Supercharging Our Credit Card Marketing

MakeMeMoney Bank Inc. 2023

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Problem Statement

Align on goals, approach and KPIs

Transforming a problem into opportunity

Case

- Credit card sales **dropped 50% YoY** in the last campaign (H1'23)

- The company wants to invest in **marketing strategy** using data-driven decisions

Objective

Enhance sales growth:

- Build a model (**Machine Learning: Classification**) to target the right population for the next campaign

- ROI > 400%
- Sales of 20.000 Credit cards

02

Our Data

What data are we working with?

Our Baseline Resource

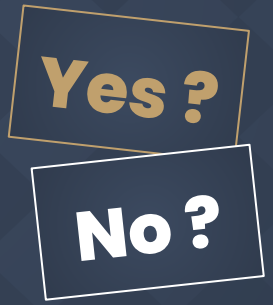
16
Features

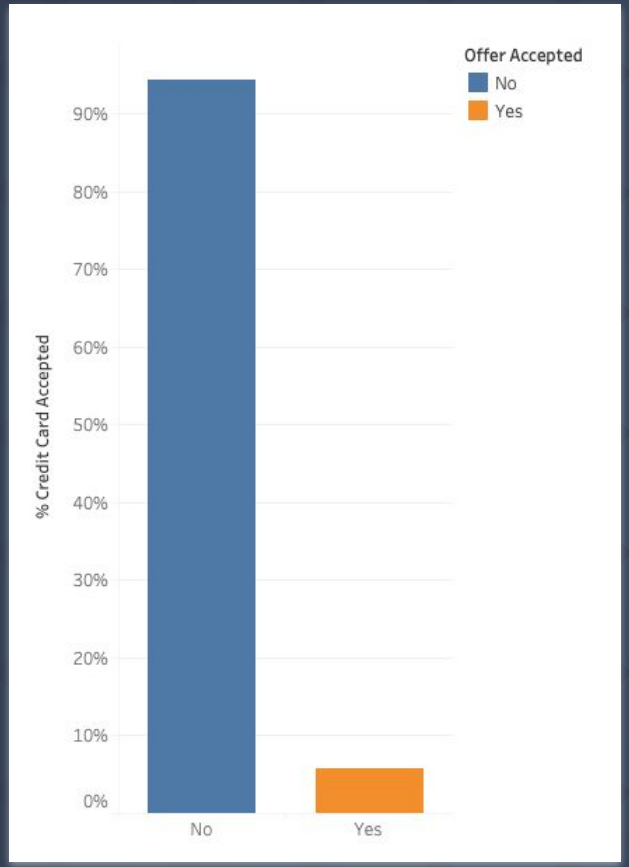
18.000
Data Entries

Numerical & Categorical data

customer_number
offer_accepted
reward
mailer_type
income_level
#_bank_accounts_open
overdraft_protection
credit_rating
#_credit_cards_held
#_homes_owned
household_size
own_your_home
average_balance
q1_balance
q2_balance
q3_balance
q4_balance
new_avg_balance

Credit card offers





PAST CAMPAIGN

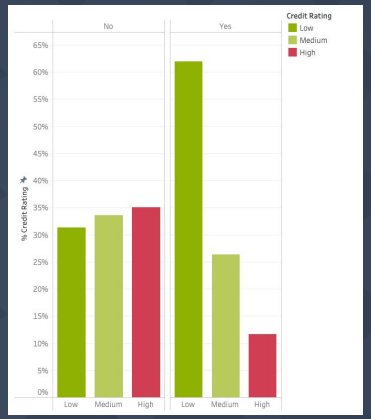
Only **6%** of clients accepted our credit card offers

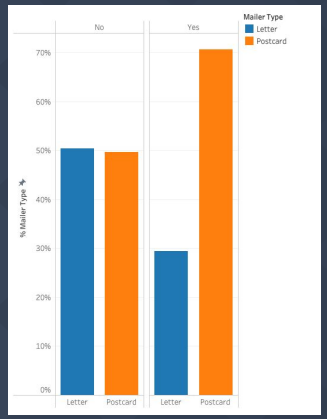
Meaning that **> 90%** of potential customers...

