, bedsheets, and curtains saw dramatic sales increases. This suggests that promotions are highly effective for necessities or items that enhance home comfort.
2. The home essentials combo experienced a significant boost. Bundling complementary products at a discount seems to be a winning strategy.
3. Atta, sunflower oil, body lotions, and bathing soaps experienced notable jumps in sales. Promotions are powerful for frequently purchased, consumable items.

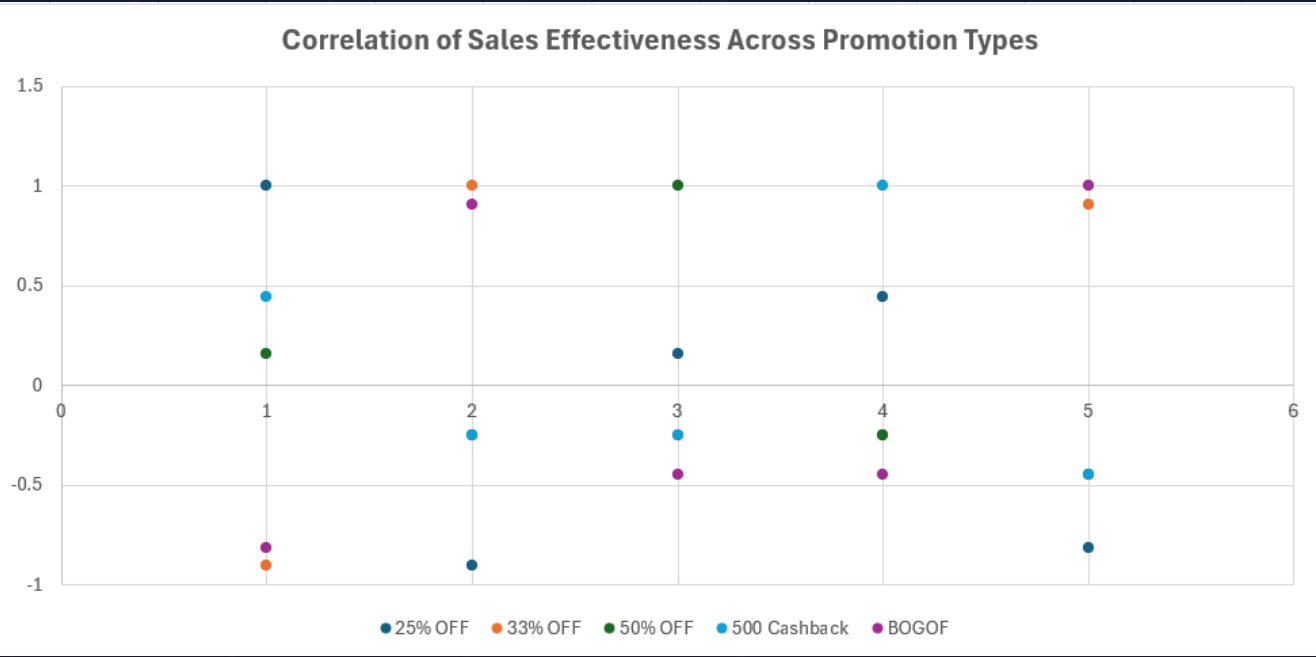
### Insights: Products with Less Pronounced Promotional Impact

1. Staple Foods: Masoor dal and rice saw modest increases despite promotions. This implies that consumers may be less price-sensitive when purchasing essential food staples.
2. Cleaning & Storage: The scrub sponge and container set sales actually decreased post promotions along with Fusion Container. The negative ISU% indicates an urgent need for strategic review and adjustments.

