CUSTOMER CHURN ANALYSIS

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OBJECTIVE

As we know, it is much more expensive to sign in a new client than keeping an existing one.

Our objective to significantly reduce our churn rate by finding out the key factors that leads a client towards the decision to leave the bank.

DATA ANALYSIS AND INSIGHTS

We conducted a correlation analysis between exited customers and other variables Based on the correlation values (Figure shown in appendix), The following variables seem to be significantly correlated.

- Compliant

- Age

- Customer Balance

- Geography

DATA ANALYSIS AND INSIGHTS ON COMPLIANTS

- **2044** Customers Complained and **2034** people **(99.5%)** exited after complaining. This indicates that customers who file complaints are almost always likely to leave. Therefore complaint management and resolution processes are likely critical to retention.

DATA ANALYSIS AND INSIGHTS FROM AGE GROUP

- The **34-41** age group has the highest number of customers (3,553), followed by **26-33** (2,621).

- The number of customers declines steadily after 41, with a significant drop from **50-57** (740) onward.

Number of Customers by Age Group
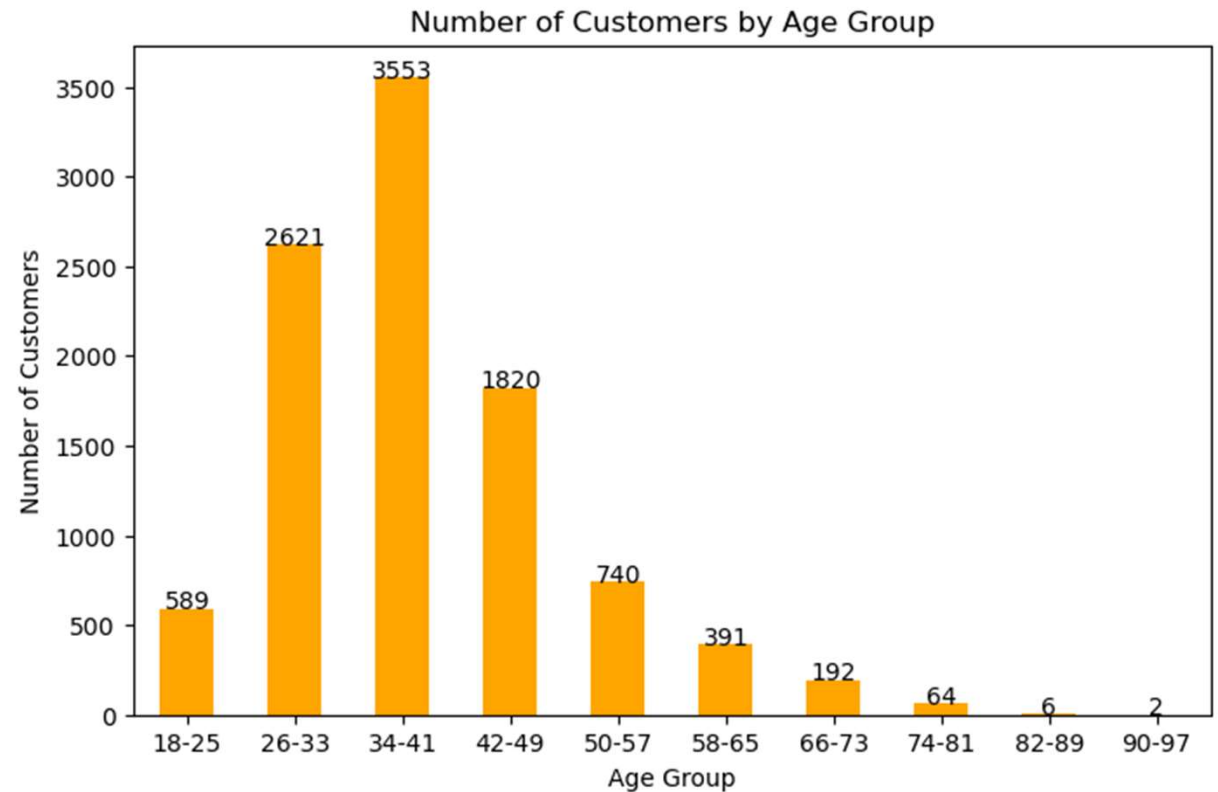
DATA ANALYSIS AND INSIGHTS FROM AGE GROUP

Key Takeaways

- Middle-aged customers (34-57) are at the highest risk of churn. Possible reasons could be competition, changing needs, or dissatisfaction.

