

iVision Analytic Lab.

Data Analysis for Nile Inclusive

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Batch: ABADS-4

Overview

In 21st century of emerging society, customer service plays vital role in growth and prosperity of a business. According to a study, 95% of consumers say customer service is important for brand loyalty. Following are the key benefits of customer service.

- # Higher sales
- # Higher client retention
- # Increased loyalty and trust
- # Better brand awareness
- # Fewer returns or complaints

Business Understanding:

Nile is a E-Commerce Company provides call centre service over various channels. Nile decided to make better business decisions and improve its customer services for its growth perspective.

It collected it's customer data from different sources to accomplish the analysis and study the behaviour of its customer by focusing on the following points:

- Percentage of customer satisfaction

- Causes of Customer grivence

- Time spent by the customer to call

- Time in which the call responded

- Quantity of customer calls demographically

- Mental state of customer towards the business

- How to motivate the customers in future

- How to deploy AI technology for better service

Data Understanding:

The customer csv dataset provided by Nile Inclusive contains following data elements:

- id – Unique Customer id
- customer_name – Name of the customer
- sentiment – Sentiment of the customer
- csat_score – Customer Satisfaction Score
- call_timestamp – Date on which the call was made
- call_day – Day of the Call
- reason – Reason why the customer called

- city – City to which the customer belongs
- state – State to which the customer belongs
- channel – Mode of communication
- response_time – How fast the customer request was serviced
- call duration in minutes
- call_center – Location of the call center

Data Operations:

Observation and Data correction:

Each data element is checked one by one on their data type and correctness. At first we changed the csv dataset to excel sheet. We noticed following columns in the provided dataset are not in proper format.

call_timestamp : Some of the dates are in General format , those are changed into date format and aligned into one order.

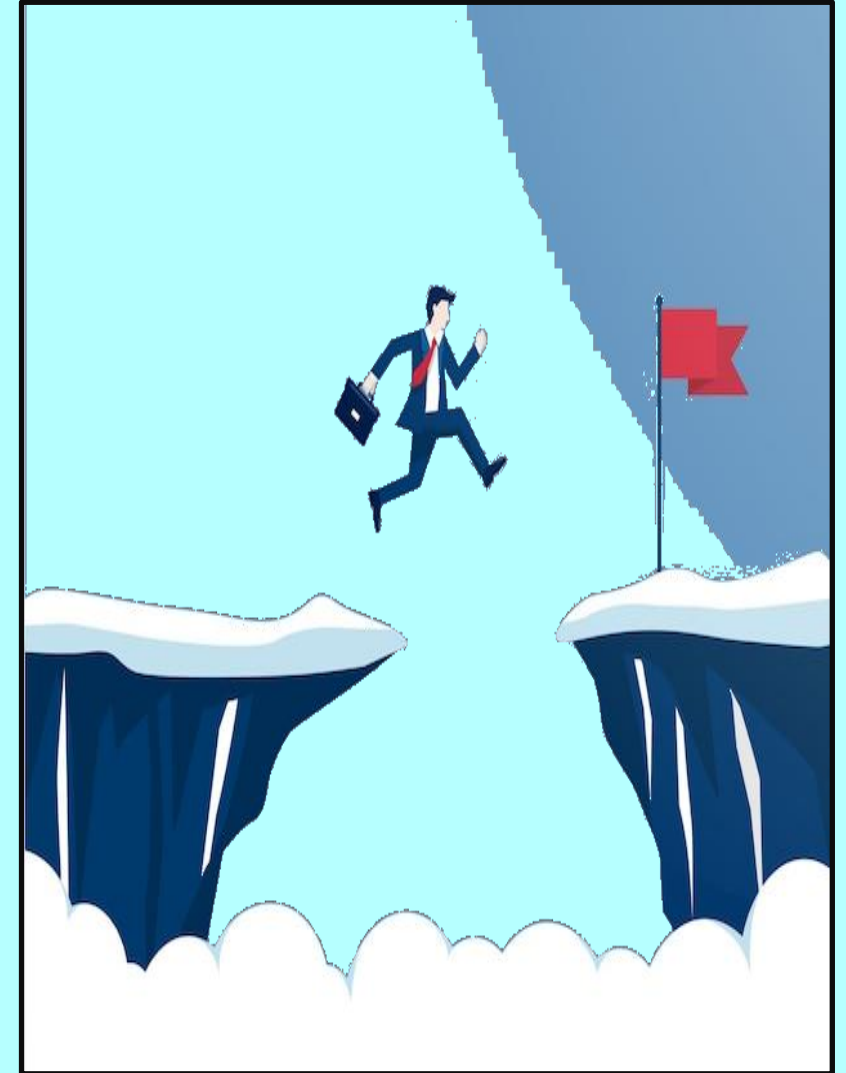
csat_score: Whole data of this column was present in general type, we changed into number format.

