



ATLIQ MART

**FESTIVE SALES
ANALYTICS**

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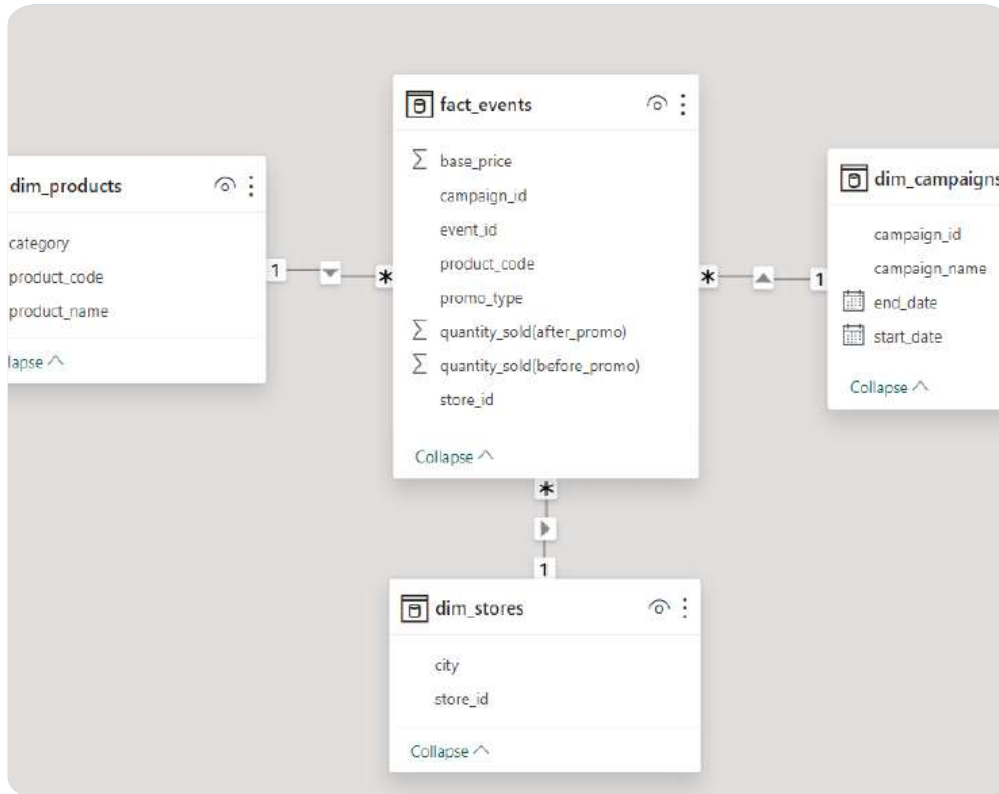
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PROBLEM STATEMENT

AtliQ Mart is a retail giant with over 50 supermarkets in the southern region of India. All their 50 stores ran a massive promotion during the Diwali 2023 and Sankranti 2024 (festive time in India) on their AtliQ branded products. Now the sales director wants to understand which promotions did well and which did not so that they can make informed decisions for their next promotional period.



