

This project is for teams of 3 or 4 students. Please send e-mail (to hhilafu@utk.edu) with list of team members by Nov. 21.

Using the journey data from dunnhumby, explore how many customers are spending more over time and how many are spending less over time. Are the changes you observe due to changing the number of trips or changing the basket size or both? To answer this question, you will need to pay attention to when each household enters the database. These are all regular Kroger shoppers, but we do not have two years of data for everyone. Be sure to separate gasoline purchases from other purchases; focus on in-store items.

Primary questions:

- Of those customers who are spending more over time, which categories are growing at a faster rate?
- Of those customers who are spending less over time, which categories are they becoming less engaged with?

Are these categories with change in purchasing typically frequently purchased, core grocery items? Or are they more incidentals? (It is harder to establish patterns for the latter.)

Extra questions:

Seek to make some general conclusions regarding the segments of households in the data that substantially decrease (vs. substantially increase) their shopping with Kroger. How do these segments differ with respect to the kinds of products they buy? Are they high-end shoppers or budget shoppers? Are there events you can identify that seem to trigger changes in shopping behavior, such as coupon campaigns, discount prices, etc.? (These are just a couple of possibilities; there are many ways one might try segmenting households or explaining changes in shopping behavior.) Choose one or two of these extra questions to investigate.

Finally, what insights have you gained that would be relevant to Kroger? Conclude your presentation and your written report with these insights, explaining how Kroger might make use of these lessons.

Be sure to include high quality graphics in the report and the presentation.

The written report should be organized as follows:

1. Executive summary
2. Introduction, describing the data and what questions you are going to answer
3. Separate sections for each question you address
4. Conclusion
5. Appendix for JMP output you reference that was too lengthy to put in the main body of the report. Also include MySQL commands that you used to capture the data.

The presentation should take exactly 6 minutes and should involve the entire team. Lead with your executive summary. Then present each question you address and its answer. End with stating one action that Kroger ought to take as a result of your analysis. Use graphics that are clear. You may assume that everyone in attendance is familiar with the data, so don't waste your time with general background information.