

Analyzing FMCG Promotions for Tangible Sales Insights





Archana Balasubramanian

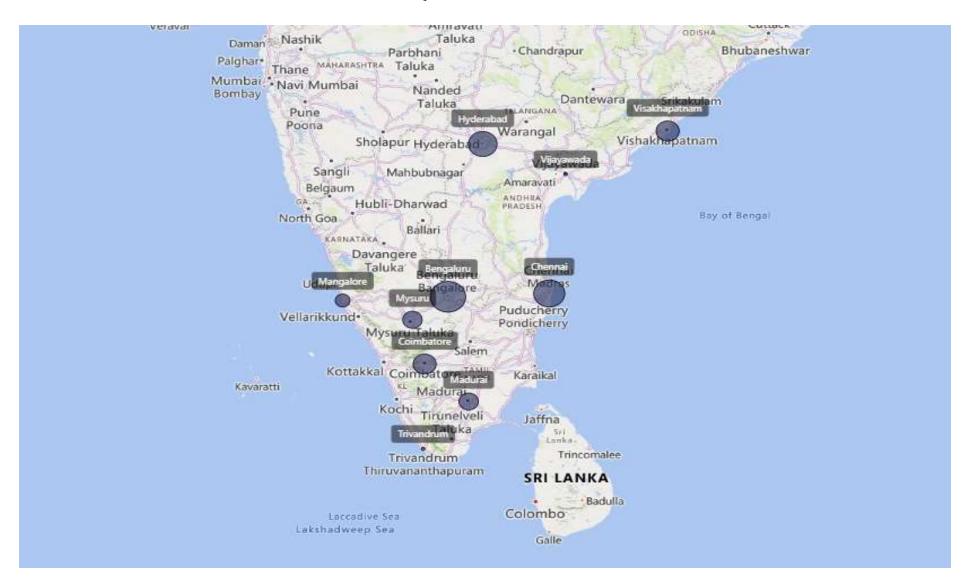
AtliQ's Business Model



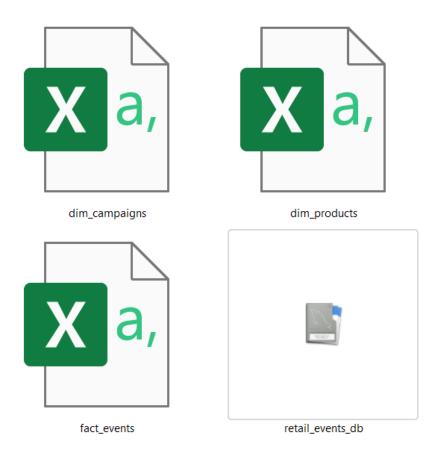
- ➤ AtliQ Mart: Leading retail giant with 50+ supermarkets in southern India.
- Promotions: All 50 stores conducted extensive promotions during Diwali 2023 and Sankranti 2024.
- ➤ **Objective**: Sales Director Bruce Haryali seeks insights into promotion performance for informed decisions.



