CUSTOMER BANK CHURN

Bank Customer Churn Dataset

Dataset Description: The bank customer churn dataset provides information about bank customers and their churn status. It includes various attributes related to customers, their accounts, and transactional data. The dataset aims to analyze factors contributing to customer churn, enabling insights for customer retention strategies.

Dataset Source: The dataset is available on Kaggle. You can access it using the following URL: [Bank Customer Churn Dataset](#)

Acknowledgements

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

It is advantageous for banks to know what leads a client towards the decision to leave the company.

Churn prevention allows companies to develop loyalty programs and retention campaigns to keep as many customers as possible.

Project Objectives

1. **Main Objective of the Anonymous bank is to find and predict the Customer Churn.**
2. **Extracting meaningful information from data that could be applied to future decision-making processes.**
3. **Finding some general insights.**

Exploratory data analysis, Cleaning and Pre-processing

1. Data Does not consist of missing values, error values, duplicate values or outliers.
2. Data has only one table which consists of all the columns and it can be used for analysis in the same way but for better understanding and best practice of data we are segregating it to fact and dimension tables so that it would be easy for better understanding purposes.

Data is divided into four tables as follows :

Fact - Customer Banking Details

Dim - Customer General Details

Dim - Customers Banking Status

Dim - Churn Data

3. For some columns the data had boolean values in 1,0 form so we have converted them into categorical values and changed their column names:

HasCrCard → Credit Card Status : Owned, Not Owned

IsActiveMember → Member Status : Active, Inactive

Exited → Exit Status : Churned, Unchurned

**Complain → Complaint Status :** Exists, Does not Exist

4. Some additional categorical columns were being derived from using conditional columns :

Credit Score Status (Credit Score) **:** Poor, Fair, Good, Excellent, Exceptional and Not Valid.

Age Group (Age) : Gen Z, Millennials, Gen Y, Gen X, Boomers, Senior Citizens.

Balance Classification (Balance) : Empty, Low Balance, Mid Range, High Balance.

