

Optimising Product Recommendations

A Comprehensive Approach to Data-Driven and Subject-Oriented Product recommendations

Our Team



David PsiukData Analyst



Luis Springer Strategic Planer



Peter Falterbaum
System Engineer



Noah Campana Project Manager



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- 2 Problem & Solution
 - Project Setup —
- 3 Methodology
- 4 Data Understanding

- Evaluation —
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 - Next Steps —
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- 8 Retrospective



Business Situation

Recheio's Last Fiscal Year





Problem & Solution

Business Challenge & Strategic Solution

Current Challenge

- Clients receive recommendations that are not relevant
- Leads to lower customer satisfaction

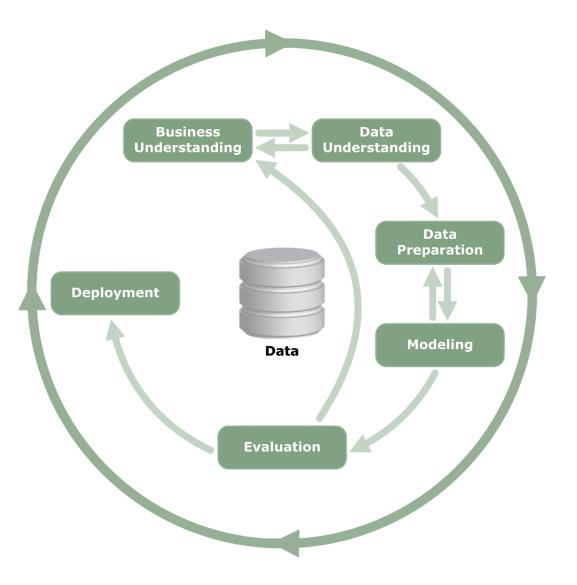
The Solution

- Improve the current recommendation system based on the data Recheio has collected
- Implement situational adaptive recommenders to tailor suggestions based on context

The Opportunity

- Increase Customers' purchases made with Recheio
- Increase customers' experience and satisfaction
- increase sales more than current market growth, i.e. 5%





Methodology

Crisp-DM

Data Understanding

- Analyse best selling products and valuable customers
- Understand current product-client match

Modelling

- Iteratively prototype and pivot
- Make use of association rules, correlations and common recommender algorithms

Evaluation

- Apply Monte Carlo validation
- A/B Testing



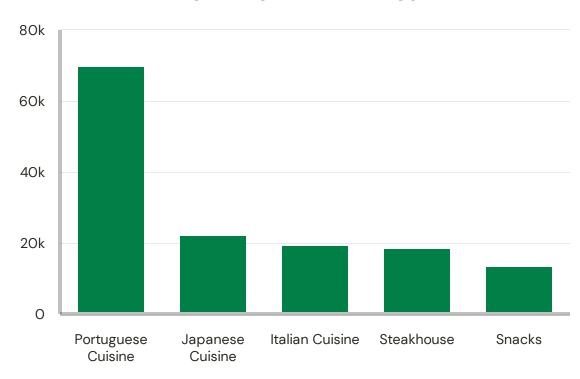
Data Understanding

Product Categories and Client Type

Frequency of Product Categories



Frequency of Client Types

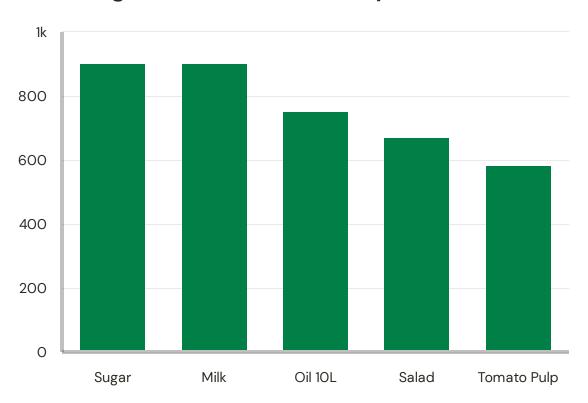




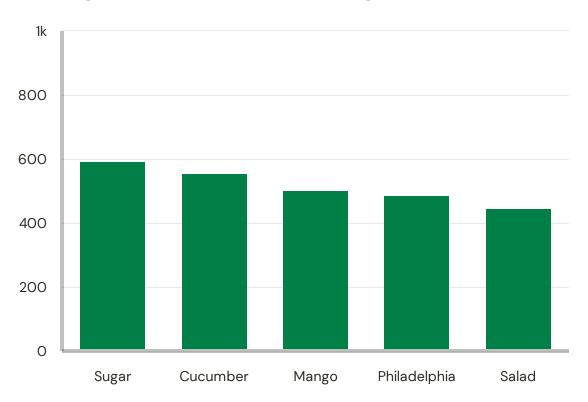
Data Understanding

Product - Client Match

Portuguese Cuisine most Popular Products



Japanese Cuisine most Popular Products





Recommender Systems

Four critical views on Recheio's Website









Recommender Systems

6 Different Recommender Systems

- 1 Recency & Frequency
 Products Sorted after recency &
 frequency
- 2 Try something new?
 Display products that are commonly purchased by the client type.

