

Background:

1000ml Retail is starting to spend money on advertising.

They have chosen to use Social Media, Google AdWords and Youtube as their preferred channels of communication.

Objective:

Marketers want to know a few things:

Channel selection: Which channels are working, and which aren't?

Price elasticity: For every dollar you spend on advertising, what is the change in sales?

Channel spend: How much of my budget should I spend on each channel?

What other key metrics or features might marketers want to know? (is engineering your own features possible?)

Since there is a temporal component, investigate for seasonal trends and report on any.

Deliverable:

- A python notebook demonstrating your analysis, methodology, and modeling
 - Use data visualizations with appropriate labelling of the axes
 - Explain your steps and your thinking
 - Explain any new insights you might have developed by reading from your analysis outputs
 - Explain your model
 - Use markdown cells with appropriate headers for your notebook
 - Do all your explanation in the markdown cells (no more excessive commenting inline)
 - Add two two graphics (excluding the use of plots) in the markdown cells (be fun or creative, .ie,. Could be a gif or a meme related to the problem)
- IMPORTANT: Notebook added to your github repo
 - Make sure to include appropriate git commit messages when you push to github
 - Your repo should have readme.md file that details, high-level what your project notebook is about, and what the premise for the project is
- A 10 min presentation to the marketing team delivering your insights. This presentation should provide actionable information.

Bonus Round:

1. 1-2 Additional insights (5 min extra time on the presentation)

Reference:

<https://towardsdatascience.com/market-mix-modeling-mmm-101-3d094df976f9>