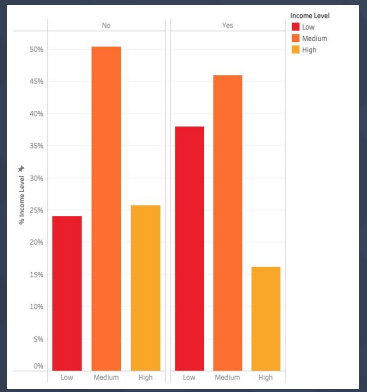
... Were not interested in our offer

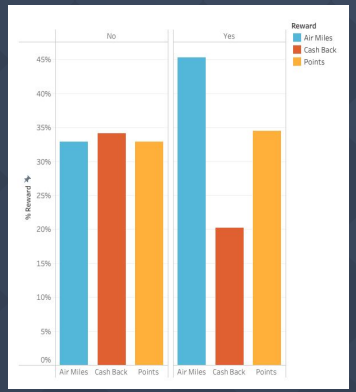
Some common features in interested users

1. Credit Card Rating
2. Mailer Type
3. Income Level
4. Reward







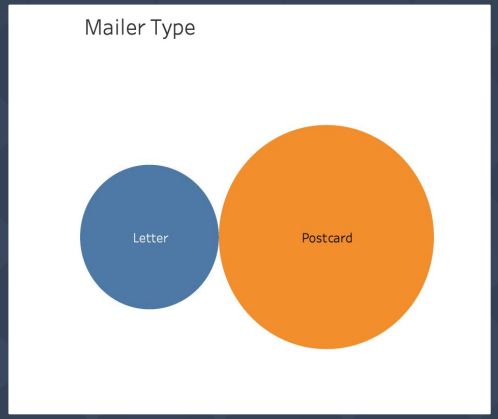


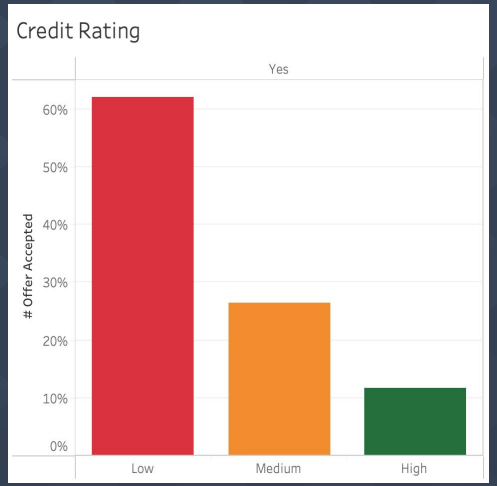
How did they influence the purchase decision?

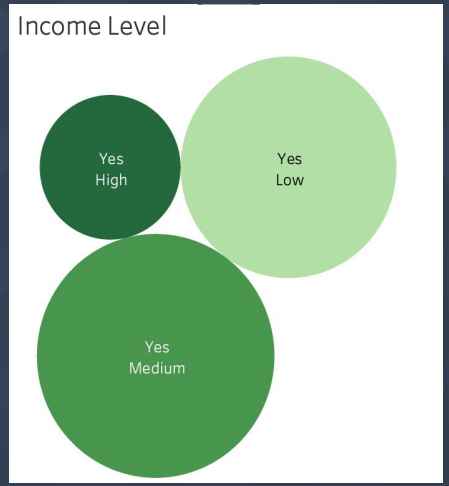
Who said YES?

Customers with...

- **Mailed** by Postcard
- Air Mile and Points as **Reward**
- Low **Credit Rating**
- Low (& Medium) **Income**







03

Approach & Methodology

Explain what we did (in simple terms!)

