Coffee house coupon analysis

# Goal

The objective of this exercise is to find the category of customers who have highest and lowest probability of accepting the coffee house coupons.

# Approach

There are multiple combinations of customer features that an maximize or minimize the probability of coffee house coupon acceptance. The idea is to plot visualization for few features that are important like age, passenger, income and no. of visits to coffee house in month. Then select the combination that has individually maximum possibility of accepting coffee house coupons.

# Data exploration

A graph of a bar chart

Description automatically generated with medium confidence

From above, customer visiting coffee house more than 8 times a month has high probability of accepting coffee house coupons.

A graph of a coffee house coupons offered

Description automatically generated

From above, if customer is with partner, then there is high probability of accepting the coupon.

A graph of a coffee house coupons offered vs accepted

Description automatically generated

From above, there is no clear indication which income group has the high probability of accepting coupons hence we can ignore income.

A graph of a coffee house coupons offered

Description automatically generated

Clearly, customer 21 and below has highest probability of accepting coupons.

# Conclusion

From the data exploration and subsequent calculation, here are the findings:

1. **People who go to the coffee house more than 8 times a month and age 21 or lower, and with partner have highest (100%) probability of accepting the coffee house coupons**
2. **People who go to coffee house less than once a month, and single and go to cheap restaurant more that 8 time a month, and no passenger has least (0%) probability of accepting the coffee house coupons**