DATA MODELLING



1. dim_campaigns

2. dim_products

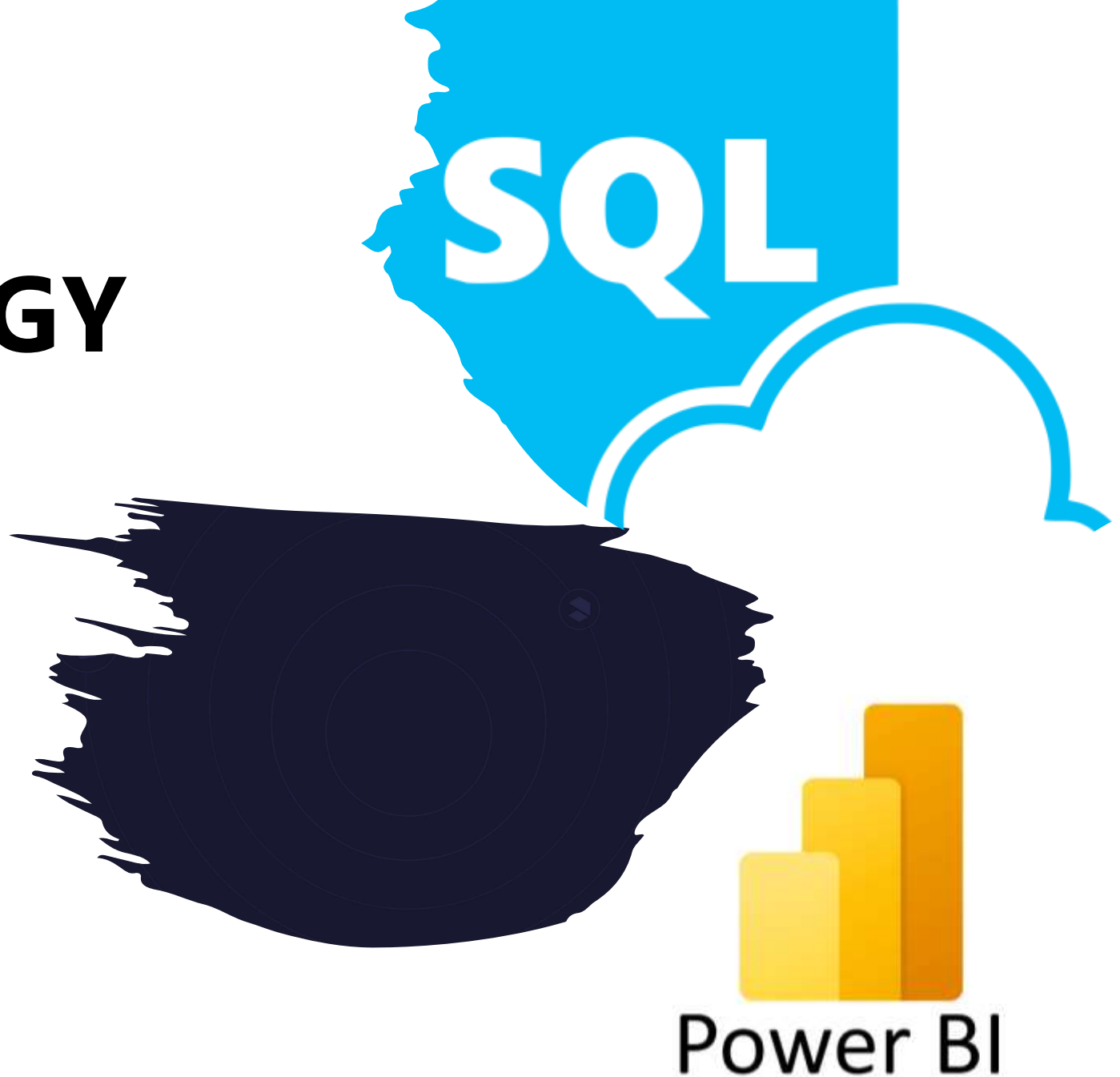
3. dim_stores

4. fact_events

METHODOLOGY

To analyze the data, I utilized SQL to extract meaningful insights from our raw database. These queries help us to provide actionable insights and given necessary information to make decision and strategic planning.

