A/B TESTING AND REGRESSION ANALYSIS | MARKETING CAMPAIGN

- FB and AdWords dataset.
- A/B Testing.
- Regression Testing.
- Hypothesis Testing.

Business Problem

As a marketing agency, our primary objective is to maximize the return on investment (ROI) for our clients' advertising campaigns. We have conducted two ad campaigns, one on Facebook and the other on AdWords, and we need to determine which platform yields better results in terms of clicks, conversions, and overall cost-effectiveness. By identifying the most effective platform, we can allocate our resources more efficiently and optimize our advertising strategies to deliver better outcomes for our clients.

Data Description

The dataset comprises a collection of data comparing the performance of two separate ad campaigns conducted throughout the year 2019. Specifically, the data covers a Facebook Ad campaign and an AdWords Ad campaign. For each day of the year 2019, there is a corresponding row in the dataset, resulting in a total of 365 lines of campaign data to analyze. The dataset includes various performance metrics for each ad campaign, providing insights into their effectiveness and efficiency over time.

Key features included in the dataset are as follows:

- Date: The date corresponding to each row of campaign data, ranging from January 1st, 2019, to December 31st, 2019.
- Ad Views: The number of times the ad was viewed.
- Ad Clicks: The number of clicks received on the ad.
- Ad Conversions: The number of conversions resulting from the ad.
- Cost per Ad: The cost associated with running the Facebook ad campaign.
- Click-Through Rate (CTR): The ratio of clicks to views, indicating the effectiveness of the ad in generating clicks.
- Conversion Rate: The ratio of conversions to clicks, reflecting the effectiveness of the ad in driving desired actions.
- Cost per Click (CPC): The average cost incurred per click on the ad.