

## **INTRODUCTION**

One of the primary functions of the CFPB is collecting, investigating, and responding to consumer complaints.<sup>1</sup> The Office of Consumer Response (Consumer Response), created by the CFPB under the Dodd-Frank Wall Street Reform and Consumer Protection Act, maintains procedures to provide a timely response to consumers, <sup>2</sup> in writing, to complaints<sup>3</sup> concerning a covered person.<sup>4</sup> In 2022, the CFPB received approximately 1,287,300 consumer complaints.<sup>5</sup>

### **Consumer complaint process**

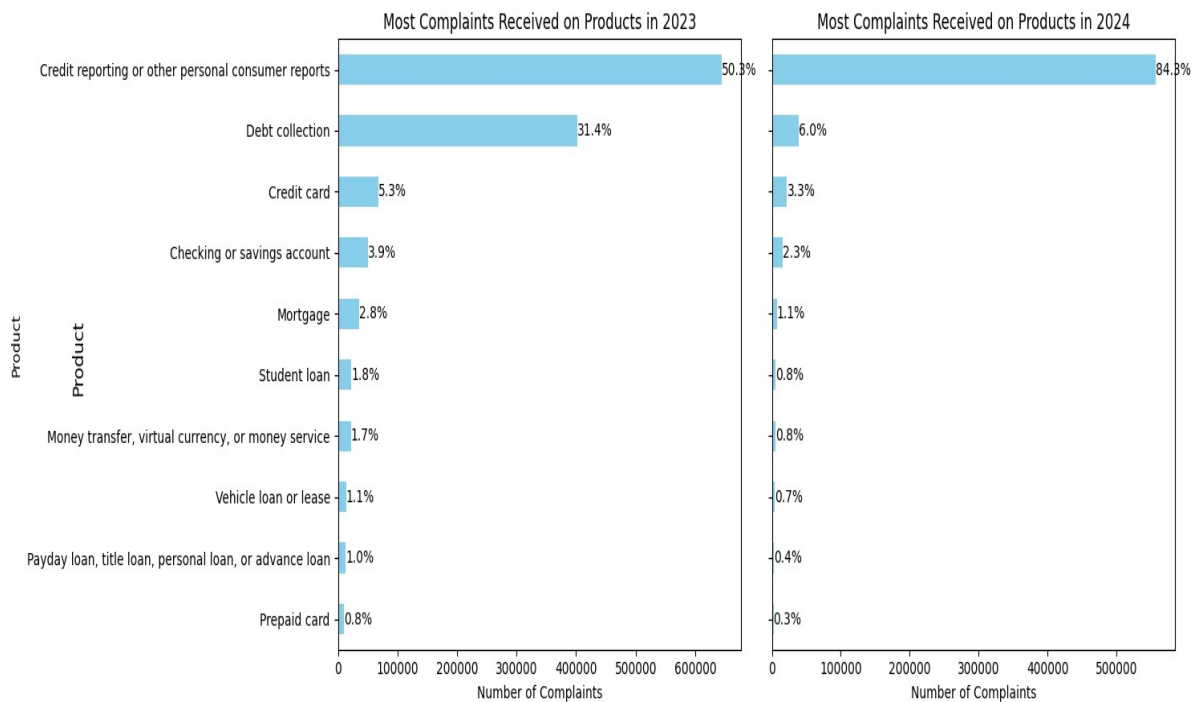
The CFPB accepts complaints from consumers through its website, by telephone, and mail.<sup>6</sup> The CFPB also accepts referrals from the White House, congressional offices, and other federal and state agencies. Consumers submitted 95% of complaints by visiting the CFPB's website and 2.7% by calling the CFPB's toll-free telephone number.<sup>7</sup> The remaining 1.9% were submitted via postal mail or referral

