

# Consumer Finance Company

## Credit Risk Analysis

Pavan S

# Problem Statement

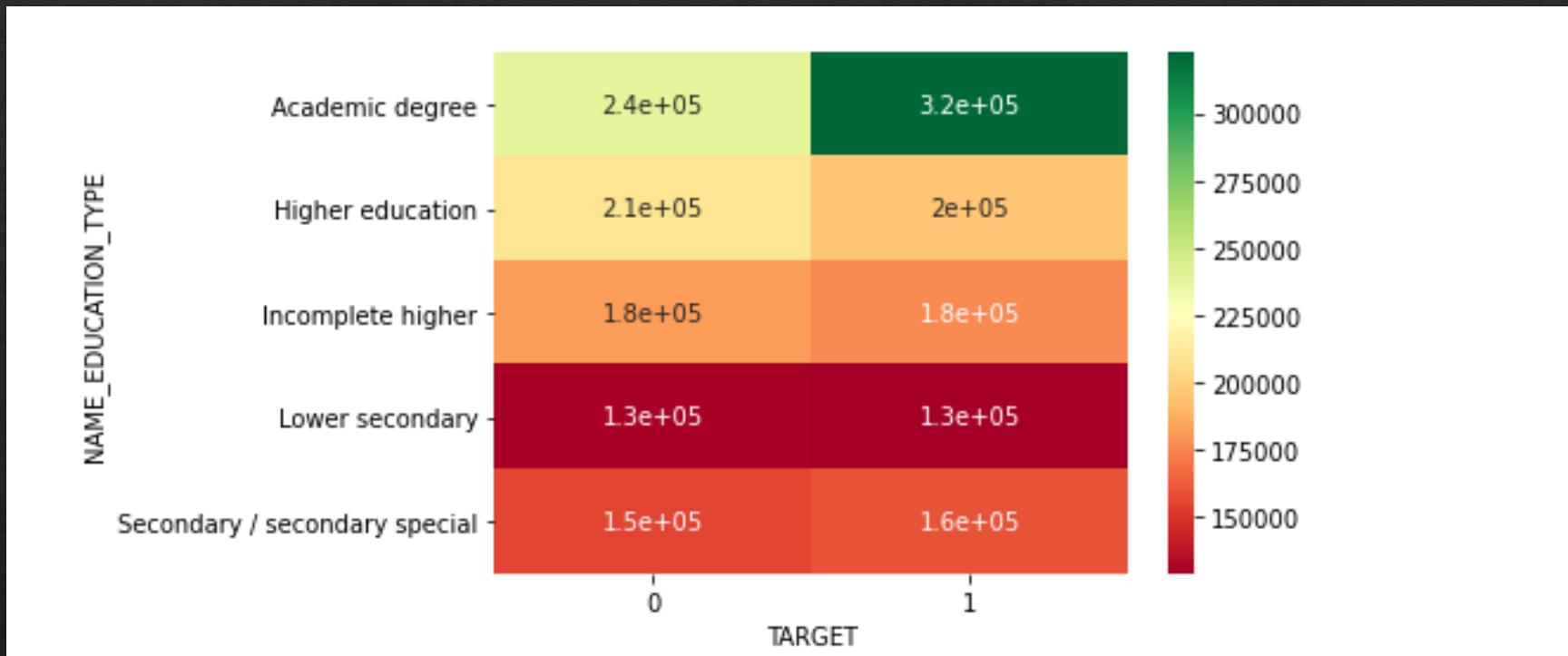
The purpose of this study is to help the Consumer Finance Bank under analysis to help take better credit decisions based on Customer Credit Behaviour Data, which includes several Social, Economic and Demographic Parameters and other miscellaneous variables relevant to credit study. The pattern Analysis has been based majorly on the Target Variable of Default/Non-Default Categories and based on the associations of Variables with the Target Variable, analysis has been made. The data analysis aims to help the Consumer Finance Company identify areas of concern and thereby help in making better credit decisions. The study is based on Exploratory Data analysis on Consumer Credit data and can be used as the starting point of conducting further research and also as a basis for building predictive Credit Risk models.

