PROMOTIONAL PERFORMANCE ANALYSIS

Analyzing the impact of Diwali & Sankranti 2024 campaigns for AtliQ Mart

By Rutuja Karne

PROBLEM STATEMENT

AtliQ Mart, a major retail chain in South India, launched festive promotional campaigns during Diwali 2023 and Sankranti 2024. The Sales Director required a quick and detailed analysis of which promotions, stores, and products contributed most to increased revenue and units sold – to support better planning for future campaigns.

TOOLS & DATA USED

Tools Used:

- Microsoft Excel (Pivot tables, Power Pivot, KPIs, Dashboards)
- MySQL (Business queries, reporting)

Datasets Used:

- fact_events – sales data with promo types and quantities
- dim_campaigns – campaign ID, name, and dates
- dim_products – product info and categories
- dim_stores – store IDs and cities

APPROACH & METHODOLOGY

The project is divided into two parts:

1. Primary Analysis - Analyse the data and answer ad-hoc requests using MySQL.
2. Secondary Analysis – Create a dashboard with important metrics and visualizations using Excel

Data Preparation:

- Imported and cleaned data from 4 CSV files (campaigns, products, stores, events) into Excel and MySQL

Excel Analysis & Dashboarding:

- Built interactive dashboards using Power Pivot, KPIs, measures, and slicers for visual insights

SQL-Based Reporting:

- Used MySQL Workbench to answer critical business questions with query outputs

PRIMARY ANALYSIS

1) Provide a list of products with a base price greater than 500 and that are featured in promo type of 'BOGOF'

Query

```
SELECT DISTINCT( d.product_name) , f.base_price
FROM fact_events as f
JOIN dim_products as d
ON f.product_code = d.product_code
WHERE base_price >500 AND promo_type = 'BOGOF';
```

Output

	product_name	base_price
▶	Atliq_Double_Bedsheet_set	1190
	Atliq_waterproof_Immersion_Rod	1020

2) Generate a report that provides an overview of the number of stores in each city,sorted by store count descending

Query

```
SELECT city,COUNT(*) AS store_count from
dim_stores
GROUP BY city
ORDER BY store_count DESC;
```

Output

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

Insights

Bengaluru has most stores and chennai has second most , In contrast Trivandrum and Vijayawada have fewest stores

3) Display each campaign with total revenue before and after the campaign (in millions)

Query

```
SELECT
 d.campaign_name,
 CONCAT(ROUND(SUM(f.base_price * f.`quantity_sold(before_promo)`) / 1000000, 2), 'M')
                AS `Total_Revenue(Before_Promotion)`,
 CONCAT(ROUND(SUM(
  CASE
  WHEN f.promo_type = 'BOGOF' THEN f.base_price * 0.5 * 2 * f.`quantity_sold(after_promo)`
  WHEN f.promo_type = '50% OFF' THEN f.base_price * 0.5 * f.`quantity_sold(after_promo)`
  WHEN f.promo_type = '25% OFF' THEN f.base_price * 0.75 * f.`quantity_sold(after_promo)`
  WHEN f.promo_type = '33% OFF' THEN f.base_price * 0.67 * f.`quantity_sold(after_promo)`
  WHEN f.promo_type = '500 cashback' THEN (f.base_price - 500) *
                                          f.`quantity_sold(after_promo)`
    END
    ) / 1000000, 2), 'M') AS `Total_Revenue(After_Promotion)`
FROM fact_events AS f
JOIN dim_campaigns AS d
    ON f.campaign_id = d.campaign_id
GROUP BY d.campaign_id, d.campaign_name;
```

Output

	campaign_name	Total_Revenue(Before_Promotion)	Total_Revenue(After_Promotion)
▶	Sankranti	58.13M	124.15M
	Diwali	82.57M	171.46M

Insights

During both diwali and sankranti , there has been significant increase in revenue ,indicating a positive impact of promotion on sales during these festive periods

4) Calculate the Incremental Sold Quantity % (ISU%) for each category during the Diwali campaign, and rank them

