Deliver fresh produce to your door

Identify key consumers to drive sales

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07/10/2023

Background

Objective: To build a predictive model that will help identify the customers who are likely to spend more money.

Pilot survey: 2.240 customers selected at random and contacted by phone. During the following months, customers who bought the offer were properly labeled.

Question

How does our key customers look like?

Know the features of our key customers,
More accurate marketing strategy,
Help drive our gross sales!

Glance of data

Feature	Description
Background	
Education	customer's level of education
Year_Birth	Year of Birth
Marital	customer's marital status
Kidhome	number of small children in customer's household
Teenhome	number of teenagers in customer's household
Income	customer's yearly household income
Purchasing behaviours	
MutFishProducts	amount spent on fish products in the last 2 years
MntMeatProducts	amount spent on meat products in the last 2 years
MntFruits	amount spent on fruits in the last 2 years
MntSweet Products	amount spent on sweet products in the last 2 years
MntWines	amount spent on wines in the last 2 years
MntGoldProds	amount spent on gold products in the last 2 years
NumDealsPurchases	number of purchases made with discount
NumCatalogPurchases	number of purchases inde using catalogue
NumStorePurchases	number of purchases made directly in stores
NumWehPurchases	number of purchases made through company's web site
Num WebVisitsMonth	number of visits to company's web site in the last mouth
Offer acceptance	
AcceptedCmp1	1 if costumer accepted the offer in the 1st campaign, O otherwise
AcceptedCmp2	1 if costumer accepted the offer in the 2nd campaign, O otherwise
AcceptedCmp3	1 if costumer accepted the offer in the 3rd campaign, O otherwise
AcceptedCmp4	1 if costumer accepted the offer in the 4th campaign, O otherwise
AcceptedCmp5	1 if costumer accepted the offer in the 5th campaign, O otherwise