# Assumptions

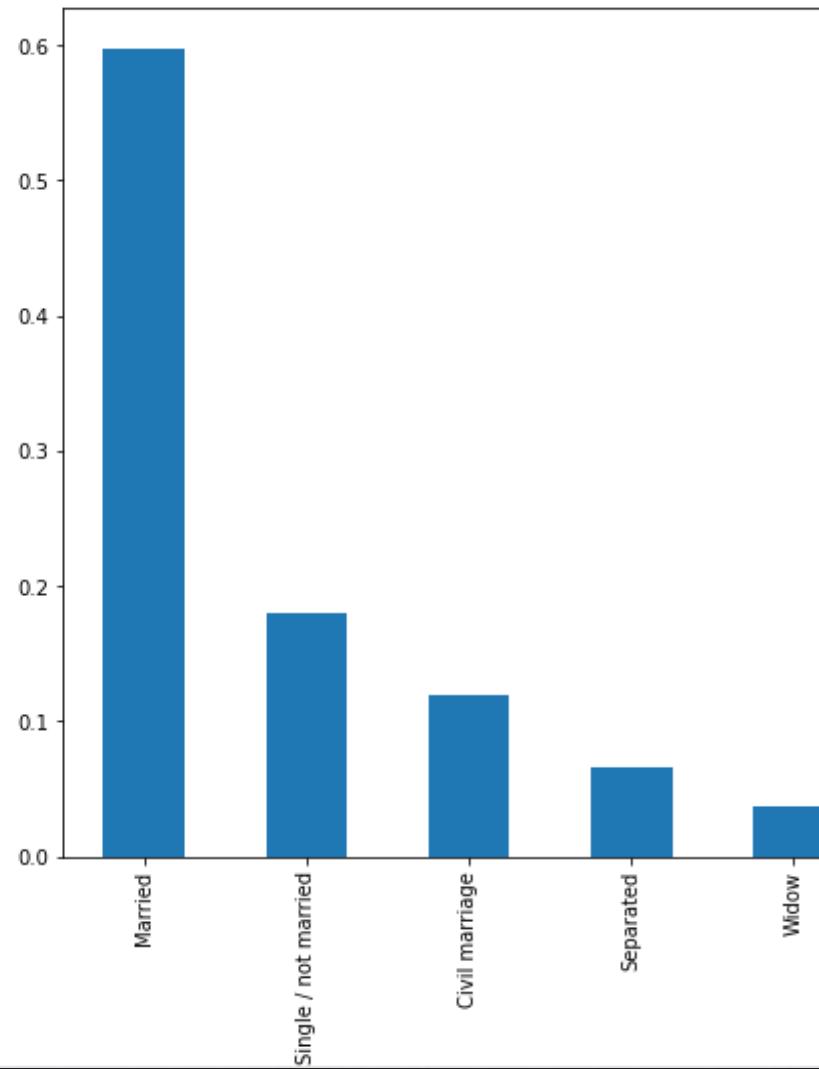
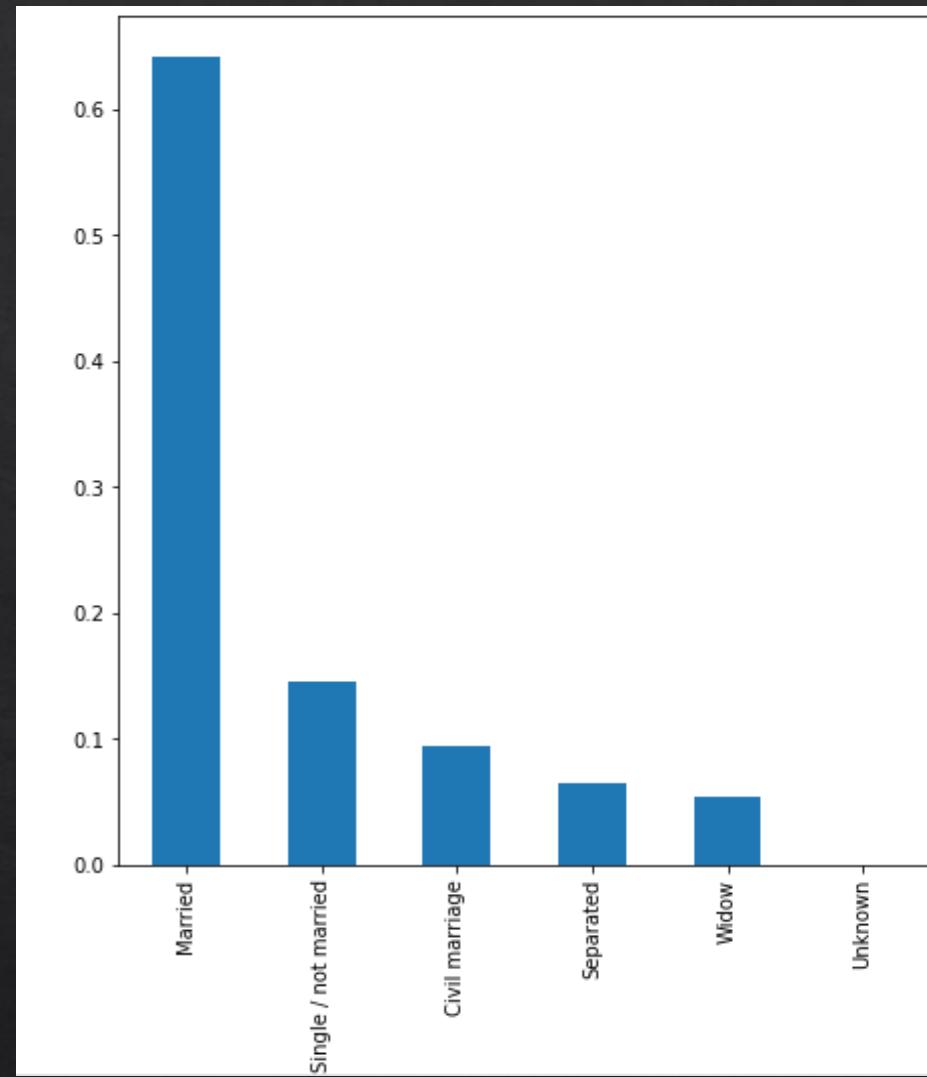
- ❖ However it is noted that the analysis are based on the data provided and the recommendations apply to the concerned Consumer Finance Bank.
- ❖ Variables have been chosen based on relevance to Credit Analysis and their association with Target Variable.
- ❖ **The analysis is done based on grouping the variables in to various category**
  - ❖ The Social Indicators- Gender, Marital Status, Income Group, Occupation, Education, Age, Peer Group
  - ❖ Economic Indicators- Income, Collateral, Occupation Type etc.
  - ❖ Demographic Indicators- Gender, Age, Marital Status, Number of Dependents etc.
  - ❖ Credit Indicators- Contract Type, Documents, Collateral, Amount of Credit Disbursed, Loan Purpose etc.
  - ❖ Other Miscellaneous Variables