AtliQ's Stores

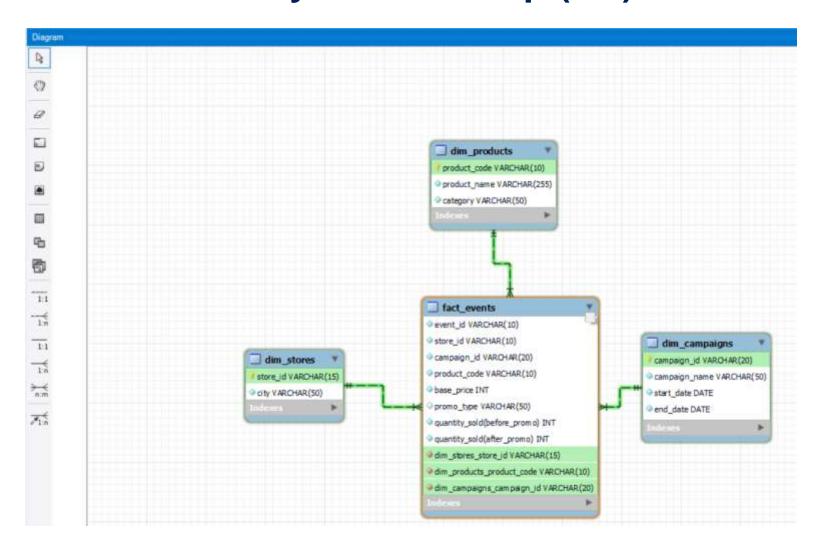


Datasets provided by AtliQ's Data Engineers



dim_stores

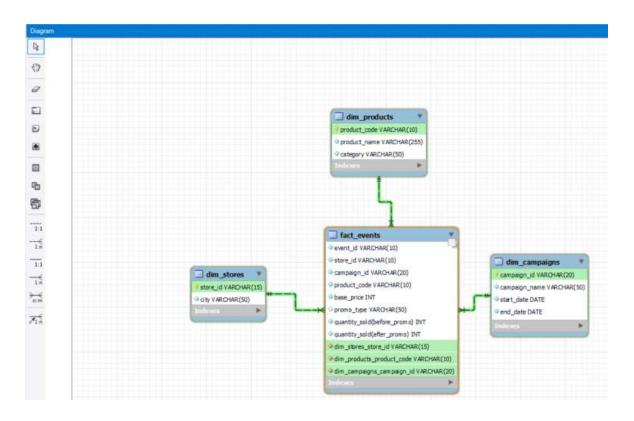
Entity-Relationship (ER) model

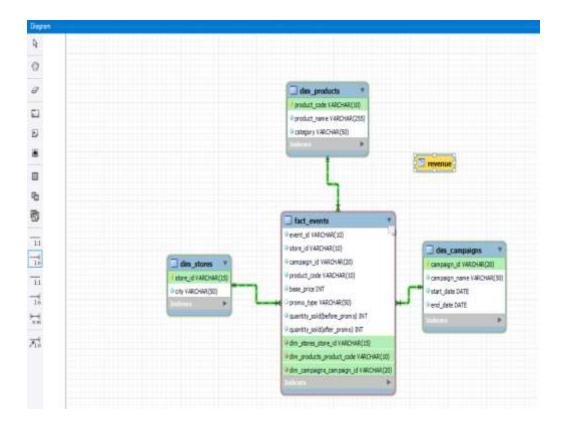


View Query

```
. .
CREATE VIEW "Revenue" AS
with ctel as
(Select *.
    case
        when promo_type='50% OFF' then base_price*0.5
        when promo_type='25% OFF' then base_price*0.75
        when promo type='BOGOF' then base price/2
        when promo type='500 Cashback' then base price-500
        when promo_type='33% OFF' then base_price*0.67
     end as Base_price_after_promo,
     case
            when promo_type="BOGOF" then 'quantity_sold(after_promo)'*2
            else 'quantity_sold(after_promo)
    end as Sales_After_Promo
From fact_events
 cte2 as(
Select e.event_id,e.store_id,s.city,e.campaign_id,c.campaign_name,e.product_code,p.product_name,
p.category, e.base price, e. quantity sold(before promo) , e. promo type, ct. Sales After Promo,
ct.Base_price_after_promo,
  e.Base price *e. 'quantity sold(before promo)' as Revenue Before Promo,
    ct.base_price_after_promo *ct.Sales_After_Promo as Revenue_After_Promo
 From fact events e
 join dim campaigns c
 using(campaign_id)
 join ctel ct
 using(event_id)
 join dim_products p
on p.product code=e.product code
 join dim_stores s
 on e.store_id=s.store_id
 Select cte2.*, (Revenue_after_promo - Revenue_before_promo) As IR,
 (Sales_After_Promo - 'quantity_sold(before_promo)' ) as ISU
 From cte2
  return go(f, seed, [])
```







View Table

event_id	store_id	city	campaign_id	campaign_name	product_code	product_name	category	base_price
7f650b	STCBE-2	Coimbatore	CAMP_SAN_01	Sankranti	P11	Atiq_Doodh_Kesar_Body_Lotion (Personal Care	190
a21f91	STBLR-8	Bengaluru	CAMP_DIW_01	Diwali	P03	Atliq_Suflower_Oil (1L)	Grocery & Staples	156
78bc80	STVJD-0	Vijayawada	CAMP_SAN_01	Sankranti	P07	Atliq_Curtains	Home Care	300
a1503f	STCBE-1	Combatore	CAMP_DIW_01	Divali	P15	Atliq_Home_Essential_8_Product_C	Combo1	3000
1091cf	STBLR-6	Bengaluru	CAMP_DIW_01	Divali	P05	Atliq_Scrub_Sponge_For_Dishwash	Home Care	55
8.02E+96	STBLR-4	Bengaluru	CAMP_DIW_01	Diwali	P11	Atliq_Doodh_Kesar_Body_Lotion (Personal Care	190
73d86f	STVSK-2	Visakhapatnam	CAMP_SAN_01	Sankranti	P10	Atliq_Cream_Beauty_Bathing_Soa	Personal Care	50
fe3560	STHYD-4	Hyderabad	CAMP_DIW_01	Diwali	P13	Atliq_High_Glo_15W_LED_Bulb	Home Appliances	350
6b2afc	STCBE-4	Combatore	CAMP_SAN_01	Sankranti	P08	Atliq_Double_Bedsheet_set	Home Care	1190
ce5851	STMDU-2	Madurai	CAMP_SAN_01	Sankranti	P03	Atliq_Suflower_Oil (1L)	Grocery & Staples	200
dd6685	STMYS-2	Mysuru	CAMP_DIW_01	Diwali	P06	Atliq_Fusion_Container_Set_of_3	Home Care	415
8f25a6	STHYD-6	Hyderabad	CAMP_SAN_01	Sankranti	P15	Atliq_Home_Essential_8_Product_C	Combo1	3000
5c3c33	STCHE-6	Chennai	CAMP_DIW_01	Dwali	P12	Atliq_Lime_Cool_Bathing_Bar (125	Personal Care	62
d290a1	STBLR-3	Bengaluru	CAMP_DIW_01	Divali	P04	Atiq_Farm_Chakki_Atta (1KG)	Grocery & Staples	290
635862	STVSK-4	Visakhapatnam	CAMP SAN 01	Sankranti	P02	Atlig Sonamasuri Rice (10KG)	Grocery & Staples	860

