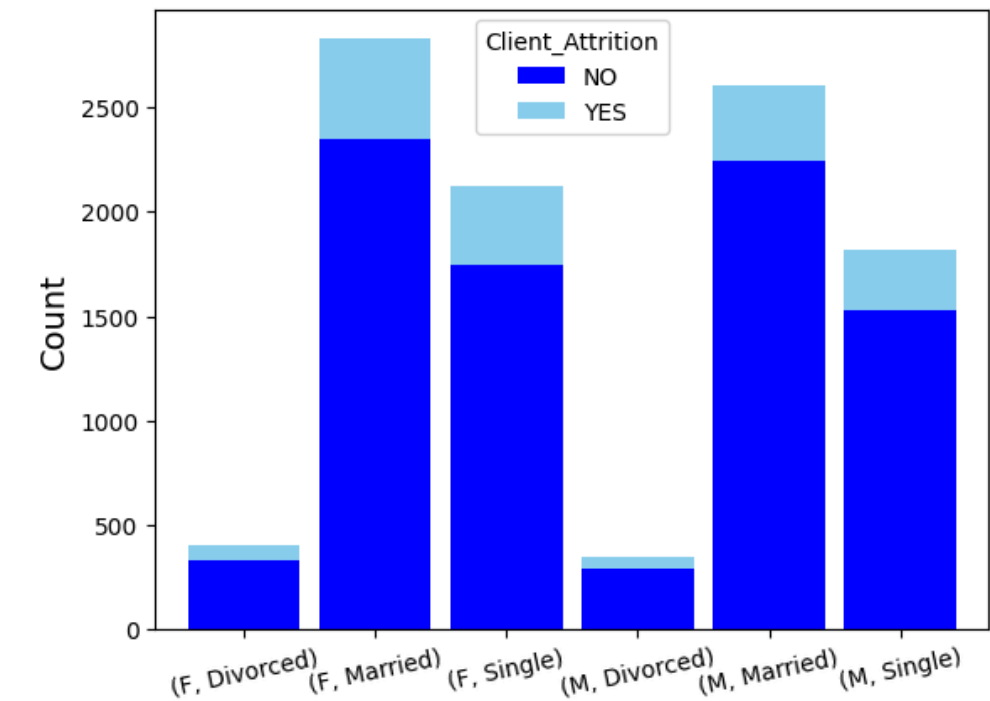


Client Attrition

Data Cleaning	%
Revolving Balance	24.4%
Education Level	15.0%
Marital Status	11.0%

- We deleted 2487 rows of data and 1 column of data.

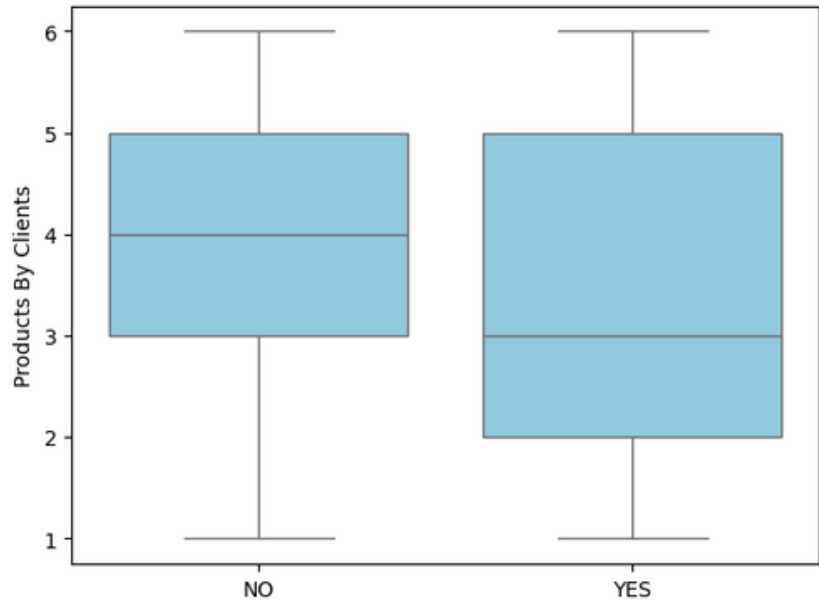
Client Attrition By Gender & Marital Status



- Females should be the priority for Client Attrition. (5,358 Females - 4,769 Males)

