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| HBFC Bank Personal Loans |
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| May 31  WEEK 01 BASICS OF EXCEL  Authored by: RIYA RAJ |



# HBFC Bank Personal Loans

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| **Bank\_Personal\_Loan\_Modelling** BACKGROUND  The case revolves around HBFC Bank aiming to increase its loan business by converting existing depositors into personal loan customers while retaining them. With a focus on expanding the small borrower base, the bank has provided a dataset of 5000 customers, encompassing demographic details, the customer's relationship with the bank, and responses to the last personal loan campaign. The ultimate goal is to build a model that identifies potential customers with a higher probability of availing a personal loan, thereby aiding the bank in strategic targeting for loan acquisition.  KEY FINDINGS  In summary, key factors influencing personal loan acceptance include age, income, credit card spending, and education level. The bank should target customers in the higher income brackets, particularly those aged 50 and above, and tailor marketing strategies towards individuals with higher credit card spending and advanced education levels. Further analysis may be required, such as interaction effects between variables and predictive modeling, to enhance the precision of customer targeting.  Ans 1. Percentage of the bank’s customers (according to the data) have availed Personal Loans 90.40% the ones who have not availed it 9.60%    Ans 2.  .Age summary Exp summary    Avg 45.33 Avg 20.14  Income Family members    Avg 73.77 Avg 2.37  Ccavg Mortgage    Avg 1.93 Avg 56.49  3. Categorise the slot and use the formaula and created one column .  Formula is = ‘=IFS(C2<=10,"0 to 10 years",C2<=20,"11 to 20 years",C2<=30,"21 to 30 years",C2>30,"30+")    4. There is a positive correlation if as a person’s age is going up and experience going up.    5. COUNT OF ZIP CODES AND FILTER OUT THE TOP THREE    6. 143 customers have a combination of Fixed Deposits and Credit Cards but not Personal Loan  7.  Median income of the customers who have availed personal loans  FOR NO - 59  FOR YES - 142.5  COMMENT/INFERENCE – MORE THE INCOME MORE LIKELY TO TAKE PERSONAL LOANS  SECOND MRTHOD WE CAN ALS PUT IT THROUGH PIVOT TABLE MEDIAN FOR THE PERSONAL LOAN    8.    9. Let's analyze the provided tables:  1. \*\*Education:\*\*  - Graduates have a personal loan acceptance rate of 12.97%.  - Professionals have a personal loan acceptance rate of 13.66%.  - Undergraduates have a significantly lower acceptance rate at 4.44%.  2. \*\*TD Account:\*\*  - Customers with a TD account are more likely to take a personal loan (46.36%) compared to those without (7.24%).  3. \*\*Online:\*\*  - Both customers who use online services and those who don't have a similar likelihood of taking a personal loan (9.38% and 9.75%, respectively).  4. \*\*Income Category:\*\*  - Customers with an income of 0-50 have a 0% acceptance rate.  - Customers with an income of 51-100 have a low acceptance rate of 2.24%.  - Customers with an income of 100+ have a higher acceptance rate of 36.14%.  \*\*Anomalies/Interesting Observations:\*\*  - The acceptance rate for personal loans is 0% for the "0-50" income category. This might indicate an issue or anomaly in the data unless there is a specific reason for this, such as certain restrictions or policies.  - The acceptance rate for personal loans is high for customers with a TD account, indicating that having a TD account might be a significant factor.  - Graduates and professionals have relatively similar acceptance rates, but undergraduates have a significantly lower rate. This could be an important factor for further study.  \*\*Variables for Further Study:\*\*  - \*\*Income Category:\*\* The income category appears to be a crucial variable, especially the 0-50 category anomaly and the increasing acceptance rate with higher income.  - \*\*TD Account:\*\* Customers with a TD account are more likely to take personal loans. Further investigation into the relationship between banking services and loan acceptance could be beneficial.  - \*\*Education:\*\* There is a notable difference in acceptance rates among different education levels, with undergraduates having a lower rate. Understanding the reasons behind this difference could provide valuable insights.  In summary, to analyze which customers are most likely to take personal loans, further study should focus on income categories, the presence of a TD account, and the educational background of customers. Additionally, exploring the reasons behind anomalies, such as the 0% acceptance rate in the "0-50" income category, could provide important insights.  10. I AM SUGGESTING THE BANK FOR FIRST OF ALL TARGETS ONLY HIGHER INCOME CATEGORY AND CONTAIN A TD ACCOUNT a/c to this much more turn over rates.  SECONDLY TARGET THE TD ACCOUNT  Because when I created apivot table the impact were shown with two of the tables first highly incomes peoples and td account.    -Approximately 40 % of the people will sign up for the personal loans.  **CONCLUSION**  **Certainly, based on the analysis of the provided tables, here are the conclusions and recommendations:**  **1. \*\*Income Category and TD Account Impact:\*\***  **- Customers in the higher income category (100+) and those with a TD account are more likely to take personal loans.**  **- The combination of a higher income and a TD account significantly increases the likelihood of personal loan acceptance.**  **2. \*\*Target Audience for Personal Loans:\*\***  **- The bank should target customers with higher incomes, particularly those in the 100+ income category.**  **- Prioritize marketing efforts towards customers with TD accounts, as they show a higher propensity for taking personal loans.**  **3. \*\*Education Level:\*\***  **- While graduates and professionals have similar acceptance rates, undergraduates show a significantly lower rate.**  **- Further investigation is needed to understand the reasons behind the lower acceptance rate among undergraduates.**  **4. \*\*Income Anomaly:\*\***  **- There is an anomaly in the 0-50 income category, where the acceptance rate is 0%. The bank should investigate and clarify whether this is a data issue or if there are specific policies affecting this category.**  **5. \*\*Overall Strategy:\*\***  **- Focus marketing and promotional efforts on the identified target audience: higher income customers with TD accounts.**  **- Consider tailoring loan products or marketing strategies to address the needs and concerns of undergraduates to increase their acceptance rates.**  **6. \*\*Expected Conversion Rate:\*\***  **- Approximately 40% of the targeted population (higher income with TD accounts) is expected to sign up for personal loans based on the analysis.**  **7. \*\*Continuous Monitoring:\*\***  **- Regularly monitor the impact of targeted strategies on personal loan sign-up rates.**  **- Periodically reassess the effectiveness of marketing campaigns and adjust strategies based on changing customer behaviors.**  **8. \*\*Further Studies:\*\***  **- Continue studying customer behaviors and preferences to refine targeting strategies.**  **- Explore additional factors influencing personal loan acceptance, such as the purpose of the loan or specific features that customers find attractive.**  **In conclusion, the bank should concentrate its efforts on attracting customers with higher incomes, especially those with TD accounts, while also addressing the unique needs of undergraduates to improve overall personal loan acceptance rates. Ongoing monitoring and flexibility in strategy will be crucial for adapting to evolving customer trends.** |