- Older customers (66+) are more stable. If they stay past a certain age, they likely remain long-term.

- Young customers (18-33) have high retention. This could be an opportunity to focus on engaging them early for long-term loyalty.


Churn Rate by Age Group
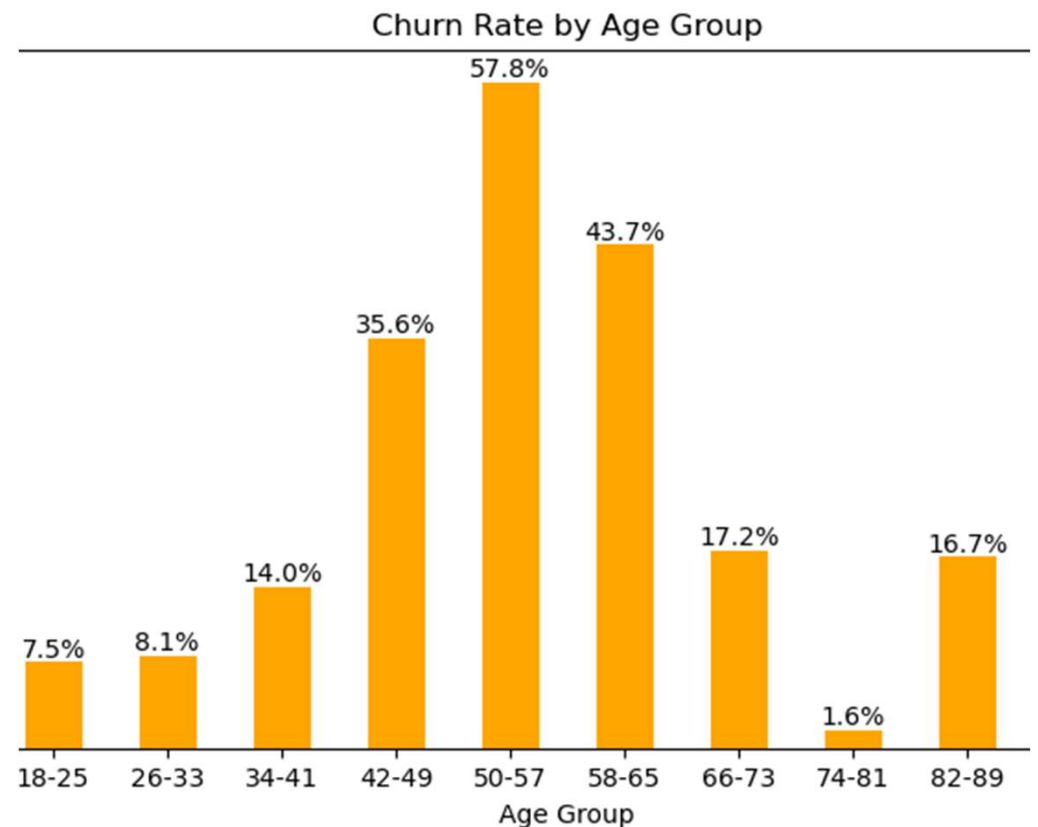
CUSTOMER BALANCE AND SATISFACTION

Our analysis shows that;

- The average balance of customers who stayed is approximately **$72,743** and customers who exited is approximately **$91,109.**

- This suggest that customers with higher balances might be more likely to leave, indicating a possible disconnection with how the bank meets the needs of wealthier clients

- Further analysis into the satisfaction score of the High balance clients and the dataset as a whole were similar at approximately 3 out of 5

DATA INSIGHTS BASED ON GEOGRAPHY

- France has the highest number of customers (5,014), nearly double that of Germany (2,509) and Spain (2,477). Germany and Spain have a similar customer base, but their churn rates differ significantly.

- Germany has the highest churn rate (32.4%), meaning nearly one-third of customers are leaving—a major retention issue.

- Spain (16.7%) and France (16.2%) have similar churn rates, which are much lower than Germany's.