### **Analysis**

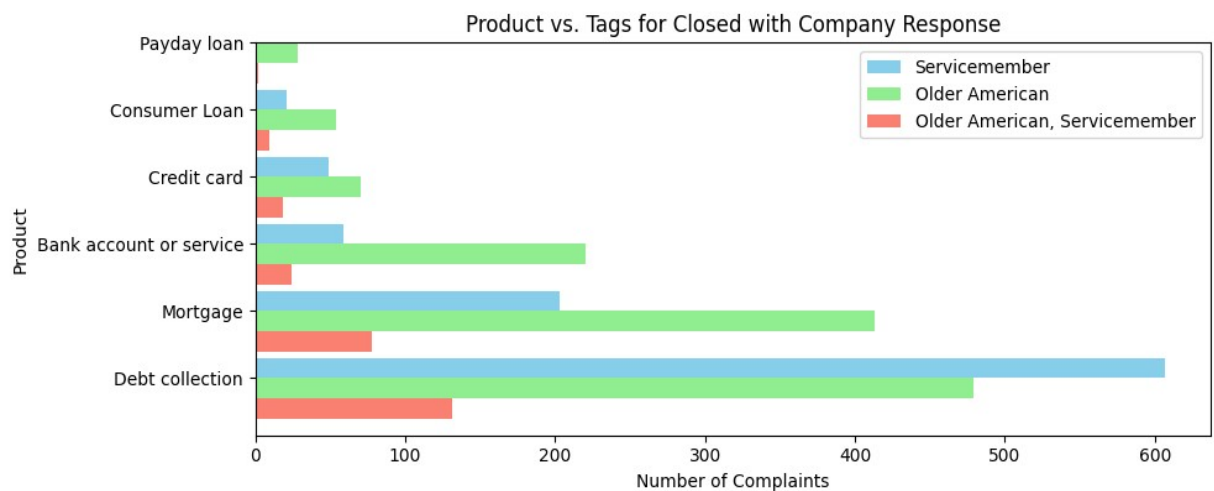
This analysis is done in a jupyter notebook using Python scripting with the help of pandas and matplotlib libraries. This analysis is based on the complaint which mostly occurs and the response rate from the companies against the complains. The data is plotted for various columns of the dataset.

This data contains more than 5.1 million data records of the consumer complaints from the states of USA. The entire data set is used in this analysis. This dataset contains more null values than the actual values in few columns. The entire dataset contains categorical data except one column which contains complaint id. Hence the null values cannot be treated here since that affects the originality of the data. Mostly customer fills few of the all columns in a complains sheet, which shows originality of the data. The data will be analysed even with the null values which will give actionable insights of the data.

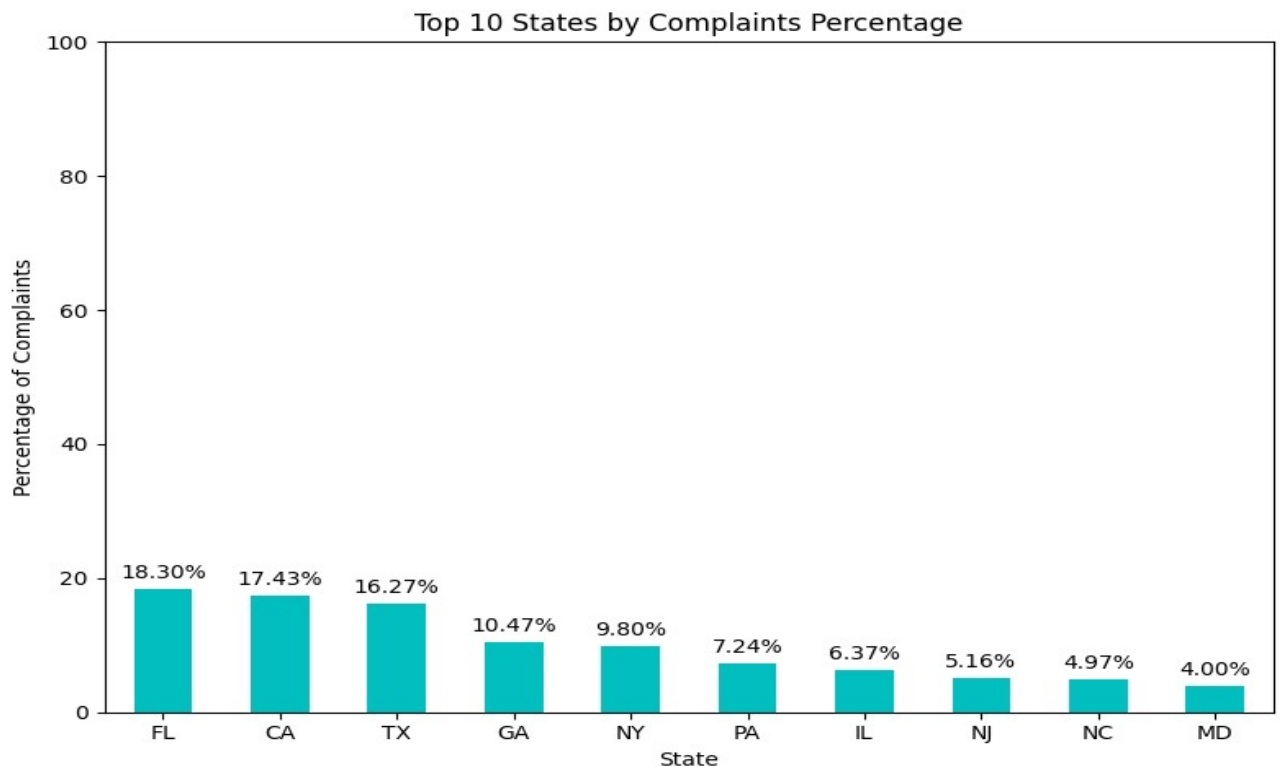
The following plot shows that about the top 10 products with most number of complains. Here the plot shows for the current year(2024) data and the past year(2023). This shows that the Credit reporting and the personal consumer reports has 84.3% in 2024 and 50.3% in the year 2023 is the highest of all the complains. We can clearly see this complain rose over 30% within a year. And in the second there is debt collection which is 31.44% in 2023 and it surprisingly decreased to 6.0% which is a great improvement on this.



