Consumer Complaints Pattern Analysis

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Table of contents

O1
Problem
Statement

02

About Data Set

03

Analytical Questions

04

Visualization – Power Bl 05

Analysis Results 06

Recommendations

Problem Statement

Problem Statement

Analyze consumer complaints data set to identify reasons for customer dissatisfaction and proffer viable recommendations to improve policy making to achieve customer satisfaction by reducing legal procedures

Understanding The Problem



Customer Behavior

- Identify reasons for customers dissatisfaction
- Identify modes used for submission of complaints
- Temporal analysis of complaints being launched



Companies Comportment

- Identify companies having the most complaints
- Identify efficacy of complaint resolving mechanism

02 **About Dataset**

About Data Set

The data set contains detailed information about the consumer complaints being submitted, reasons for these complaints & against whom they have been levied

Key Attributes

- Date Received
- Product Name
- Sub Product
- Issue
- Sub Issue
- Company
- State Name

- Zip Code
- Consumer Consent
 - Provided
- Submitted Via
- Date Sent to Company
- Company Response to
 - Consumer

- Timely Response
- Consumer Disputed
- Complain ID

Data Dictionary

Field Name	Туре	Mode	Description
Date_Received	Datetime	Required	Date of submitting complaint
Product_Name	Str	Required	Product category
Sub_Product	Str	Nullable	Product sub category
Issue	Str	Required	Issue category
Sub_Issue	Str	Nullable	Issue sub category
Company	Str	Nullable	Company details
State_Name	Str	Nullable	Region where the consumer lives
Zip_Code	Str	Nullable	Postal code where the consumer lives
Consumer_Consent_Povided	Str	Nullable	Consumer consent provided for resolving the issue
Submitted_via	Str	Required	Mode used to register the complaint
Date_Sent_to_Company	Datetime	Required	Date of forwarding complaint to company
Company_Response_to_Consumer	Str	Nullable	Company's response
Timely_Response	Str	Nullable	Was a timely response provided
Consumer_Disputed	Str	Nullable	Is the consumer satisfied by the response
Complaint_ID	Int	Required	Unique identifier for each complaint

03 Data Process & Analytical Questions

Data Process



Data Process

- Data Extraction: Extract Data from Kaggle in a single Excel files
- Duplicates Removal: Identified and removed duplicate records
 Missing Values Handling: Managed missing data through imputate
 - Missing Values Handling: Managed missing data through imputation and deletion
 - Data Consistency: Standardized formats for dates and data
- Transformation: Merged/ delete data to create a unified dataset
 - Accuracy Checks: Verified data accuracy through sample checks & comparisons
 - Integrity Constraints: Ensured referential integrity across the dataset

Analytical Questions

Customer Behavior

- What are the most and least reported cases about Product?
- What are the most and least reported issues?
- How many customers did not provide complete details of the issue?
- What are the modes used to submit complaints?
- Which are the states with highest and lowest reported cases?

Companies Comportment

- Which companies are involved in most and least cases?
- How many customers are satisfied by the response provided by the company?
- How many times a timely response was provided to the customers?
- When were the most cases reported, month and year wise?

04 Visualization Power BI

Customer Complaints Analysis

65.50K

Total Reported Cases

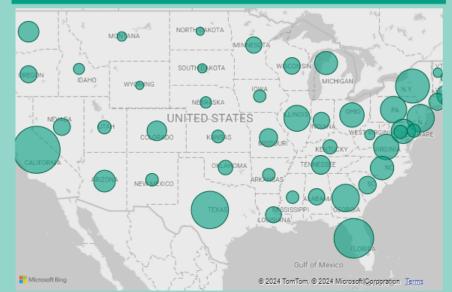
Reported Categories

91 Reported Issue

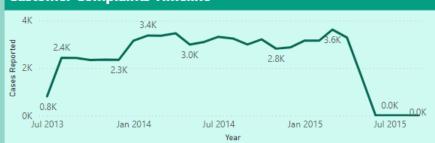
35K
Incomplete Details Provided

1878
Companies Involved

Customer Complaints Timeline



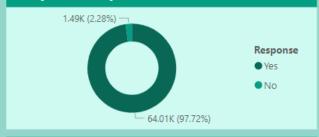
Customer Complaints Timeline



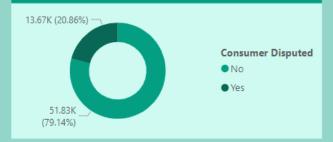
Modes Used to Submit Complaints



Companies Response Profile



Customer Satisfaction Profile



05 **Analysis Results**

Customer Behavior

Most Reported
Cases
(2013-2015)

Most Reported Issues (2013-2015)

Mortgage: 18734

Debt Collection: 16106

Credit Reporting: 12092

Loan modification, collection, foreclosure: 9338

Incorrect information on credit report: 8914

Cont'd attempts collect debt not owed: 6779

Customer Behavior 34841

Issues Raised with Incomplete Details

Web - 44904

Most Complaints Submitted Via

CA - 9316

State with Highest Reported Cases

Companies Comportment

4719

Bank of America

4230

Experian

Companies with Most Cases

Companies Comportment

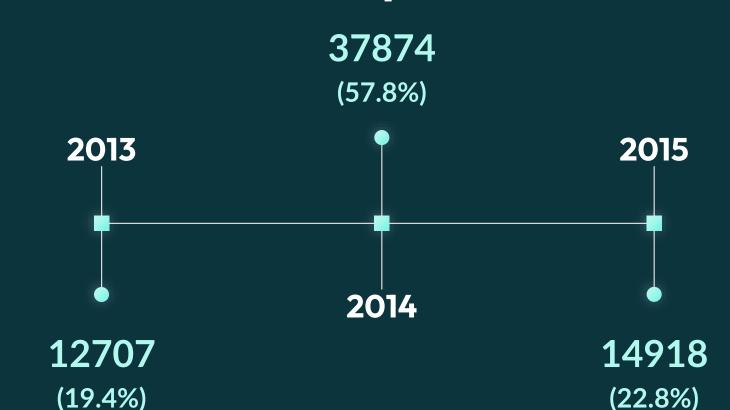


Satisfied Customers



Timely Response

Timeline – Reported Cases



Review policies to identify loop holes causing customer complaints

Review proficiency of data entry employees to avoid unnecessary paper work at later stages

Review of company policies at state level making them more customer friendly

Establish a mechanism at state level to resolve outstanding cases by providing legal aid to customers

Customer care agents to better guide customers for better handling of complaints

Companies to identify real and fake complaints after thorough checks to discourage lodging of unnecessary complaints

