HBFC BANK PROJECT REPORT

SUBMITTED BY

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**1.What percentage of the bank’s customers have availed Personal Loans?**

*9.60% of bank customers have availed personal loans*

**2.Generate a table with min, max, median & average for all numeric variables (age, experience, income, family members, CCAvg, Mortgage). What are your observations?**

|  |  |
| --- | --- |
| *min age* | *23* |
| *max age* | *67* |
| *median of age* | *45* |
| *average of age* | *45.3384* |
| *min exp* | *0* |
| *max exp* | *43* |
| *median of exp* | *20* |
| *average of exp* | *20.1348* |
| *min income* | *8* |
| *max income* | *224* |
| *median of income* | *64* |
| *average of income* | *73.7742* |
| *min CCAvg* | *0* |
| *max CCAvg* | *10* |
| *median of CCAvg* | *1.5* |
| *average of CCAvg* | *1.93794* |
| *min Mortgage* | *0* |
| *max Mortgage* | *635* |
| *median of Mortgage* | *0* |
| *average of Mortgage* | *56.4988* |

**3) Create a new categorical variable for Experience using 4 categories.**

|  |  |
| --- | --- |
| Range of Experience | Number of peoples |
| 0 to 10 years | 1289 |
| 11 to 20 years | 1253 |
| 21 to 30 years | 1301 |
| 30+ years | 1157 |

**4)Create a scatter plot of the Age and the Experience variable. What do you observe?**

Age and Experience are positively corelated

**5.What are the top 3 areas (ZIP Codes) where the bank’s customers are located?**

|  |
| --- |
| ZIP Codes |
| 94720 |
| 94305 |
| 95616 |
| **6.How many customers have a combination of Fixed Deposits and Credit Cards but not Personal Loan?**  *147 Customers have the above combinations.*  **7.What is the median income of the customers who have availed personal loans and compare it with the median income of those customers who have not availed personal loans? What do you infer?**   |  | | --- | | *The median income of customers availed personal is 142.5k/year.* | | *The median income of customers who have not availed personal is 59k/year.* | | |  |  |  |  | | --- | --- | --- | --- | | **8.** | **Create 4 separate Pivot Tables. Summarise your data by percentages.** | | | |  | **· Education vs Personal Loan** |  |  | |  | **· TD Account Vs Personal Loan** |  |  | |  | **· Online vs Personal Loan** |  |  | |  | **· Income Category vs Personal Loan** |  |  | |      |  |  | | --- | --- | | EDUCATION | Count of Personal Loan | | Graduate | 28.06% | | Professional | 30.02% | | Undergraduate | 41.92% | | Grand Total | 100.00% | |  |  | |  |  | | ONLINE | Count of Personal Loan | | No | 40.32% | | Yes | 59.68% | | Grand Total | 100.00% |  |  |  |  | | --- | --- | --- | |  | TD ACCOUNT | Count of Personal Loan | |  | No | 93.96% | |  | Yes | 6.04% | |  | Grand Total | 100.00% | |  |  |  | |  |  |  | |  |  |  | |  | INCOME CATEGORY | Count of Personal Loan | |  | 0-50 | 38.28% | |  | 100+ | 24.24% | |  | 51-100 | 37.48% | |  | Grand Total | 100.00% |  |  | | --- | |  | | **9. Analyse the Pivot tables created in the previous question and state any anomaly that you**  **observe. Which categorical variables appear most important for your further study if you**  **want to analyse which customers are most likely to take personal loans and why?**  *40.32% of personal loans are generated online*  **10. In the last campaign, bank reached out to 5000 customers out of which 480 customers**  **accepted the personal loan offer. The bank incurred a huge cost in running a marketing**  **campaign to reach out to so many customers. This is where you as a strategic business**  **consultant step in. You are tasked to optimise the cost of this campaign by identifying the**  **correct target base (without significant reduction in number of acceptances of offers). The**  **bank can then send Personal Loan offers to these target customers who have a higher chance**  **of accepting the offer. Based on your analysis, what strategy would you suggest too the**  **management of HBFC bank?**   * *About 38.28% of 0-50k/year of annual income are opting for personal loan .* * *Only 6.04% of people who have done TD has taken personal loan. It’s advisable to increase the count of TD accounts.* * *If we observe the above pivot table its clearly visible that 41.92% of undergraduates had opted for personal loan* | |  | | | | | | |  |
|  | | |  |  |  |  |

THANK YOU