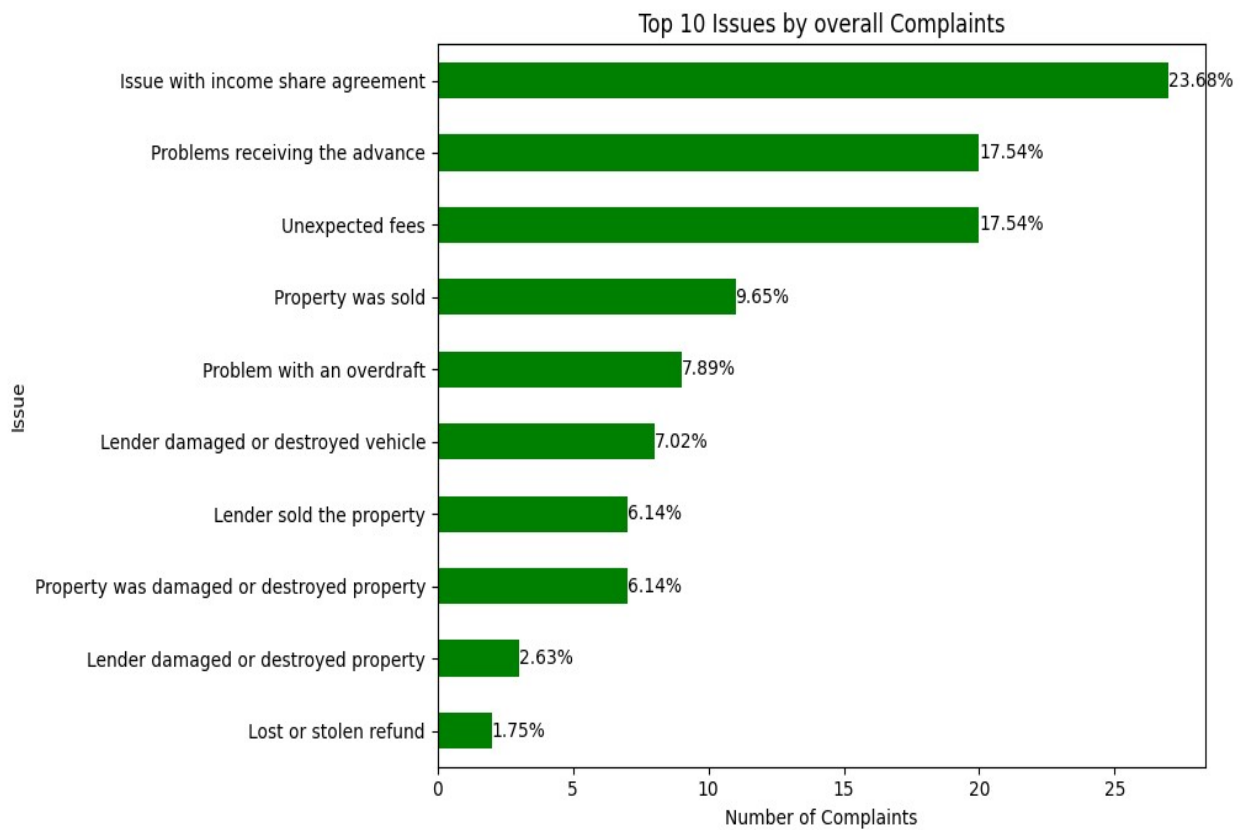
Here we are seeing the complaints from the special category people like servicement, older american, and those who are servicemen and older american. Older american means that they are 62 or older. I plotted a bar plot which shows that how many complains were recieved from these persons and which are the products they are complaining about. This data is a part of the data set which contains 5.1 million data records. Comparing to overall complains history over the years there is lesser complains from the special category people. You can crearly see that the highest number of complains from service member on the product debt collection was around 600 among the 5.1 million records.



