

Pig E. Bank



PROBLEM:

- The banks' sales team wants to increase customer retention by identifying the leading indicators that a customer will leave the bank.

OBJECTIVE:

- Identify the top risk factors that contribute to client loss and model them in a decision tree.

KEYNOTES

- The data set included 11 clients who were under the age of two. Because it is impossible to have clients so young and because those entries make up less than 1% of the whole data set, they were simply deleted.

SKILLS

- Identifying types of bias and ethical dilemmas
- Calculating descriptive statistics
- Pivot tables
- Creating a decision tree model

TOOLS

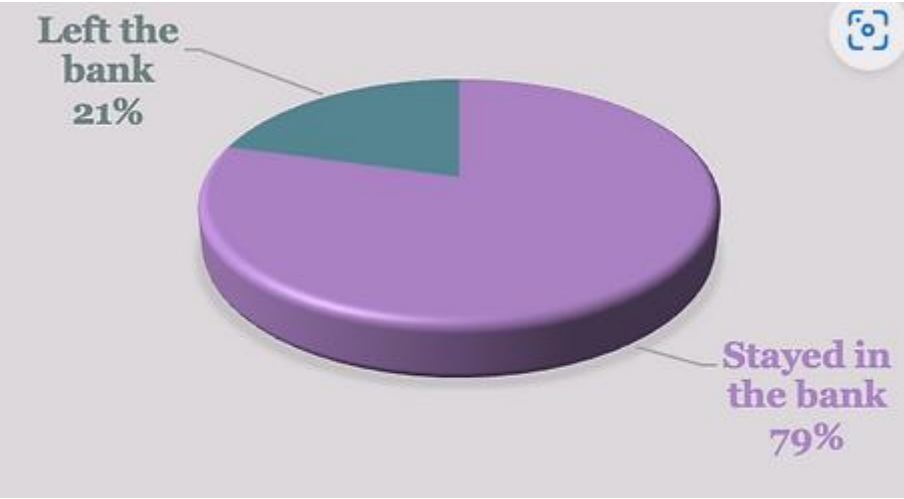
- Excel

DATA

- [Pig E. Bank's client data set](#)

KEY INSIGHTS

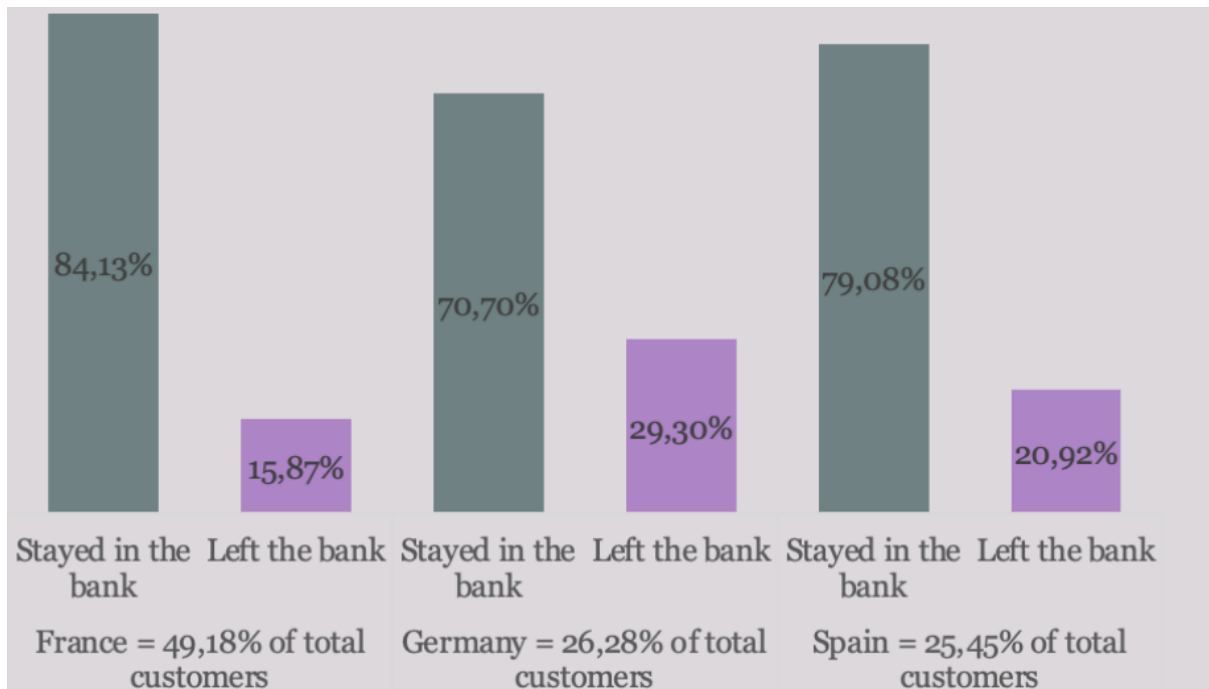
Who are the bank's former clients?