# Analysis

## Social Indicators

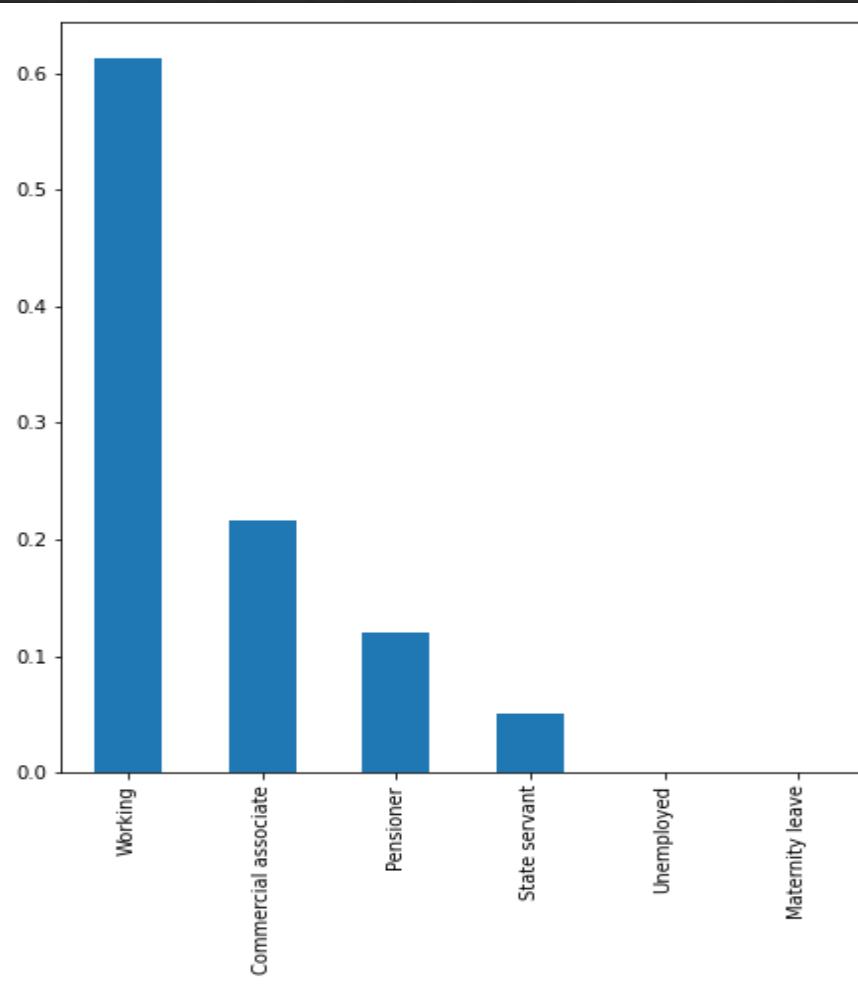
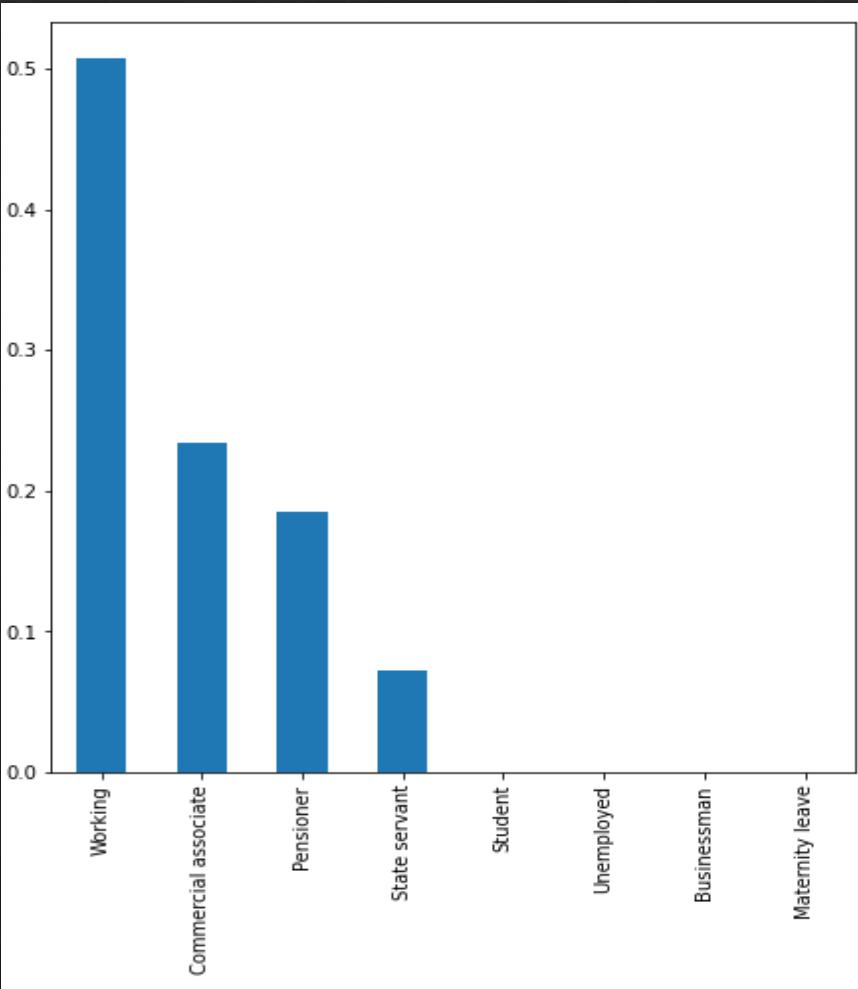