5. Data Model view
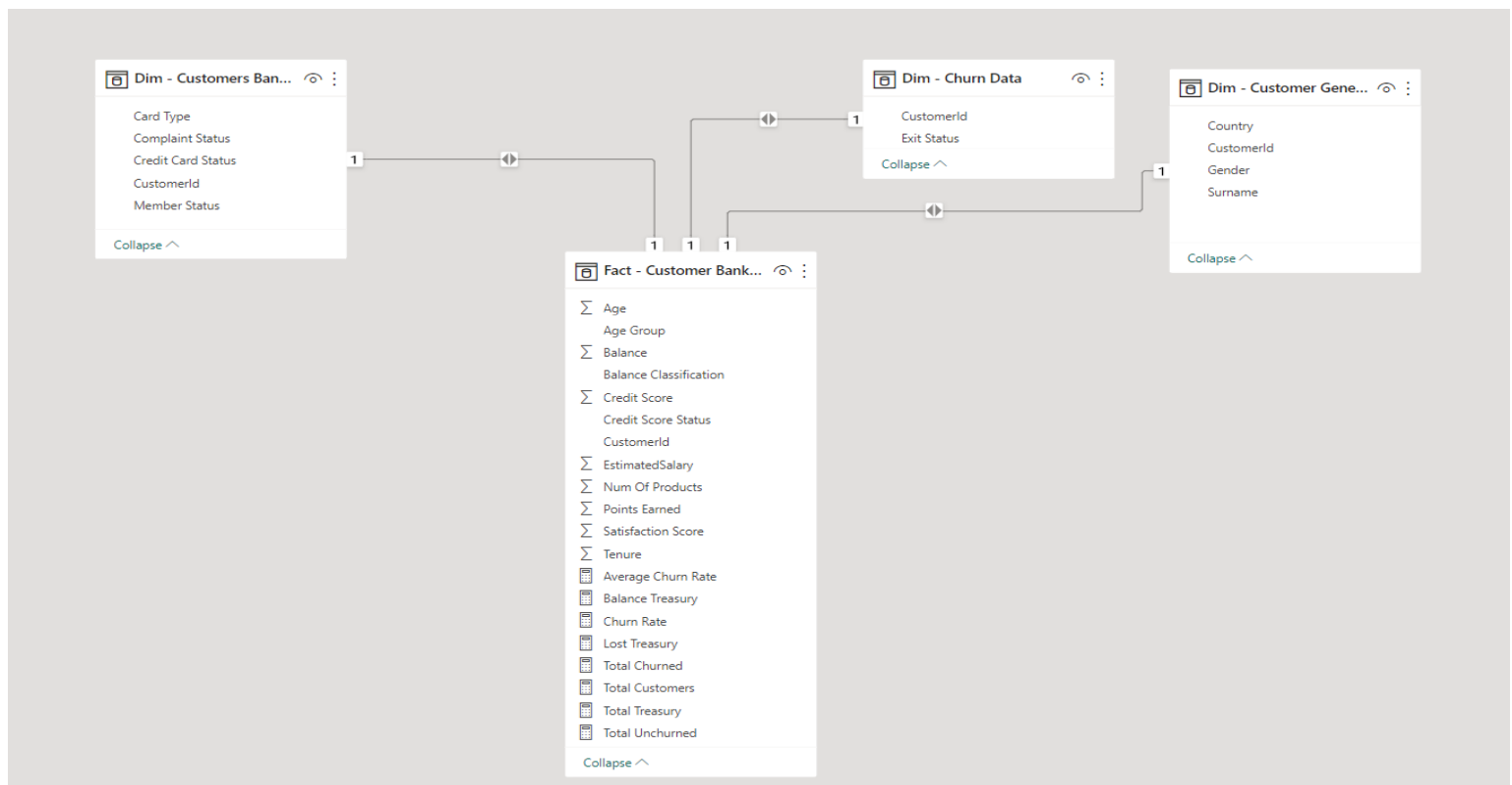
6. Adding Measures

- Average Churn Rate
- Balance Treasury
- Churn Rate
- Lost Treasury
- Total Churned
- Total Customers
- Total Treasury
- Total Unchurned

Data Visualization

Data visualisation has been done in 3 parts as follows :

1. **CHURN PROFILE** can also be called as Dashboard : This page shows in general insights regarding churn data .
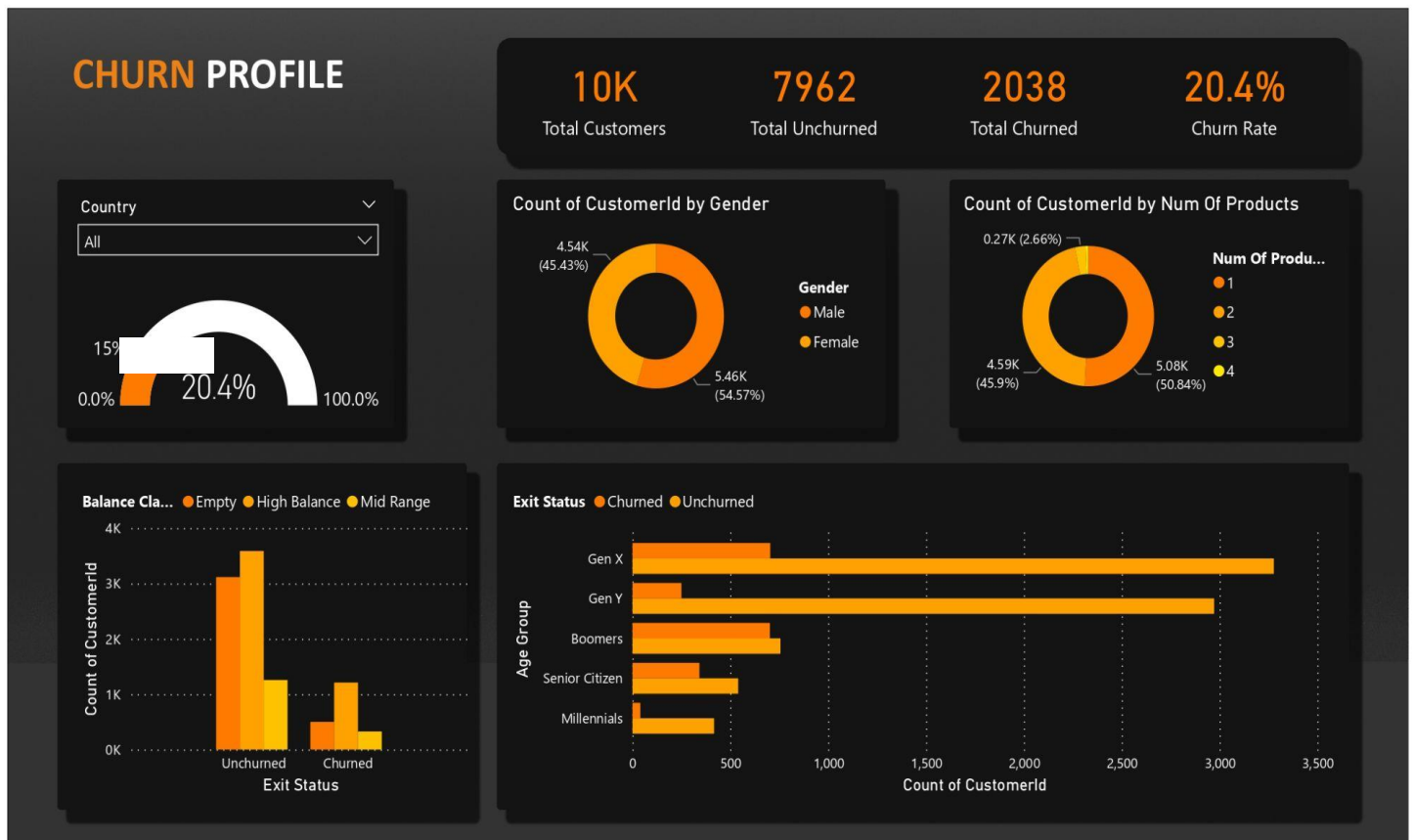
This page will give you an overview about the churn data and you can find some valuable insights from this

