

A Machine learning approach in the analysis of  
consumer complaints on insurance companies

in the state of Texas

Lenin Kamma

Bellevue University

Professor: Catie Williams

### **Questions and Answers**

1) What type of complaints were filed by consumers?

Delays in claim handling (20.8%)

Unsatisfactory offer (22.5%)

Problems with the customer service (11.9%)

Denial of claim (9.4%)

2) Which companies were targeted in these complaints?

BCBS of Texas (595 complaints)

United Health Care insurance company (490)

Humana Health Plan of Texas (235)

Aetna Life insurance company (198)

3) What was the average complaint resolution period?

Accident and Health - 239 days

Automobile - 100 days

Homeowners insurance - 109 days

- 4) Was there any correlation between the state zone and complaint type?

Some zones reported higher number of complaints compared to others. West

Texas reported the lowest number of insurance complaints whereas South East

Texas reported the highest numbers.

- 5) Any prediction on the bad practices of insurance companies based on the cluster of complaints?

Many complaints could have been avoided by working with customers early in

the process. Insurance companies had to pay additional money in more than 3000

complaints. So, early intervention would have saved time and money for both

consumers and companies

- 6) Was there any correlation between the company and the number of complaints?

Yes. BCBS had the highest number of complaints. However, this may not be

attributed their service because of the large customer base they have. More studies

need to be done to determine why they received more complaints.

- 7) Which line of coverage was subjected to the most complaints?

Accident and Health had the highest number of complaints followed by Automobile

category.

8) Any correlation found between the type of complaints and the resolution period?

Although not much correlation observed between the type of complaint and the resolution period, the average resolution time was the highest for Accident and Health and lowest for Homeowner complaints

- Accident and Health 239 days
- Automobile 110 days
- Fire, Allied Lines & CMP 140 days
- Homeowners 109 days
- Liability 136 days
- Life & Annuity 260 days
- Miscellaneous 185 days

9) What was the lowest number of complaints reported?

Around 80% of the companies had just one complaint filed against them

10) What is the action plan for insurance companies?

- Improvement in claims settlement process saves money and time
- Working with customers before they file complaint will save money
- Improvement in customer service
- Improvement in the complaint resolution time
- Focusing on South East Texas Zone