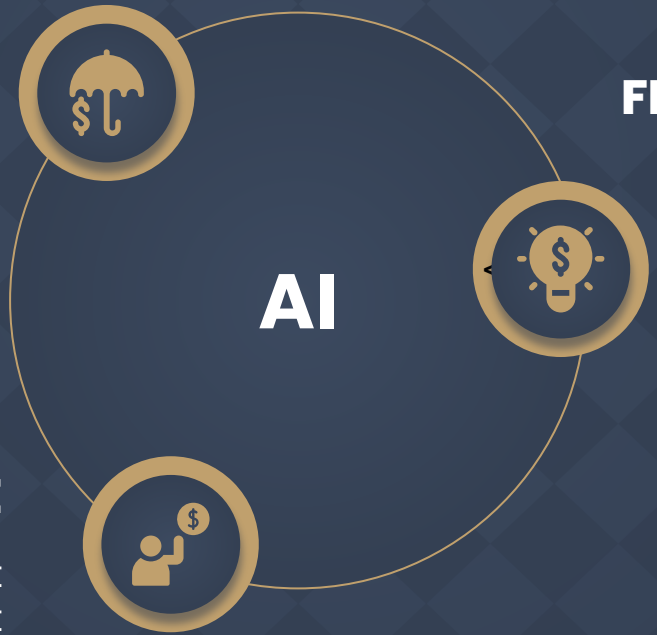
How can we improve the targeted audience, and thus our marketing ROI, off the back of these insights?

Our Goal is to target as many offer accepting customers as possible across our data in a efficient way (i.e. Recall, Precision)

Machine Learning helps us target the right user

RUN A CAMPAIGN

Past activities give us data on who accepted



FINE TUNE THE MODEL

That data can be used to fine tune an ML model

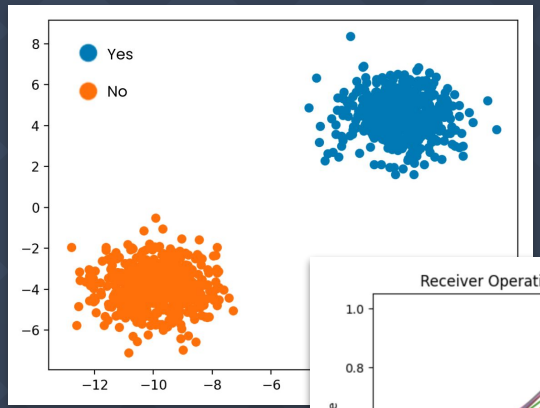
PREDICT AUDIENCE

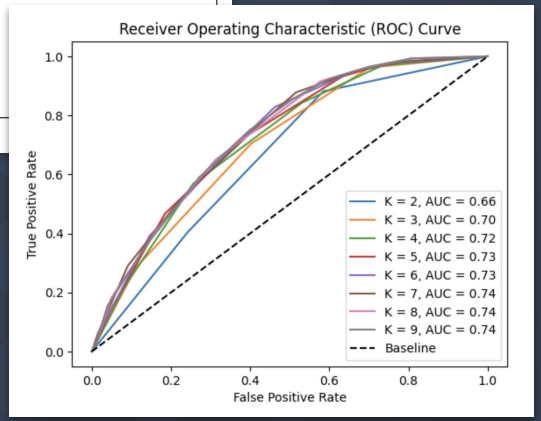
ML allows us to target customers likely to convert

Leveraging state of the art binary classification modeling

To build the best possible model, we applied sophisticated data wrangling techniques

- **Treating** outliers through different techniques (e.g. Winsor, Box Plot)
- **Balancing** our data to be good at predicting interested customers
- **Iterating** through 10 models to optimize to our KPIs, including Logistic Regression & KNN





