

# How Consumer Complaints Can Help Improve Financial Marketplace

Aakash Parwani  
Saint Peter’s University, Data Science Institute  
aparwani@saintpeters.edu



## Abstract

The purpose of this research is to highlight factors causing increase in complaints in financial marketplace and to understand how the customer satisfaction rate can be increased into financial marketplace including products and services. Preliminary data will be collected from CFPB (Consumer Financial Protection Bureau) an online public repository. The hypothesis of the study is developed as H1: There is a significant breach in policies of financial products and services due to this customer satisfaction rate is going down. A t-test for independent samples is used to address the hypothesis. The discussion of the study explored good information on complaint database and what actions are required to improve the marketplace. Still there are important variables that are missing in this study which can be considered in future for designing efficient method. The method section has considered text mining, predictive analytic and risk percentage analyses techniques to improve the confidence level of customers and which product or service requires more attention in future. The result of the study is successful and effective visualization of consumer complaint database and prediction of products/services/companies with good safety index and high risk index as well. It will help customers for choosing right product/services as well as companies to employ proper practices for making better Financial Marketplace.

## Introduction

The financial market is a broad term it is a place where firms and individuals come into contracts to buy or sell specific product. There is wide range of financial products some financial products provide convenience to our everyday lives, such as having a bank account to manage our money. Other products like insurance provide financial coverage against a range of events. Investment products may help us grow the money we have for purposes such as our retirement. According to an annual report of year 2015 published by FTC(Federal Trade Commission), debt collection(a financial Product) with hold of 29 percent complaints is at the top of most consumer complaint sectors list. And also there are other financial products where consumers are facing problems. There can be increment in customer satisfaction rate if proper policies are designed for financial products. This document proposes a review of how consumer complaints about financial products can help other individuals avoid similar ones. And evaluate inappropriate practices to stop them before they become major issues which can help in making better financial marketplace for everyone. Included in this proposal are my methods for gathering information and doing proper visualization of that information.

## Data

The Consumer Financial Protection Bureau (CFPB) is a US government official agency for collecting consumer complaints and helping them to take more control over their economic lives.

1. CFPB provides latest data from year 2011 and database updates on nightly basis. This data is sent to companies for their response, on a range of consumer financial products and services.
2. The data set contains information for each complaint like date of submission, source of complaint, for which financial product complaint was filed, the company name complaint was sent for, how company responded, complaint description of what happened, consumer state and zip code information.
3. Below graph gives an overview of complaints raised against different financial products. From figure we can conclude that financial product Mortgage has highest number of complaints registered and Virtual Currency has lowest.