quantity_sold(before_promo)	promo_type	Sales_After_Promo	Base_price_after_promo	Revenue_Before_Promo	Revenue_After_Promo	IR	ISU
34	50% OFF	52	95.0	6460	4940.0000	-1520.0000	18
393	25% OFF	322	117.00	61308	37674.0000	-23634.0000	-71
22	BOGOF	170	150.0000	6600	25500.0000	18900.0000	148
329	500 Cashback	1000	2500	987000	2500000.0000	1513000.0000	671
108	25% OFF	93	41.25	5940	3836.2500	-2103,7500	-15
91	50% OFF	116	95.0	17290	11020.0000	-6270.0000	25
31	25% OFF	26	37.50	1550	975.0000	-575.0000	-5
73	BOGOF	490	175.0000	25550	85750.0000	60200.0000	417
30	BOGOF	158	595.0000	35700	94010.0000	58310.0000	128
318	BOGOF	2530	100.0000	63600	253000.0000	189400.0000	221
78	25% OFF	70	311.25	32370	21787.5000	-10582.5000	-8
126	500 Cashback	302	2500	378000	755000.0000	377000.0000	176
154	50% OFF	207	31.0	9548	6417.0000	-3131.0000	53
343	25% OFF	270	217.50	99470	58725.0000	-40745.0000	-73
348	33% OFF	480	576.20	299280	276576.0000	-22704.0000	132

Analyzing Festive Promotions at AtliQ Mart

- Sales & Revenue Analysis
- Store Analysis
- Promotion Analysis
- Product & Category Analysis





Sales & Revenue Analysis

#Task 1

Identify products priced over 500 rupees featured in the 'BOGOF' (Buy One Get One Free) promotion type. This analysis will aid in recognizing high-value products currently under heavy discount, essential for evaluating pricing and promotion strategies.











Base price: 1190





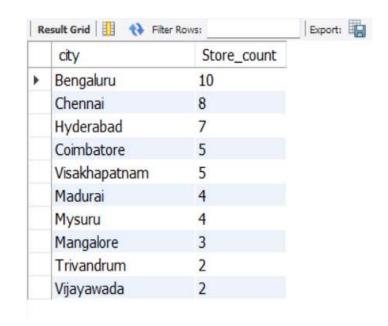
Atliq waterproof Immersion Rod

Base price: 1020

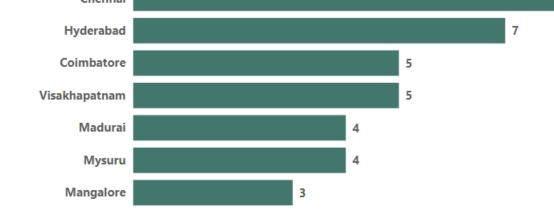
#Task 2

Generate a report detailing the number of stores in each city, sorted in descending order of store counts. This overview, featuring essential fields like city and store count, will aid in optimizing retail operations by identifying cities with the highest store presence.

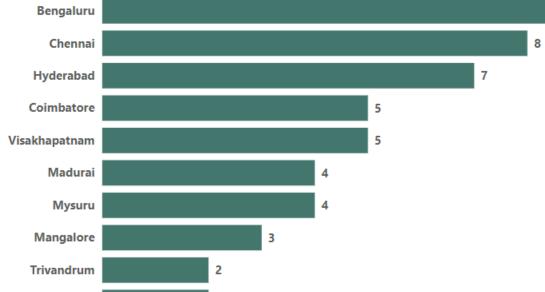




	city	Store_count	
٠	Bengaluru	10	
	Chennai	8	
	Hyderabad	7	
	Coimbatore	5	
	Visakhapatnam	5	
	Madurai	4	
	Mysuru	4	
	Mangalore	3	
	Trivandrum	2	
	Vijayawada	2	



Vijayawada



#Task 3

Generate a report on campaign performance, showcasing total revenue before and after each campaign. This analysis, featuring campaign names and revenue metrics in millions, helps evaluate the financial impact of our promotions.

```
Select campaign_name,
concat(round(sum(Revenue_Before_Promo)/1000000,2),'M') as Revenue_Before_Promotion,
concat(round(sum(Revenue_After_Promo)/1000000,2),'M') as Revenue_After_Promotion
From Revenue
group by campaign_name
order by campaign_name asc
```