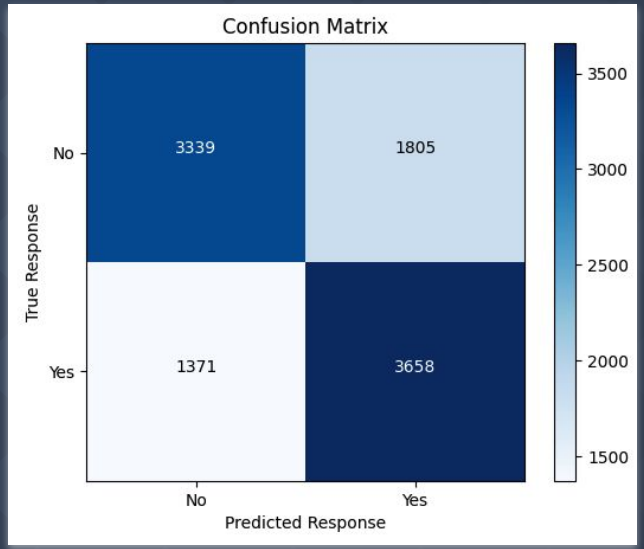
04

Output & Insights

Project results and next steps

So, how good is our model?

Currently, our model is able to predict 73% of accepting customers, with an precision of 70% (vs. previous 9%)



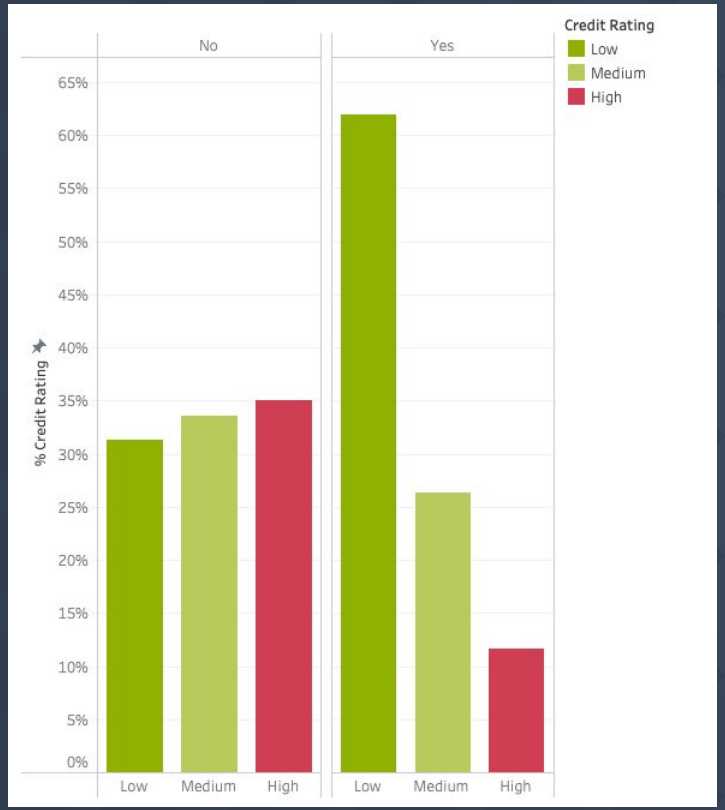
Next Steps

1. CRM to give Data Science team access to our customer data with more data fields.
2. Data Science team will build an efficient audience set to target.
3. Post campaign, Marketing to share results with Data Science
4. Data Science will continue to improve our existing model