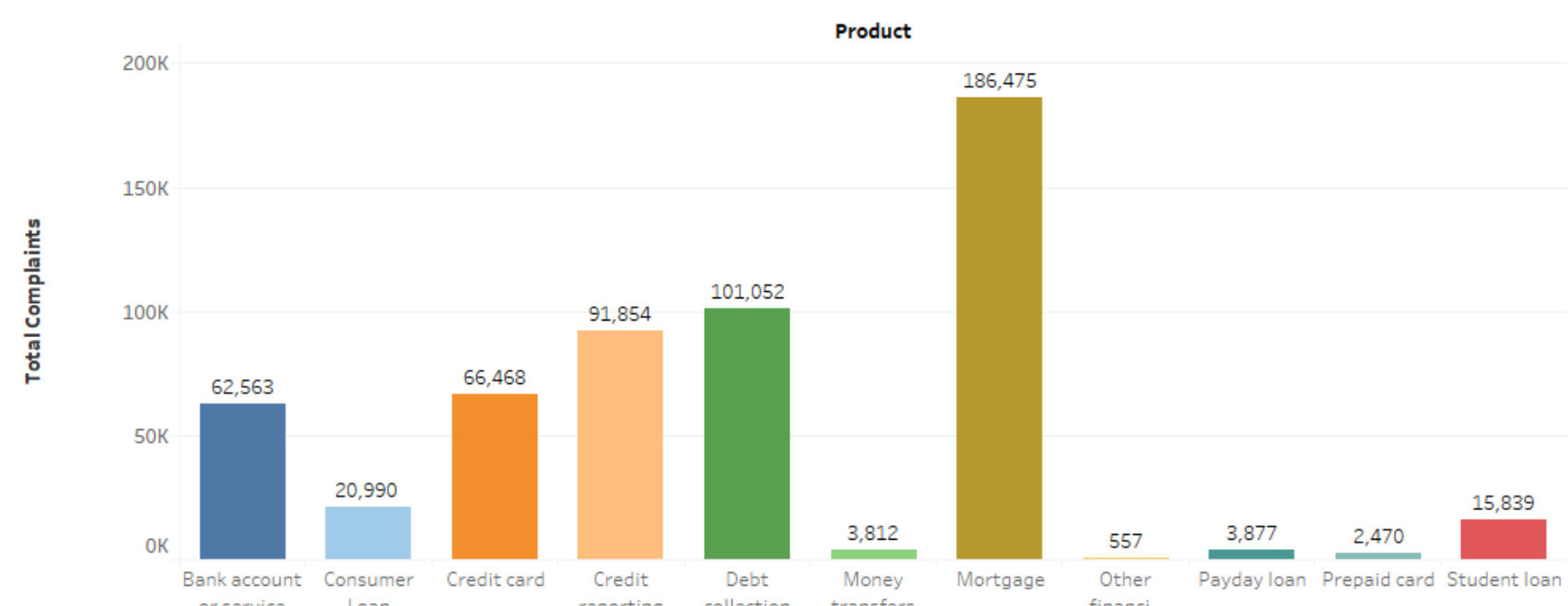


Figure 1: Number of complaints against different products.

4. Data visualization attempt below develops a good understanding of number of complaints against giant financial institutions. Bank of America has experienced highest number of complaints and Capital One is at the bottom of list.