# Correlation Between Sales and Promotional Types

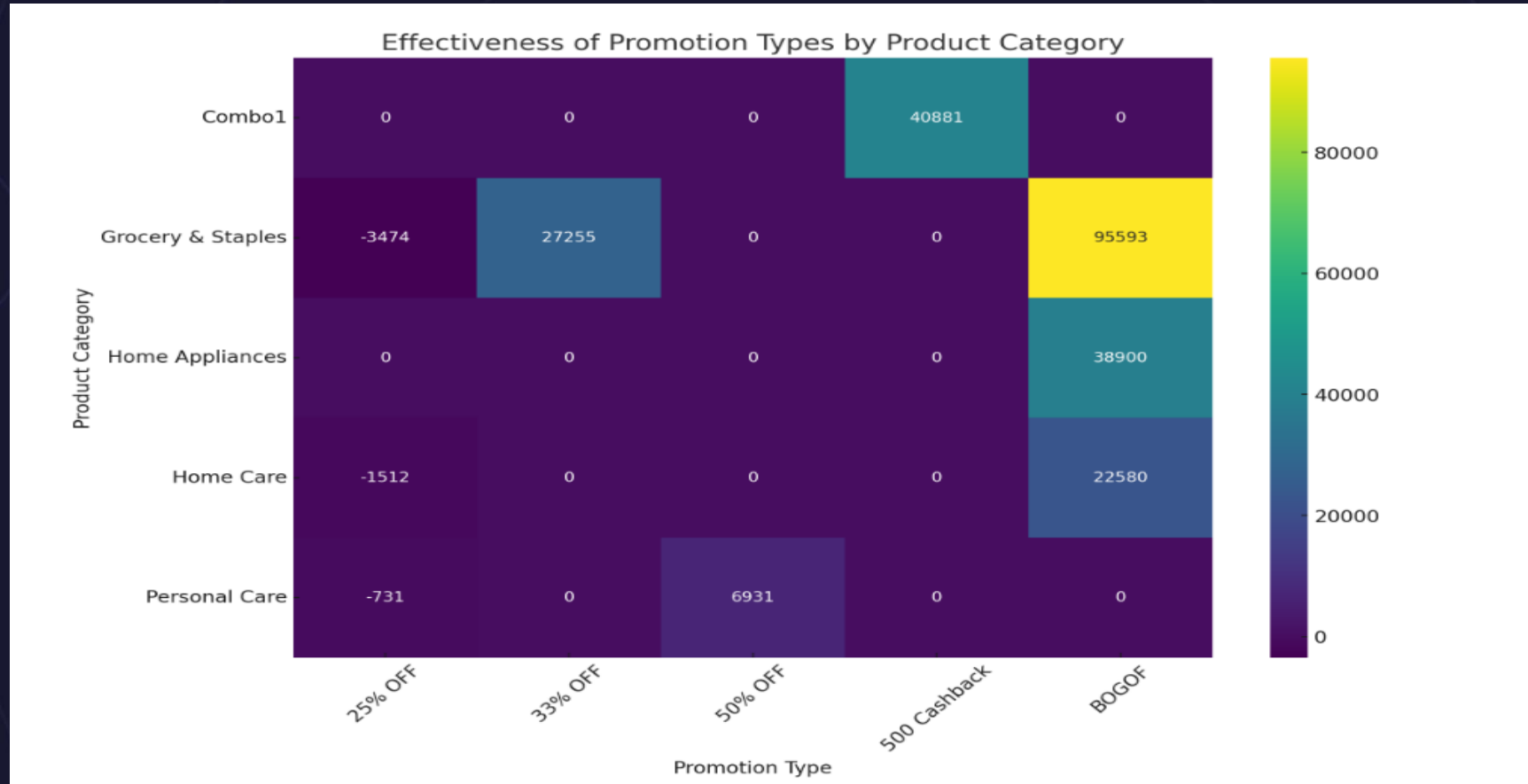


promo_type ▾	25% OFF ▾	33% OFF ▾	50% OFF ▾	500 Cashback ▾	BOGOF ▾
25% OFF	1	-0.9016	0.1595	0.4423	-0.8184
33% OFF	-0.9016	1	-0.25	-0.25	0.9093
50% OFF	0.1595	-0.25	1	-0.25	-0.4451
500 Cashback	0.4423	-0.25	-0.25	1	-0.4451
BOGOF	-0.8184	0.9093	-0.4451	-0.4451	1



The popularity of BOGOF (Buy One, Get One Free) and 50% off promotions, particularly in Home Appliances and Home Care, has a direct correlation to increased sales and revenue. This suggests that customers are highly motivated by these types of offers.

