

# **TITAN BANK CUSTOMER ANALYSIS REPORT**

## **INTRODUCTION:**

In the highly competitive banking industry, understanding and mitigating customer churn is crucial for maintaining a stable customer base and ensuring sustained growth. Customer churn, or the rate at which customers stop using a bank's services, directly impacts the institution's profitability and reputation. By analyzing a customer churn dataset, we can gain valuable insights into the factors driving customer attrition and develop strategies to enhance customer retention.

This analysis focuses on a comprehensive dataset of Titan Bank that includes various demographic, transactional, and engagement-related attributes of customers. By leveraging advanced analytical techniques and visualization tools, we aim to identify key predictors of churn, uncover patterns and trends, and ultimately provide actionable recommendations for reducing churn rates. This study not only highlights the importance of proactive customer management but also underscores the need for data-driven decision-making in the banking sector.

## **PROBLEM STATEMENT:**

Titan Bank industry faces significant challenges due to customer churn, which impacts profitability and long-term customer relationships. This analysis aims to identify the key factors contributing to customer churn within our banking institution. By examining a comprehensive dataset containing demographic, transactional, and behavioral attributes of customers, we seek to uncover patterns and trends that lead to customer attrition. Understanding these factors will enable the development of targeted strategies to enhance customer retention, reduce churn rates, and improve overall customer satisfaction and loyalty.

## **OBJECTIVES:**

- To evaluate customer churn rates and different causes
- To check how salaries and other factors improves credit ratings
- To examine churn status across different age groups
- To uncover patterns and trends in titan bank's customer dataset
- To provide data driven recommendations to reducing churn risk amongst customers.

## METHODOLOGY:

- Data Sourcing – Kaggle
- Data cleaning – Excel
- Data Analysis and Visualization – Power BI

### 1. Data Sourcing – Kaggle:

- **Kaggle:** Kaggle is a popular online platform that hosts datasets for data science and machine learning projects. It provides a wide variety of publicly available datasets that can be used for data analysis, research, and competitions.
- **Purpose:** The dataset for our analysis was sourced from Kaggle, ensuring that the data is reliable and relevant to the analysis we want to perform.

### 2. Data Cleaning – Excel:

- **Excel:** Excel is a powerful spreadsheet software that allows us to organize, manipulate, and clean data. It provides various tools and functions for data cleaning, such as removing duplicates, filtering, sorting, and applying formulas to correct or standardize data.
  - **Tasks in Excel:** Identifying and removing duplicate entries, correcting inconsistencies, filling missing values and transforming data into a suitable format for analysis.

### 3. Data Analysis and Visualization – Power BI:

- **Power BI:** Power BI is used for data analysis and visualization. It provides an interactive interface to create reports, dashboards, and visualizations that help uncover insights and trends in the data.
  - **Data Analysis:** Using DAX (Data Analysis Expressions) functions and calculations to perform complex data analysis and derive meaningful insights from the data.
  - **Visualization:** Creating various visualizations, such as bar charts, pie charts, line charts, scatter plots, and tree maps, to represent the data visually and make it easier to understand and interpret.

- **Interactive Reports:** Building interactive reports and dashboards that allow users to explore the data and gain insights through dynamic filtering and slicing.

## KPI OVERVIEW:

The KPIs of titan bank customer analysis report focuses on their customer details, region, churn status, estimated average salaries (**€100,090.24**) and total number of customers (10,000) out of which **4543** customers are females and 5457 **males**. The total salaries accumulated within this period is **€1,000,902,398.81** cutting across both gender and age groups. **3** regions were recognized with France having the highest number of customers with 5014 people.

The analysis is segmented into:

- Credit Ratings Amongst Customers
  - Countries and Their Credit Ratings
  - Credit Rating and Churn Status
  - Credit Rating by Tenure
- Customer Churn Status by Salary Distribution
- Active Membership
- Age Group
  - Average balance of each age group
  - Churn Status across each age group

## CREDIT RATINGS AMONGST CUSTOMERS:

This section provides an overview of the credit ratings distribution among customers. Credit ratings are categorized into Fair Credit, Poor Credit, Good Credit, Excellent Credit, and Very Good Credit. Each rating represents a customer's creditworthiness and financial reliability.

## **COUNTRIES AND THEIR CREDIT RATINGS:**

The three regions recorded; France, Spain, and Germany had its own unique set of customers, characterized by their financial habits and credit ratings.

In France, customers proudly carried their credit ratings. Many had Good and Very Good Credit, signifying their reliability. However, the largest group was those with Fair Credit. They found solace in the bank's offerings, despite the ups and downs of their financial journeys.