call_duration: It was also present in general format we changed into number format.

We also found **csat_score** of many records contain null values, which are modified by replacing zero.

Challenges

- Technical issues: In a competitive e-commerce business, customer service for resolving technical issues of online shoppers is a major task.
- Customer expectations: Modern consumers have high expectations for the products and services they pay for.
- Response times: It can be difficult to respond to every customer promptly and efficiently.
- Customer retention: Retaining a customer is 25x cheaper than acquiring a new customer.
- Online identity verification
- Delivering an omnichannel customer experience



Steps for Solution

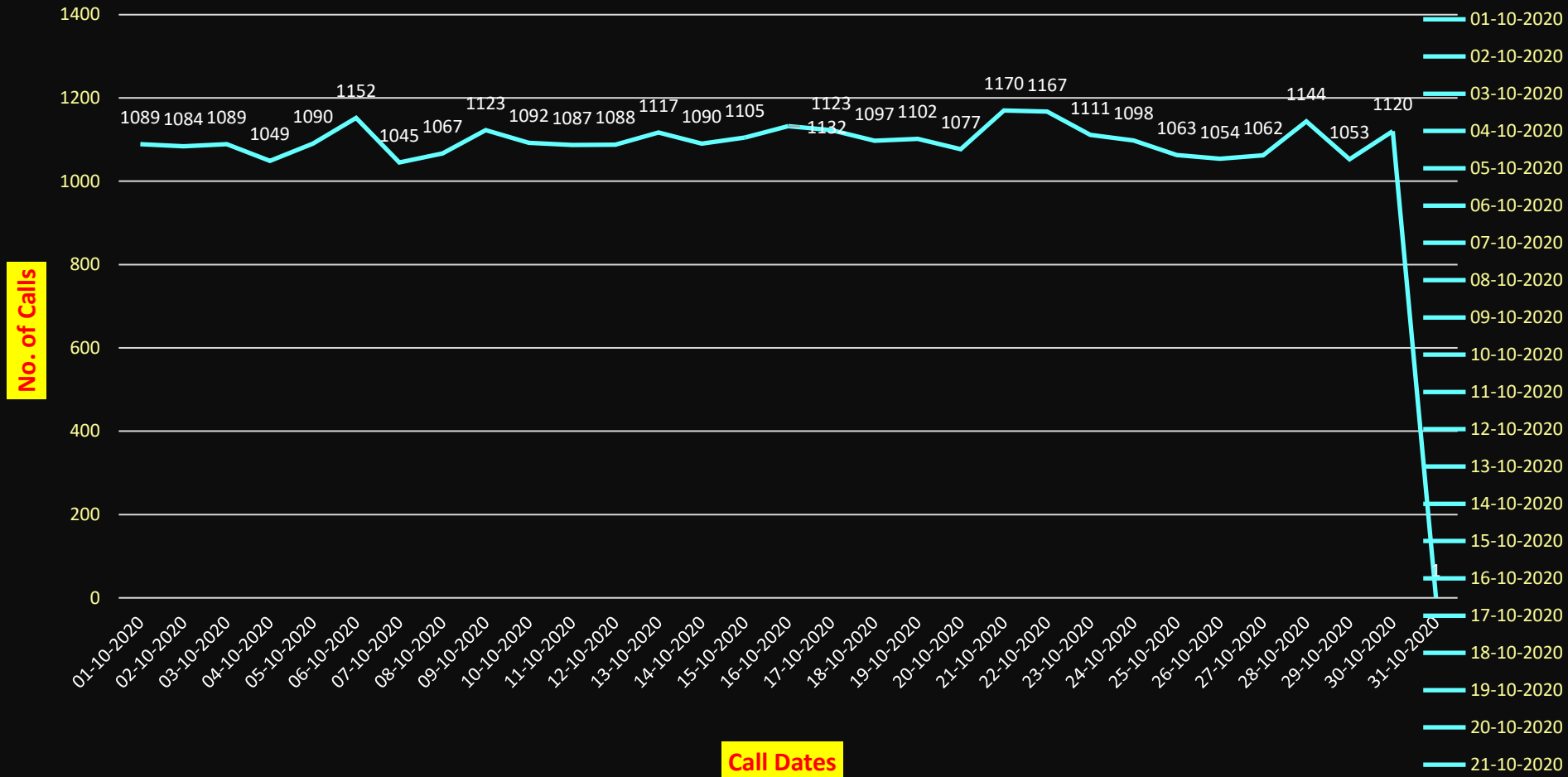
7 Steps to Fixing Customer Service Issues