### 3. What is the correlation between product category and promotion types effectiveness?



Effectiveness=Quantity Sold (After Promo)–Quantity Sold (Before Promo)

A positive value indicates an increase in sales due to the promotion, suggesting higher sales volumes. Conversely, a negative value would indicate that sales decreased following the promotion.



# AD-HOC BUSINESS REQUESTS





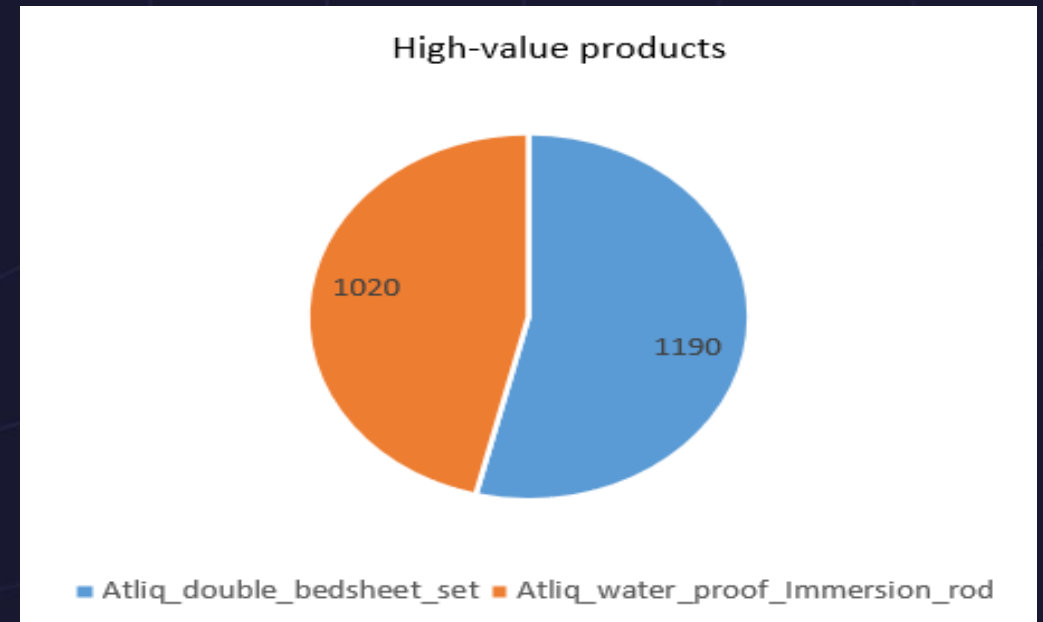
# Request 1

1. Provide a list of products with a base price greater than 500 and that are featured in promo type of 'BOGOF' (Buy One Get One Free). This information will help us identify high-value products that are currently being heavily discounted, which can be useful for evaluating our pricing and promotion strategies.

```
SELECT product_name, base_price, promo_type
FROM fact_events e
LEFT JOIN dim_products p
ON e.product_code=p.product_code
WHERE base_price>500 AND promo_type="BOGOF"
GROUP BY base_price
ORDER BY base_price DESC;
```

**AtliQ Mart offers exceptional value with 'BOGOF' promotions on the Double Bedsheet Set (₹1190) and Waterproof Immersion Rod (₹1020).**