- Customers who have left the bank are in average 45 years old and have a credit score of 637. On average they have \$90.496 on their balance and average salary of \$97.597.

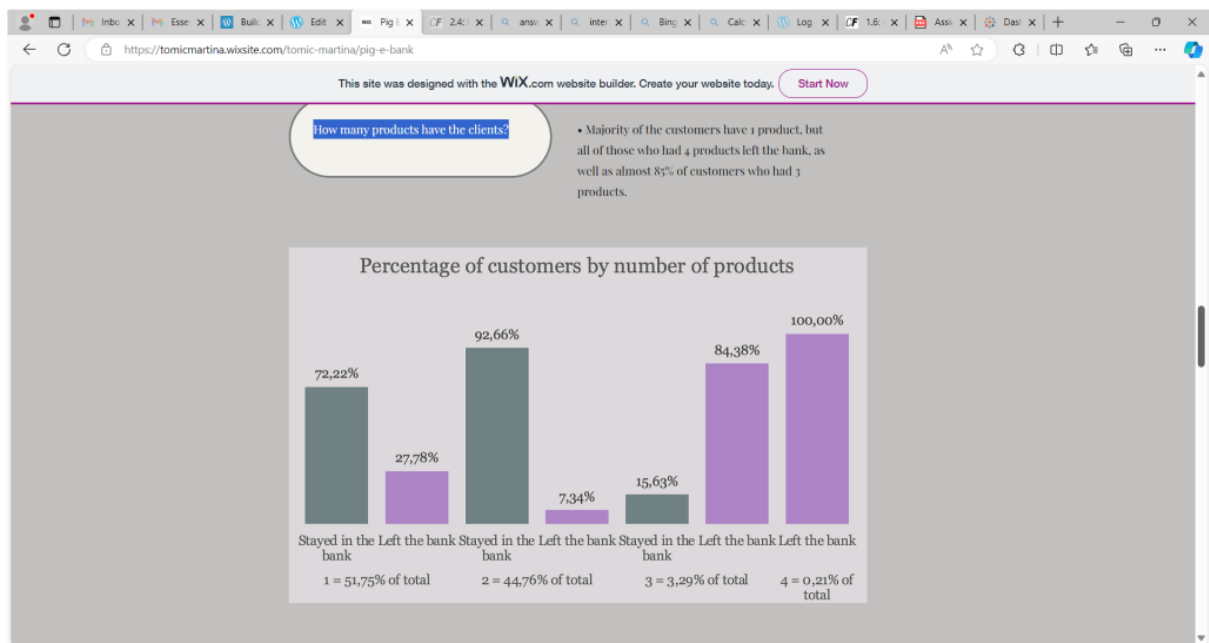
Row Labels	Average of credit score	Average of age	Average of tenure	Average of balance	Average of estimated salary
Stayed in the bank	652	38	5,2	\$74.923,34	\$99.478,94
Left the bank	637	45	4,7	\$90.495,71	\$97.597,27
Grand Total	649	39	5,1	\$78.136,94	\$99.090,63

Where are the bank's former clients from?