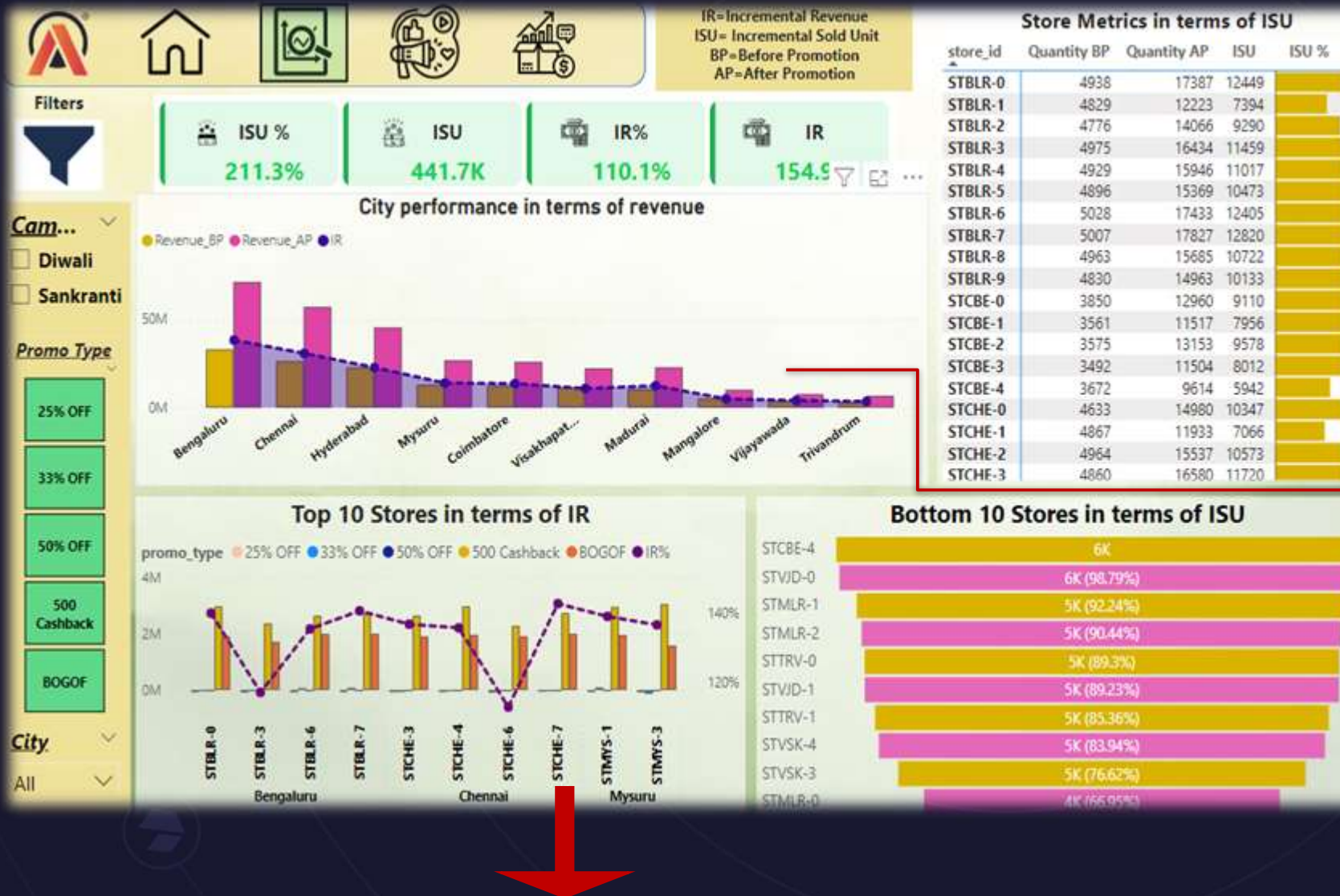
For visualization, I utilized Power BI that convey our findings effectively. Using appropriate charts, customized colors, labels, and titles to enhance readability. Creating dashboards, reports to dive deeper into specific aspects.