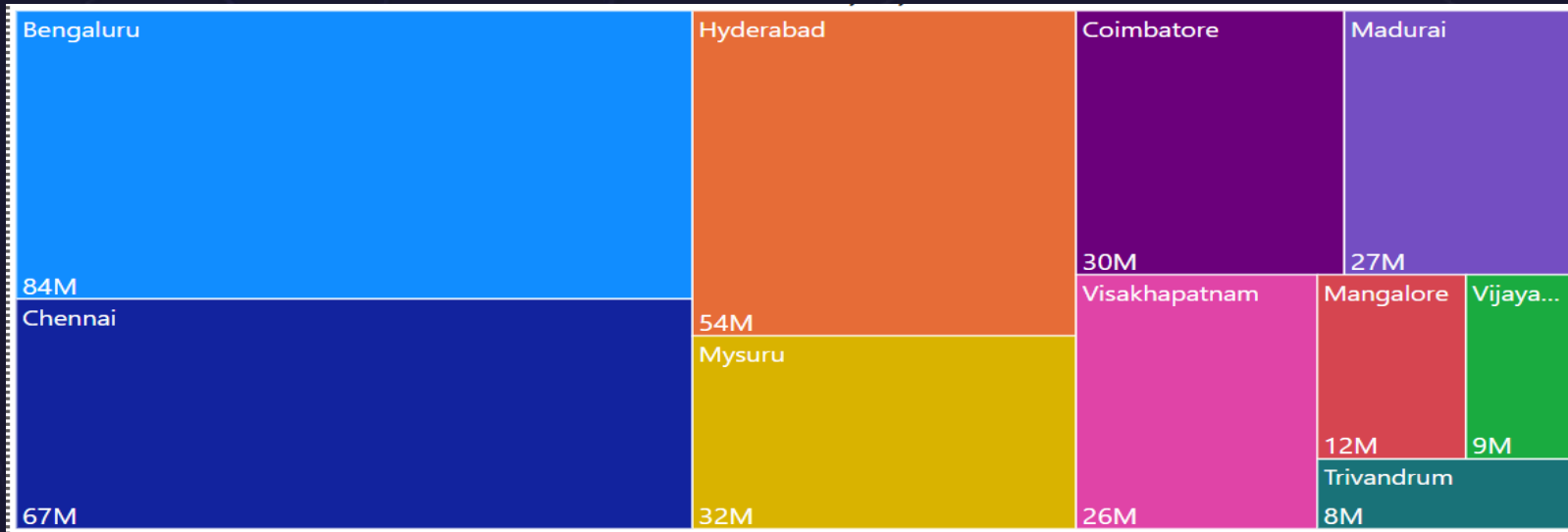
product_name	base_price	promo_type
Atliq_Double_Bedsheet_set	1190	BOGOF
Atliq_waterproof_Immersion_Rod	1020	BOGOF



## Request 2

2. Generate a report that provides an overview of the number of stores in each city. The report includes two essential fields: city and store count, which will assist in optimizing our retail operations.

Total Revenue after Promotion



city	store_count
Bengaluru	10
Chennai	8
Hyderabad	7
Coimbatore	5
Visakhapatnam	5
Madurai	4
Mysuru	4
Mangalore	3
Trivandrum	2
Vijayawada	2

Store distribution in the southern region of India is dominated by Bengaluru, Chennai, and Hyderabad, which together hold a 50% share.