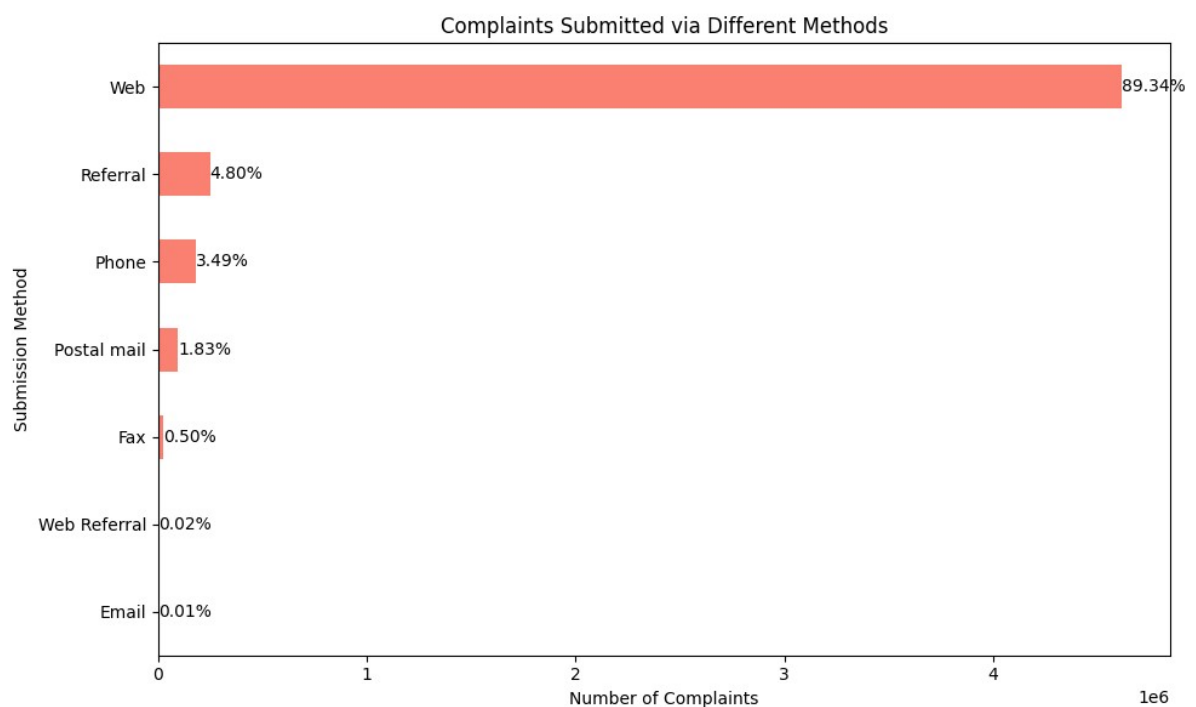
The following plot will show that the states from which more complaints received. I plotted the top 10 states by the number of complaints it received. The stats is included all the 21 product types. here also the most complains are from the category Credit reports or othe personel consumer complains. In this data the state which recieved most complaints was Florida USA with 18.30% of overall complaints.