DATA VISUALIZATION

PERFORMANCE ANALYSIS

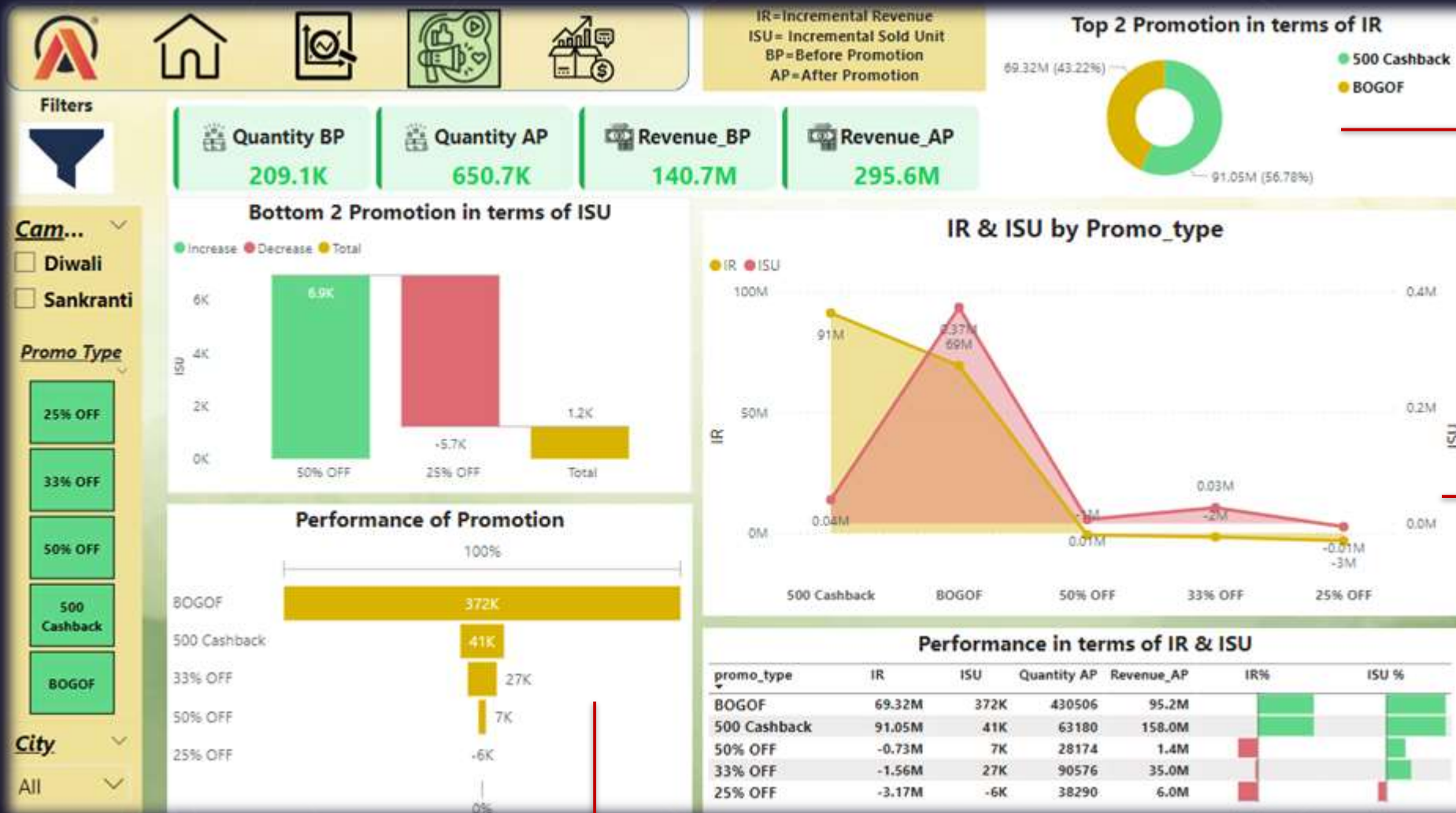


Bengaluru city leading in store performance generated highest revenue and sold quantity. Store STBLR-0,3,6,7 have performed well shows significant incremental revenue during promotional period followed by Chennai and other cities.

In performance analysis we can notice that bottom 10 stores in terms of Incremental Sold Units are from Mangalore, Visakhapatnam, Trivandrum and followed by others city. This cities have lower frequency of promotional activities. Hence, we must focus more on promotion activity specially on BOGOF & cashback.