It is clear that Income values for Non-Default Category is lower in Lower Secondary and Secondary segments. Similar pattern in Non-Defaulter group can be seen

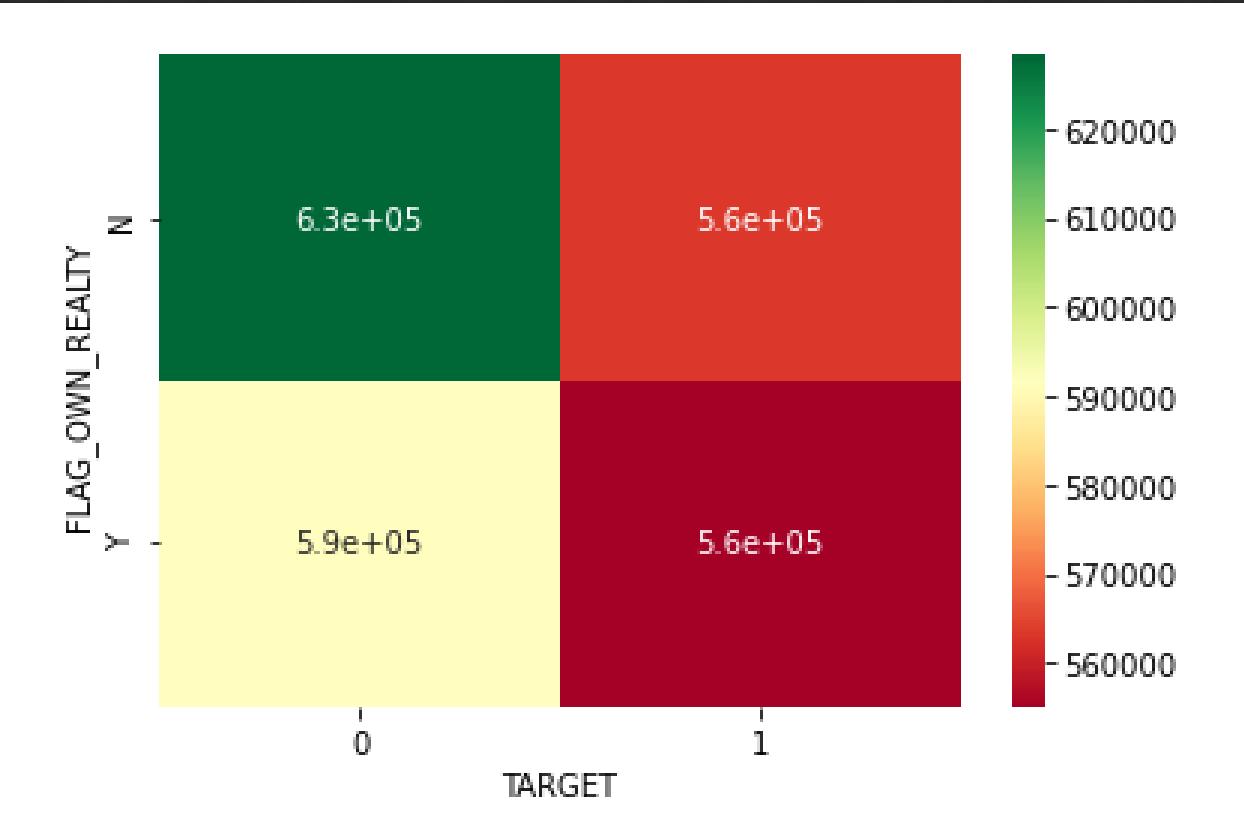


Non-Defaulter group has more percentage of Married Clients and less number of Unmarried Clients as compared to Defaulters. It could be because