Thank you

Appendix

How **Credit Rating** impacts the **Target**



More than **60%**

Low credit rating

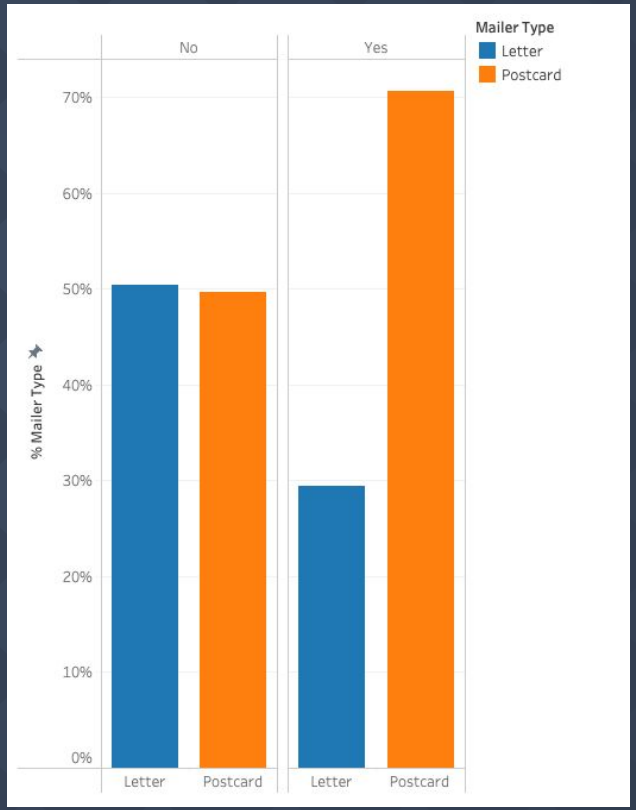
- Clients with low credit rating (62%) accepted the offers more than others
- The higher credit rating, the less likely clients are to accept our offers