In performance analysis we can notice that top 10 stores in terms of Incremental Revenue are from Bengaluru, Chennai followed by Mysuru . While Bengaluru & Chennai have high number of stores and promotional frequency while Mysuru have less promotional frequency still achieved high sales & leading in store performance particularly in cash back & BOGOF promotional offer. The common strategy derive that BOGOF or Cashback offer can be leveraged across other stores.

Promotion Analysis

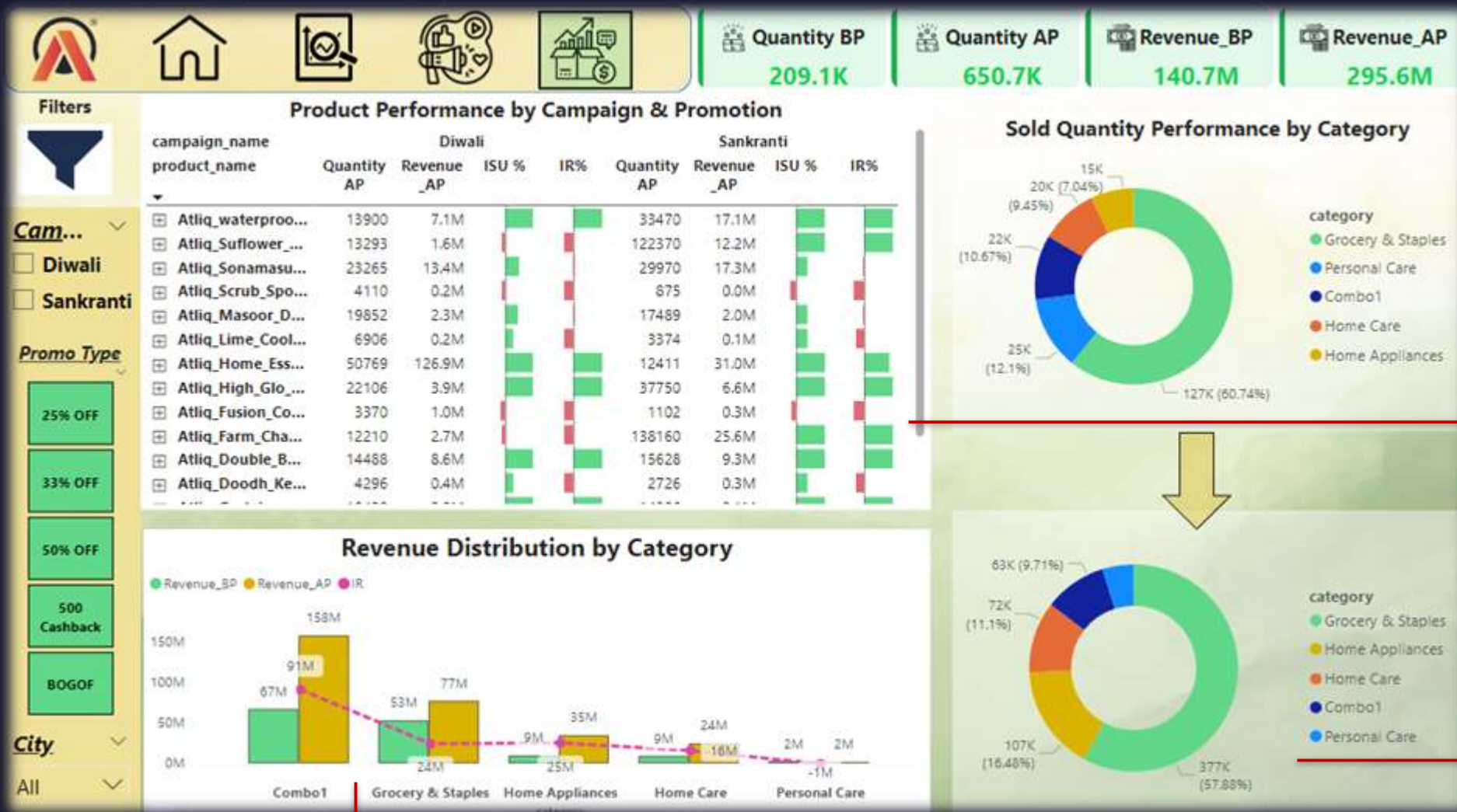


In Promotion analysis we can notice that Top 2 promotion in terms of IR are ₹500 cashback & BOGOF which gives positive outcome to generate revenue and sold quantity. Among all promotion type ₹500 cashback hold 50.78% share & generate 91.05M revenue followed by BOGOF 43.22% share & 69.32M revenue.

BOGOF strikes the best balance between Incremental Sold Units and maintaining healthy margins followed by ₹500 cashback promotion.

Discount based promotion shows negative impact on incremental revenue such as 50% OFF & 25% OFF. These are the bottom 2-promotion type. 33% OFF also contributes positively compared to 50% OFF & 25% OFF.

Product & Category Analysis



In Product & Category analysis we can notice that by Product wise Atliq Waterproof Immersion Rod have generated along 24.16M revenue & 7.28% sold quantity share followed by Atliq high glow led bulb 10.47M revenue & 9.2% sold quantity share, Atliq double bedsheet set 17.92M revenue & 4.63% sale share. On the other hand, Atliq Doodh Kesar Body Lotion, Atliq beauty bathing soap have poorly performed during promotion period.

In terms of category wise Grocery & Staples have seen most significant lift in sold quantity specially in Sankranti promotion.

Combo 1 has generated highest revenue 157.95M & 57.88% sold quantity share in terms of category wise followed by Grocery & Staples & Home Appliances.

Business Insights



Bengaluru generated the highest revenue 71M followed by **Chennai** city.

Suggesting expand store count & strategically increase promotion activities during festive season in cities like **Mangalore, Trivandrum, Visakhapatnam**.

Groceries & Staples category demonstrated a significant impact during promotional period reaching 77Million and Sold Units totaling 376.6 K units. **Personal Care** category yielded lower results, with at 1.7Million and Sold Units 31.5 K units.

BOGOF & 500 Cashback drive significant sales and revenue growth whereas **50% Off & 33% Off** have mixed impact on sales and revenue growth & **25% Off** have negative impact.