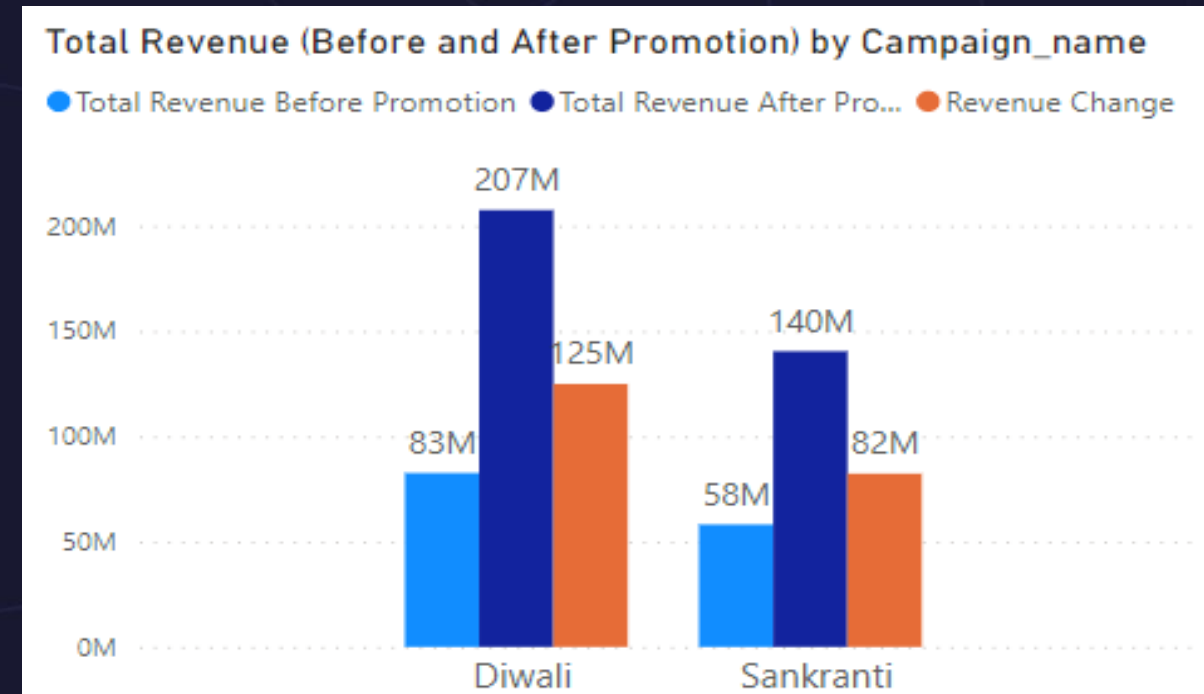
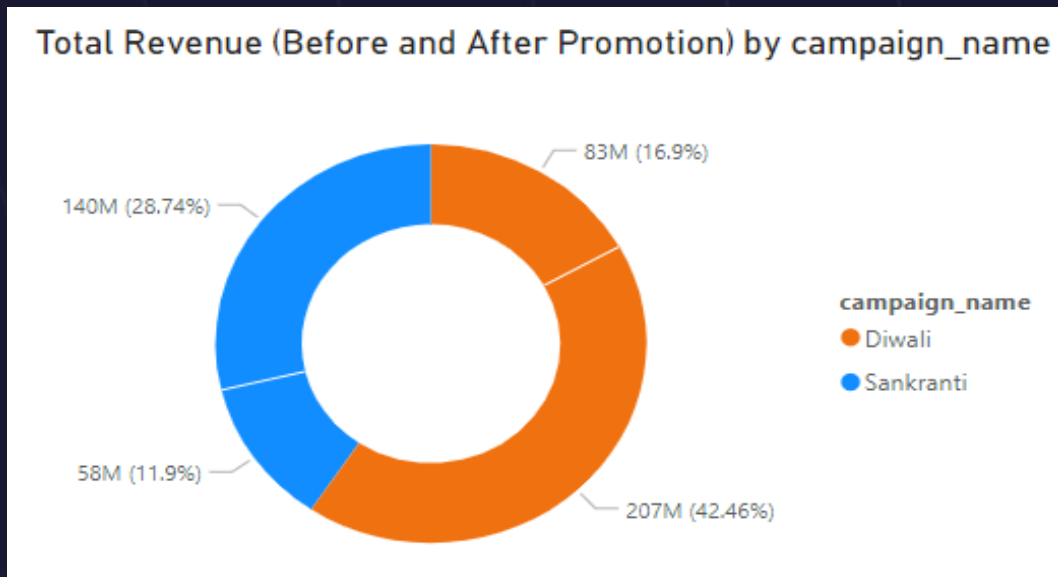
```
SELECT city, COUNT(store_id) as store_count
FROM dim_stores
GROUP BY city
ORDER BY store_count DESC;
```

## Request 3



3. Generate a report that displays each campaign along with the total revenue generated before and after the campaign? The report includes three key fields: campaign\_name, total\_revenue(before and after promotion).

campaign_name	total_revenue_before_promotion	total_revenue_after_promotion
Sankranti	58.13M	140.41M
Diwali	82.58M	207.46M