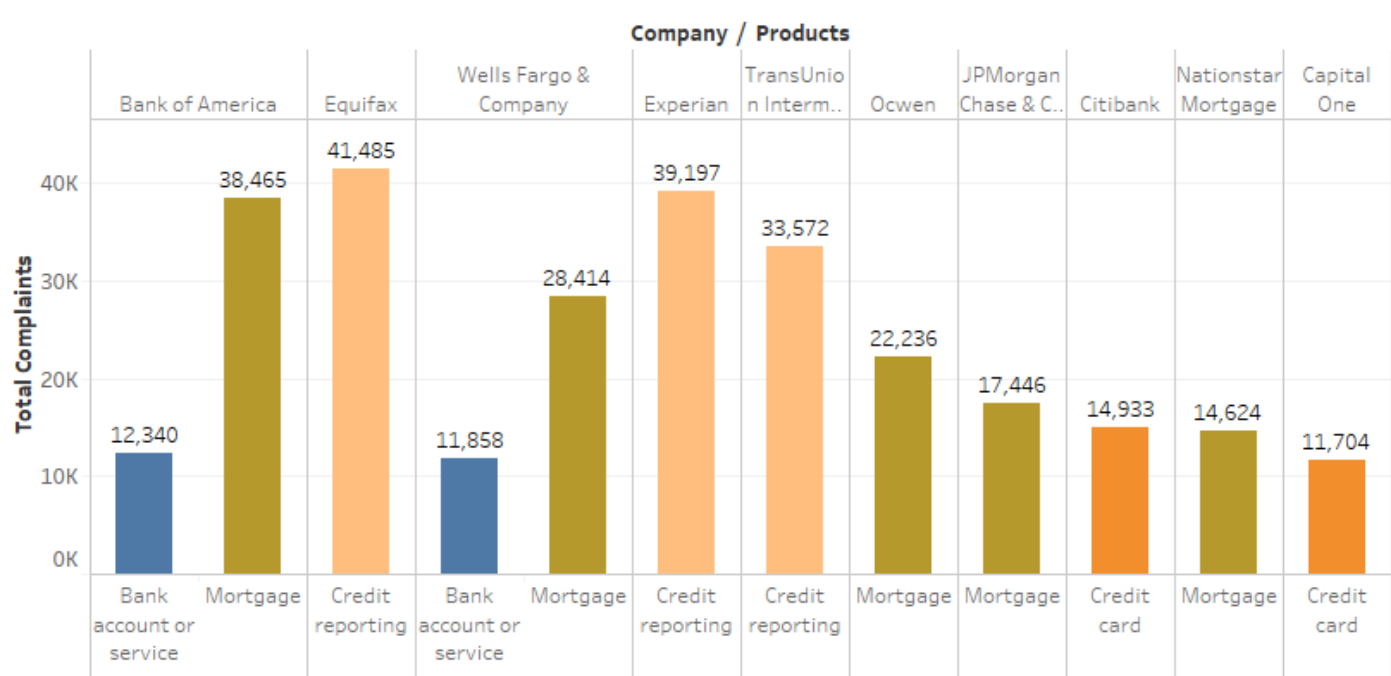


Figure 2: Product complaints against different companies.

## Method

Based on the accuracy and timeliness of the provided data trend analysis would be performed to predict growth in number of complaints for any financial product and following analyses could be a step to improve financial marketplace.

- We can analyze financial products with highest number of consumer complaints.
- We can employ text mining techniques to understand types of consumer complaints and responses from companies.
- Which state is experiencing more issues.
- Which month has highest number of complaints registered.
- Also there are attributes combinations we can use for analyses and clear picture of this analyses can be provided to consumers as well as financial institutions to improve the policies associated with products.

## Results

Using steps discussed in methods section. Let’s perform effective visualization and analysis of complaints database.

This analyses will provide information like risk percentage associated with any product or company to customers.

- Let’s checkout company response to customers complaints. From below figure we can easily see that there are 8 different types of responses and most of the complaints are closed with explanation. But still there are few untimely responses under debt collection product which requires proper attention.