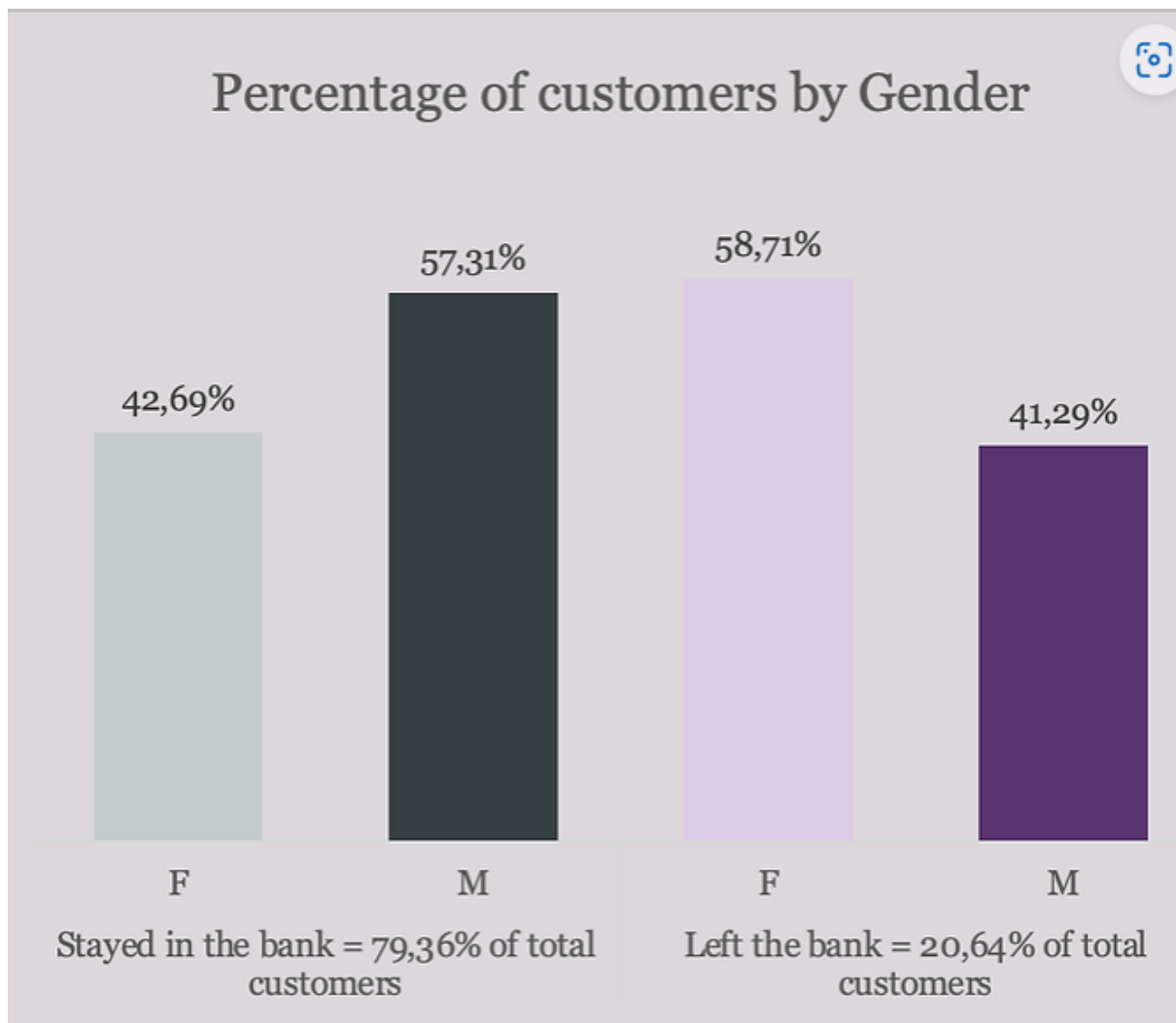
- Although France has a highest percentage of total customers, most of the customers who left the bank are from Germany.