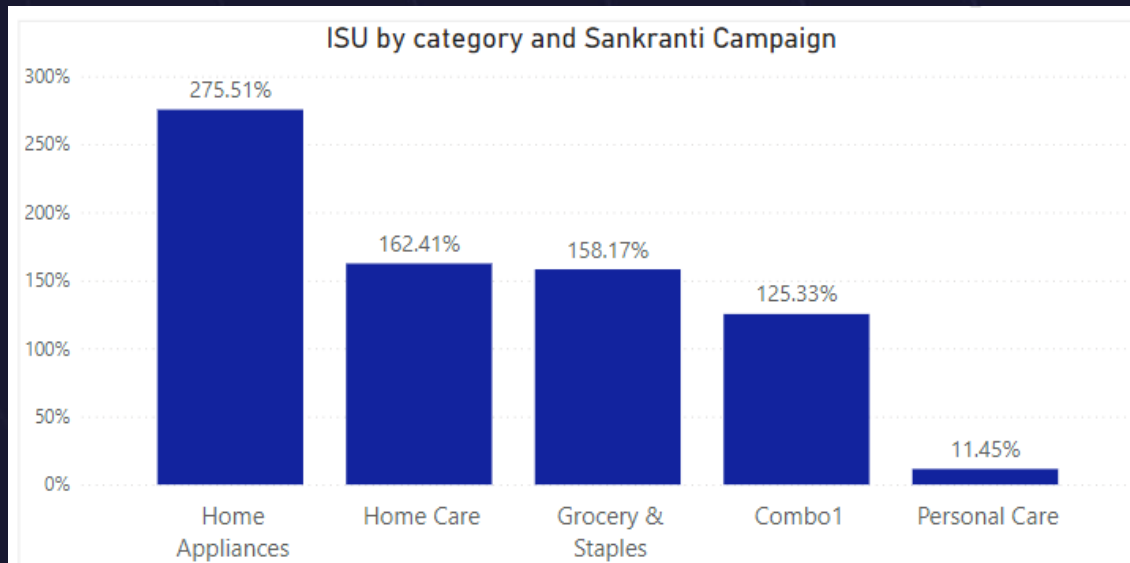
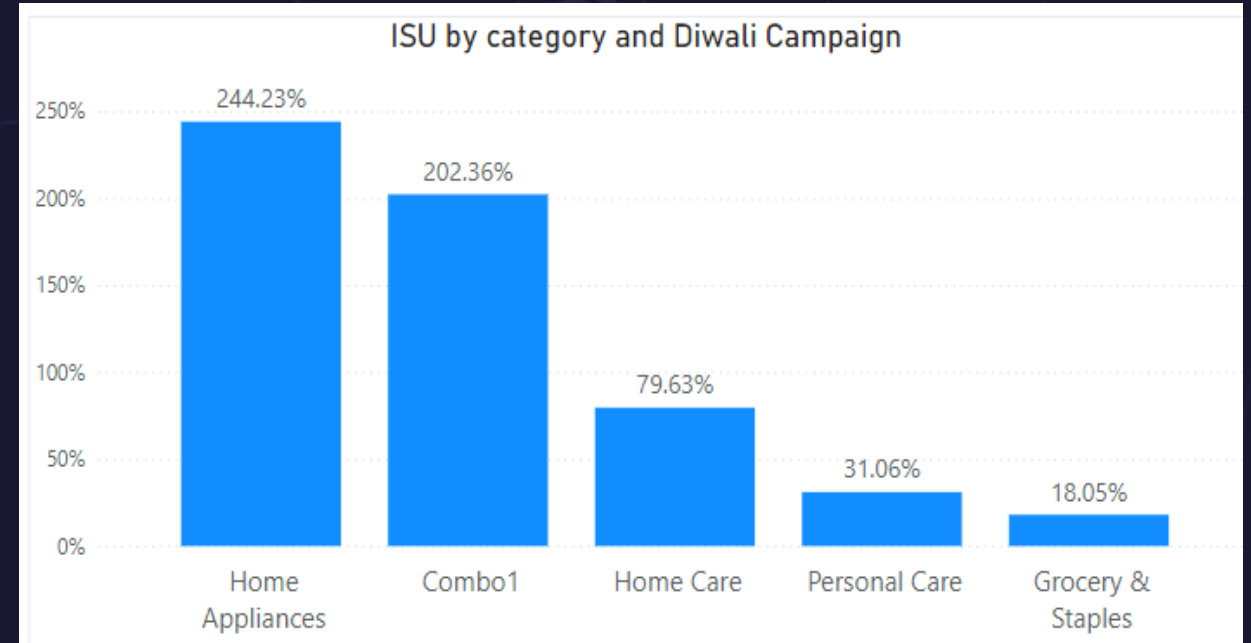