- 3 Did You Forget?
 Show products which the user typically buys
- 4 Similar Products

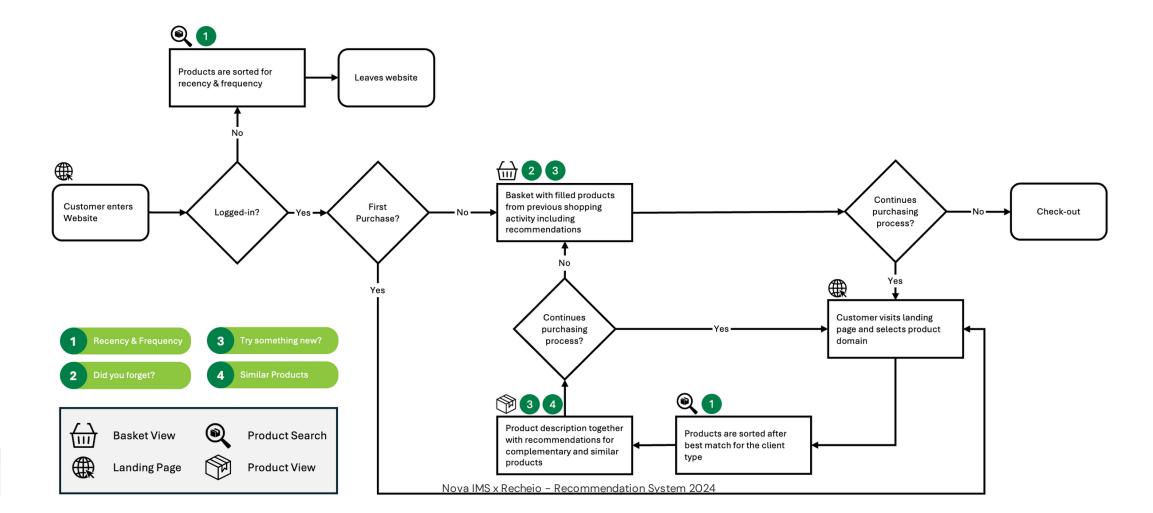
 Present products that are frequently purchased together.