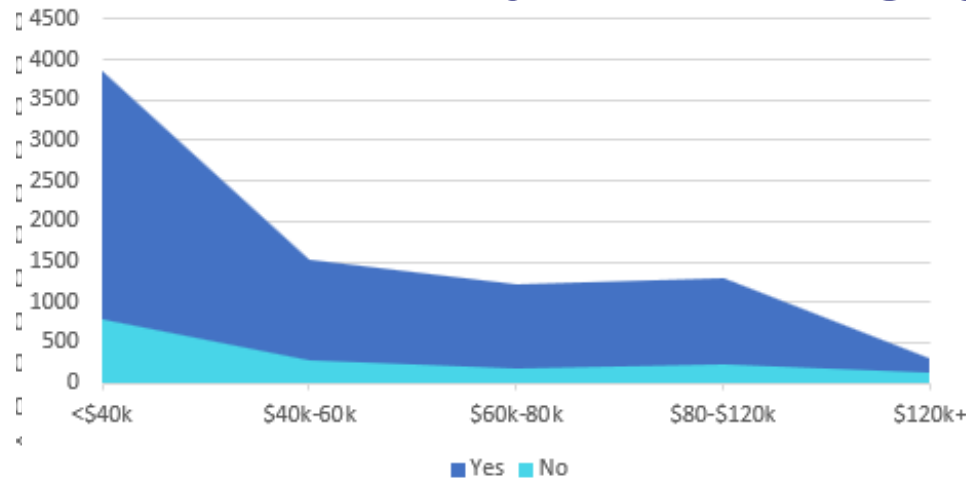
Client Attrition	Average Total Transactions
Yes	\$3095
No	\$4655

Average Products Per Client Attrition



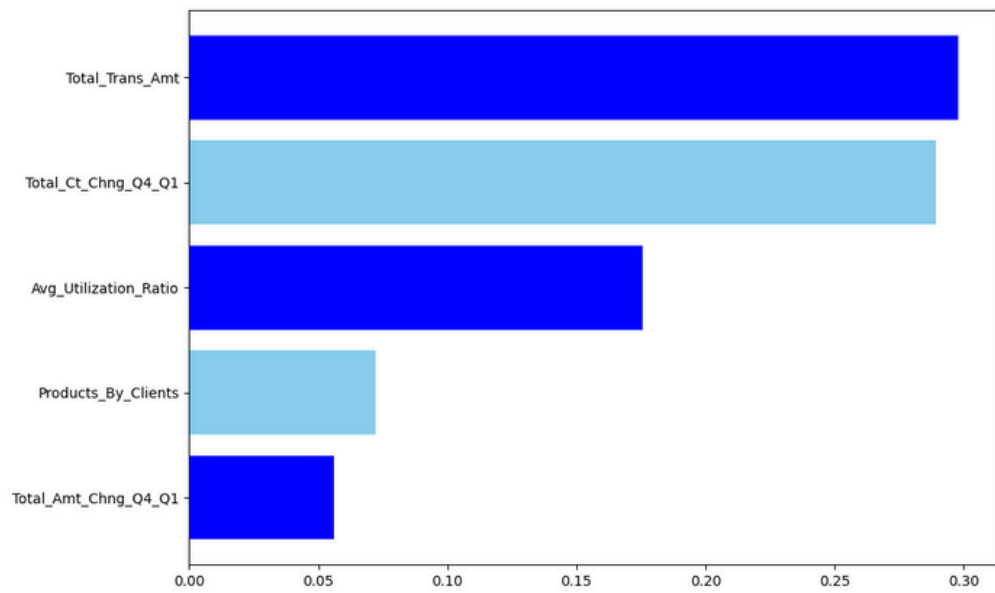
- Average products per client is drastically lower for clients that do leave than clients that do not.
- In order to increase client retention we recommend to create programs to increase the products that each client has.

Client Attrition By Income Category



- The graph shows us that the large majority of your clientele are lower income.
- There is naturally going to be a higher number and should be the focus.

Variable Importances



- We see that both the 2nd and 5th variables have to do with time of year. October-January we recommend creating incentives for spending for spending in these times of the year

Model Performance

Model	AUC Score
ANN	80.6%
KNN Regression	78.9%
SVM	76%
Logistic Regression	68.9%
Random Forest	61.3%

- AUC Score is a measure of performance for our models prediction for the classification variable.

Recommendations

- Our recommendations are that you focus mainly on female clients as they are the majority of your clientele.
- We recommend to create programs that increase client spending from Q4-Q1.
- We recommend you push products to your clients because the more products and transactions a client has, the less likely they are going to leave.
- Lastly, for model prediction we recommend the ANN Model.



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