of increase in income because of age and spousal earnings of clients. Singles are more in Defaulter segment- close to 20% as opposed to 15% in N0n Defaulter category

# Economic Indicators

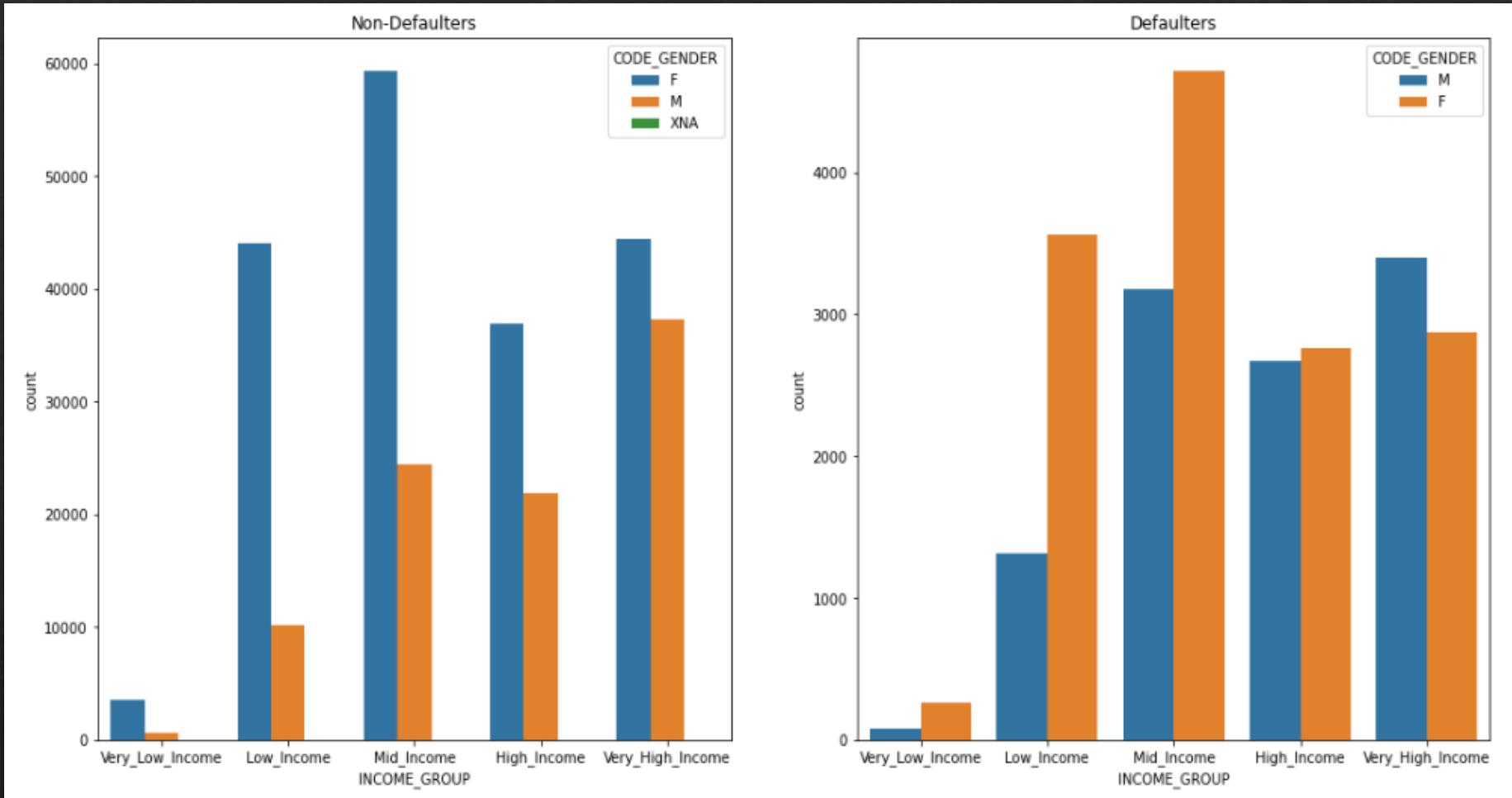


Non-Defaulter group has higher Commercial associate, State Servants and Pensioners than Defaulter Category

