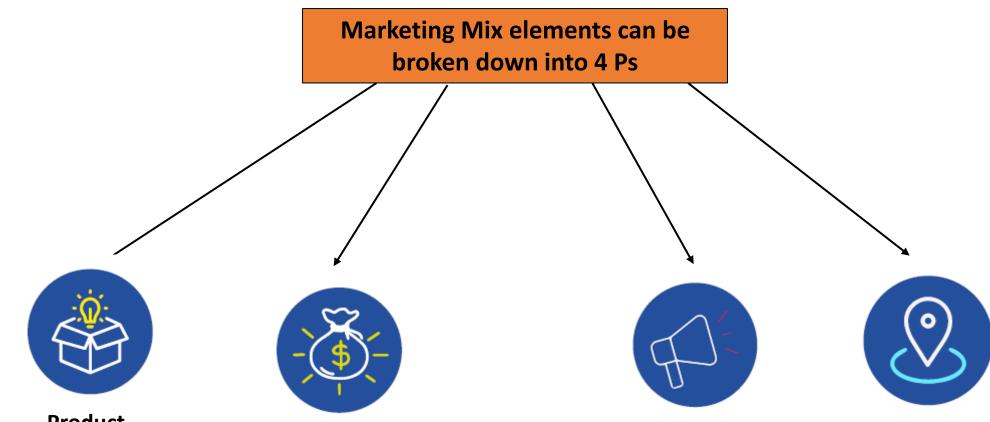
Case Study: Marketing Mix Model



Product

A product can be either a tangible product or an intangible service that meets a specific customer need or demand.

Price

Price is the actual amount the customer is expected to pay for the product.

Promotion

Promotion includes marketing communication strategies like advertising, offers, public relations, etc..

Place

Place refers to where a company sells their product and how it delivers the product to the market.

Used to understand how various marketing activities are driving the business metric of a product.

MMM

An accurate marketing mix model can be the difference between the success or failure of a product!

Used as a decisionmaking tool to estimate the effectiveness of various marketing initiatives in increasing Return on Investment (RoI).



Case Study

Problem Statement:

A product-based company spends on different media channels such as Facebook, Google search Impressions, Email Impressions, YouTube (Paid & Organic), Affiliate channel Views & Overall views. It spends for these channels in different divisions. It monitors the Sales every week against the spending for different media channels.

The company has to perform a study on the following points:

- 1) How the different media channels contribute to sales.
- 2) Explore which division contributes to more sales in a given time period.
- 3) Decide Optimum spending for different media channels.
- 4) Establish a correlation between media spend and sales.

Data Visualization and insight generation

- Promotion Strategies Analysis (Sales Vs Spend charts)
- Time, Price and Place analysis

Data Preparation

- Data transformation to convert into Gaussian distribution
- Outliers treatment
- Perform feature scaling

Feature Importance

• To check which feature contributes more for the change in sales

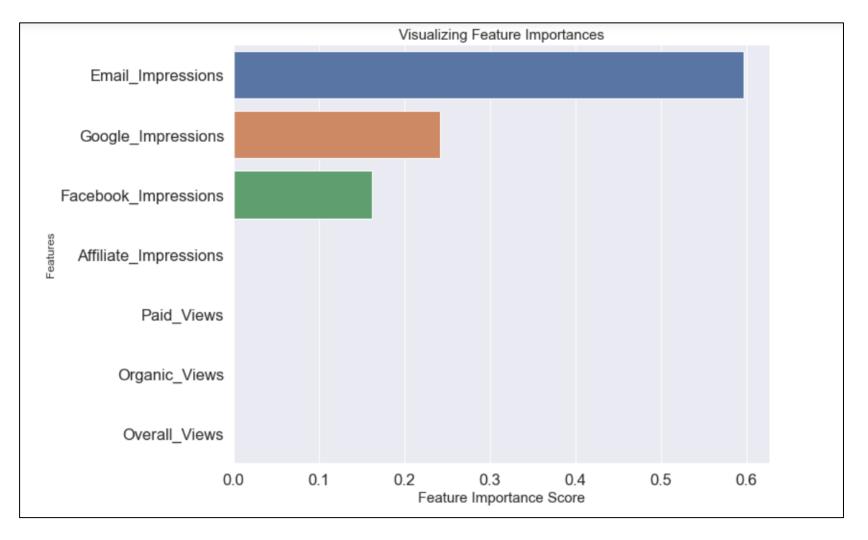
Model Training

• Train the model and obtain the intercepts and coefficients.