- The Diwali promo propelled a 151% revenue increase, boosting sales from 83M to 207M.
- Total revenue jumped 141% during the Sankranti campaign, rising from 58M to 140M following the promotion.

## Request 4

4. Produce a report that calculates the Incremental Sold Quantity (ISU%) for each category during the Diwali campaign. Additionally, provide rankings for the categories based on their ISU%. The report will include three key fields: category, ISU%, and rank order.

category	ISU_Percentage	rank_order
Home Appliances	244.23	1
Combo1	202.36	2
Home Care	79.63	3
Personal Care	31.06	4
Grocery & Staples	18.05	5



ISU% - Incremental Sold Quantity Percentage

ISU% is a key performance indicator (KPI) used to evaluate the impact of a promotion on product sales.

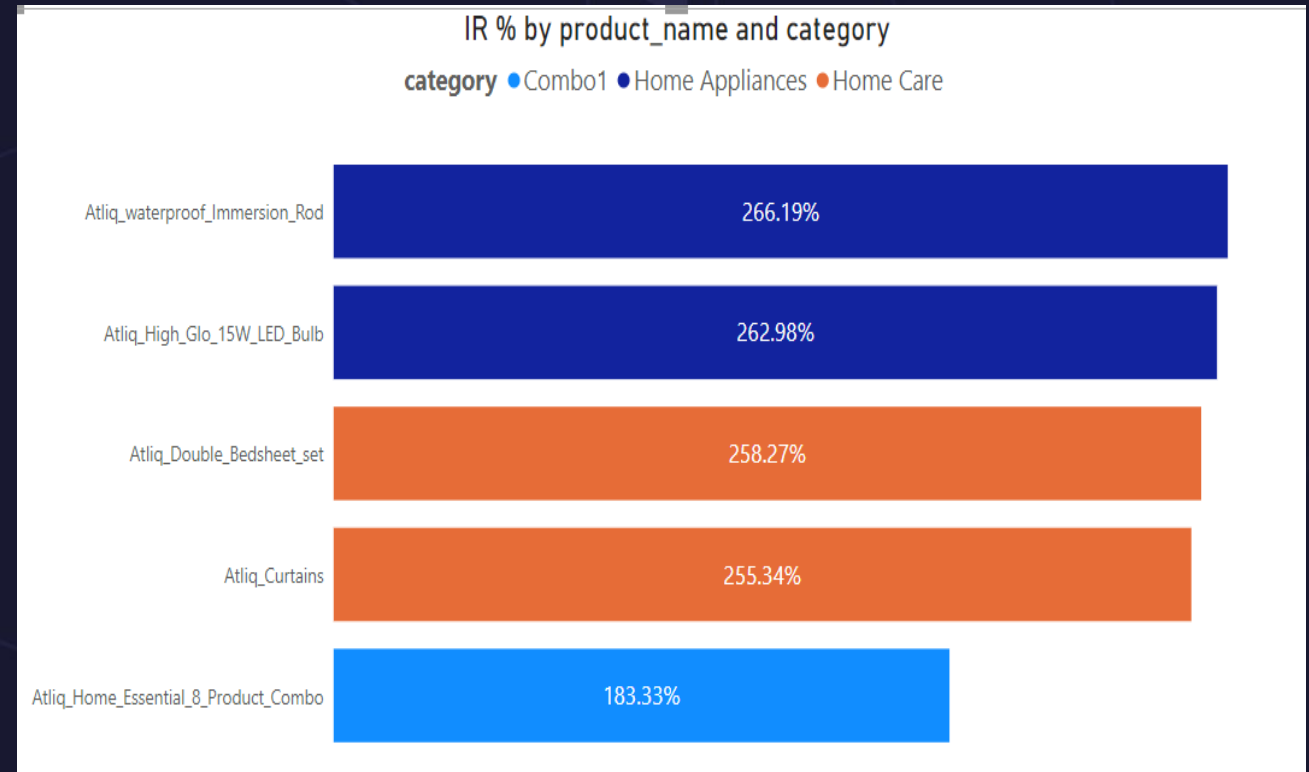
## Request 5

5. Create a report featuring the Top 5 products, ranked by Incremental Revenue Percentage (IR%), across all campaigns. The report will provide essential information including product name, category, and IR%.

Top 5 products in terms of IR% across all Campaigns

product_name	category	IR_percentage
Atliq_waterproof_Immersion_Rod	Home Appliances	266
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	263
Atliq_Double_Bedsheet_set	Home Care	258
Atliq_Curtains	Home Care	255
Atliq_Home_Essential_8_Product_Combo	Combo1	183

IR% is the percentage change in sales revenue directly resulting from a promotional campaign.



IR% - Incremental Revenue Change Percentage

# INSIGHTS



1. Promotion Types: BOGOF (Buy One Get One Free) and cashback offers drive the highest revenue and sales compared to simple percentage-based discounts.
2. Product Performance: Personal care products significantly underperformed, especially during the festival season. Home appliances and home care were the most successful categories, making up 50% of overall sales.
3. Geographic Impact: Bengaluru, Chennai, and Mysuru generated the highest revenue. A positive correlation exists between store count and sales, with cities having more stores producing more revenue.
4. Promotion Success: The total revenue generated after promotions was approximately double the revenue before promotions, indicating strong promotion effectiveness.