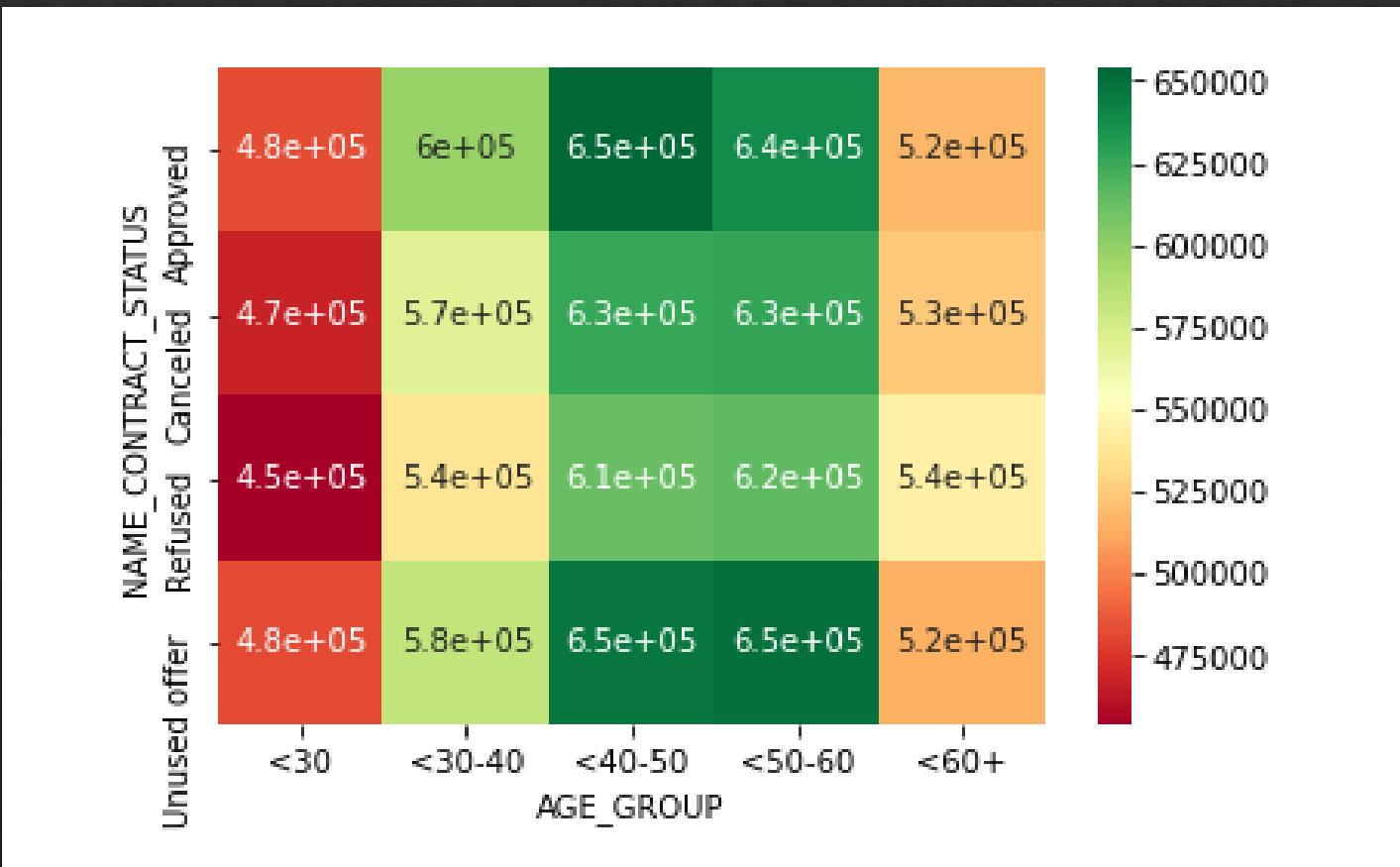


Higher Credit was rolled out to people with no collateral in the Non-default category. This could be a cause for losses and hence should be looked into