Query

```
WITH cte1 AS (
    SELECT f.*, d.campaign_name,p.category,
        CASE
            WHEN f.promo_type = 'BOGOF' THEN f.`quantity_sold(after_promo)` * 2
            ELSE f.`quantity_sold(after_promo)`
        END AS quantities_sold_AP
    FROM retail_events_db.fact_events AS f
    JOIN retail_events_db.dim_campaigns AS d ON f.campaign_id = d.campaign_id
    JOIN retail_events_db.dim_products AS p ON f.product_code = p.product_code
    WHERE d.campaign_name = 'Diwali'),
cte2 AS ( SELECT campaign_name, category,
        ROUND(((SUM(quantities_sold_AP) - SUM(f.`quantity_sold(before_promo)`)) /
        SUM(f.`quantity_sold(before_promo)`)) * 100, 2) AS `ISU%`
    FROM cte1 AS f
    GROUP BY campaign_name, category
)
SELECT campaign_name, category, `ISU%`,
    RANK() OVER (ORDER BY `ISU%` DESC) AS `ISU%_Rank`
FROM cte2;
```

Output

campaign_name	category	ISU%	ISU%_Rank
Diwali	Home Appliances	588.45	1
Diwali	Home Care	203.14	2
Diwali	Combo1	202.36	3
Diwali	Personal Care	31.06	4
Diwali	Grocery & Staples	18.05	5

Insights

Home Appliances and Home care have highest incremental sold unit percentage (ISU%) On other hand Grocery % Staples has lowest ISU%,indicating that smallest rise in units sold

5) Generate a report listing the Top 5 products by IR% across all campaigns, providing product name, category, and IR%

Query

```
WITH cte1 AS (SELECT p.category,p.product_name,
 SUM(f.base_price * f.`quantity_sold(before_promo)`) AS Total_Revenue_BP,
 SUM(
 CASE
 WHEN f.promo_type = 'BOGOF' THEN f.base_price * 0.5 * 2 * f.`quantity_sold(after_promo)`
 WHEN f.promo_type = '50% OFF' THEN f.base_price * 0.5 * f.`quantity_sold(after_promo)`
 WHEN f.promo_type = '25% OFF' THEN f.base_price * 0.75 * f.`quantity_sold(after_promo)`
 WHEN f.promo_type = '33% OFF' THEN f.base_price * 0.67 * f.`quantity_sold(after_promo)`
 WHEN f.promo_type = '500 cashback' THEN (f.base_price - 500) *
                            f.`quantity_sold(after_promo)`
 END) AS Total_Revenue_AP
    FROM retail_events_db.fact_events AS f
    JOIN retail_events_db.dim_products AS p ON f.product_code = p.product_code
    JOIN retail_events_db.dim_campaigns AS d ON f.campaign_id = d.campaign_id
    GROUP BY p.product_name, p.category
),
cte2 AS (SELECT *,(Total_Revenue_AP - Total_Revenue_BP) AS IR,
        ROUND(((Total_Revenue_AP - Total_Revenue_BP) / Total_Revenue_BP) * 100, 2) AS `IR%`
    FROM cte1)
SELECT product_name,category,IR,`IR%`,
    RANK() OVER (ORDER BY `IR%` DESC) AS Rank IR FROM cte2 LIMIT 5;
```

