Bank Customers in Europe Analysis Report

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Scope

- This report details bank customers in three European countries: Spain, France, and Germany.

- The total number of customers analyzed: 10,000.

- Data source: Maven Analytics.

Purpose

Gain deep insights about:

1. The relation between country and number of customers

2. The relation between gender and number of customers

3. The relation between number of customers and age of customers

4. The relation between age of customer and their credit score

Data Source

- https://app.mavenanalytics.io/datasets?search=Bank+Customer+Churn

Project Stages

1. Loading Data

- Obtained data in CSV format from Maven Analytics website

- Loaded the data into Power BI

2. Data Cleansing

The data consisted of two tables. Cleansing was performed on the first table:

- **Duplicate:**

- Problem: Duplicate in customer ID 15628319
- Solution: Used remove duplicate option

- **Null Values:**
  - Problem: Small number of rows with missing values (3 out of 10,000)
  - Solution: Removed these rows as replacement wasn't feasible

- **Geography:**
  - Problem: France written three ways (France, French, FRA)
  - Solution: Used replace value to standardize as "France"

- **Estimated Salary:**
  - Problem: Data type mismatch (text instead of number)
  - Solution: Removed Euro symbol and converted to whole number

3. Adding Measures and Columns

- **Credit Score:**
  - Problem: Raw numbers (300-850) lacked meaning
  - Solution: Created "credit score status" groups:
    * < 580: Poor
    * 580-669: Fair
    * 670-739: Good
    * ≥ 800: Exceptional

- **Age:**
  - Problem: Raw numbers (18-92) lacked meaning
  - Solution: Created "age group" categories:
    * ≥ 64: Retiree
    * 22-63: Working
    * < 22: Student
  - Note: Retirement ages: Spain 66.5, France 64, Germany 67

- **Total Number of Customers:**
 - Problem: No measure for total customers
 - Solution: Created new measure using SUM()

- **Card:** Total number of customers

- **Slicer:** Filter for the three countries

- **Clustered column chart:** Geography vs. number of customers

- **Donut chart:** Gender vs. number of customers

- **Clustered column chart:** Age group vs. number of customers

- **100% stacked bar chart:** Gender and credit score status vs. number of customers

- **100% stacked bar chart:** Account existence by age group

## Insights and Decision Making

Geography vs. Number of Customers
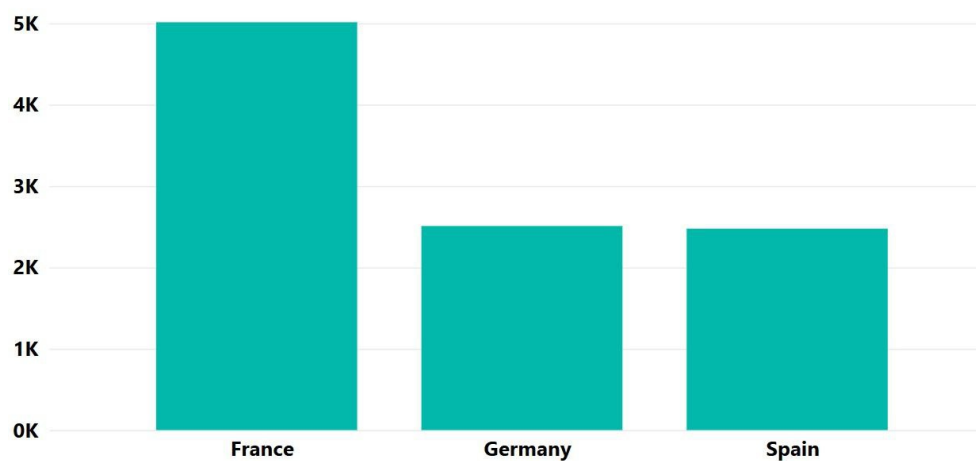
- France has the greatest number of customers (equal to Germany and Spain combined)