For eg. Using the country filter we will get the overview of the data country wise accordingly.

2. **CHURN INFLUENCE** this page mainly focuses on the key influences that affect the churn outcome.

From this you can see the major key influence that are the causing the effect of churned outcome are

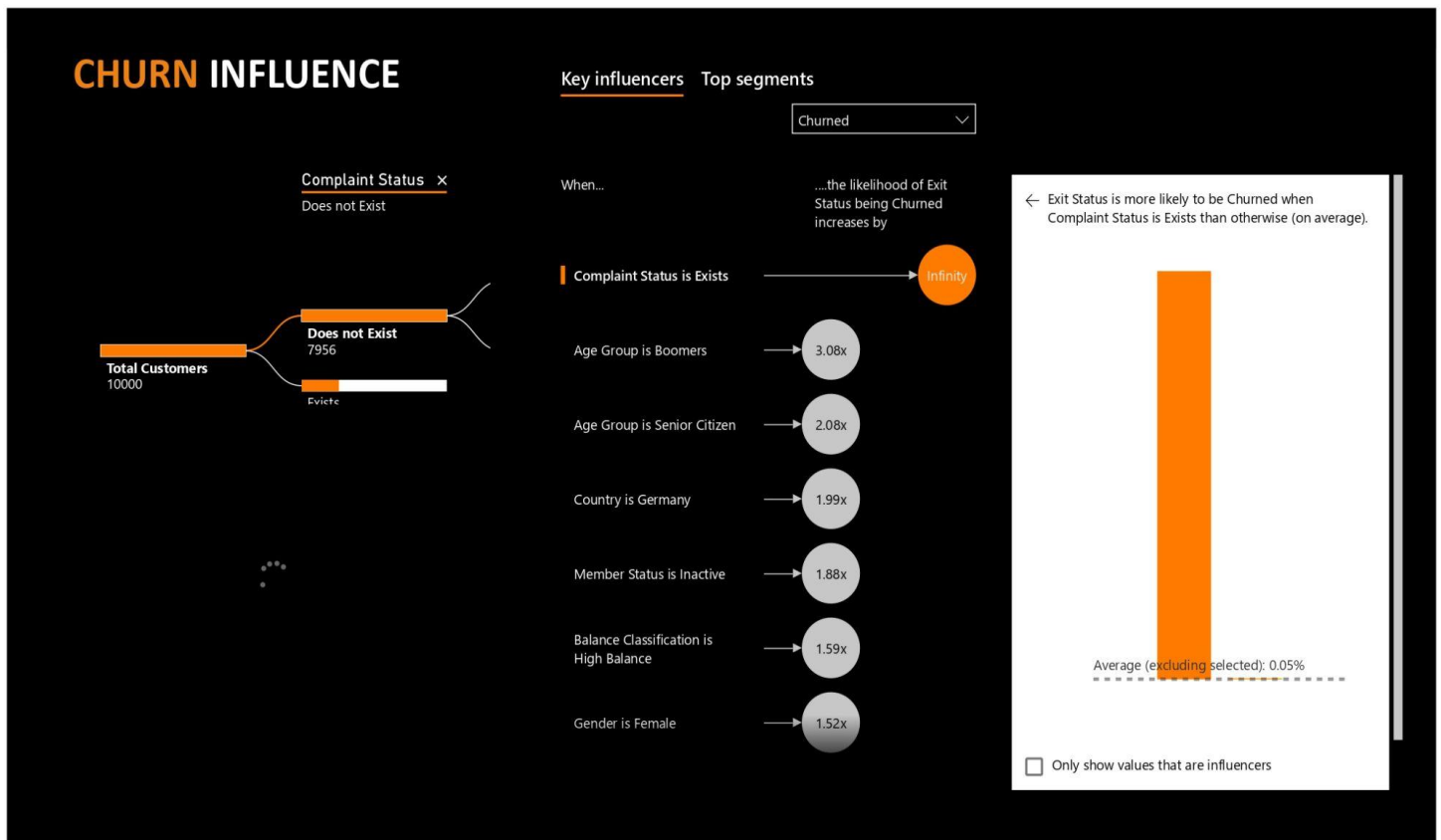1. **Complaint Status.**
2. **The age group is Boomers and Senior Citizen.**
3. **Country is Germany.**
4. **Member Status is Inactive**
5. **Balance Classification is High.**
6. **Gender is Female, etc.**