Results Interpretation

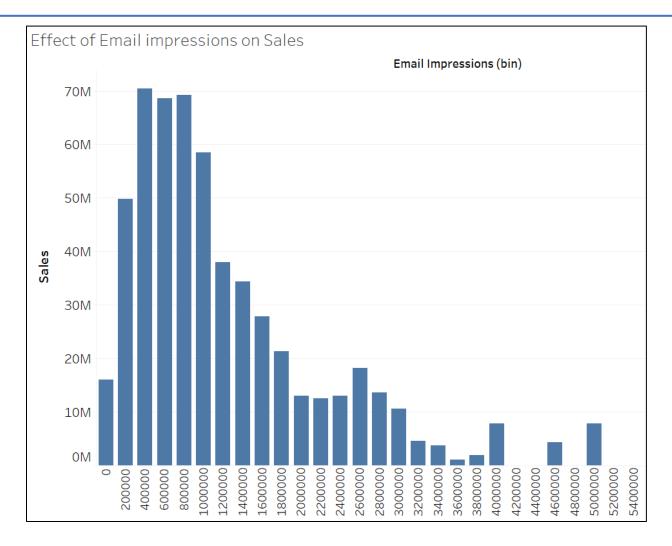
- Draw conclusions from the results obtained in model building.
- Show Response curves and Correlation equation.

Contribution of Media Channels to Sales



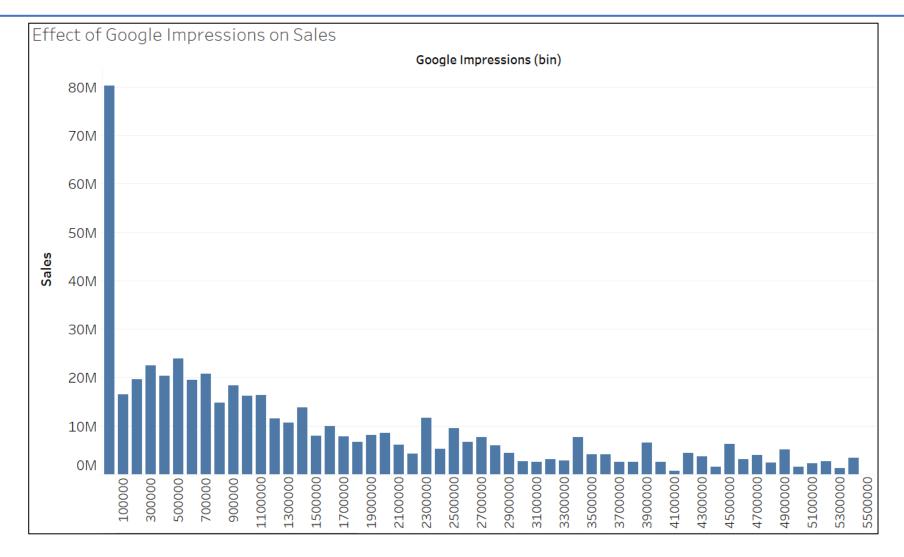
- Email impressions, Google impressions, and Facebook impressions contribute more to change in sales.
- > Therefore, we will see the individual effect of spend of these 3 media channels on sales