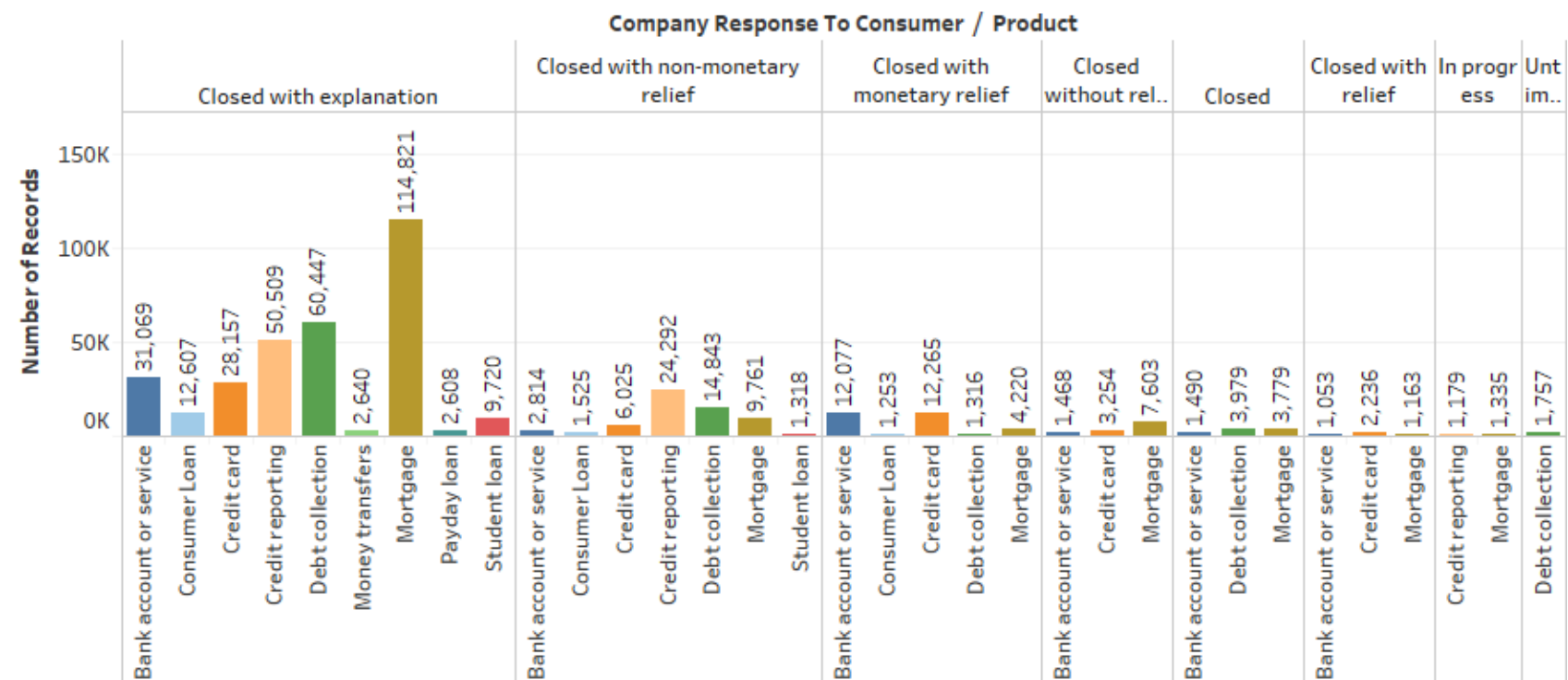


Figure 3: Company response against different product complaints.

- Map below illustrates the number of complaints in different states of united states. California, Florida, Texas, New York and Illinois these are the states experienced highest number of consumer complaints. These states are highly populated which could be a reason of high complaint rate.