Sankranti campaign outperformed **Diwali** campaign, generating more revenue and sold units.



AD-HOC REQUESTS



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 p.product_name, f.promo_type, f.base_price
from fact_events f
join dim_products p
on f.product_code = p.product_code
where base_price > 500 and promo_type = "BOGOF"
group by product_name
```



product_name	promo_type	base_price
Atliq_Double_Bedsheet_set	BOGOF	1190
Atliq_waterproof_Immersion_Rod	BOGOF	1020

2. Generate a report that provides an overview of the number of stores in each city. The results will be sorted in descending order of store counts, allowing us to identify the cities with the highest store presence. The report includes two essential fields: city and store count, which will assist in optimizing our retail operations.

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



```
select city,count(store_id) as store_count
from dim_stores
group by city
order by store_count desc
```

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_promotion), total_revenue(after_promotion). This report should help in evaluating the financial impact of our promotional campaigns.(Display the values in millions)



```
with cte1 as(
select c.campaign_name,c.campaign_id,e.base_price,
`quantity_sold(before_promo)` as quantity_sold_before_promo,
case
WHEN promo_type = "25% off" THEN base_price * (1 - 0.25)
WHEN promo_type = "33% off" THEN base_price * (1 - 0.33)
WHEN promo_type = "50% off" THEN base_price * (1 - 0.50)
WHEN promo_type = "bogof" THEN base_price * (1 - 0.50)
WHEN promo_type = "500 cashback" THEN (base_price - 500)
else base_price
end as new_promo_price,
case
when promo_type = "bogof" then `quantity_sold(after_promo)`*2
else `quantity_sold(after_promo)` end as quantity_sold_after_promo
from fact_events e
join dim_campaigns c
on c.campaign_id=e.campaign_id),
cte2 as (
select campaign_name,
round(sum((base_price*quantity_sold_before_promo))/1000000,2) as total_revenue_before_promo,
round(sum((new_promo_price*quantity_sold_after_promo))/1000000,2) as total_revenue_after_promo
from cte1
group by campaign_name)
select * from cte2
```


Result Grid Filter Rows: Export: Wrap Cell Content:			
	campaign_name	total_revenue_before_promo	total_revenue_after_promo
▶	Sankranti	58.13	124.15
	Diwali	82.57	171.46



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. This information will assist in assessing the category-wise success and impact of the Diwali campaign on incremental sales.



