HBFC BANK PROJECT
Business Report

-BY M KASHIF AHMED

Q1. What percentage of the bank's customers (according to the data) have availed Personal Loans?

	Customers who have availed Personal Loan	Customers who have not availed Personal Loan	Grand Total
Count of ID	90.40%	9.60%	100.00%

Observation:

The customers who *have avoided* personal loan   >   the customer who *have not avoided* personal loan

Q2. Generate a table with min, max, median & average for all numeric variables (age, experience, income, family members, CCAvg, Mortgage). What are your observations?

Entities	Age	Experience	Income (in K/years)	Family members	CCAvg(in $1000)	Mortgage
Average	45	20	74	2	2	56
Median	45	20	64	2	1.5	0
Minimum	23	0	8	1	0	0
Maximum	67	43	224	4	10	635

The above analysis has been arrived through *descriptive statistics* option in the *data analysis menu*.

Observation:

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➤ **Mortgage :** The mortgage ranges between 56k to 635k. So the bank customers are both *home owners* and *renters*

➤ **Age and Experience:**
The average age of customer is 45 with an average experience of 20 years. So the customers are relatively mature and experienced. Minimum age is 23 so bank has *customers in all age group.*

➤ **Income :**
The average salary of customer is 74,000 with minimum salary of 8,000. So the bank has customers *with different income level.*

➤ **Family members :**
The bank has average of family with 2 members with maximum 4 members. so the customers are either *single* or *nuclear family.*

➤ **Credit cards :**
The credit card spending average ranges from 2k to 10k. So customers who are willing to spend on credit card also willing to buy personal loans.

3. Create a new categorical variable for Experience using 4 categories –
a. 0 to 10 years
b. 11 to 20 years
c. 21 to 30 years and
d. 30+ years.
**Plot a bar graph for this new categorical variable**

Observation:

➢ There is a anomaly between *0 -10 years* and *11-20 years* because the people who are fresher *gain their experience* of 10 years and want to explore other career option, hence there is drop in the category of 11-20 years experience.

➢ The rise in the category of *21 -30 years* experience indicates that they wanted to gain more experience for their *promotion* and stick to company and remain loyal until their *retirement.*

➢ The category *of 30+ experience* is reduced compared to 21-30 years experience because of many factors like *early retirement, switching to new technology or industries.*

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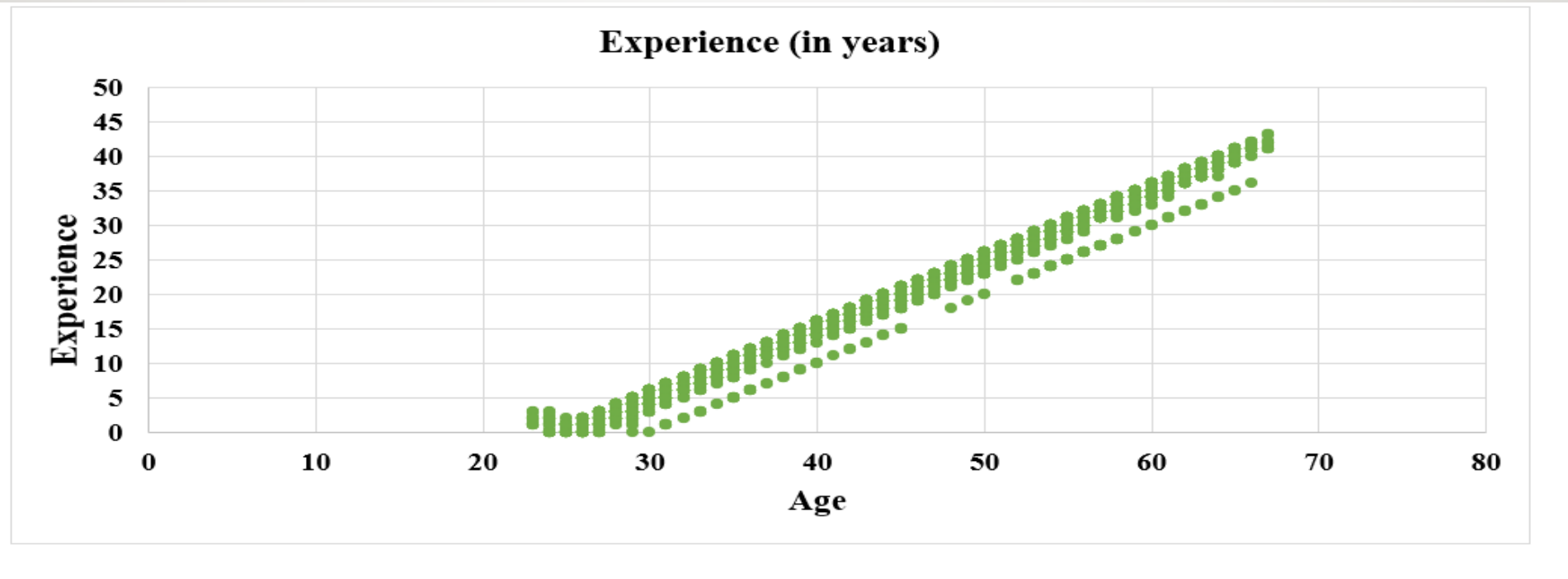
Observation:

From the graph we come to know that as the *age increases* the *experience also get increased* and hence the graph is *linear.*

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

Top	Zip code	Area name	Count of ID
1	94720	Berkeley, California, USA	169
2	94305	Stanford,California, USA	127
3	95616	Davis,California, USA	116

Observation:

- Mostly the banks are highly located in tier1, tier 2, and tier3 cities among 6 tiers, because of *higher population density* to maximize the customer base.