Across the borders in sunny Spain, customers had a balanced mix of credit ratings. The Fair and Good Credit categories were bustling with activity with a higher concentration of customers in the Fair Credit and Good Credit categories. Spanish customers, known for their zest for life, balanced their financial responsibilities with their aspirations.

In Germany, customers boasted higher credit ratings. A significant number fell into the Excellent and Very Good Credit categories, reflecting their strong financial foundation. The Germans' meticulous financial planning contributed to their overall stability.

## **CREDIT RATING AND CHURN STATUS:**

A deeper look into the heart of Titan Bank revealed varying stories of loyalty and departure. Customers with Fair Credit, while numerous, often found themselves facing financial challenges, leading to a moderate churn rate. These customers sometimes struggled to maintain their foothold, causing them to seek alternatives.

The Poor Credit customers faced the harshest realities. Their financial struggles led to a higher churn rate, as they found it difficult to stay afloat. On the other end of the spectrum, customers with Excellent Credit enjoyed the lowest churn rate. Their solid financial standing and positive experiences at the bank nurtured their loyalty.

Those with Very Good Credit mirrored the Excellent Credit group, demonstrating low churn rates due to their financial reliability and satisfaction. Meanwhile, Good Credit customers, though stable, had a slightly higher churn rate compared to the top-tier groups.

## **CREDIT RATING BY TENURE:**

It became clear that tenure played a significant role in this narrative. Customers with Fair Credit had the longest average tenure of 5.07 years. Despite their financial hurdles, they stayed committed to Titan Bank, hoping for better days.

However, customers with Very Good Credit enjoyed a close-knit relationship with the bank, staying for an average of 5.06 years. Poor Credit customers, with their shorter tenure of 4.98 years, faced early departures due to financial stress.

Even those with Excellent Credit, with an average tenure of 4.97 years, had their reasons for slightly shorter stays, influenced by various external factors. Good Credit customers, despite their stability, had the shortest tenure of 4.95 years, suggesting other elements influenced their decision to leave earlier.

In this grand tapestry of Titan Bank's customers, the insights painted a vivid picture of financial journeys, loyalty, and challenges. By understanding these stories, Titan Bank could craft strategies to enhance customer retention, foster loyalty, and ensure every customer's financial fairy tale had a happy ending.

## **RECOMMENDATION:**

To improve customer retention, Titan Bank should focus on targeted strategies for customers with Poor and Fair Credit, such as personalized offers and loyalty programs. Enhancing the overall customer experience by gathering feedback, improving customer support, and providing multiple communication channels will also help. Customized financial products and credit education programs should be offered based on customers' credit ratings. Regional marketing campaigns and local partnerships can address unique needs in different regions. Monitoring key performance indicators and using predictive analytics will enable proactive issue resolution. Finally, improving digital engagement through better mobile and online banking platforms and personalized communications will help enhance customer satisfaction and loyalty.

## **CUSTOMER CHURN STATUS BY SALARY DISTRIBUTION:**

Titan Bank, customers come from all walks of life, each with their unique financial stories. Their salaries painted a vivid tapestry, influencing their decisions to stay with or leave the bank.

Among them, lived customers with **low salaries**. These individuals faced financial hardships, struggling to make ends meet. Despite their loyalty, the burdens of financial instability often led them to seek other financial havens, contributing to a higher churn rate. The bank recognized the challenges these customers faced and knew that offering personalized financial education and support could help them find solid ground.

In the bustling marketplaces, customers with **moderate salaries** thrived. They balanced their incomes with aspirations, enjoying a stable relationship with Titan Bank. Their churn rate was moderate, reflecting their contentment and access to a range of financial products. High above in the towering spires of Titan Bank, resided customers with **high salaries**. These individuals enjoyed financial prosperity, allowing them access to premium banking services and personalized experiences. Their strong financial standing made them the bank's most loyal patrons, resulting in the lowest churn rate. The bank cherished these high-salary customers, knowing that maintaining their satisfaction was crucial for long-term success.

Furthermore, it became clear that salary distribution played a significant role in customer churn. The insights revealed that customers with lower salaries were more likely to leave due to financial challenges, while those with higher salaries remained loyal and satisfied.

## **RECOMMENDATION:**

To improve customer retention, Titan Bank should focus on addressing the financial challenges faced by customers with lower salaries, as they are more likely to churn. Implementing financial education programs, personalized financial products, and incentives will help stabilize their relationship with the bank. Additionally, enhancing services and providing special offers for customers with moderate salaries can strengthen their loyalty. For high-salary customers, continuing to offer premium services and personalized experiences will maintain their satisfaction and loyalty. These targeted strategies will create a harmonious balance, ensuring a positive banking experience for all salary brackets.