Output

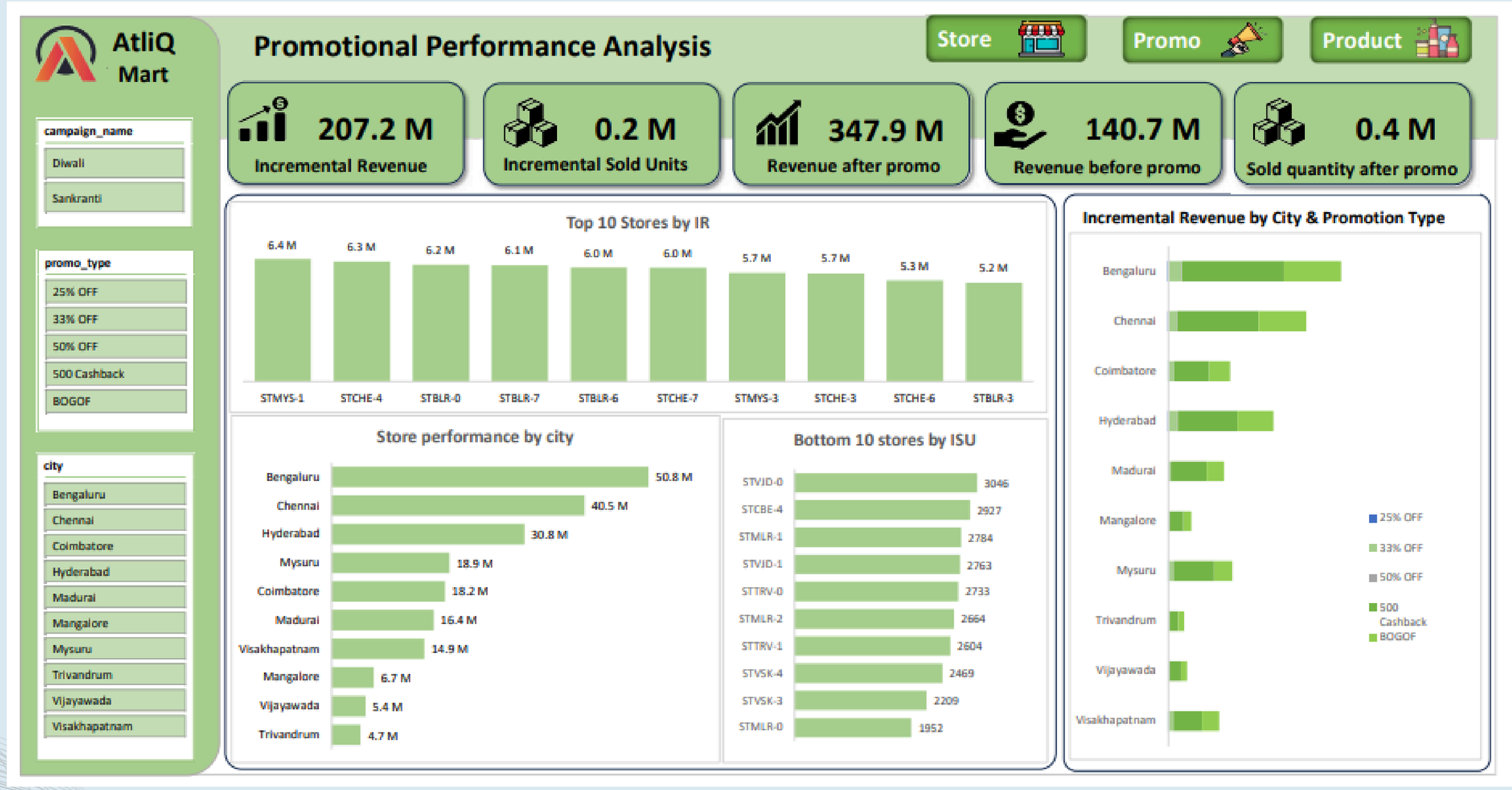
product_name	category	IR	IR%	Rank_IR
Atliq_waterproof_Immersion_Rod	Home Appliances	17561340.00	266.19	1
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	7589050.00	262.98	2
Atliq_Double_Bedsheet_set	Home Care	12917450.00	258.27	3
Atliq_Curtains	Home Care	3517500.00	255.34	4
Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	17363475.00	160.01	5

Insight

Atliq_waterproof_immersion_Rod from home appliances category shows the highest incremental revenue (IR%)