- Listen or respond to the customer and show genuine empathy in prompt.
- Assess the situation and its level of importance.
- Knowing the customer's needs and preferences.
- Offer a solution and give options whenever possible.
- Deliver the solution.
- Follow up with the customer.
- Address the issue within the company.



Call Trends

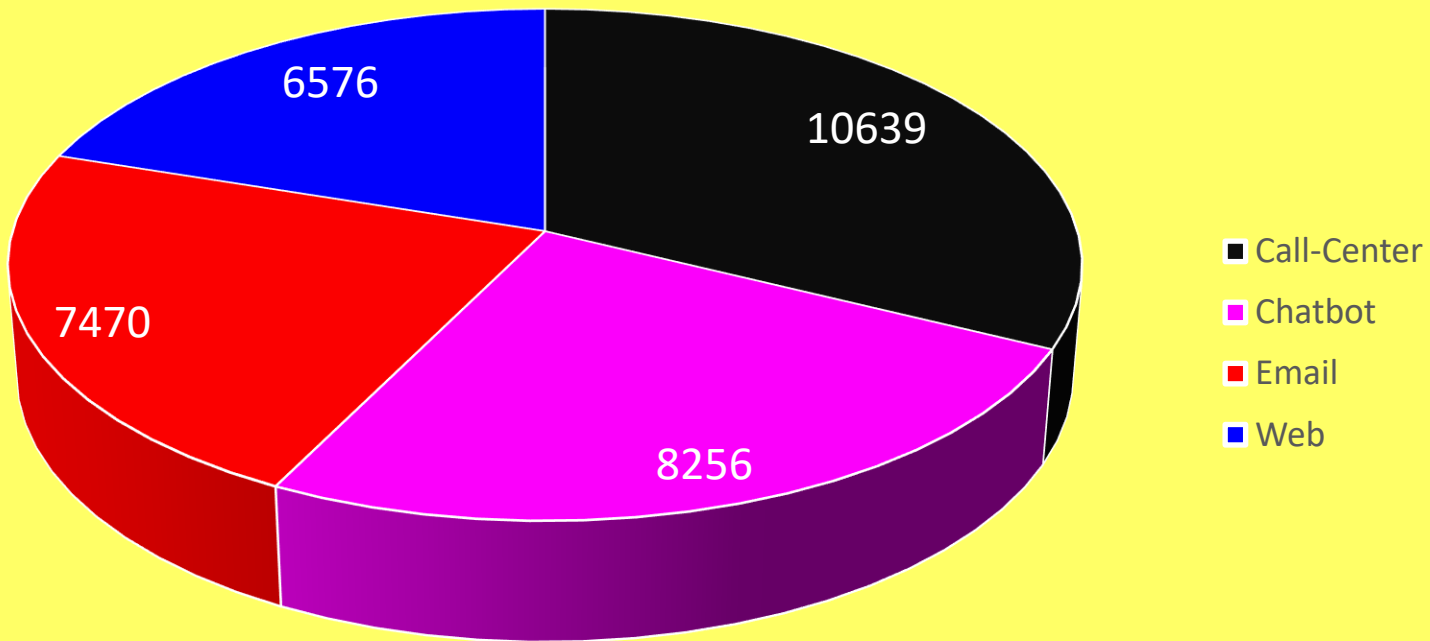
Datewise Calls



Total Calls
through out
the month is
32941

Average Call
Per Day
1062.6

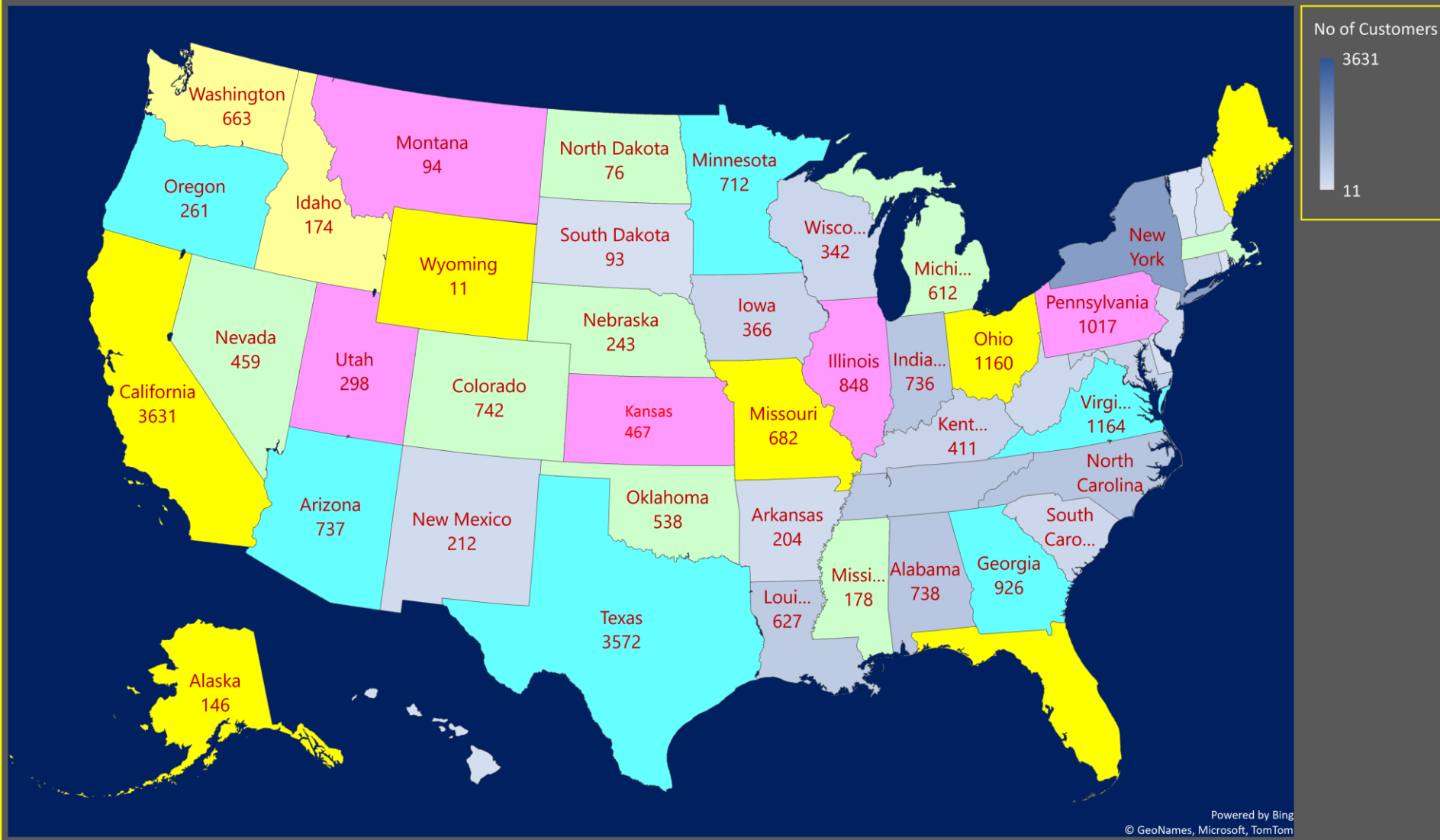
Channelwise Calls



Largest numbers of customer i.e **10639**, calls through the call centres to avail their service.