How many products have the clients?



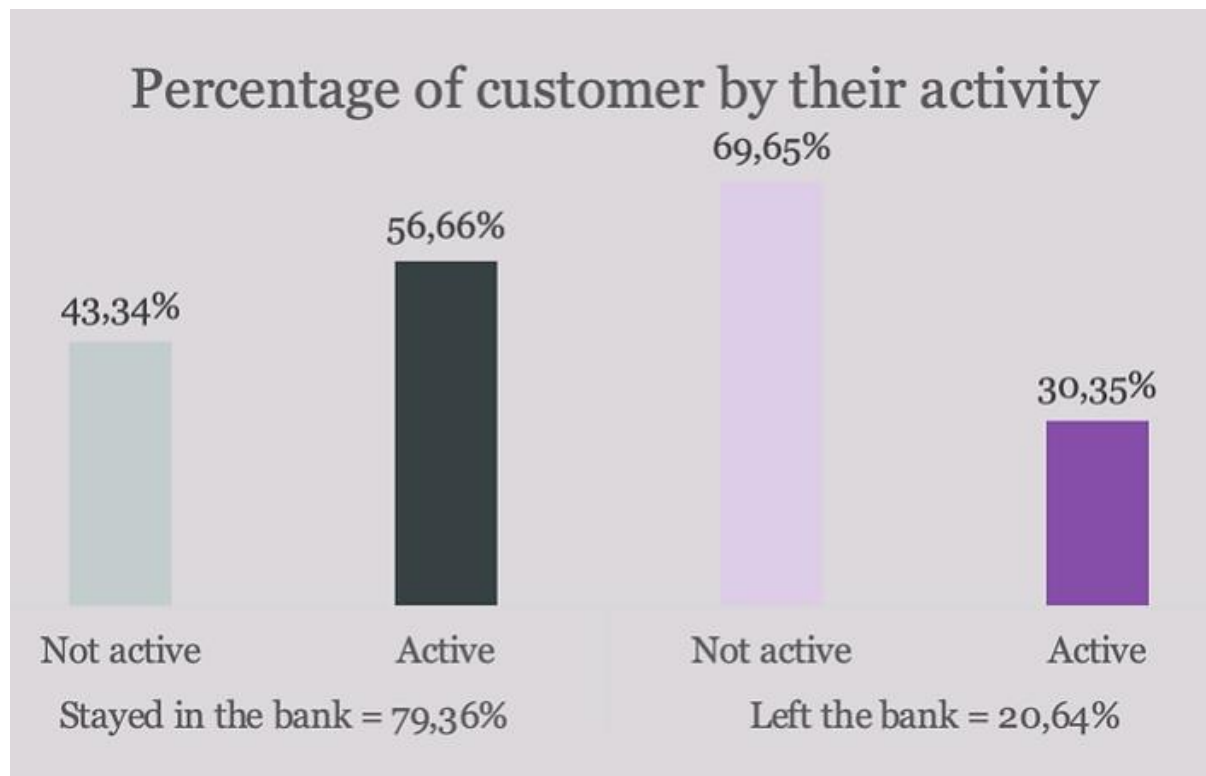
- Majority of the customers have 1 product, but all of those who had 4 products left the bank, as well as almost 85% of customers who had 3 products.

Does male or female clients leave bank more frequently?



