605 Junior Business Analyst Skills Assessment

Our company has just started working with a new fast food chain, "Super-Fast Food". Super-Fast Food has had to close a few restaurant locations this past year due to poor location management, so consumer opinion of the brand has taken a hit. In an effort to remedy the situation, the company has decided to implement the following campaign:

 An addressable TV ad campaign (targeted TV ads to specific households) focused on customer care to run from February 1, 2018 to April 15, 2018

Now that the campaign has terminated, Super-Fast Food would like to know:

- Did the ad impact consumers' favorability of the company?
- Did the ad impact Super-Fast Food's total sales?
- Are there any particular audiences who were greatly affected by the ad?
- What follow-ups could you suggest to Super-Fast Food that will help them meet their overall goals of increasing sales and favorability?

The client has provided the following datasets:

- Person-level weekly spending data for Super-Fast Food purchases
- Date to date ID mapping
- Addressable TV ad assignments indicating households that received the TV ad ("1") and those who did not ("0")
- Post-campaign survey data collected between April 16, 2018 May 15, 2018
- Demographic person data

You are tasked with answering the client's questions to the best of your ability within 4 hours. Please provide some insight as to your rationale and the assumptions made, where appropriate. You are required to create a deliverable that you could present to a client, that showcases your results in "slide deck" (i.e. PowerPoint or Google Slides) format.

This is a big assignment, and it is unlikely that you will be able to sufficiently answer every question in the time allowed. Therefore, please prioritize what can be completed and please include a write up/detailed outline of what you would have done given more time.

Please code your solution in R or Python. We are not evaluating you on coding proficiency, merely that you are able to get to an answer via R or Python.

Please return to us:

- 1. Your client-ready deliverable report (.pdf)
- 2. All code used to get to your answers (.R, .Rmd, .py, .ipynb, etc.)
- 3. Document detailing your thought process

You will be evaluated on:

- your thought process throughout,
- methodology implemented,
- rationale,
- thoroughness with which you answer the question,
- effectiveness of summarizing your findings,
- and the clarity of your deliverable report