Lexus Carton - Business Engineering Management Science

Oct 5, 2023

Intro to Data Science – Fall 2023

Project Proposal

The overview of this project is to observe the effects of gender, age, purchase categories, customer reviews, and cart competition. These are a few to help determine which types of products are more likely to get purchased again and how likely individuals will develop brand loyalty. Consumers look for products on Amazon's website in several ways, such as the number of stars, personalized ads, and methods like filtering. Even after that, sometimes the customer does not even check out or saves their cart for later.

Questions to be answered: Some questions that will be answered in this investigation are:

- Who provides the best feedback (Age groups, gender)?
- Is the quality of feedback to be trusted?
- How many reviews are left by real people or fake written by a company?
- What compels individuals to buy more frequently.?
- How important is the review, out of 5 stars, to the customer, and what factors drive them to leave a comment?
- What market sectors are consumers more likely to purchase from?
- What factors drive customers to abandon their carts or save products for later? Which products are they most likely to do this with?
- How do customers search for products? These methods would be the dropdown filters, categories and suggested recommendation?

What is hoped to be achieved with this research is an understanding of habitual buying behavior and target marketing. Some further outcomes are forecasting a future trend for several retail sectors, such as groceries, beauty, and clothing. This can help vendors who want to sell on Amazon know what they can expect per market sector. This content builds upon previous research. Several data sets describe how helpful a comment was for consumers or why a comment was updated after 90 days. Another, looks at only Amazon items- Alexa, amazon dot- why and why not consumers did not enjoy them and ratings associated. By giving extra

characteristics such as gender or age, one can see the qualities that make for a helpful comment and make for more sales across the platform. Vendors can know who their demographics is so they do not lose a sale, or in this case a cart. In an article by the Wire Cutter, they describe many good reviews as fake. The way to spot this is by looking at the dates they are posted, as many of them are posted on the same day or days after each other.

Sources:

- Dragan, L (May 13, 2016). Lets Talk About Amazon Reviews: How We Spot the Fakes. *The New York Times.* [Let's Talk About Amazon Reviews: How We Spot the Fakes | Wirecutter (nytimes.com)](nytimes.com) o Describes how there are fake comments, Amazon lawsuit. Many fake reviews are posted on the same day as each other.
- Consumer Affairs. (10/3/2023). Amazon.com reviews. Consumer Affairs. Read 7,582 [Amazon.com Reviews (Oct 2023) | ConsumerAffairs®](Amazon.com Reviews (Oct 2023))
- Menon.S. (date).Amazon Consumer Behavior Dataset. Kaggle [Amazon consumer Behaviour Dataset (kaggle.com)](kaggle.com)
    o Data set used for investigation.