Number of Customers by Geography
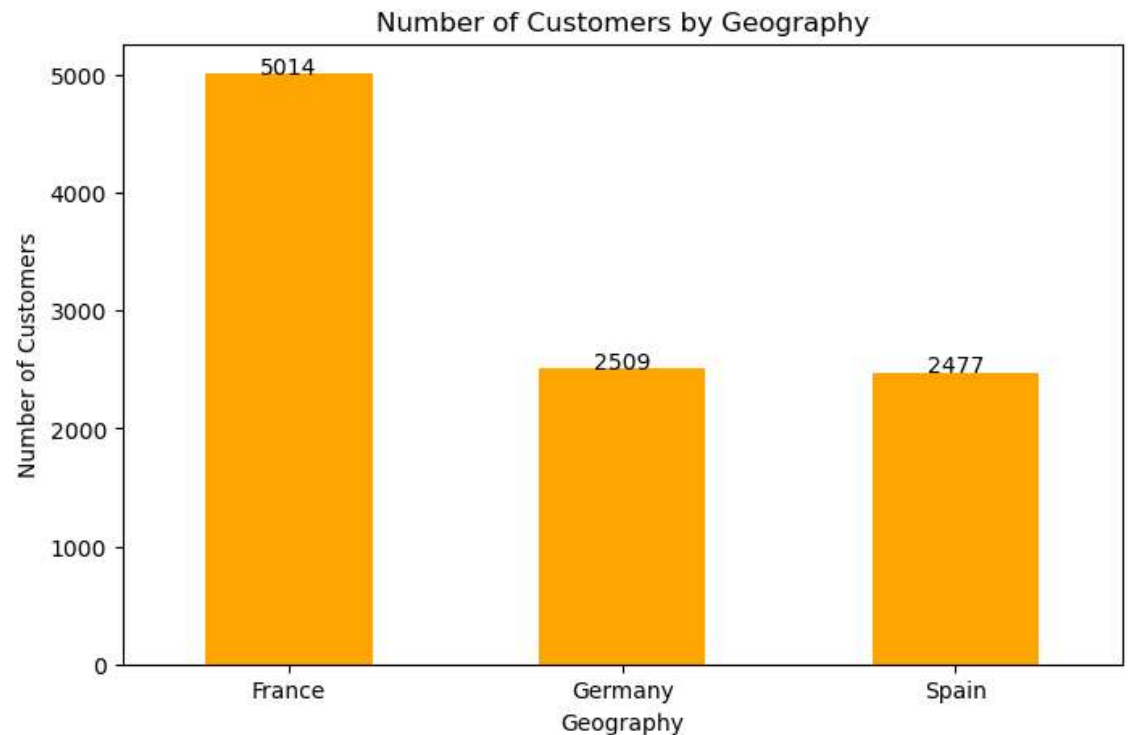
DATA INSIGHTS BASED ON GEOGRAPHY

- Germany is a high-risk market with significant customer loss. It may be due to competition, dissatisfaction, or pricing issues.

- France, despite having the largest customer base, has a relatively low churn rate (16.2%), suggesting strong retention strategies.

- Spain also maintains a stable customer base with a moderate churn rate (16.7%), similar to France.