5. ROI Variation: Diwali promotions had a highly positive ROI (78.8%), whereas Sankranti promotions showed a negative ROI (-21.9%).
6. Category-Promo Fit: Home Appliances and Home Care saw significant sales boosts with discounts, while BOGOF offers showed the strongest customer attraction across most categories.
7. Product Leaders and Laggards: Chakki Atta (1KG) was the top-selling product, with Sunflower Oil (1L) and Bulb following closely. Body lotion (200ML) and Dishwash had significantly lower sales and negative ISUs.
8. Margin Analysis: The 500 Cashback promotion type generated the best balance of ISU and margin, while the 25% off promo created the lowest margins.



# RECOMMENDATIONS



1. **Prioritize Proven Promotions:** Emphasize BOGOF and cashback offers due to their superior revenue-generating performance. Carefully consider the use of 25% off discounts.
2. **Address Personal Care Gap:** Investigate and address factors impacting the weak performance of personal care products, especially during festival seasons. Explore new product selections and innovative promotional pairings for this category.
3. **Leverage Category Success:** Continue marketing strategies that promote Home Appliances and Home Care, ensuring inventory and promotions are aligned with strong demand.
4. **Region-Specific Strategies:** Target high-potential areas like Bengaluru, Chennai, and Mysuru with tailored promotions. Expand store presence in these cities if feasible.
5. **Optimize Promotions by Festival:** Based on the variation in ROI, tailor promotional strategies to specific festivals. Deeper analysis is needed to understand the factors behind Sankranti's low return.
6. **Analyze the high performance of Chakki Atta and similar products** to gain insights into customer preferences. Identify and address the issues plaguing low-selling products like Body Lotion and Dishwash.
7. **Explore Cashback Potential** to Maximize the benefits of 500 Cashback promotions to optimize sales and margins. Test this structure carefully with other product categories.



THANK YOU

