A match-making algorithm between customers & products!

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Food. Payments. News. Games…

When we have multiple products, nudging a customer to understand our universe is a challenge.

We devised a **matchmaking algorithm** for targeted cross-selling of products users weren't familiar with.

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Here's how we targeted for Cross-Sell:

universe

base pool

target audience

Universe: All Gojek users

Base Pool: Users eligible for the campaign

Target Group: Users who'd most likely be interested in the campaign

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ITERATION 1

Classification Model

- Customers who will cross-sell into the product
- Customers who will not

We got an uplift of ~5x on the natural conversion rate of one of our key services!
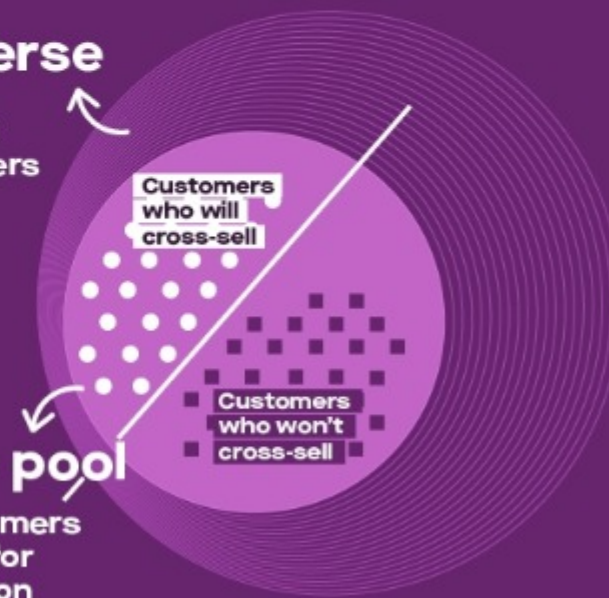
However, scalability was an issue.

universe
all Gojek customers

Customers who will cross-sell

Customers who won't cross-sell

base pool
all customers eligible for promotion

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ITERATION 2

Recommendation System

We use recommendation engines as a matchmaking mechanism between users and products/payment methods.

In this method, we treat each product/payment method an item in the recommendation engine, based on collaborative filtering.
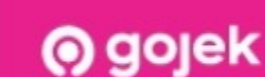
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	GoFood	GoPay offline	GoCar	GoRide
User 1	3	1		3
User 2	2	3	10	
User 3		1		4
User 4			1	
User 5	2	2		
User 6			3	

Similar Users

Since User 1 uses GoFood, but User 3 does not, **we recommend GoFood to User 3**

Services with similar user base

Users who use GoFood also seem to be using GoPay Offline - **recommend GoFood to User 3**

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Our current workflow:

Customer transaction data from BigQuery → ETL using Pandas → Spark ML ALS Recommendation Engine → List of targeted customers

Once we got this model ready, we did field tests and got an uplift from 5x to 7x!