Churn Rate by Geography
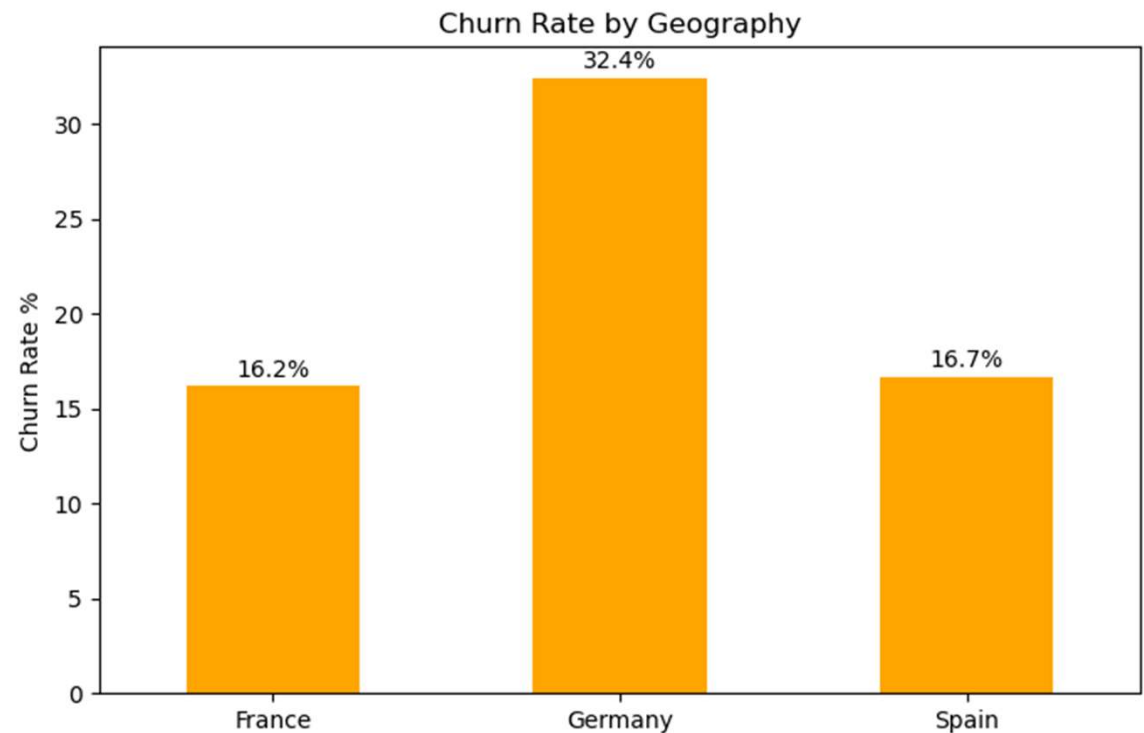
RECOMMENDATIONS

- Complaint management and resolution processes are likely critical to retention.

- Develop targeted retention strategies for older customers, specifically those aged 46-65.

- Investigate and address the needs and expectations of high-balance customers to improve retention.

- Analyze satisfaction scores of high-balance clients to understand potential disconnects.

- Investigate why churn is so high in Germany—consider customer feedback, service quality, or competitor analysis.

- Leverage France's strong retention by expanding customer engagement programs or upselling opportunities.

- Spain appears stable, but monitoring trends and refining retention strategies can further reduce churn.

CONCLUSION

- The analysis highlights critical areas affecting customer retention, including complaint resolution, age demographics, customer balance, and geographic location. Addressing these factors can significantly reduce churn rates and improve overall customer satisfaction and loyalty.

Any Questions?

APPENDIX (CORRELATION ANALYSIS)

	RowNumber	CustomerId	CreditScore	Age	Tenure	Balance	NumOfProducts	HasCrCard	IsActiveMember	EstimatedSalary	Exited	Complain	Satisfaction_Score	Point_Earned
RowNumber	1	0.0042	0.0058	0.00078	-0.0065	-0.0091	0.0072	0.0006	0.012	-0.006	-0.016	-0.017	0.0093	0.0024
CustomerId	0.0042	1	0.0053	0.0095	-0.015	-0.012	0.017	-0.014	0.0017	0.015	-0.0062	-0.0073	-0.00086	-0.013
CreditScore	0.0058	0.0053	1	-0.004	0.00084	0.0063	0.012	-0.0055	0.026	-0.0014	-0.027	-0.027	-0.013	7.7e-05
Age	0.00078	0.0095	-0.004	1	-0.01	0.028	-0.031	-0.012	0.085	-0.0072	0.29	0.28	-0.00088	0.0022
Tenure	-0.0065	-0.015	0.00084	-0.01	1	-0.012	0.013	0.023	-0.028	0.0078	-0.014	-0.013	0.0087	-0.01
Balance	-0.0091	-0.012	0.0063	0.028	-0.012	1	-0.3	-0.015	-0.01	0.013	0.12	0.12	-0.0026	0.015
NumOfProducts	0.0072	0.017	0.012	-0.031	0.013	-0.3	1	0.0032	0.0096	0.014	-0.048	-0.046	-0.011	-0.015
HasCrCard	0.0006	-0.014	-0.0055	-0.012	0.023	-0.015	0.0032	1	-0.012	-0.0099	-0.007	-0.0071	-0.00021	-0.011
IsActiveMember	0.012	0.0017	0.026	0.085	-0.028	-0.01	0.0096	-0.012	1	-0.011	-0.16	-0.15	0.01	-0.005
EstimatedSalary	-0.006	0.015	-0.0014	-0.0072	0.0078	0.013	0.014	-0.0099	-0.011	1	0.012	0.012	-0.014	-0.0015
Exited	-0.016	-0.0062	-0.027	0.29	-0.014	0.12	-0.048	-0.007	-0.16	0.012	1	1	-0.0058	-0.0046
Complain	-0.017	-0.0073	-0.027	0.28	-0.013	0.12	-0.046	-0.0071	-0.15	0.012	1	1	-0.0048	-0.0029
Satisfaction_Score	0.0093	-0.00086	-0.013	-0.00088	0.0087	-0.0026	-0.011	-0.00021	0.01	-0.014	-0.0058	-0.0048	1	-0.014
Point_Earned	0.0024	-0.013	7.7e-05	0.0022	-0.01	0.015	-0.015	-0.011	-0.005	-0.0015	-0.0046	-0.0029	-0.014	1