Regression Model

Iteration 1 - created dummies for categorical variables

- R-squared: 0.799

Iteration 2 - log transformed and normalised

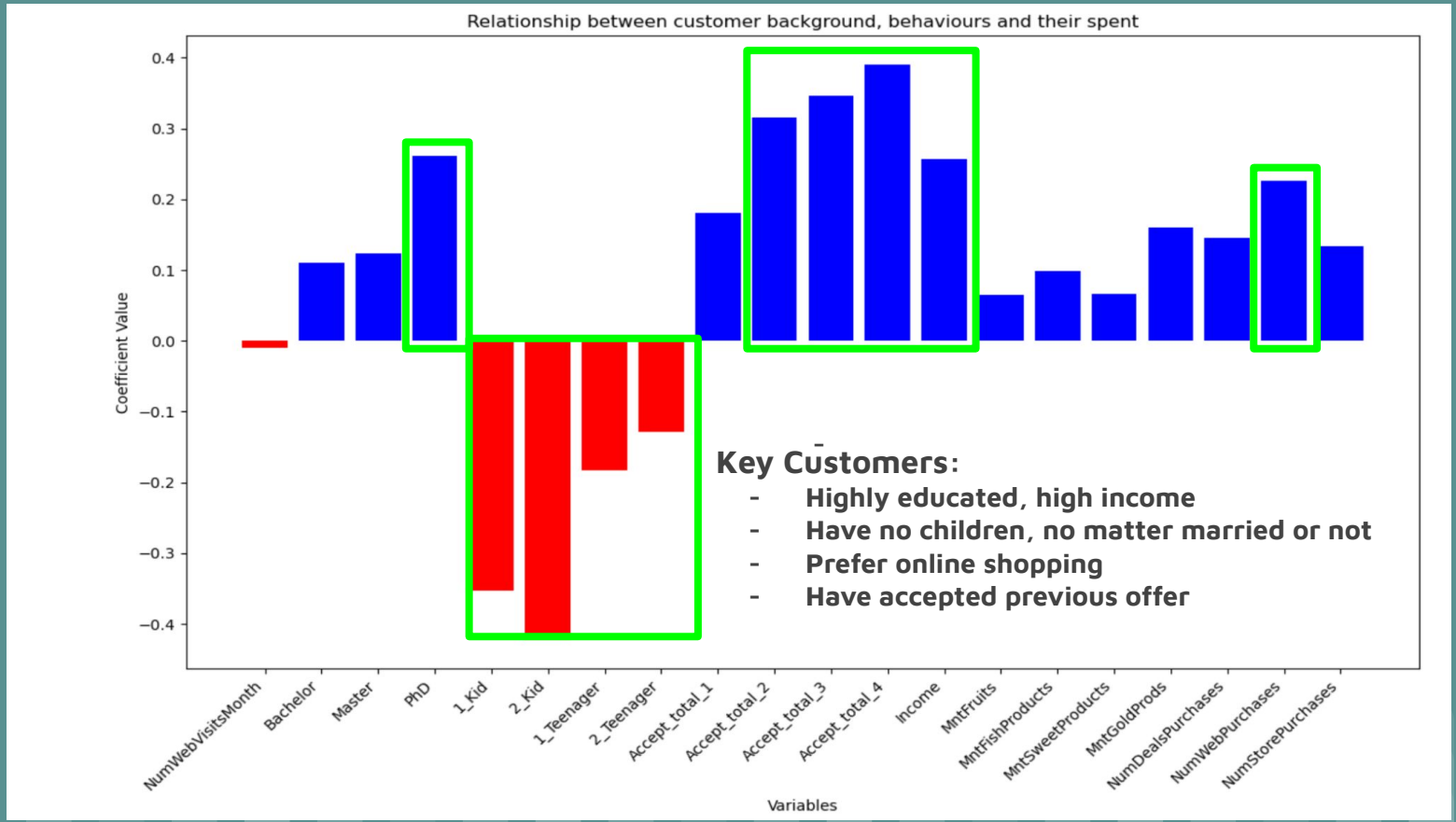
- R-squared: 0.911

Iteration 3 - removing high p-value variables

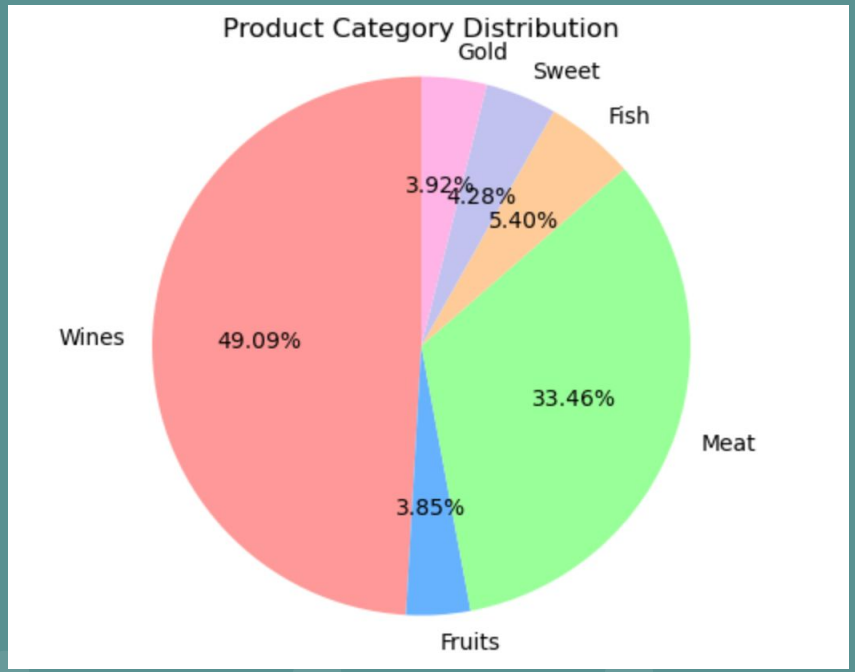
- R-squared: 0.911

Data validation: Cross data validation

1. Average cross-validation score: 0.906
2. Train = 0.087, Test = 0.094 (mean squared error)


Relationship between customer background, behaviours and their spent
Coefficient Value
0.4
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
−0.4
NumWebVisitsMonth
Bachelor
Master
PhD
1_Kid
2_Kid
1_Teenager
2_Teenager
Accept_total_1
Accept_total_2
Accept_total_3
Accept_total_4
Income
MntFruits
MntFishProducts
MntSweetProducts
MntGoldProds
NumDealsPurchases
NumWebPurchases
NumStorePurchases
Variables
Key Customers:
- Highly educated, high income
- Have no children, no matter married or not
- Prefer online shopping
- Have accepted previous offer

Most purchased category



Category:

1. **Wines 49.09%**
2. **Meat 33.46%**
3. **Fish 5.40%**
4. **Sweet 4.28%**
5. **Fruits 3.85%**
6. **Gold 3.92%**

Average monthly spent: $61.91

Insight

Key Customers:

- Highly educated, high income
- Have no children, no matter married or not
- Prefer online shopping
- Have accepted previous offer
- Prefer wines and meat
- Monthly spent: $61.9

Grocery Delivery

Suggestions for promotion to key customer:

- Dinner package (M9 steak+wine, Salmon fillet+wine)
- $1 to get fruit/sweet when people buy a meat/wine
- Offer: spend 77 dollars to get 10 dollars cash back/double rewards points

Q & A

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