(85.0	esult Grid 📗 💎 Filte	a kows:	Wrap Cell Content: IA		
	campaign_name	Revenue_Before_Promotion	Revenue_After_Promotion		
•	Diwali	82.57M	171.46M		
	Sankranti	58.13M	124.15M		









Incremental Revenue: 88.89 M

Incremental Revenue: 66.02 M

#Task 4

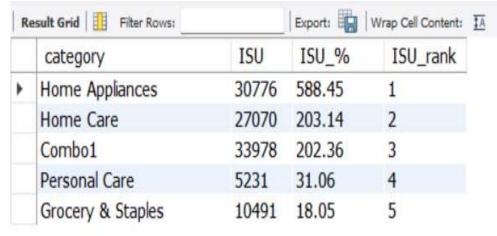
Produce a report calculating the Incremental Sold Quantity (ISU%) for each category during the Diwali campaign and provide rankings based on ISU%. This assists in assessing category-wise success and impact, presenting category, ISU%, and rank order.



	category	ISU	ISU_%	ISU_rank	
þ	Home Appliances	30776	588.45	1	
	Home Care	27070	203.14	2	
	Combo1	33978	202.36	3	
	Personal Care	5231	31.06	4	
	Grocery & Staples	10491	18.05	5	











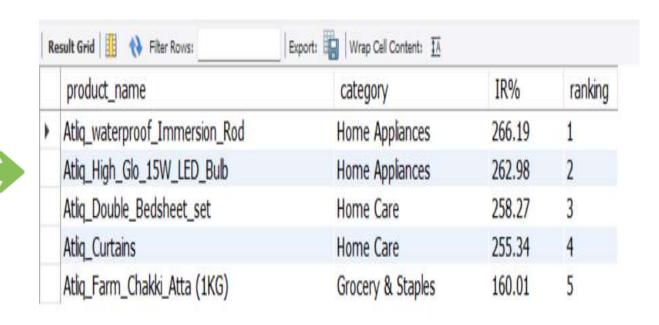




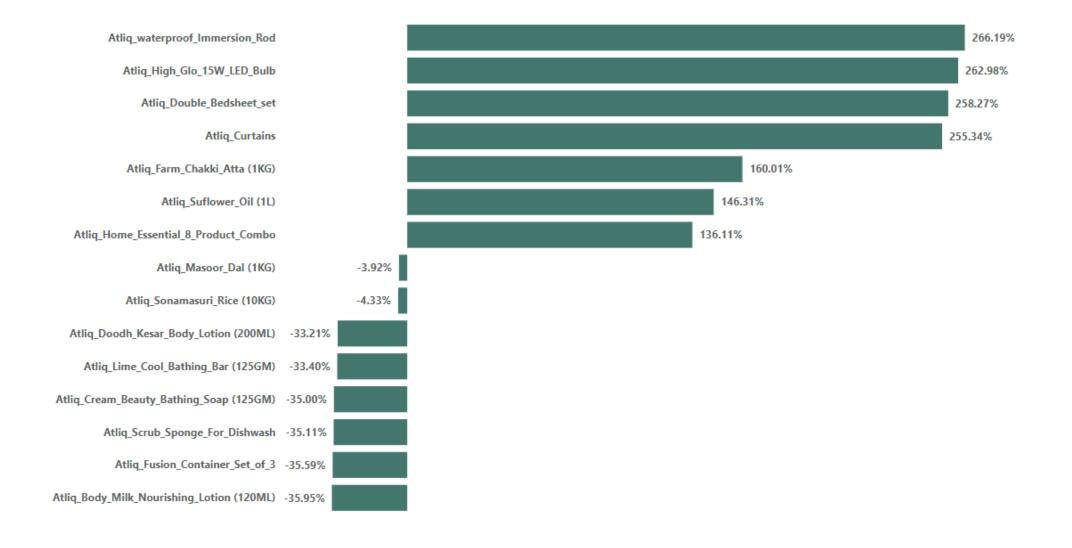
#Task 5

Generate a report showcasing the top 5 products ranked by Incremental Revenue Percentage (IR%) across all campaigns, displaying product name, category, and IR%. This analysis aids in identifying the most successful products in terms of incremental revenue, facilitating product optimization efforts.





Products by IR %



Campaign Analysis

> Sankranti

- Sales increased by 334,130
- Revenue surged by 66.02M
- Sales uplift percentage: 338.42%
- Revenue increase percentage: 113.58%

> Diwali

- Sales increased by 107,546 units
- Revenue surged by 88.89M
- Sales uplift percentage: 97.49%
- Revenue increase percentage: 107.64%

Both campaigns significantly boosted sales and revenue, with Sankranti showing slightly higher percentage increases.