- Recommendations:
  - Target more customers from Germany and Spain
  - Minimize requirements for opening bank accounts in these countries
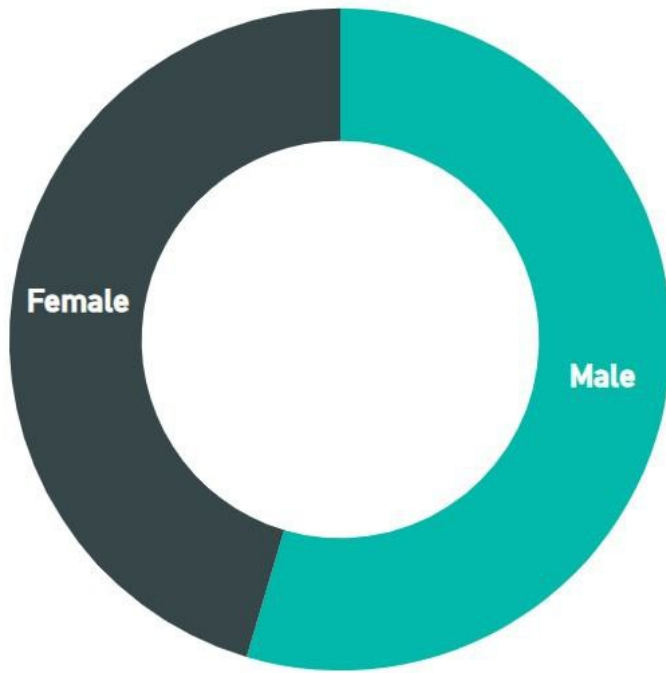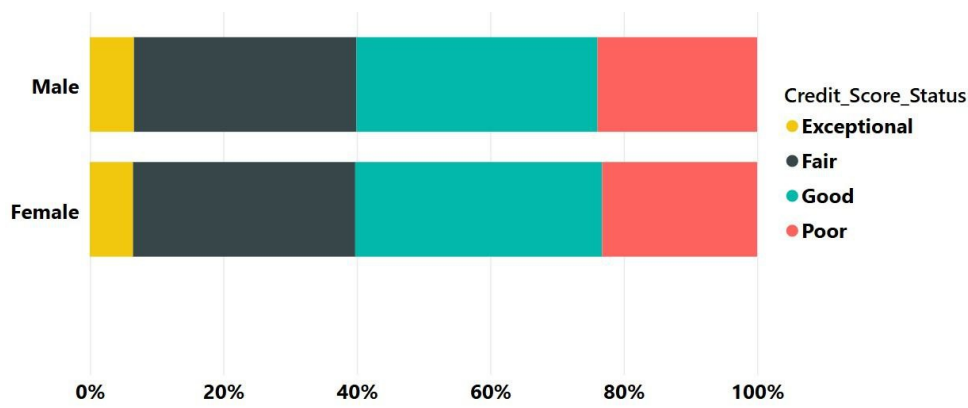
Gender vs. Number of Customers

- Small difference between males and females

- Gender appears to play no significant role in bank customers

- Consistent across all three countries
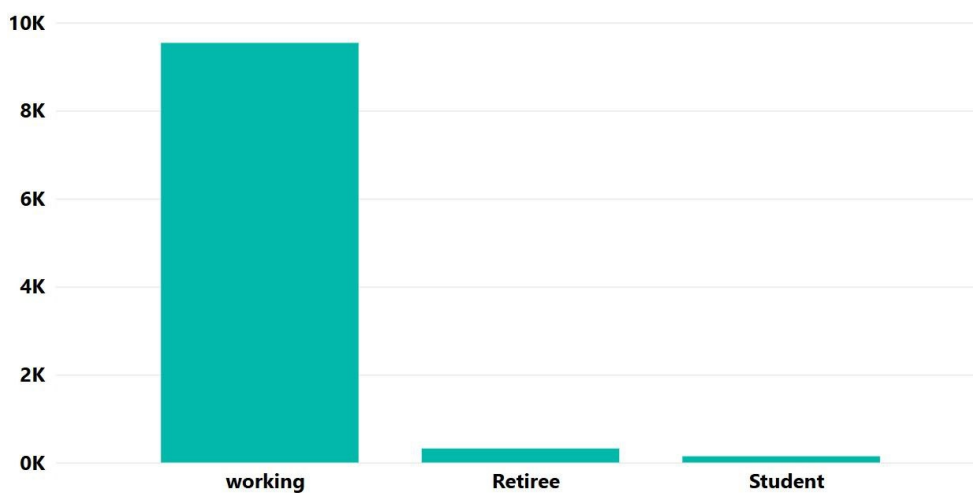
Age Group vs. Number of Customers

- Working age dominates other groups (Retiree and Student)

- Recommendations:

  – Ensure legal framework for students under 22 to open accounts

  – Partner with schools to facilitate student accounts

– Create incentives for retirees to open accounts

Gender, Credit Score Status vs. Number of Customers

- Gender appears unrelated to credit score status

- Consistent across all three countries