

Bank Customers Analysis



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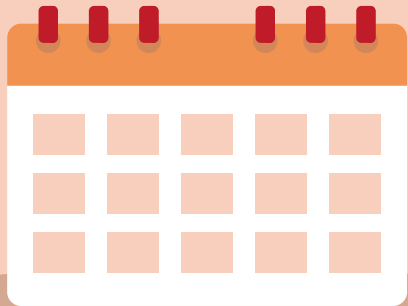
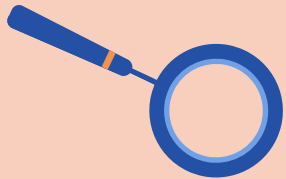


Introduction

Data Analysis

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Introduction



Introduction

Dataset:

<https://www.kaggle.com/datasets/radheshyamkollipara/bank-customer-churn>

Tool:

- Python
- PBI
- Google slide

Target:

Illustrate customers characters and suggest some business ideas accordingly.

Introduction

Shape: 10.000 rows & 17 columns

Customer Anthropologies (5 columns)

1. **CustomerId**
2. **Surname**
3. **Gender**
4. **Age**
5. **Geography**

Customer Characteristics (8 columns)

1. **Balance**
2. **EstimatedSalary**
3. **NumOfProducts**
4. **HasCrCard**
5. **IsActiveMember**
6. **Card Type**
7. **Tenure**

Customer Behaviors (4 columns)

1. **CreditScore**
2. **Complain**
3. **Satisfaction Score**
4. **Point Earned**
5. **Exited**

Introduction

```
cb.duplicated().sum()
```

✓ 0.0s

0

Data **does not have** duplicated rows or null values.

Checking columns individually is **clean**.

Moving on **Illustration**.

```
cb.isnull().sum()
```

✓ 0.0s

RowNumber	0
CustomerId	0
Surname	0
CreditScore	0
Geography	0
Gender	0
Age	0
Tenure	0
Balance	0
NumOfProducts	0
HasCrCard	0
IsActiveMember	0
EstimatedSalary	0
Exited	0
Complain	0
Satisfaction Score	0
Card Type	0
Point Earned	0
dtype:	int64

```
cb.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 10000 entries, 0 to 9999
Data columns (total 18 columns):
#   Column              Non-Null Count  Dtype
---  -
0   RowNumber           10000 non-null  int64
1   CustomerId          10000 non-null  int64
2   Surname              10000 non-null  object
3   CreditScore          10000 non-null  int64
4   Geography            10000 non-null  object
5   Gender              10000 non-null  object
6   Age                  10000 non-null  int64
7   Tenure               10000 non-null  int64
8   Balance              10000 non-null  float64
9   NumOfProducts        10000 non-null  int64
10  HasCrCard            10000 non-null  int64
11  IsActiveMember       10000 non-null  int64
12  EstimatedSalary      10000 non-null  float64
13  Exited               10000 non-null  int64
14  Complain             10000 non-null  int64
15  Satisfaction Score   10000 non-null  int64
16  Card Type            10000 non-null  object
17  Point Earned         10000 non-null  int64
dtypes: float64(2), int64(12), object(4)
memory usage: 1.4+ MB
```

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Introduction

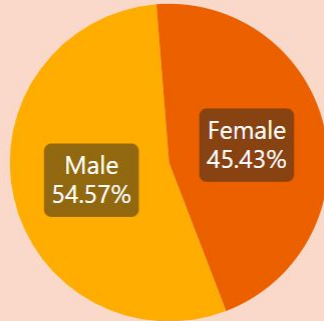
Data Analysis

Result

Overview

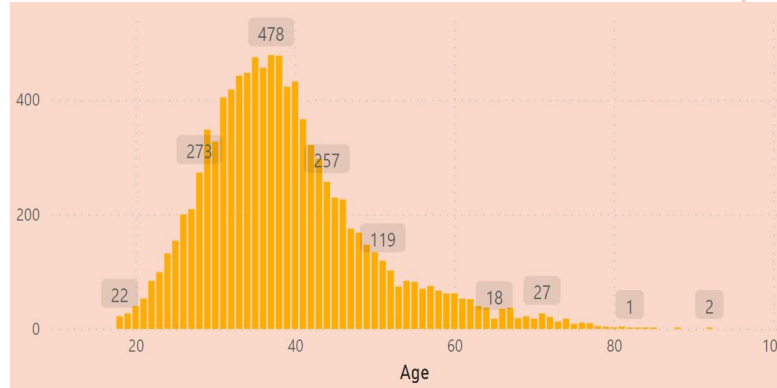
Dataset including
10.000 customers.

10.000
Customers



54% of them are
male.

Customers are mainly
from **30 to 45 years old.**



France

5.01K

Germany

2.51K

Spain

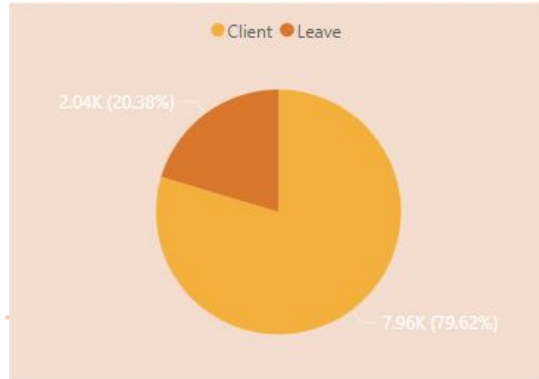
2.48K

Half of customers from
France. Others come
from **Germany** and
Spain.