```
with cte1 as(
select p.category,c.campaign_name,
sum(`quantity_sold(before_promo)`)as quantity_sold_before_promo,
sum(promo_quantity) as quantity_sold_after_promo
from fact_events e
join dim_products p on e.product_code = p.product_code
join dim_campaigns c on e.campaign_id = c.campaign_id
where campaign_name= "diwali"
group by category
),
cte2 as (select category,quantity_sold_after_promo,quantity_sold_before_promo,
(quantity_sold_after_promo - quantity_sold_before_promo) as Incremental_Quantity,
round(((quantity_sold_after_promo-quantity_sold_before_promo)/quantity_sold_before_promo*100),2)as ISU_per
from cte1)
select *, dense_rank () over(order by ISU_per desc) as rank_
from cte2
```




category	quantity_sold_after_promo	quantity_sold_before_promo	Incremental_Quantity	ISU_per	rank_
Home Appliances	36006	5230	30776	588.45	1
Home Care	40396	13326	27070	203.14	2
Combo1	50769	16791	33978	202.36	3
Personal Care	22074	16843	5231	31.06	4
Grocery & Staples	68620	58129	10491	18.05	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%. This analysis helps identify the most successful products in terms of incremental revenue across our campaigns, assisting in product optimization.



```
WITH cte1 AS (  
  SELECT p.category,p.product_name,e.base_price,  
    `quantity_sold(before_promo)` as quantity_before_promo,  
  CASE  
    WHEN promo_type = "50% off" THEN base_price * (1 - 0.50)  
    WHEN promo_type = "25% off" THEN base_price * (1 - 0.25)  
    WHEN promo_type = "bogof" THEN base_price * (1 - 0.50)  
    WHEN promo_type = "500 cashback" THEN (base_price - 500)  
    WHEN promo_type = "33% off" THEN base_price * (1 - 0.33)  
    ELSE base_price END AS new_promo_price,  
  CASE  
    when promo_type = "bogof" then `quantity_sold(after_promo)`*2  
    ELSE `quantity_sold(after_promo)`  
  END AS quantity_after_promo  
  FROM fact_events e JOIN dim_products p ON e.product_code = p.product_code ),  
cte2 AS (  
  SELECT category,product_name,  
    SUM(base_price * quantity_before_promo) AS before_revenue,  
    SUM(new_promo_price * quantity_after_promo) AS after_revenue  
  FROM cte1 GROUP BY category,product_name),  
cte3 AS (  
  SELECT product_name,category,  
    round((after_revenue - before_revenue)/"1000000",2) AS IR_in_millions,  
    round((after_revenue -before_revenue)/ before_revenue,2) AS IR_per  
  FROM cte2)  
SELECT * , rank() over(order by IR_per DESC) as IR_rank FROM cte3 limit 5;
```



product_name	category	IR_in_millions	IR_per	IR_rank
Atliq_waterproof_Immersion_Rod	Home Appliances	17.56	2.66	1
Atliq_High_Glo_15W_LED_Bulb	Home Appliances	7.59	2.63	2
Atliq_Double_Bedsheet_set	Home Care	12.92	2.58	3
Atliq_Curtains	Home Care	3.52	2.55	4
Atliq_Farm_Chakki_Atta (1KG)	Grocery & Staples	17.36	1.60	5



Thank You