# Demographic Indicators

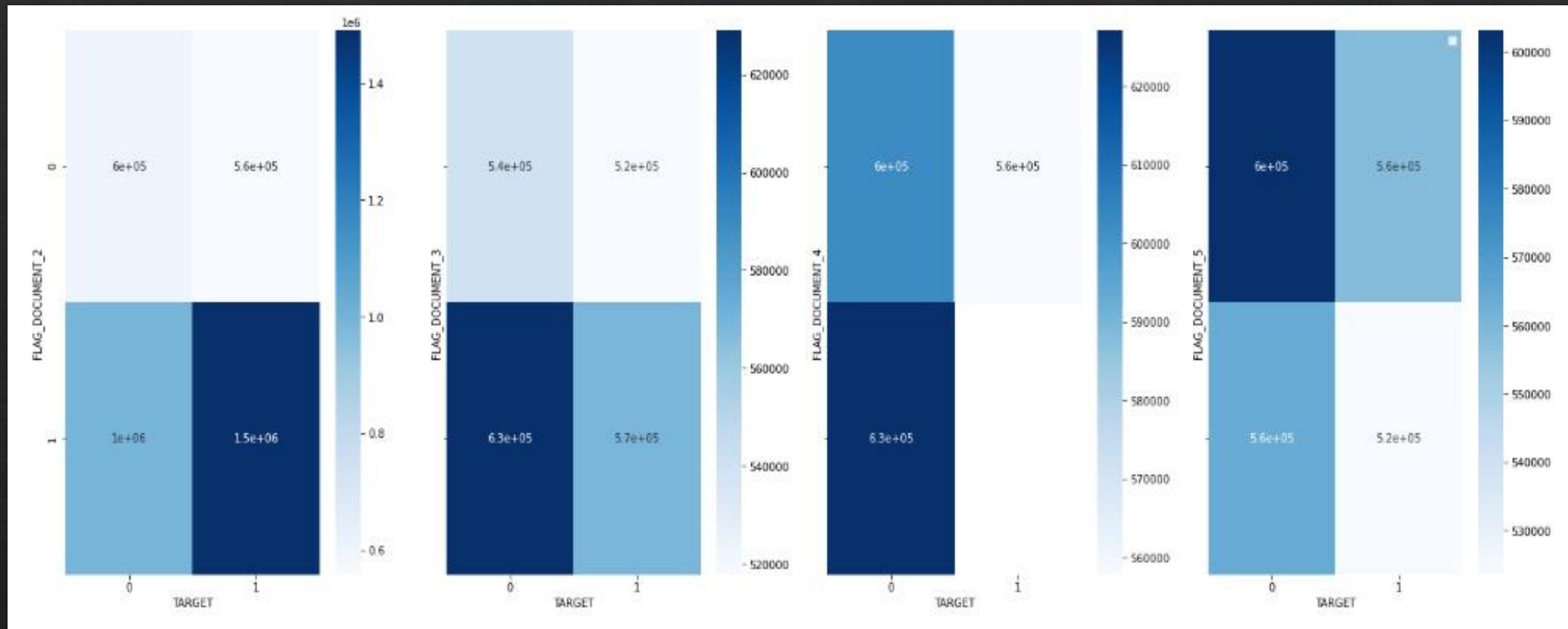


Males with the very high income and Female with mid-income pay their loans on time. Among Defaulters Mid-Income Females have highest payment difficulties and hence prone to defaults, followed by low income females. Surprisingly among males, Very High Income group has highest defaults- bad credit behaviour