## **ACTIVE MEMBERSHIP:**

Now taking a closer look at Titan Bank's customer base we created a pie chart to see how many customers were actively engaged. The chart revealed an interesting story: 51.51% of the customers, totaling 5151, were active and engaged. Meanwhile, 48.49%, or 4849 customers, were inactive and not participating as much. This insight is like a wake-up call for the company. It came as no surprise that almost half of their customers were not fully engaged, and it was time to take action to change that.

## **RECOMMENDATION:**

To boost customer engagement, the company should focus on reactivating the 4849 inactive members by offering attractive incentives, personalized communication, and engaging content. Simultaneously, they should continue to add value for the 5151 active members to keep their interest and loyalty strong.

## **AGE GROUP:**

Age groups significantly influence churn rates when putting into consideration several factors like; financial health, occupation etc. Let us dive into the two main categories of our insight under age group.

### **➤ AVERAGE BALANCE OF EACH AGE GROUP:**

The Young Adults, aged 18-25 years, were just beginning their financial journey with an average balance of €73,000. They were enthusiastic and eager to learn. The Adults, aged 26-45 years, were in the prime of their careers, building their lives with an average balance of €76,000. They were busy buying homes and starting families. Then there were the Mature Adults, aged 46-65 years, who accumulated the highest average balance of €82,000, as they were at the peak of their earning years. Following them were the Older Adults, aged 66-75 years, who had an average balance of €77,000. They were enjoying the fruits of their labor and preparing for a comfortable retirement. Lastly, the Seniors, aged 75

years and above, had the lowest average balance of €65,000, relying on their savings during their golden years.

#### ➤ **CHURN STATUS ACROSS EACH AGE GROUP:**

The analysis of Titan Bank's customers also revealed insights into how many customers stayed loyal and how many left. The Young Adults, out of 1968 adventurers, had 1820 loyal customers and 148 who explored other options. The Adults, with 5921 members, had 4989 loyal customers and 932 who moved on. Surprisingly, the Mature Adults, out of 1647 wise investors, had 805 loyal customers and 842 who left, indicating a need for attention. Among 419 Older Adults, 305 remained faithful, while 114 chose different paths.

The analysis reviews that age significantly impacted finances and loyalty. Older customers, like the Mature Adults, had high balances but were more likely to leave if not given proper attention. On the other hand, younger customers, though having lower balances, showed higher loyalty rates.

#### **Recommendation:**

To improve overall engagement and reduce churn, Titan Bank should focus on **retention strategies tailored** for Mature Adults (46-65 years). Despite having the highest average balance, this group has a higher churn rate. Personalized offers, loyalty programs, and targeted communication can help reduce churn. Considering they have the highest average balance, it's crucial to keep them engaged. Additionally, continue to nurture the younger age groups to build long-term loyalty and financial growth. Enhance **financial education** and provide tailored offers for Young Adults (18-25 years) to help them grow their average balance and build long-term loyalty. Offer specialized **products and services** for Seniors (75+ years) to cater to their retirement needs, ensuring they feel supported and valued. By addressing the unique needs and preferences of each age group, the company can improve customer retention and financial stability across the board.

#### **CONCLUSION:**



In conclusion, the comprehensive analysis of Titan's bank customer dataset provides valuable insights into various aspects of customer behavior and financial status. By examining credit ratings among customers across different countries, we can understand how creditworthiness impacts customer loyalty and tenure. Notably, customers with higher credit ratings tend to have longer tenures and lower churn rates.

Analyzing customer churn status by salary distribution reveals that individuals with higher salaries are more likely to remain loyal, emphasizing the need for tailored retention strategies for lower-income groups. Furthermore, active membership insights show that a significant portion of customers are engaged, yet there's still room to improve engagement among inactive members.

The age group analysis highlights that Mature Adults, despite having the highest average balance, exhibit higher churn rates, indicating a need for focused retention efforts. Younger and older adults show strong loyalty but varying financial stability, which requires targeted financial education and specialized product offerings.

By leveraging these insights, the company can implement effective strategies to enhance customer engagement, reduce churn, and improve financial stability across diverse customer segments. Tailoring approaches to the unique needs of each age group, salary bracket, and credit rating category will ensure a more inclusive and satisfying customer experience, ultimately fostering long-term loyalty and growth.