Make sure you if you have any specific priority or approach you can stick to following key influences and carry on your forward approach other all the major factors that are affecting the churn influence have been taken into consideration.

3. **CHURN SOLUTION** page is the approach the bank can use to prioritise and target the customers which are valuable or which might be the ones who are not excited but might be on the fence of going from unchurned to churned.

CHURN SOLUTION

Abazu
First Surname

10K	$764.86M	$185.68M	$579.18M
Total Customers	Total Treasury	Lost Treasury	Balance Treasury

Complaint Status ∨	Age Group ∨	Member Status ∨	Country ∨	Exit Status ∨
All ∨	All ∨	All ∨	All ∨	All ∨

CustomerId	First Surname	First Gender	Sum of Age	Sum of Tenure	Sum of Satisfaction Score	Sum of Credit Score	Sum of Balance	Sum of EstimatedSalary	Sum of Points Earned
15565714	Cattaneo	Male	47	1	5	601	$64,430.06	$96,517.97	308
15565879	Riley	Female	28	9	5	845	$0	$56,185.98	243
15566312	Jolly	Female	42	5	5	660	$0	$189,016.24	351
15566563	Duigan	Female	30	4	5	777	$137,851.31	$5,008.23	349
15566894	Gray	Male	39	3	5	793	$137,817.52	$83,997.79	252
15567114	McGarry	Male	35	1	5	430	$118,894.22	$2,923.61	873
15567328	Ch'en	Male	38	5	5	738	$177,997.07	$19,233.41	799
15567630	Bruce	Male	40	6	5	721	$100,275.88	$138,564.48	889
15567778	Genovese	Female	54	1	5	690	$144,027.8	$108,731.02	480
15567860	Burrows	Female	44	7	5	581	$189,318.16	$45,026.23	846
15568032	Moore	Male	31	1	5	757	$127,320.36	$163,170.32	892
15568046	Izuchukwu	Male	24	7	5	809	$109,558.36	$183,515.13	483
15568088	Jamieson	Male	44	3	5	481	$163,714.52	$96,123.72	530
15568240	Ting	Female	30	10	5	492	$77,168.87	$146,700.22	552
15568506	Forbes	Female	31	10	5	524	$67,238.98	$161,811.23	685
15568819	Chiganu	Female	42	8	5	619	$132,796.04	$191,821.35	845
15568834	Howells	Male	27	6	5	698	$125,427.37	$27,654.44	717
Total	**Abazu**	**Female**	**389218**	**50128**	**30138**	**6505288**	**$764,858,892.88**	**$1,000,902,398.81**	**6065151**

You can use the filters according to your priority bases or according to the major influence criteria which the filters are being positioned accordingly and create a customised list of customers to target and **prevent the Customer Churn.**

