

Data Analysis

To get the KPIs under the Ads Performance section, I created these measures.

- Total clicks = $\text{SUM}(\text{campaigns_export}[\text{Clicks}])$
- Total impressions = $\text{SUM}(\text{campaigns_export}[\text{Impressions}])$
- Total spend = $\text{SUM}(\text{campaigns_export}[\text{Spend}])$
- Click- Through Rate = $([\text{Total_Clicks}]/[\text{Total_Impressions}])$
- Cost per Click = $([\text{Total_Spend}]/[\text{Total_Clicks}])$

To get the KPIs under the Sales Performance, I created these measures

- Sales_Revenue = $\text{SUM}(\text{transaction_by_ads}[\text{revenue}])$

This is the revenue generated from transactions brought in by the ads run by XYZ Limited.

- Average_basket_value = $[\text{Sales_Revenue}]/\text{COUNT}(\text{transaction_by_ads}[\text{orders}])$

This is the average amount spent by customers per order. This is calculated for only orders brought in by the ads by XYZ Limited.

- Gross Margin = $[\text{Gross_Profit}]/[\text{Sales_Revenue}]$ (Formatted as Percentage)
Where;
- Gross_Profit = $[\text{Sales_Revenue}] - [\text{Cogs}]$
- Cost of goods = $\text{SUM}(\text{transaction_by_ads}[\text{cogs}])$
- Total_Sales_from_ads = $\text{COUNT}(\text{transaction_by_ads}[\text{transaction_ID}])$

To get the KPIs under the Website Performance, I created these measures

- Total_visits = $\text{SUM}(\text{website_tracking_visits}[\text{visits}])$
- Bounce_Rate = $[\text{Total_Bounce}]/[\text{Total_Visits}]$ (Formatted as percentage) Where;
- Total_Bounce = $\text{SUM}(\text{website_tracking_visits}[\text{bounces}])$
- Conversion_Rate = $[\text{Customer_Count}]/[\text{Total_Visits}]$ (Formatted as percentage)
Where;
- Customer_Count = $\text{COUNT}(\text{transaction_by_ads}[\text{customer_ID}])$

To get the KPIs under the Marketing Performance, I created these measures

- Cost_Per_order = $[\text{Total_Spend}]/\text{COUNT}(\text{transaction_by_ads}[\text{orders}])$
- Cost of acquisition of new customer = $[\text{Total_Spend}]/[\text{New_Customers_Count}]$
Where;
- New_Customers_Count =
 $\text{CALCULATE}(\text{COUNT}(\text{transaction_by_ads}[\text{customer_ID}]), \text{FILTER}(\text{transaction_by_ads}, \text{transaction_by_ads}[\text{new_customer}] = \text{TRUE}()))$

- $\text{Cost_Revenue_Ratio} = [\text{Total_Spend}] / [\text{Sales_Revenue}]$
- $\text{Cost_Revenue_Ratio} = [\text{Total_Spend}] / [\text{Sales_Revenue}]$ (Formatted as percentage)

To get more about the customer information section, I created 2 new column in the transaction_by_ads table using these code.

- `language_is_chinese = IF(transaction_by_ads[is_chinese_language] = "1", "Yes", "No")`
This code returns “Yes” when the text in the is_chinese_language column is “1” and returns “No” when the text in the is_chinese_language column is “0”.
- `country_desc = IF(transaction_by_ads[country] = "HK", "HongKong", "China")`

This code returns “HongKong” when the text in the country column is “HK” and returns “China” when the text in the country column is “CH”.

These columns are then used to replace the original columns for a better understanding of the customer information.

