

NEUROECONOMICS PROJECT IDEA

TEAM NAME: Decision Detectives

TEAM MEMBER 1:

- Name- Sajja Patel
- Roll Number- 2021101107

TEAM MEMBER 2:

- Name- Himanshu Sarraf
- Roll Number- 2021101098

PROBLEM STATEMENT

In the context of consumer decision-making, this study aims to investigate the influence of information presentation, specifically star ratings and textual reviews, on individual preferences and choices. The project seeks to address two primary research questions:

1. Do individuals tend to rely more on star ratings or textual reviews when presented with a binary choice between two items or options?
2. How do individual preferences shift when making a choice in the absence of a binary comparison, i.e., when evaluating a single item or option?"

By examining these questions, the project aims to provide valuable insights into consumer decision-making and also deepens our understanding of how individuals navigate between quantitative (star ratings) and qualitative (textual reviews) information in various decision-making scenarios. This study seeks to contribute to the evolving field of neuroeconomics, offering a nuanced perspective on the role of information presentation in shaping preferences and choices.

DEMOGRAPHICS OF THE PARTICIPANTS

Here's a breakdown of the demographic factors you plan to consider:

1. *Age:*
 - Participants aged 18-40, divided into different age ranges within this bracket.
2. *Occupation:*
 - Various categories, including University students, Graduate students, Office workers, and freelance, among others.
3. *Major:*
 - Diverse academic backgrounds, including Engineering, Liberal Arts, Arts, Medical, and Sports.
4. *Gender:*
 - Male, Female, and potentially other gender identities, with the option for participants to specify their gender.

This detailed demographic breakdown is crucial as it allows us to explore how various factors, such as age, occupation, major, and gender, influence individuals' preferences and decision-making processes. By analyzing the data collected from these diverse demographic groups, we aim to gain a comprehensive understanding of how different segments of the population respond to information presented in star ratings, textual reviews, or both.

EXPERIMENT DESIGN

We have divided the experiment in two phases as follows:

Phase 1: Binary Selection (Comparison between Two Products)

- In this phase, participants will be presented with pairs of commodities from the same category.
- These pairs will have variations in star ratings and textual reviews.

- The prices of these commodities will be similar.
- We may provide incentives to participants for choosing a particular commodity to add an element of realism or motivation to their choices.
- Each participant will respond to a total of 10-15 questions, where they will need to select one product from each pair and provide reasons for their choices.
- The commodities or categories presented in this phase will be based on the participants' age group, which may vary from group to group.

Phase 2: Single Product Evaluation

- In this phase, participants will be presented with a single product in each question.
- This product will include both star ratings and textual reviews.
- Participants will need to assess whether they have a positive or negative impression or vibe from the product and specify the reasons for their impressions.
- Similar to Phase 1, the choice of products or categories should be based on participants' age groups, allowing for variation between groups.

LITERATURE SURVEY

We read a few research papers that explore the impact of online reviews on consumer behavior and decision-making. Here is a summary of the content:

The papers discuss the significance of online reviews in influencing consumer purchasing decisions and how reviews from fellow consumers are perceived as more reliable and engaging than vendor-provided information. They highlight the diversity of reviews due to varying consumer perceptions and the importance of review data for different types of consumers. The papers focus on two main components of online reviews: star ratings and textual comments, and aims to understand which component holds more weight in consumer decision-making.

Key observations reveal that the importance of review components varies based on the purpose of reading reviews, and consumers sometimes interpret reviews differently from the reviewers' intentions. Notably, star ratings have more influence when choosing between two products, while comments play a more significant role when evaluating a single product. Consumers also exhibit strictness in assigning positive sentiment to star ratings when viewing them as consumers themselves.

In conclusion, the research contributes valuable insights into consumer perception patterns regarding star ratings and comment reviews. These findings have the potential to inform the development of more effective review structures and help businesses better understand and cater to consumer preferences.

CITATIONS

- https://www.researchgate.net/publication/342479185_An_Interactive_Network_for_End-to-End_Review_Helpfulness_Modeling
- https://www.researchgate.net/publication/322561666_The_impact_of_text_valence_star_rating_and_rated_usefulness_in_online
- <https://www.mdpi.com/2076-3417/13/6/3949>