Key Metrics of Revenue & Sales

 $Revenue_Before_Promotion$

140.70M

Revenue_After_Promotion

295.61M

Incremental Revenue (IR)

154.91M

IR %

110.10%

Incremental Sold Unit (ISU)

442K

ISU %

211.28%

Store Analysis

Top 10 stores by Incremental Revenue

```
Select store_id,city,
concat(round(SUM(IR)/1000000,2),'M') as Incremental_Revenue
From Revenue
group by store_id,city
order by Incremental_Revenue desc
limit 10
```



	store_id	city	Incremental_Revenue
١	STMYS-1	Mysuru	4.92M
	STCHE-4	Chennai	4.83M
	STBLR-0	Bengaluru	4.76M
	STBLR-7	Bengaluru	4.72M
	STCHE-7	Chennai	4.65M
	STBLR-6 Bengaluru		4.61M
	STCHE-3	Chennai	4.41M
	STMYS-3	Mysuru	4.40M
	STCHE-6	Chennai	4.04M
	STBLR-3	Bengaluru	3.94M

Bottom 10 stores by Incremental Sold Unit

```
Select store_id,city,sum(ISU) as Incremental_Sold_Unit From Revenue group by store_id,city order by Incremental_Sold_Unit asc limit 10
```



	store_id	city	Incremental_Sold_Unit	
•	STMLR-0	Mangalore	3978	
	STVSK-3	Visakhapatnam	4553	
	STVSK-4	Visakhapatnam	4988	
	STTRV-1	Trivandrum	5072	
	STVJD-1	Vijayawada	5302	
	STTRV-0	Trivandrum	5306	
	STMLR-2	Mangalore	5374	
	STMLR-1	Mangalore	5481	
	STVJD-0	Vijayawada	5870	
	STCBE-4	Coimbatore	5942	

Store Insights

- > Top Performers: Chennai, Bengaluru, and Mysuru lead in both sales quantity and revenue.
- > Revenue Generation: Bengaluru stores generate the highest revenue.
- ➤ Incremental Revenue: Bengaluru stores, especially STBLR-0 and STBLR-7, show significant incremental revenue.
- > Promotional Impact: Promotions generally boost sales across locations.
- > Areas for Improvement:
 - Coimbatore and Madurai stores could improve sales and revenue.
 - Hyderabad and Visakhapatnam may benefit from refining promotional strategies.
 - Trivandrum and Mangalore stores show potential for growth.

Promo Analysis

Top 2 Promotions by Incremental Revenue

```
Select promo_type,
  concat(round(SUM(IR)/1000000,2),'M') as Incremental_Revenue
From Revenue
group by promo_type
order by Incremental_Revenue desc
limit 2
```

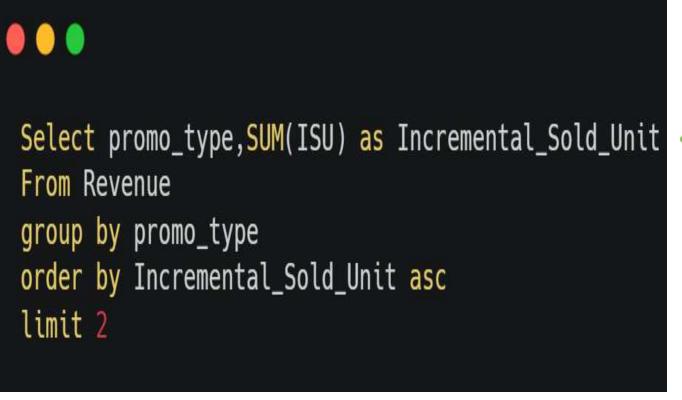








Bottom 2 Promotions by Incremental Revenue











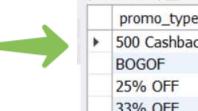
Significant difference of promo type BOGOF vs 500 cashback



R	esult Grid	Filter Rows:	Export: Wrap Cell Content: 1			
	promo_type	Incremental_Revenue	Incremental_Sold_Unit			
•	500 Cashback	91.05M	40881			
	BOGOF	69.32M	372326			