How does **Mailer Type** influence the **clients' decision?**

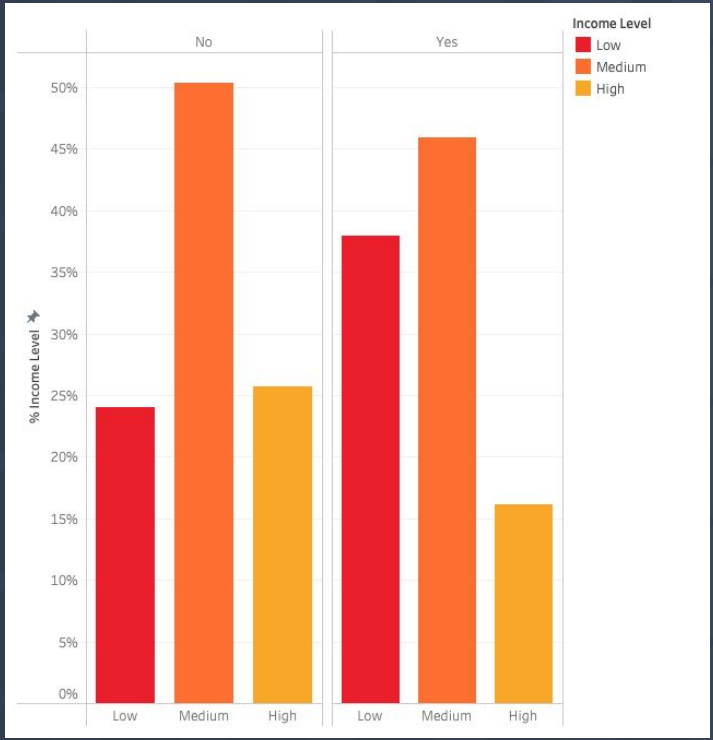
More than reached through

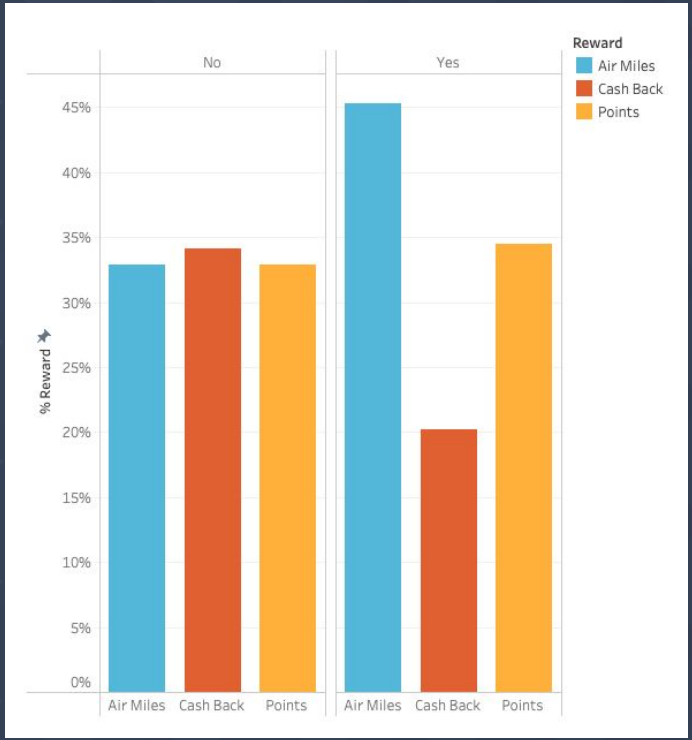
70% **Postcard**

The **postcard** has a huge impact on clients' decisions with a **40% difference** compared to the letter

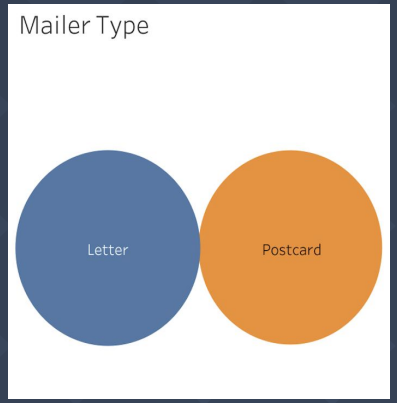


Income Level & Reward

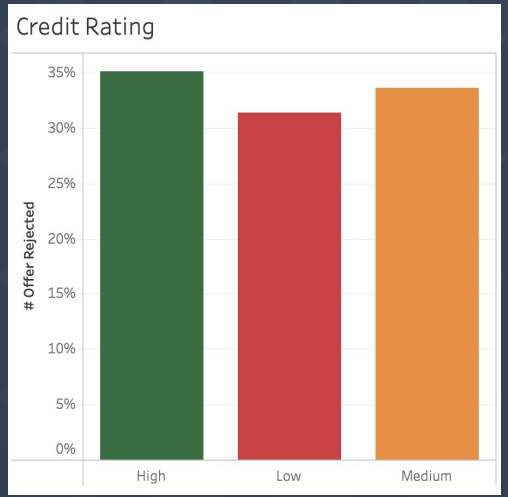


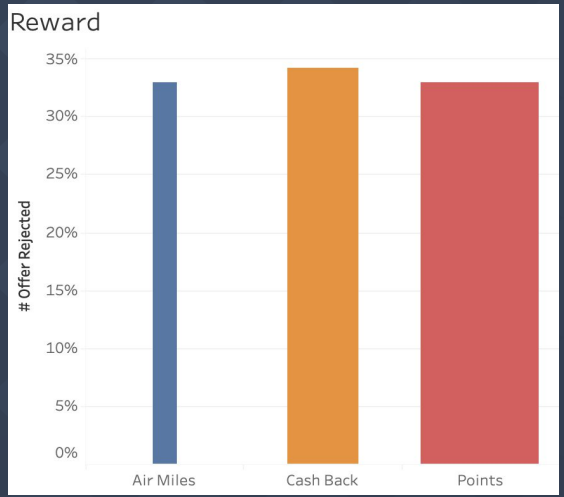


Who said No!


Mailer Type
Letter
Postcard


Income Level
High
Low
Medium


Credit Rating
Offer Rejected
35%
30%
25%
20%
15%
10%
5%
0%
High
Low
Medium


Reward
Offer Rejected
35%
30%
25%
20%
15%
10%
5%
0%
Air Miles
Cash Back
Points