Contribution of Media Channels to Sales: Email Impressions



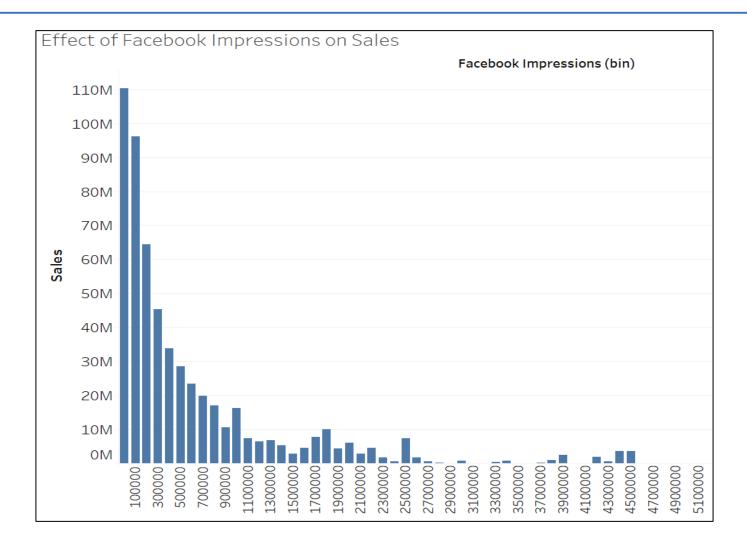
- > Sum of sales is maximum when the spend on Email impressions ranges between 2 Lakhs to 10 lakhs.
- > So the company should spend on email impressions in this range to get the desired sales.

Contribution of Media Channels to Sales: Google Impressions



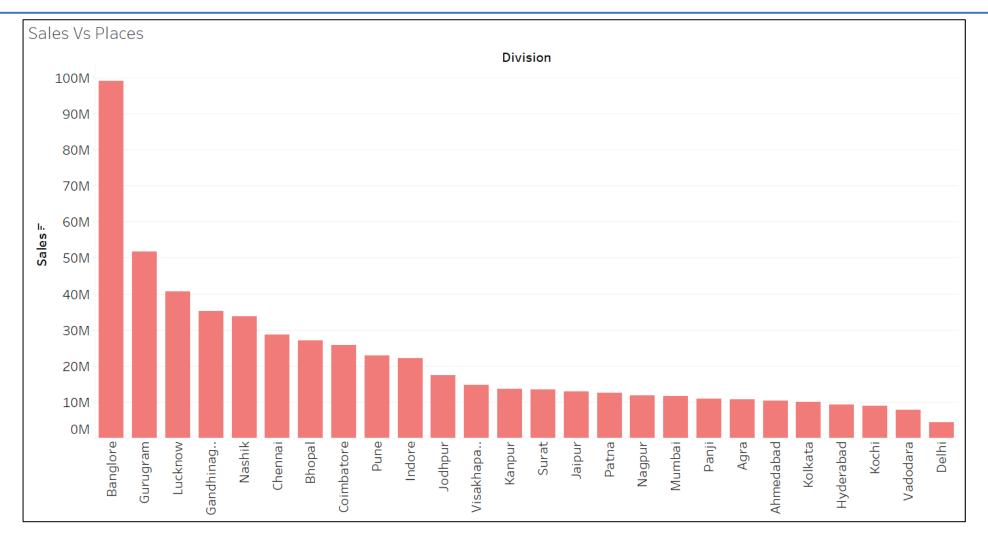
- > Sum of sales is maximum when the spend on Google impressions ranges between 0 Lakhs to 1 lakh.
- > So the company should spend on Google impressions in this range to get the desired sales.

