**Problem Statement**

**Analyse Promotions and Provide Tangible Insights to Sales Director**

Domain: FMCG Function: Sales / Promotions

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.

Sales director wanted this immediately but the analytics manager is engaged on another critical project. Tony decided to give this work to Ankita (You )who is the curious data analyst of AtliQ Mart. Since these insights will be directly reported to the sales director, also provided some notes to you to support his work.

**Insights:**

* Top 10 stores in terms of incremental Revenue.
* Bottom 10 stores in terms of incremental Revenue.
* Stores in terms of cities.
* Top and Bottom two promo types that had effect on IR.
* Which products showed the best performance after the promo.
* Top products in terms of IR.
* Best promo type that strike the best balance.

**Meta Data:**

We have 4 files :

1. dim\_campaigns

2. dim\_products

3. dim\_stores

4. fact\_events

**Column Description for dim\_campaigns:**

- campaign\_id: Unique identifier for each promotional campaign.

- campaign\_name: Descriptive name of the campaign (e.g., Diwali, Sankranti).

- start\_date: The date on which the campaign begins, formatted as DD-MM-YYYY.

- end\_date: The date on which the campaign ends, formatted as DD-MM-YYYY.

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**Column Description for dim\_products:**

- product\_code: Unique code assigned to each product for identification.

- product\_name: The full name of the product, including brand and specifics (e.g., quantity, size).

- category: The classification of the product into broader categories such as Grocery & Staples, Home Care, Personal Care, Home Appliances, etc.

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**Column Description for dim\_stores:**

- store\_id: Unique code identifying each store location.

- city: The city where the store is located, indicating the geographical market.

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**Column Description for fact\_events:**

event\_id: Unique identifier for each sales event.

store\_id: Refers to the store where the event took place, linked to the dim\_stores table.

campaign\_id: Indicates the campaign under which the event was recorded, linked to the dim\_campaigns table.

product\_code: The code of the product involved in the sales event, linked to the dim\_products table.

base\_price: The standard price of the product before any promotional discount.

promo\_type: The type of promotion applied (e.g., percentage discount, BOGOF(Buy One Get One Free), cashback).

quantity\_sold(before\_promo): The number of units sold in the week immediately preceding the start of the campaign, serving as a baseline for comparison with promotional sales.

quantity\_sold(after\_promo): The quantity of the product sold after the promotion was applied.

**Important Formulae:**

Promo Type :

* 25% Off : 0.25 \* Base\_price
* 33% Off : 0.33 \* Base\_price
* 50% Off : 0.50 \* Base\_price
* 500 Cashback : Base\_price-500
* BOGOF(Buy one get one free): Base price remains same, quantity doubles
* IR (Incremental Revenue) : Revenue \_AFTER\_promo - Revenue \_BEFORE\_promo
* IR% : (Revenue \_AFTER\_promo - Revenue \_BEFORE\_promo/ Revenue \_BEFORE\_promo) \* 100
* ISU (Individual sales Unit ): (quantity\_sold(after\_promo)- quantity\_sold(before\_promo)) quantity\_sold(before\_promo)\*100