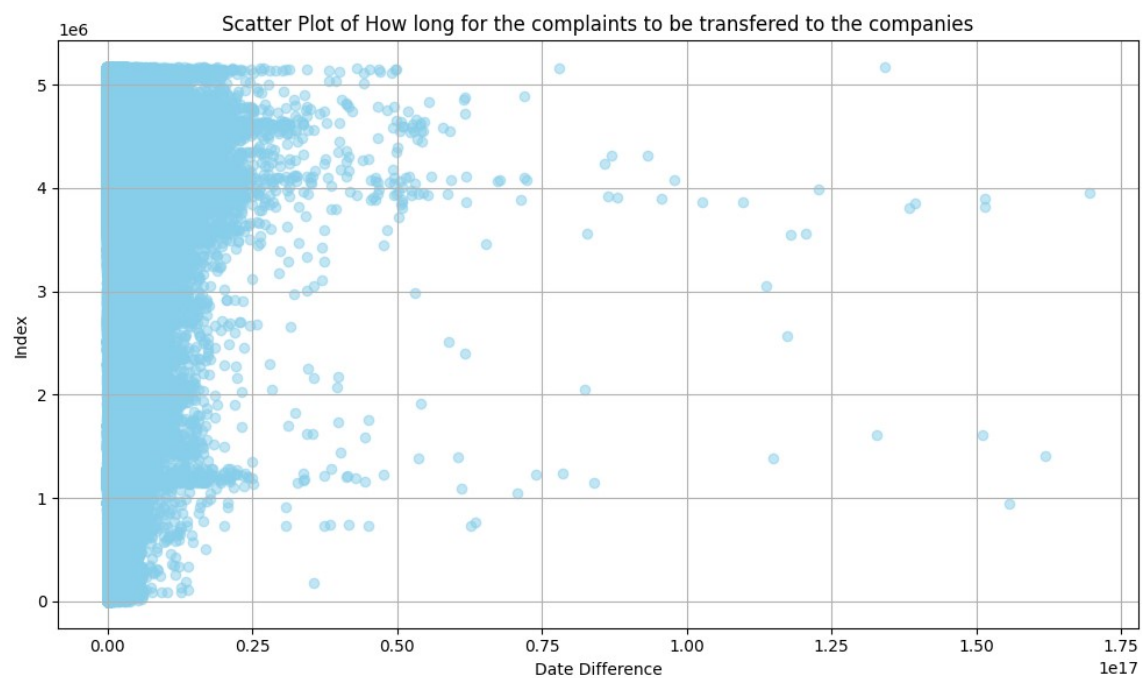
This plot will show what issue are the consumers facing or on which reason they raised the dispute or complaint. Here I ordered the top 10 common issues faced by the consumers on the products the consumed. Here most of the consumers facing issue with income share agreement of about 23.68%. They are frequently facing the spam issue like spammers calling and telling them they are calling on behalf of the company and they want the consumers to share the informations of the income advance fees and more. The data of these issues are shown in a bar plot.



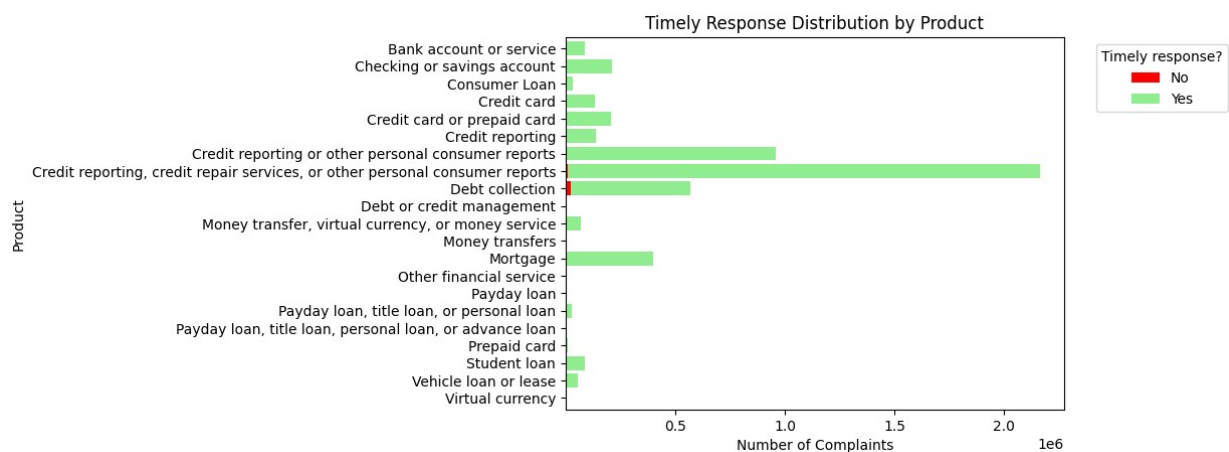
This following plot will show how the consumers are registering their complaints or in which way the registering their issue the most. in this plot we can clearly see that the majority of the consumers raising their disputes over the web likely 89.3% of people.