My Analysis and solution for the bank :

Basically the bank has to focus more upon the complaints that they are facing because neglecting few majority of the customers that have churned are those having a complaint status as active which has not been resolved and caused them to lose those customers. Accordingly, banks should focus on this major issue and take steps to improve themselves.
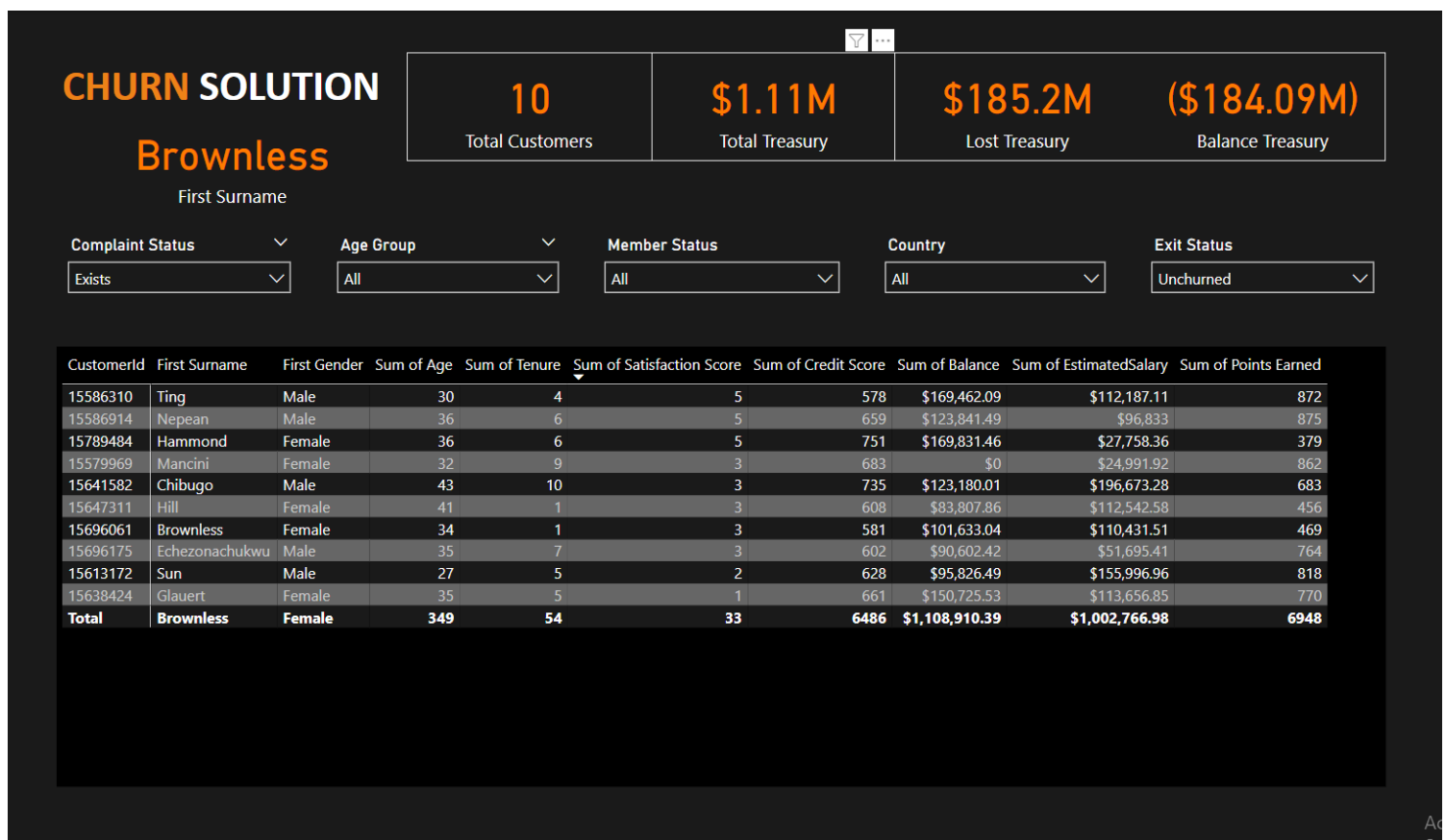
This should be the first target customers bank should focus on because their **complaint status exists** and they are **unchured** and has a total balance of **1.1M$**