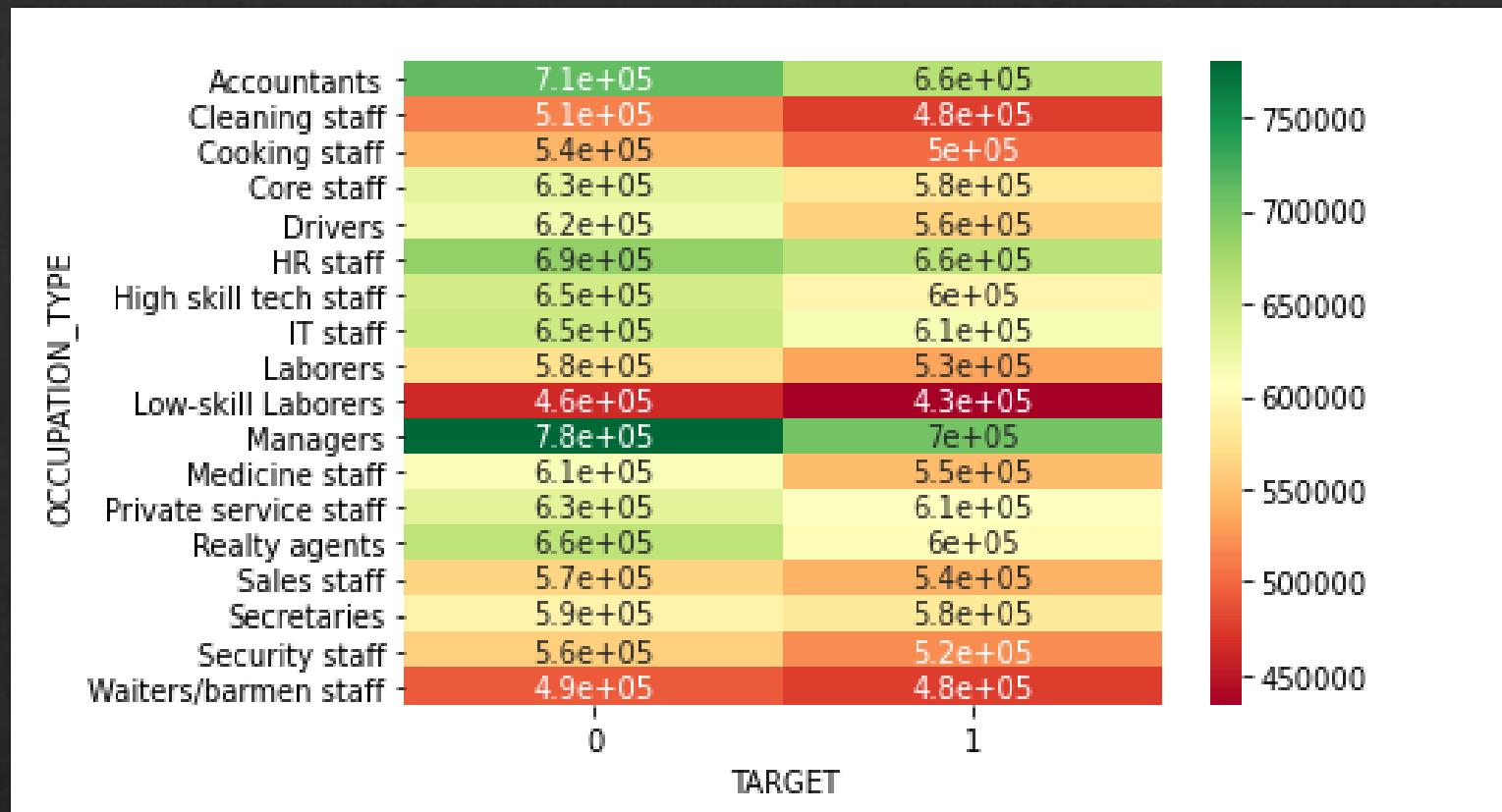


Those between Age Groups 40-60 are most preferred for credit in previous years- because of higher repayment capacity.

## Credit Indicators



Except for Flag Document 3, the Credit Disbursed has been higher for people who have not supplied the documents in the Non-Defaulter Category. This indicates that Due Diligence needs to be strengthened for and credit should not be disbursed with incomplete documentation



- Among Non-defaulter group, highest credit amounts were disbursed to Managers, Accountants and HR Staff and Realty agents-categories showing better credit behaviour among observations
- The major difference among Non-Defaulter and Defaulter Group is that more credit was disbursed in overall groups in the non defaulter category.
- In the Defaulter category only the High Skill Tech Staff is the category where the amount disbursed is only slightly less than Non-Defaulter group.

# Conclusion

- ❖ Social Indicators-Based on the patterns of associations observed between various factors, it can be said that in general, Female and XNA Gender Groups show better credit behaviors than Males. Also, Females have shown better repayment even though their mean income was lower than males; similarly Married and Widowed Groups are preferred to Single customers because of better credit capacity. The Credit disbursement pattern shows that Higher income and Higher education categories are most preferred for loan disbursement. An important indicator is that number of defaulters in peer groups of customers can also be used as an indicator for credit payment patterns, this can be more the case for customers with primary and secondary education backgrounds as their highest education levels. Middle Age Groups are proffered to younger age groups under 30.
  
- ❖ Economic Indicators- It has been noticed that High Income Groups are preferred customers because of better repayment tendencies, .Managers, Accountants and HRs have shown better credit repayment patterns. A cause of concern may be that the Consumer Finance bank has given a lot of credit to customers with no collateral present in the default category- this can result in more losses for the bank and should be considered. Labourers occur as a major chunk in the defaulter segment, because of socio-economic reasons. A way out could be giving loans to labor groups rather than individuals to facilitate repayment, based on the success of women SHGs. Also, self employed and business owners occur as categories with repayment difficulties.

- ❖ Demographic Indicators- Females and XNA groups show better credit patterns among observations. Groups with single customers and mature age groups are preferred for credit disbursement.
- ❖ Credit Indicators- It has been observed that the bank is lending money to customers without adequate due diligence. Credit was given out without the presence of required documents and hence this could be a definite cause of concern. Also, on the type of loan contract, rolling loans, even though a lower percentage among defaulters could be a cause of concern, if resulting in losses in absolute amounts. It has also been noticed that the bank has given considerable credit to defaulters with no collateral as mentioned above.
- ❖ Based on the above it could be said that the Consumer Finance Company needs to strengthen its due diligence capabilities based on documents procured, pay more attention to credit behavior of peer groups of clients, continue to prefer High education, High Income segments as profit segments, roll out new products to facilitate payments for low income groups like laborers. The Bank could also mark XNA and Female, weaker social groups as groups with better credit patterns. It needs to consider quality of collateral and presence of collateral as factors impacting bottom-line and hence pay attention. Some channels of loans could be risky and might need more research for purposes of profitability. These are some of the major pin points for the bank to improve its credit decisions and improve profitability.

THANK YOU