Contribution of Media Channels to Sales: Facebook Impressions



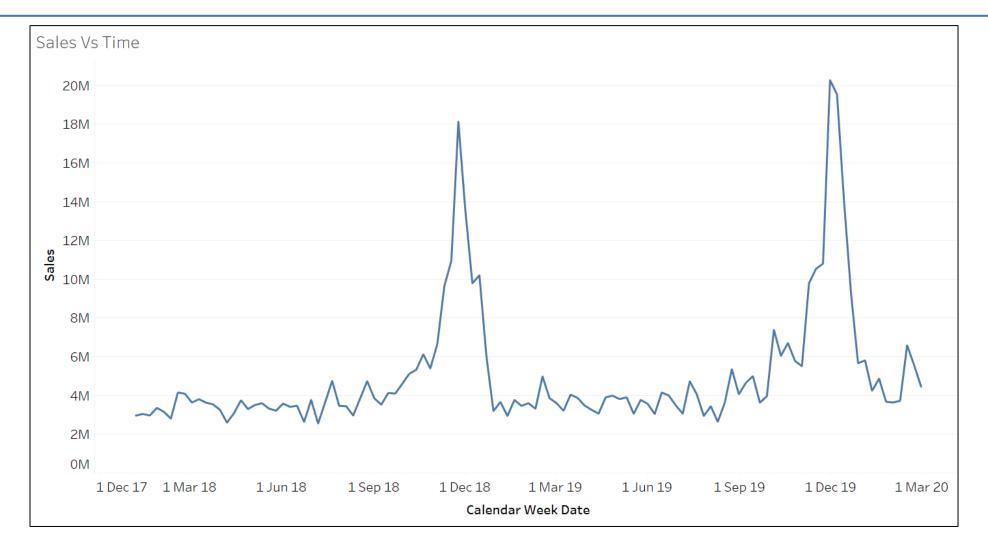
- Sum of sales is maximum when the spend on Facebook impressions ranges between 0 Lakhs to 2 lakhs.
- > So the company should spend on Facebook impressions in this range to get the desired sales.

Location wise distribution of Sales



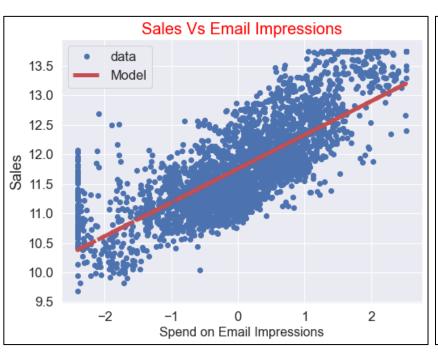
- > Bangalore, Gurugram, and Lucknow are the top 3 cities with the maximum total sales.
- > So we need to optimize marketing strategies to improve sales in other cities.

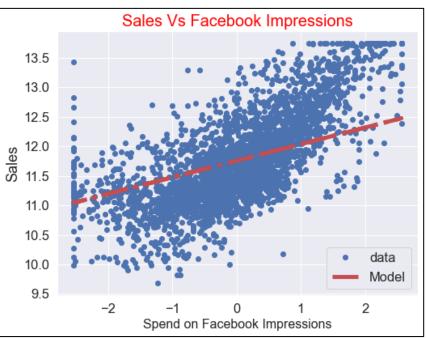
Time wise distribution of Sales

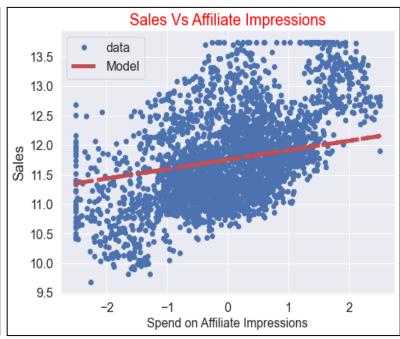


- > Sales increase in the month of Oct, Nov, and Dec. This may be due to the festive seasons of Diwali and Christmas.
- > Company has to effectively use this time of year for active marketing and make maximum profit.

Response Curves







- Effect of spending on email impressions, Facebook impressions, and affiliate impressions on Sales can be seen from the response curves.
- > These curves give an idea about how the spending on individual media channel affect sales.

Combined Equation for Sales Prediction

Sales = (0.5723*X1) + (0.2811*X2) + (0.1597*X3) - (0.0737*X4) + (0.0675*X5) + (0.0374*X6) + 11.7566

Where,

X1= Spend on Email impressions

X2 = Spend on Facebook impressions

X3 = Spend on Affiliate impressions

X4 = Spend on Paid Views

X5 = Spend on Organic Views

X6 = Spend on Overall Views

Thank You