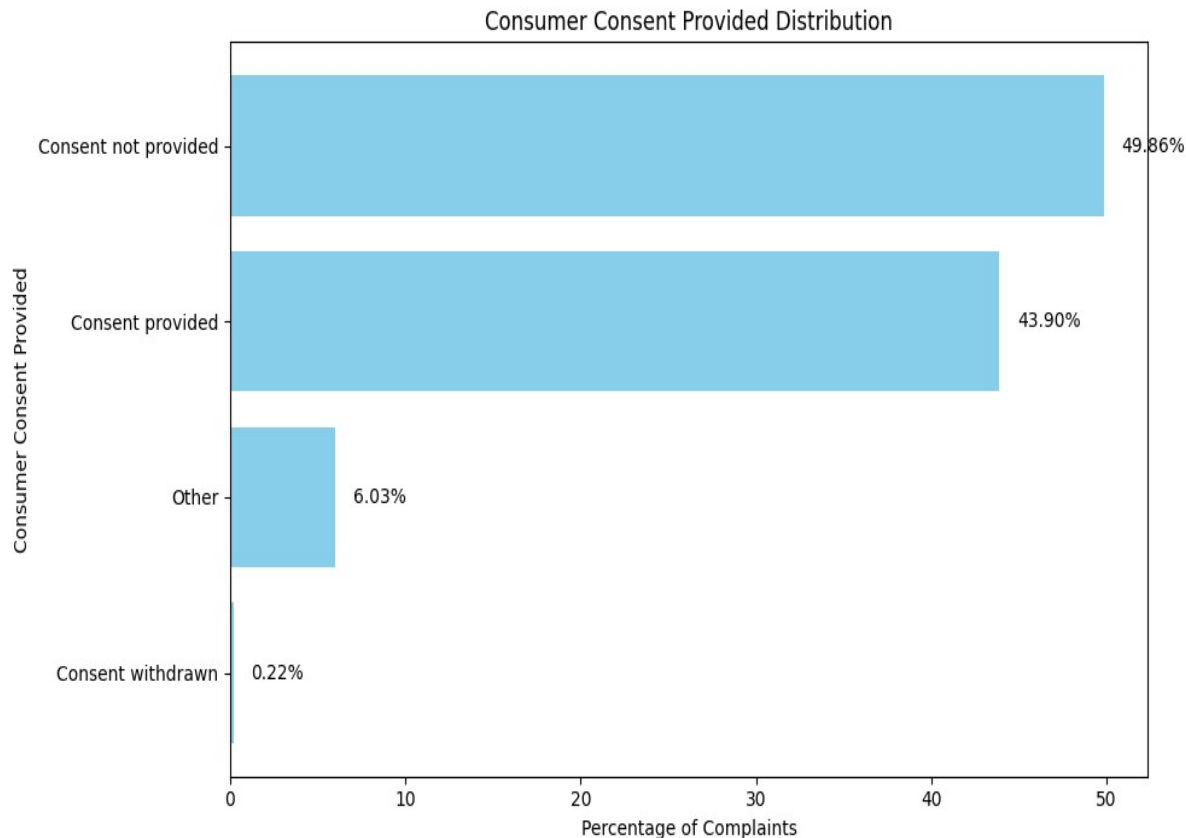
The following scatter plot can show how long it will be taken for the complaints to be transferred to the consent companies. Here most of the complains are transfered to the concerned companies within a day to a month. And then there are some complaints which transfred after 3.5 years from the date of the complaint is registered. This shows the lack of dealing with the complaints in immediate basis.