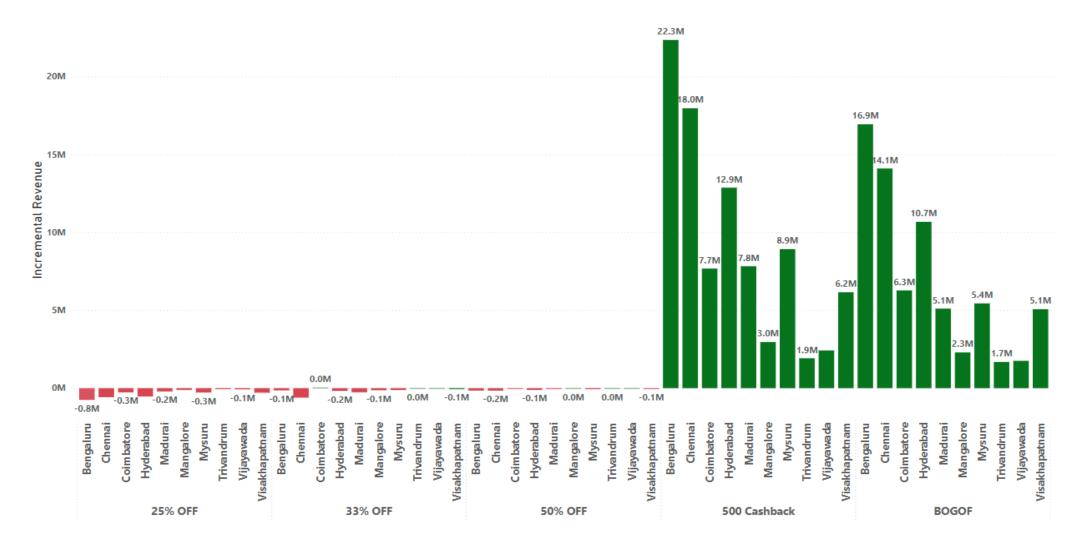
Promotion strikes the balance between IR and ISU

```
Select promo_type,sum(ISU) as ISU,
round(sum(ISU)/sum(`quantity_sold(before_promo)`)*100,2) as `ISU_%`,
CONCAT(ROUND(sum(IR)/1000000,2),'M') AS IR,
round(SUM(IR)/SUM(Revenue_Before_Promo)*100,2) as `IR%`
From revenue
group by promo_type
order by IR desc, ISU desc
```



	T o	T economica	Frank I wassan		
	promo_type	ISU	ISU_%	IR	IR%
٠	500 Cashback	40881	183.33	91.05M	136.11
	BOGOF	372326	639.96	69.32M	267.35
	25% OFF	-5717	-12.99	-3.17M	-34.61
	33% OFF	27255	43.04	-1.56M	-4.28
	50% OFF	6931	32.63	-0.73M	-33.60

Incremental Revenue of City by Promotions



Promo Insights

> Sold Units Impact

- "BOGOF" and "500 Cashback" boost sales significantly.
- "50% OFF" and "33% OFF" also contribute positively, but "25% OFF" decreases sales.

> Revenue Impact

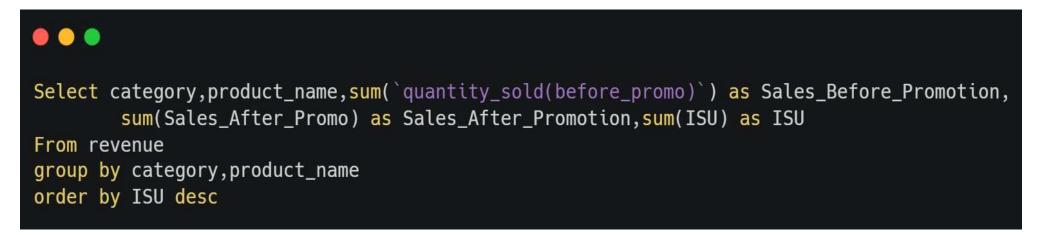
- "500 Cashback" and "BOGOF" generate the highest revenue.
- "50% OFF" and "33% OFF" result in revenue losses.

> Efficiency

"BOGOF" and "500 Cashback" are highly effective in increasing sales and revenue.

Product Analysis

Product with siginificant lift in sales from the promotion





	category	product_name	Sales_Before_Promotion	Sales_After_Promotion	ISU
6)	Grocery & Staples	Atliq_Farm_Chakki_Atta (1KG)	32340	150370	118030
	Grocery & Staples	Atliq_Suflower_Oil (1L)	31309	135663	104354
	Home Appliances	Atliq_High_Glo_15W_LED_Bulb	8245	59856	51611
	Home Appliances	Atliq_waterproof_Immersion_Rod	6468	47370	40902
	Combo1	Atliq_Home_Essential_8_Product_Combo	22299	63180	40881
	Home Care	Atliq_Curtains	4592	32634	28042
	Home Care	Atliq_Double_Bedsheet_set	4203	30116	25913
	Grocery & Staples	Atliq_Sonamasuri_Rice (10KG)	37281	53235	15954
	Grocery & Staples	Atliq_Masoor_Dal (1KG)	26040	37341	11301
	Personal Care	Atliq_Lime_Cool_Bathing_Bar (125GM)	7718	10280	2562
	Personal Care	Atliq_Doodh_Kesar_Body_Lotion (200ML)	5257	7022	1765
	Personal Care	Atliq_Cream_Beauty_Bathing_Soap (125GM)	6380	7697	1317
	Personal Care	Atliq_Body_Milk_Nourishing_Lotion (120ML)	5949	6505	556
	Home Care	Atliq_Fusion_Container_Set_of_3	5207	4472	-735
	Home Care	Atliq_Scrub_Sponge_For_Dishwash	5762	4985	-777

