

Project: E-Commerce Product Range Analysis

Team Lead comment:Hi! I think that's a good start) Definitely will work on hypothesis as we go, but in general, seems fine. Good luck!

GOAL: *Identify high demand/profit stocks & breaking down loyal customer behaviours in hopes to boost business profit!*

Table Of Content:

1 Data Optimization & Preprocessing

- Loading dataset & necessary libraries
- Optimizing dataframes for quicker analysis times
- Cleaning the data of problematic values such as missing or duplicate values
- Additional data preprocessing if necessary

2 Exploratory Data Analysis

2.1 Product Range Categorization

- Extracting keywords from product description to identify most and least popular keywords
- Visualization part

2.2 Product Range Values Analysis

- Determining most/least profitable stocks
- Determining highest/lowest demand stocks
- Visualization part

2.3 Customer Base Analysis

- Defining and Identifying loyal customers
- Studying loyal customers' behaviours, such as; spendings, quantities per sale, dates of sales etc.)
- Visualization part

3 Hypotheses Testing

Testing hypotheses to answer the following questions:

- What stock categories are most profitable? (cheap, expensive, high demand, low demand)
- Does stock sold in high quantities have higher return rates?
- Does product distributions change throughout the seasons of the year?

4 General Conclusion and Study Based Recommendations

- Summarizing the project
- Sharing recommendations based on the conclusions of our analysis

In []: