Case Study Description

A bit more information about rebuy

In our online shop customers can sell their pre-owned electronics and media goods quickly, easily and effectively, and turn them into money. As opposed to auction or marketplace providers, our customers receive fixed price offers, free shipping and guaranteed fast money.
Each product is carefully checked and professionally refurbished by our experts upon arrival. Thus we ensure that they are suitable for resale. And to ensure that our customers don't have to sacrifice functional and aesthetic criteria, we attach particular importance to quality. Therefore we offer our customers not only an attractive price advantage compared to a new product, but also our 36 month rebuy warranty on electronic products.
We not only create space on our customers' shelves and fill their piggy banks, but we also create a sustainable way of consumption.

Role of a Category Manager

A person managing a product category such as iPhones, Android, Consoles, etc.
Responsibilities

- Taking full ownership of inventory, pricing and sales management for their respective category.
- Actively working on the pricing strategy
- Observing the market and initiate, create and manage competitor analyses
- Expanding and optimizing our range of products, based on customer needs

Your Assignment

We appreciate you taking the time to work on this assignment. You have a week till we review the results with you. Please don't spend more than a day or two for this assignment.

I. Data analysis

Using the data provided with the assignment,

1. Provide a few actionable insights for the category managers of CE
2. Create 4 charts which you would put in a dashboard for them to track the CE performance daily? These charts should be all they need to look at.

II. Prediction Modelling

Using the data provided for the year 2020, create a prediction model to predict the conversion rate of each product on each day from 1 January to 7 January 2021
Output columns: product_id, date, conversion_rate

Please share your notebook (R or Python) with the analysis, results, approach and code. Python is preferred but R is fine too if you are more comfortable with that.

Important to note that you will be assessed more on the approach and the quality of code than the accuracy of the forecast.