Product Insights

- Grocery & Staples: Significant sales boosts seen for items like "Atliq_Farm_Chakki_Atta" and "Atliq_Suflower_Oil" post-promotion.
- > Home Appliances: Strong sales growth observed for products like LED bulbs and immersion rods.
- ➤ Combo1: "Atliq_Home_Essential_8_Product_Combo" shows notable increase in sales.
- Personal Care/Home Care: Positive sales trends for items such as bathing bars, body lotions, curtains, and bedsheets.
- Mixed Results: Some products experienced decreased sales post-promotion, indicating variable effectiveness

Visualized using Power BI



Analyzing FMCG Promotions for Tangible Sales Insights











Archana Balasubramanian









Revenue_Before_Promotion

140.70M



Revenue_After_Promotion

295.61M



Incremental Revenue (IR)

154.91M

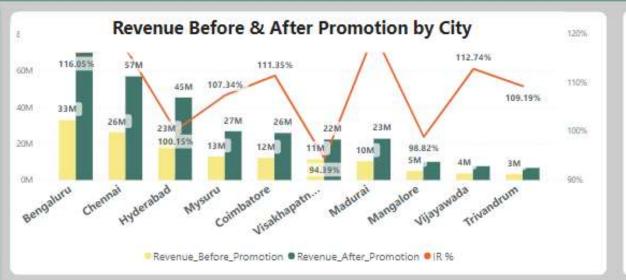


Incremental Sold Unit (ISU)

442K

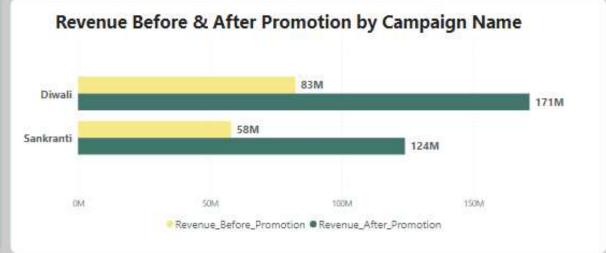


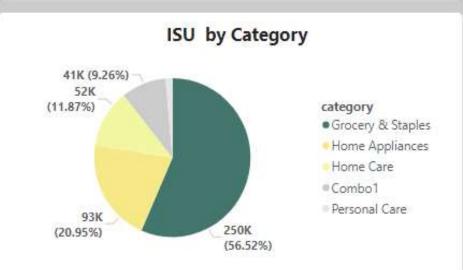




















Incremental Revenue (IR)

154.91M

IR %

110.10%



Incremental Sold Unit (ISU)

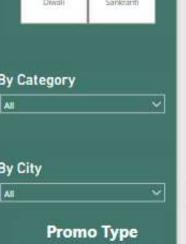
442K

ISU %

211.28%

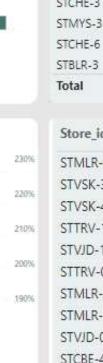










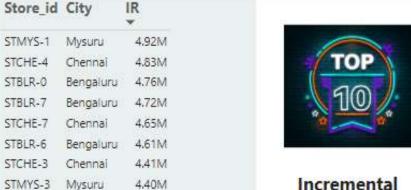


STCHE-4

STBLR-7

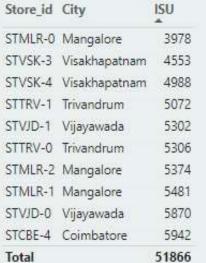
STCHE-7

STBLR-6



Incremental Revenue





Chennai

Bengaluru

4.04M

3.94M

45.27M



Incremental Sold Unit







Incremental Revenue (IR)

154.91M

110.10%



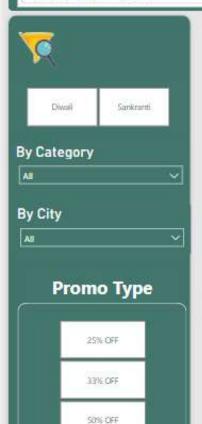
Incremental Sold Unit (ISU)

442K

ISU %

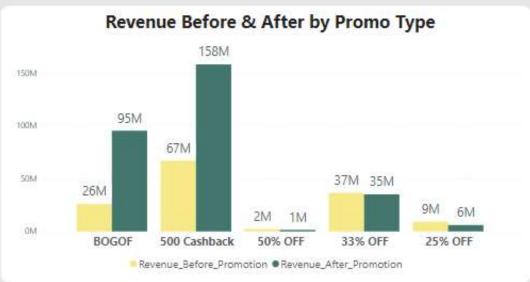
211.28%

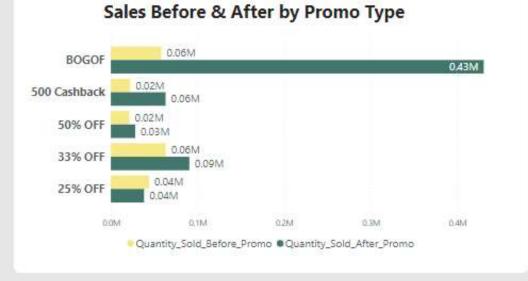


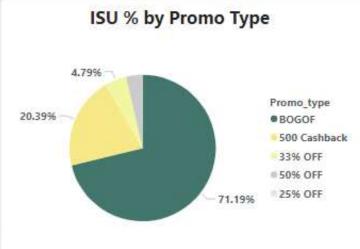


500 Cashback

BOGOF



















Category	Revenue Before Promo	Revenue After Promo	Sales Before Promo	Sales After Promo	Inc. Revenue (IR)	IR %	Incremental Sold Unit	ISU %
⊡ Combo1	66.90M	157.95M	22299	63180	91.05M	136.11% 👚	40881	183.33% 🛦
Atliq_Home_Essential_8_Product_Combo	66.90M	157.95M	22299	63180	91.05M	136.11% 🕎	40881	183.33% 📤
☐ Grocery & Staples	52.99M	76.98M	126970	376609	23.99M	45.28%	249639	196.61% 🛦
Atliq_Sonamasuri_Rice (10KG)	32.06M	30.67M	37281	53235	-1.39M	-4.33% 🖖	15954	42.79% 🛆
Atliq_Farm_Chakki_Atta (1KG)	10.85M	28.22M	32340	150370	17.36M	160.01% 🕎	118030	364.97% 📤
Atliq_Suflower_Oil (1L)	5.60M	13.79M	31309	135663	8.19M	146.31% 🕎	104354	333.30% 📤
Atliq_Masoor_Dal (1KG)	4.48M	4.30M	26040	37341	-0.18M	-3.92% 🖖	11301	43.40% 📤
Home Appliances	9.48M	34.63M	14713	107226	25.15M	265.21% 个	92513	628.78% 📤
Atliq_waterproof_Immersion_Rod	6.60M	24.16M	6468	47370	17.56M	266.19% 🕎	40902	632.37% 🛆
Atliq_High_Glo_15W_LED_Bulb	2.89M	10.47M	8245	59856	7.59M	262.98%	51611	625.97% 🛆
☐ Home Care	8.86M	24.41M	19764	72207	15.55M	175.62% 个	52443	265.35% 🛦
Atliq_Double_Bedsheet_set	5.00M	17.92M	4203	30116	12.92M	258.27% 🎓	25913	616.54% 🛆
Atliq_Curtains	1.38M	4.90M	4592	32634	3.52M	255.34%	28042	610.67% 🛆
Atliq_Fusion_Container_Set_of_3	2.16M	1.39M	5207	4472	-0.77M	-35.59% 🖖	-735	-14.12% 🔻
Atliq_Scrub_Sponge_For_Dishwash	0.32M	0.21M	5762	4985	-0.11M	-35.11% 🖖	-777	-13.48% ▽
☐ Personal Care	2.47M	1.63M	25304	31504	-0.85M	-34.20% 🖖	6200	24.50% 🛆
Atliq_Doodh_Kesar_Body_Lotion (200ML)	1.00M	0.67M	5257	7022	-0.33M	-33.21% 🖖	1765	33.57% 📤
Atliq_Body_Milk_Nourishing_Lotion (120ML)	0.60M	0.39M	5949	6505	-0.22M	-35.95% 🖖	556	9.35% 📤
Atliq_Lime_Cool_Bathing_Bar (125GM)	0.48M	0.32M	7718	10280	-0.16M	-33.40% 🖖	2562	33.20% 🛆
Atliq_Cream_Beauty_Bathing_Soap (125GM)	0.39M	0.26M	6380	7697	-0.14M	-35.00% 🕹	1317	20.64% 🛆
Total	140.70M	295.61M	209050	650726	154.91M	110.10%	441676	211.28% 📤

Overall Insights

> Promotion Impact:

- BOGOF" and "500 Cashback" drive significant sales and revenue growth.
- "50% OFF" and "33% OFF" have mixed impacts on sales and revenue".

> Product Category & Promotion:

- Grocery & Staples, Personal Care/Home Care benefit most from "BOGOF" and "500 Cashback."
- Home Appliances also see strong growth with these promotions.

> Opportunities & Growth:

- Capitalize on successful promotions for further growth.
- Tailor strategies based on category responsiveness.
- Expand store count, especially in cities like Vijayawada and Trivandrum.
- Focus on consistent positive sales trends in Grocery & Staples and Home Appliances for sustained growth.

My Other Projects Link

Excel Project: Finance & Sales Analytics

Power BI Project : <u>Business Insights 360</u>

SQL Project: Consumer Goods Ad-Hoc Insights

Thank You