Bottom Line: recommendations need to be fast and valuable to the customer



Deployment Plan

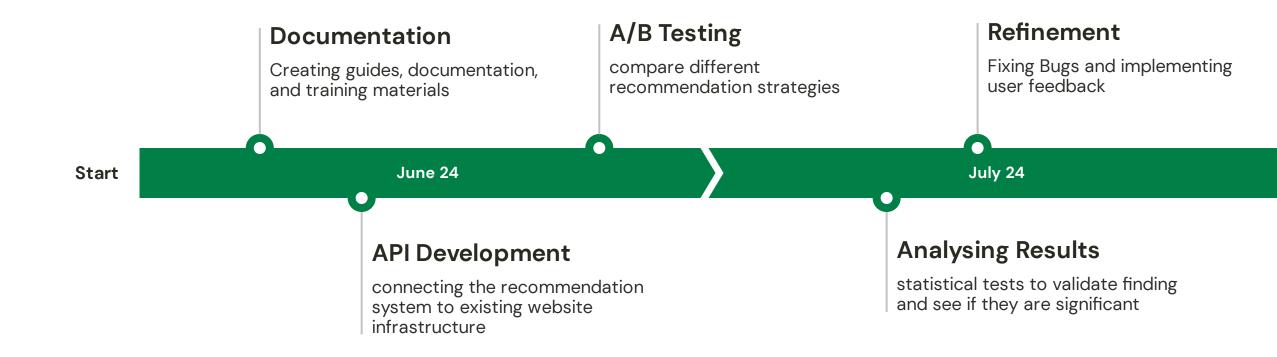
Customer Journey





Deployment Plan

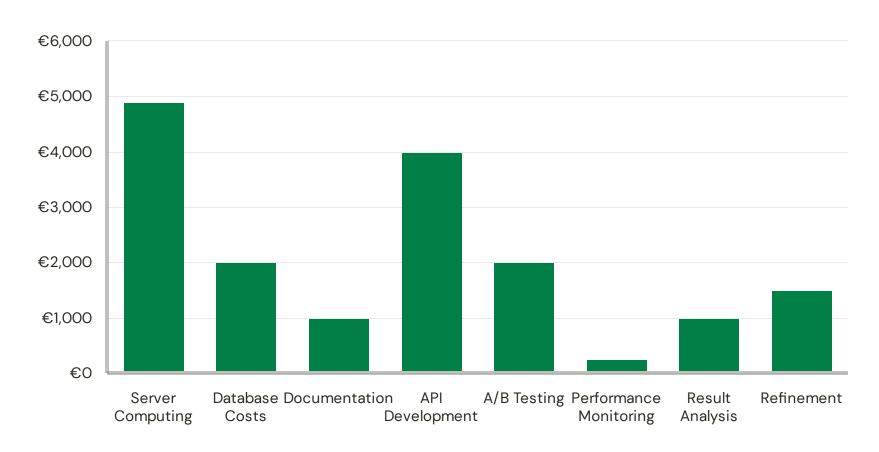
Next Steps: Timeline and Milestones





Deployment Plan

Implementation Costs



16,650€

total implementation costs over the course of

2 months



Retrospective

Limitations

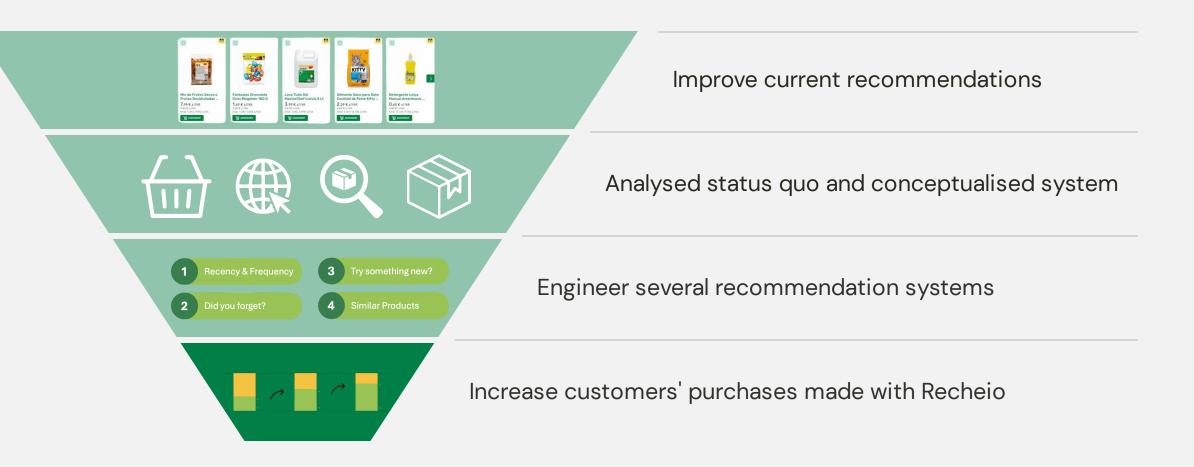
- Based on shopping history
- Based on personal characteristics
- Based on customer & product similarity

- Quantity of products is not regarded in the current system
- Monetary dimension is not considered due to lack of data
- **Stock Verification** is dependent on live data
- Weighted Frequency
 as some products might be released later



Retrospective

Initial Goals and Implementation





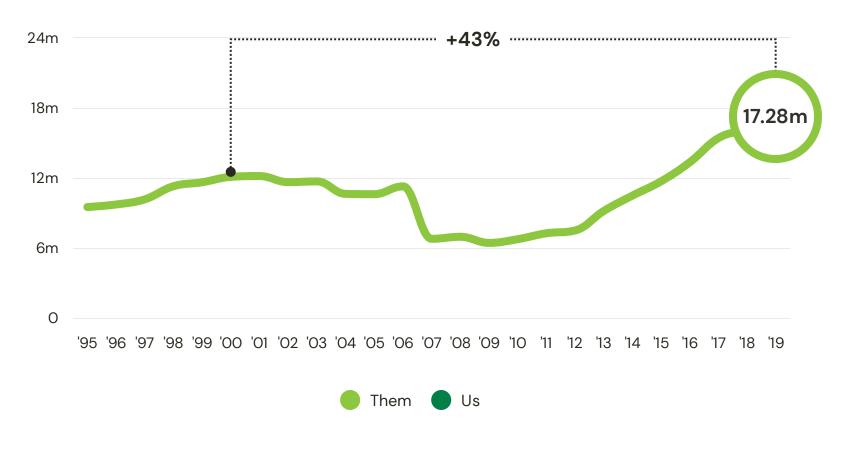


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Market Situation

Tourism Activities Developments



4.4%

Expected CAGR

Market is characterised by **low margins** and **high demand elasticity**.

