Maven Financial Customer Complaint's

Objectives:

1. Do consumer complaints show any seasonal patterns?

2. Which products present the most complaints? What are its most common issues?

3. How are complaints typically resolved?

4. Can you learn anything from the complaints with untimely responses?

Data:

Overview:

Consumer complaints on financial products & services for Bank of America from 2017 to 2023, including the dates the complaint was submitted to the CFPB and then sent to the company, the product and issue mentioned in the complaint, and the company's response.

Analysis:

The financial customer complaints dashboard provides a visual representation of yearly seasonality, indicating peak complaint periods at the end and start of each year, with a notable increase from late 2019 to 2022, reaching its peak complaints within a year. It is divided into two main sections for comprehensive analysis: the first section examines the distribution of complaints across various dimensions such as time, state, product type, issue, and the timely response rate. Dive deeper into the analytics by hovering over visuals or exploring specific details using the dropdown menus.

Initially, the data did not require extensive cleaning, mainly needing some column formatting adjustments. One significant step was replacing null values in the "timely

response" column with "pending," based on the status in the "Company response" column. Minimal additional queries were needed, with the focus being on basic statistical analysis for descriptive insights. This approach ensured that the data was prepared for further analysis without the need for extensive cleaning steps.

I followed my usual process of starting with univariate analysis to explore and understand the data, then progressed to bivariate and multivariate analyses to delve deeper into comparisons and insights. This led me to uncover trends in overall complaint numbers and timely response percentages. I specifically looked into the top 6 states with the highest complaints over time, observing a proportional trend with the overall seasonality of complaints from 2019 to 2023 in these states. Additionally, I calculated measures to compare the submission medium with the company's response rates, considering both "yes" and "no" responses. This comprehensive approach allowed me to gain valuable insights into the data and its trends.

In the second section, I utilized the decomposition tree to understand the highest ratio of complaints across time, state, submission medium, product type, issue, company response, and the timely response rate. Additionally, I included a side note highlighting key insights from the overall data. Towards the end of the second page, there are two visuals that are somewhat linked, showing the product types by the top 10 issues for each product type. This helps in discovering the most common issues reported in complaints.

Key Insights:

- From 2017 to 2023, a total of 62.52k complaints were reported, showing a decrease compared to the previous year when complaints peaked in 2022. This trend began in late 2019 and continued through the COVID-19 pandemic.
- There is a yearly seasonality pattern, with higher complaint rates at the start and end of each year. No other distinct seasonality is observed.
- The overall timely response rate was 93.77%, showing a 33% increase over time. The "no" response rate is less than 3%, and as of 2023, some complaints are still pending.

- The most common complaint categories were Checking or Saving Accounts and Credit or Prepaid Cards, with the highest complaints in 2022 compared to other years.
- Most complaints resolved with "Closed with Explanation" but company often responds to consumer and CFPB but opts not to provide public response.
- The top 3 complaint issues were Managing an Account, Opening an Account, and Closing an Account. However, the top issues varied by product type.
- The majority of complaints were submitted via the web, which also had the highest ratio of timely responses.

Design/Theme:

The colors I chose were inspired by various financial and banking dashboards, aiming to capture the essence of the banking sector theme. While not all, specific variations were carefully selected to best represent this industry. This chosen color palette is consistently applied throughout all visualizations, ensuring a cohesive and thematic look.