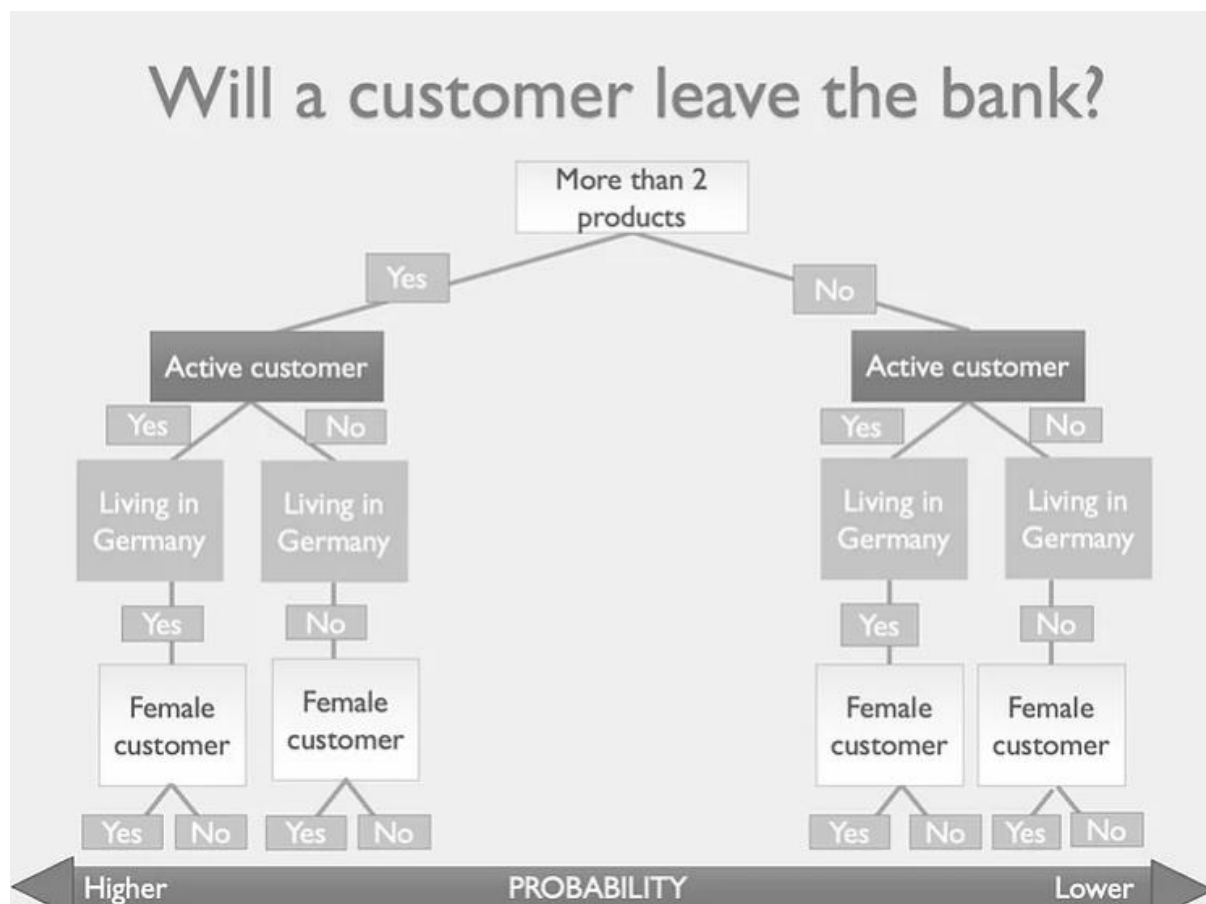
- Majority of the customers who left the bank are Females (58,71%).

Are the clients who leave a bank active or inactive?



- Majority of the customers who have left the bank weren't active.

A decision tree to determine the probability of customers leaving the bank



- The results of the analysis show that a client's likelihood of leaving the bank depends mostly on whether they have more than two products, followed by their activity. The client's gender and whether or not they reside in Germany also add to these greater risk factors.

Recommendations

- Before they decide to stop using the bank permanently, Pig E. Bank should re-engage inactive bank customers. Offering appropriate discounts and rewards could achieve this.
- Since the German market has the greatest percentage of customers that leave the bank, it should receive priority in terms of customer service.
- Former clients should be reached again with special offers from Pig E. Bank.
- Further research should be done to determine why female customers leave the bank more frequently than male customers.