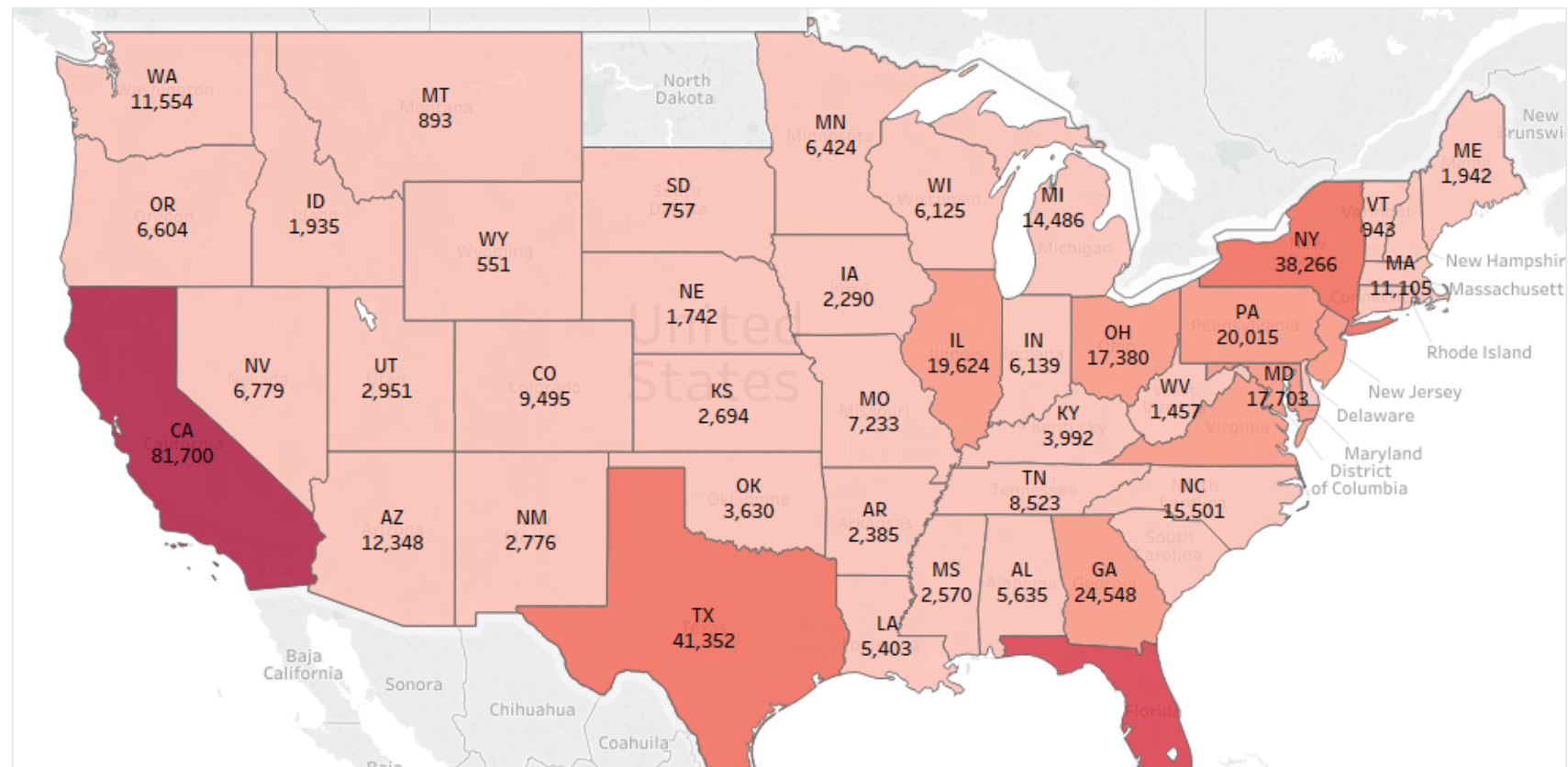


Figure 4: Complaints in different states.

- Below table gives an idea of percent of false complaints by customers under different products. Student loan, Payday loan and Money transfer these products have experienced highest percent of false claims.

Consumer Disputed?	Product									
	Bank account or service	Consumer Loan	Credit card	Credit reporting	Debt collection	Money transfers	Mortgage	Payday loan	Prepaid card	Student loan
No	9.08%	2.94%	9.48%	13.82%	14.90%	0.59%	25.78%	0.59%	0.39%	2.29%
Yes	2.22%	0.84%	2.49%	2.71%	3.29%	0.10%	7.79%	0.11%	0.06%	0.56%

Figure 5: False claims against different products.

## Discussion

The method above is using prediction, risk analyses techniques on the data provided by CFPB. Although, most of the information is provided in the data set. But still there are some variables like customer satisfaction with company response, date time when product was purchased by customer, are missing from data set which can help in strong model building.

In future we can employ text mining techniques to better differentiate a false and a true claim.

In current analyses only US country data is taken into account in future, data for different countries and from different sources could be considered.

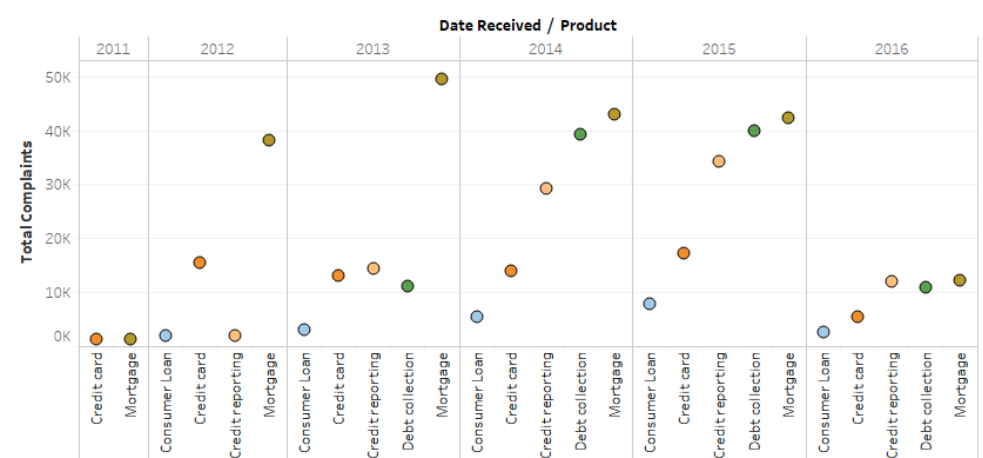


Figure 6: The figure above gives an idea of improvement in financial marketplace. Year 2016 has filed good fall in number of consumer complaints compared to previous years.

## Conclusions

Data Visualization attempt made in above sections will assist customers to understand the risk involved with different financial products. And institutions can make attempt to improve the products by employing proper policies and improving the agreements associated with different products.

Our study also indicates the states where percentage of consumer complaints are high. Also provides an idea of fraud claims percentage which can benefit the institutions.

## References

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[2] Fiona J. McMillan David G. McMillan. Us bank market structure: Evolving nature and implications. *US Bank Market Structure*, 50(5), 2016.