- This includes a *higher residential area,* industries with many *businesses*, and *colleges* where the student will attain the age to open bank accounts.

- These areas will have higher economic activities like *lending* and *investment opportunities*.

- These areas will have major *transportation hubs*, and *shopping malls*, where people looking for convenience and ease of access.

6. How many customers have a combination of Fixed Deposits and Credit Cards but not Personal Loan?

Customers with CreditCard	Yes
Customers with TD account	Yes
Do customers have Personal Loan	No

Count of ID
147

The number of customers who have a combination of *Fixed Deposits* and *Credit Cards* but not *Personal Loan* = *147*

Observation:

- The customers who are having credit cards and FD may not need personal loan as it is *sufficient to cover the expenses.*

- In Personal loan *EMI* has to be paid at the *beginning of the month* whereas in credit card and fixed deposit it *doesn't require regular payment.*

- The *interest rate of personal loan* may often be *higher* than the *interest rate of credit card* so people choose credit card or fixed deposit instead of personal loan.

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?

Median Income of customer who *have availed* Personal loan	142.5
Median Income of customer who *haven't availed* Personal loan	59

Observation:

1) This suggest that the personal loan may be *more accessible to the customers with higher income* as they have low risk of repayment of the loan.

2) Personal loans are often used for large purchase like *renovations* and for *buying car*. So if people bought under these category there is more chance of median of this group is higher.

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8. Create 4 separate Pivot Tables. Summarise your data by percentages.

8a & 9. Education vs Personal Loan

Percent of Education	Personal loan		
Row Labels	**No**	**Yes**	**Grand Total**
Graduate	24.42%	3.64%	28.06%
Professional	25.92%	4.10%	30.02%
Undergraduate	40.06%	1.86%	41.92%
Grand Total	**90.40%**	**9.60%**	**100.00%**

Entities	Percent
Overall percent of *graduate* taken Personal loan	13%
Overall percent of *professional* taken Personal loan	14%
Overall percent of *undergraduate* taken Personal loan	4%

Observation:

Reason for taking loan:

The *Professional people* took more personal loan compared to other people because they are capable of getting loan as they can *repay with assured salary* every month

8b & 9. TD Account Vs Personal Loan

Percent of TD Acoount	Personal loan		
Row Labels	**No**	**Yes**	**Grand Total**
Not having TD ACCOUNT	87.16%	6.80%	93.96%
Having TD Account	3.24%	2.80%	6.04%
Grand Total	**90.40%**	**9.60%**	**100.00%**

Entities	Percent
Overall percent of people *not having TD Account* took personal loan	7%
Overall percent of people *having TD Account* took personal loan	46%

Observation:

Reason for taking loan:

➤ The people *who are not having TD Account* get more personal than the people who are not having TD account, because the people who have TD account can get loan easily by providing their *fixed deposit as collateral.*

➤ To recover this situation bank should encourage people to *have TD account to get a loan* in future quickly.

8c & 9. Online vs Personal Loan

Percent of Online	Personal Loan		
Row Labels	No	Yes	Grand Total
People not having netbanking	36.54%	3.78%	40.32%
People having netbanking	53.86%	5.82%	59.68%
Grand Total	90.40%	9.60%	100.00%

Entities	Percent
Overall percent of people *not having netbanking* took personal loan	9%
Overall percent of people *having netbanking* took personal loan	10%

Observation:

Reason for taking loan:

➢ Here the people having who are having and not having net banking took less personal loan, because the people without net baking are *not aware of net banking* option which is easier than by getting loan in virtual. *not*

➢ Those who are having net banking are also getting less personal loan because *the interface of the app is not user friendly.*

8d&9 . Income Category vs Personal Loan

Percent of Salary range	Personal Loan		
Row Labels	No	Yes	Grand Total
People with salary (0-50,000)	38.28%	0.00%	38.28%
People whose salary above 1,00,000	15.48%	8.76%	24.24%
People with salary (51,000-1,00,000)	36.64%	0.84%	37.48%
Grand Total	90.40%	9.60%	100.00%

Salary range	Percent
People with salary (0-50,000)	0.00%
People with salary above 1,00,000	36.14%
People with salary (51,000-1,00,000)	2.24%

Observation:

Reason for taking loan:

The people whose salary above 1,00,000 get more personal loan compared to others, because a person with salary above 1,00,000 *can bear the monthly expenses as well as EMI* while others cannot.

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 acceptance 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 to the management of HBFC bank?

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Observation:

➢ *Targeting the right audience:*

    Target the people who haven't took personal loan ie. people *with salary (0-50,000)* and understand their needs like people who need finance for big purchase like *car*, and home *renovations.*

Observation:

➤ *Clearly defining the benefits:*

Making sure that the potential customers *understand* how personal loans can help them to *achieve their financial goals.*

➤ *Offer the competitive intererst rate:*

Personal loan with *low interest* rate *compared to other banks* can attract the customers. It makes huge difference and allowing the customer to decide whether to take loan or not.

➤ *Making the application process easy:*

Making every customers of banks to *get the mobile app of the bank* in their mobile and making the *interface in user friendly* manner to reduce the hassle.

Observation:

➢ Social Proof:

Social media is the powerful tool in convincing the customers by *sharing the success stories* of previous customers who took personal loans to built trust and credibility

➢ Providing excellent customer service:

It can make big difference in *attracting* and retaining the customers. Be *responsive* to the inquiries and *offer helpful advice* and make sure that the customer is *valued and appreciated.*

Thank You