

# Market Mix Modelling

## R PROGRAMMING LANGUAGE

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### Deliverable 3: Understanding promotions

Marketa analytics is impressed with your second deliverable and now want work with you to optimize their promotions campaign. They have weekly historical data and have built a model that shows sales a function of temperature, tv ad spending, radio spending and ROI.

Now they want you to bring this data and analyze the data well and answer the following questions.

In order to answer following question, you can use same dataset from delvierable2 in github.

1. How is sales related to week numbers?

Hint: Calculate sales using price and number of units sold and groupby Day\_of\_week. Which day\_of\_week has max sales.

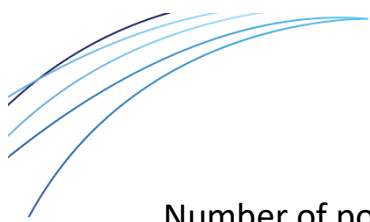
2. How does TV spending(investment) affect sales? Can you quantify it?

Hint: Company has invested for 2-week,5-time impressions of Tv promotion, total investment is \$15000

Number of population reach is 25% of 50000. Out of 25% only 12% population buy \$1500 sales.

3. How does Radio spending affect sales? Can you quantify it?

Hint: Company has invested for 1-week,3-time impressions of Tv promotion, total investment is \$15000



Number of population reach is 10% of 5000. Out of 10% only 5% population buy \$500 sales.

4. Calculate the ROI for each investment?

5. Use R Data Visualization techniques to plot different measurement from above questions.

Hint: Use ggplot as package or default packages.