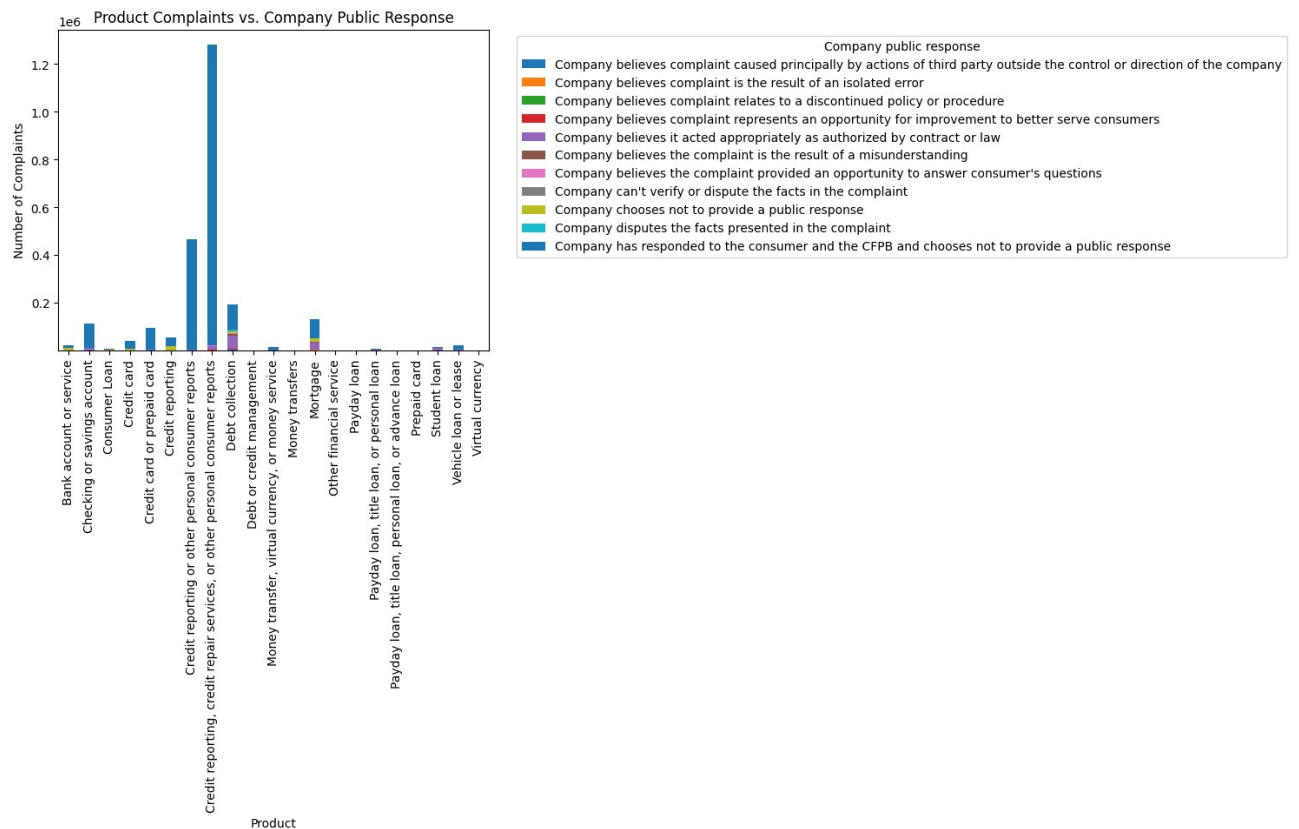
Following the above plot here it is a plot which representing the same kind representation which shows the timely response to the complaints. By seeing the above plot moost of the complains are responded within a day likely in this plot there is lesser amount of complains which is not timely responded. Mostly Debt collection was not timely responded in the below plot. The ratio is likely 99:1 for timely responded or not.



This plot will show whether the consumer is provided with a consent or not. The important work of consumer service representative is to timely respond to the consumers and clear their disputes. Here this shows that the consumers are not provided with a consent is higher than the consumers with the consents provided. Without the consents the service representatives will not know that the consumers are satisfied with the response or not. The customers who do not provide their consents are nearly 50% on the overall complaints received.



This plot will show how the companies are responded to certain complains in which way. This is shown in a stacked barplot ordered by the legend given in the top right corner. There is the most response from the company was that company has responded to consumer and CFPB and not to provide a public response. This plot also shows that which way the company has responded to complains the most. It is almost 90% of the complains or responded with 'company has responded to consumer and CFPB and not to provide a public response'.



## Conclusion:

The given data has record of complains from the consumers directed to the concern companies. The data is to be evaluated and analyzed for minimizing the complains faced by consumers. Year on year most of the complaints are reduced massively. Very few issues gradually grows each year that only faced by the scammed. Year analysis of the data would really help the companies to reduce their consumers issues and grow their business eventually. By the analysis of the data and doing preventive precautions, The complaints are gradually decreased over the years.