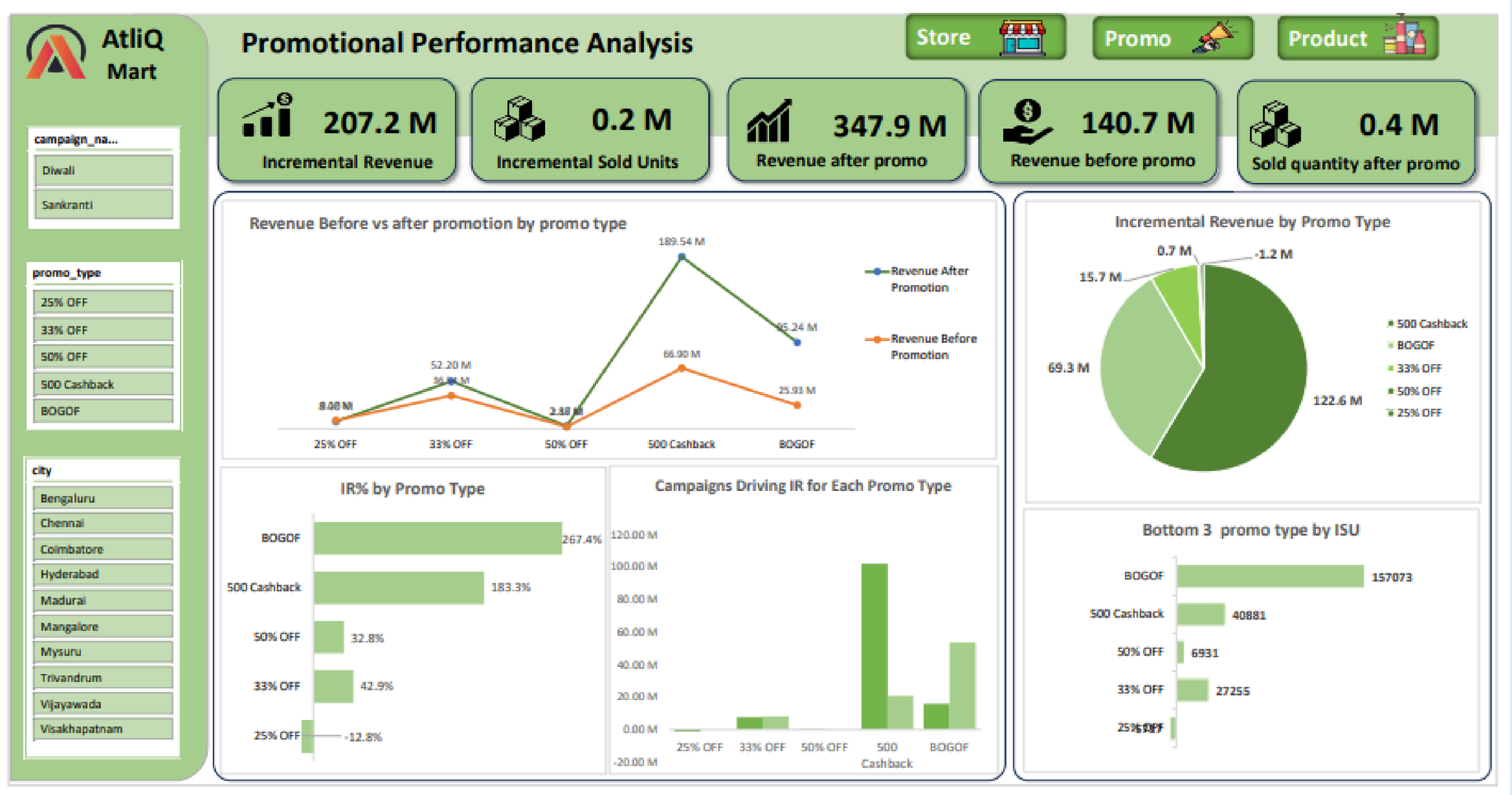
SECONDARY ANALYSIS

Store Performance Analysis View



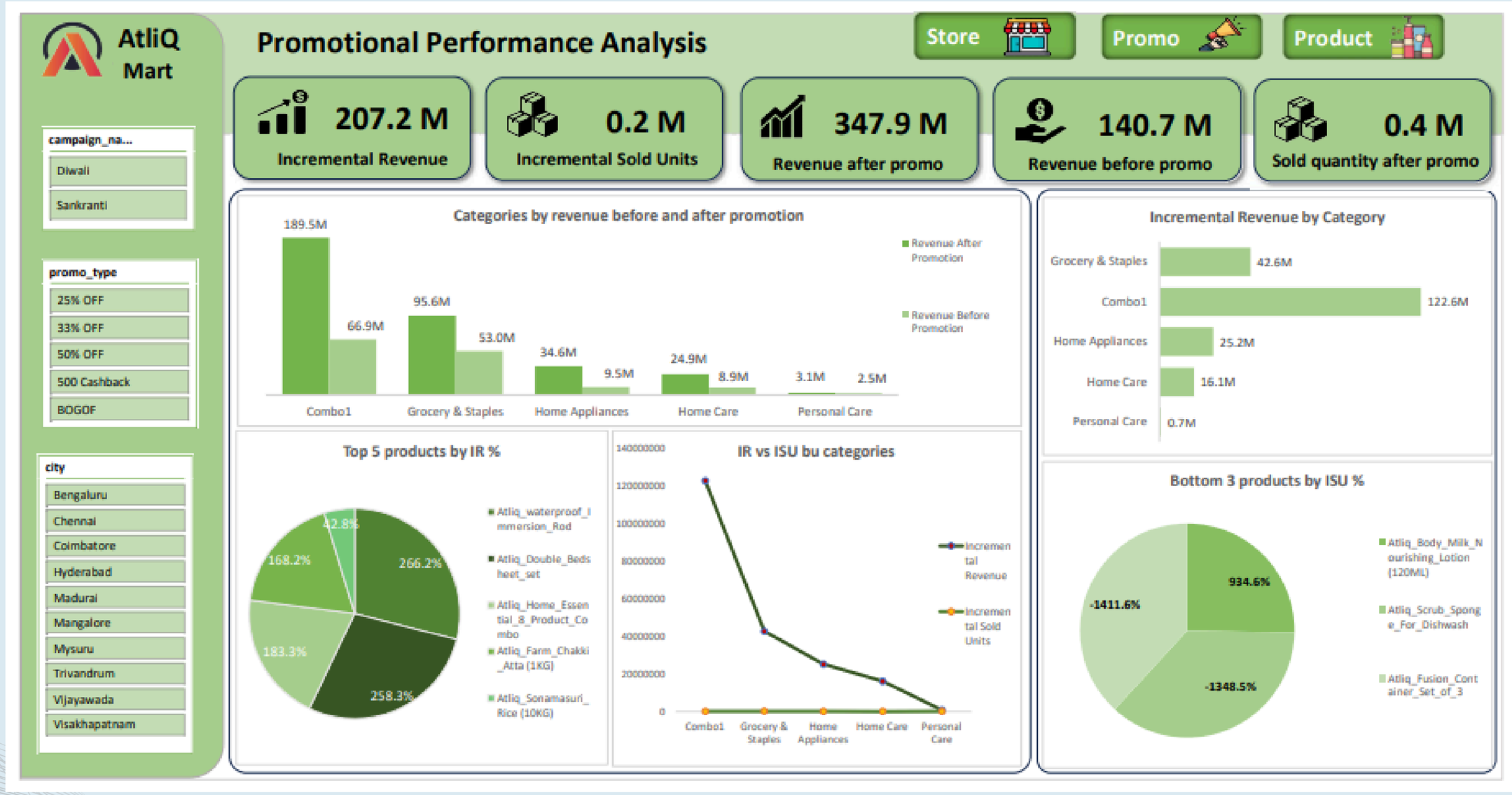
SECONDARY ANALYSIS

Promotion Type Analysis View



SECONDARY ANALYSIS

Product and Category Analysis View



KEY INSIGHTS

- 500 Cashback promotions led to the highest incremental revenue, especially during Diwali.
- BOGOF drove the most incremental units sold, making it ideal for boosting volume.
- Cities like Bengaluru and Hyderabad delivered the strongest store performance.
- Home Appliances and Grocery categories saw the highest revenue uplift.
- Personal Care showed limited response to promotions, indicating low effectiveness.
- SQL analysis helped identify top 5 products with highest incremental revenue % across all campaigns.

RECOMMENDATIONS

- Focus future promotions on cashback and BOGOF, as they delivered strong results in revenue and volume respectively.
- Allocate higher budgets and inventory to top-performing cities and categories like Home Appliances and Grocery.
- Reevaluate promotional strategies for underperforming stores and low-response categories like Personal Care.
- Use data-driven product targeting by leveraging insights from high-IR% products identified in SQL analysis.
- Maintain a balance between volume growth and profit margins by choosing promo types aligned with category behavior.

THANK YOU