Client comparision

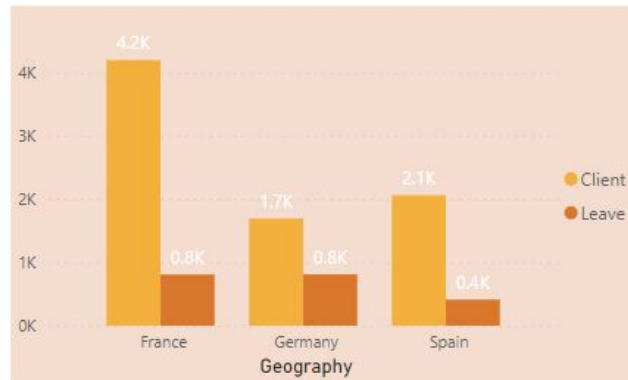
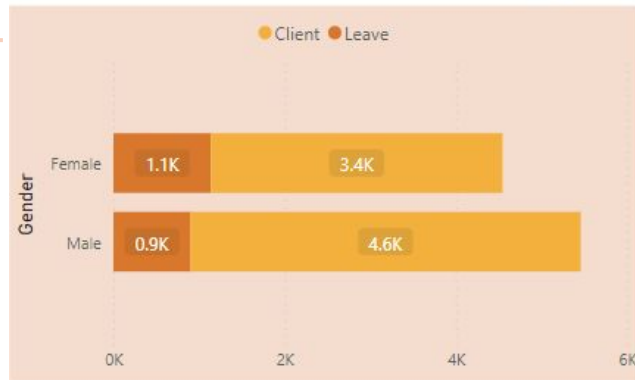
Between current and lost clients.

Over 2.000 customers had left, it contains of **20% percents** of total customers.



Most customers are **Adults**. Number of **Senior loyal customers** to their loss is quite the **same**.

Banks have **more Males** customer than Females. But, **Females** lost rate is **higher**.



One thirds of German customer **left** the bank.

Introduction

Data Analysis

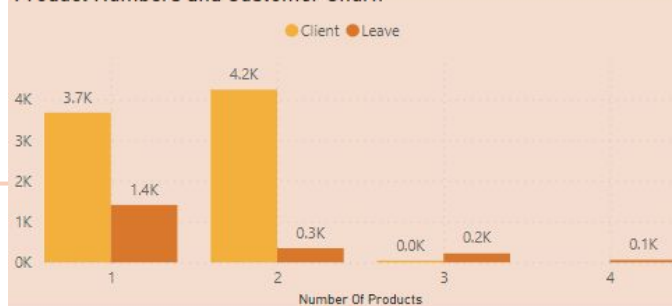
Result

Client comparision

Between current and lost clients.

The fewer the products **higher** the customers **churn** customers.

Product Numbers and Customer Churn



Number of customer remains **uniform** across all categories.



Average **balance** of **Loyal** customer is **lower** than Lost customer.

Customer Balance and Tenure



Not active customer are more likely to leave.



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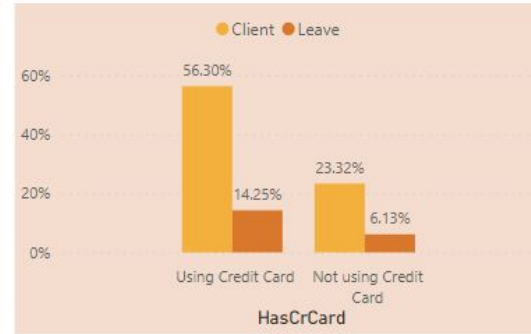
Client comparision

Between current and lost clients.

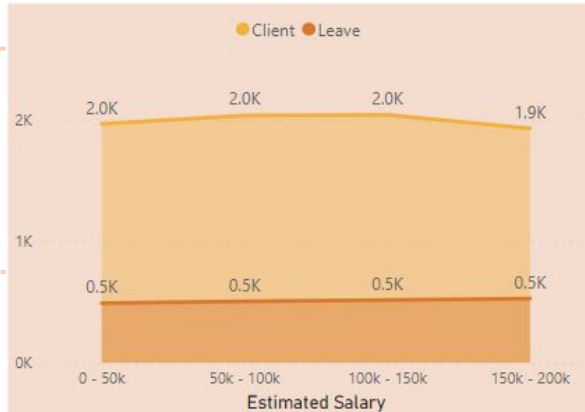
Numbers of customers in each satisfaction score are **similar**.



Customer using Credit Card has **higher leaving rate** than customer who not own credit card.



Lost clients has much **lower salary range** than current clients.



Credit score range of **600 - 700** has the **highest current customers** also has **highest lost customers** rate.



Introduction

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Result





- Customers **mostly adult** from 30 to 45 years old, **churn rate** of this adult also **really high of 66%**.
- Half of the customer are **Frances**. German account of 25% however their **leaving rate nearly 40%**.
- There are more male than female but **leaving rate of female is higher**.
- Most customers use 1 to 2 products. **Churn rate of 1 product user is higher than the rest**.
- The amount of customers in each Card Types pretty corresponding, Gold customers slightly higher.
- Average **balance** of Loyal customers much **lower** than Lost customers, but their **salary is higher**.
- Customers **using Credit Card** have **higher leaving rate** than customers who not own credit card.
Credit score from 600 to 700 account 30% of customers highest lost customers rate of 7%.
- **Satisfaction score does not effect** bank churn rate.