Same way smallest numbers of customers i.e. **6576**, depends on web service.

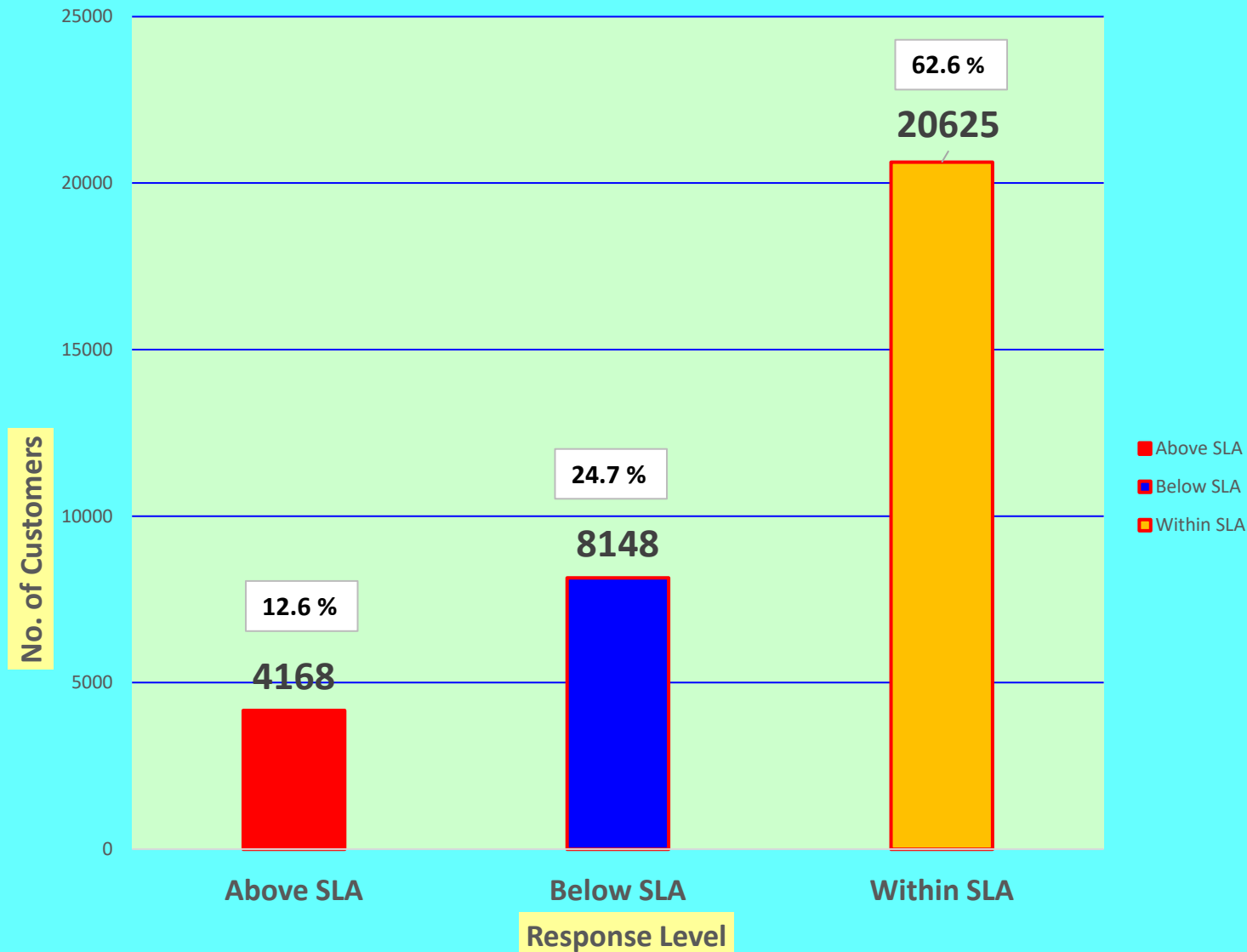
Statewise Customers



Largest numbers of Customers i.e **3631** are from **California** state those who have also needed customer service.

Wyoming is a state from where least number of customers i.e. only **11**, requested for service.

Response Time



It is the very important aspect of customer service, whether service response is above the defined response time or below the level of response time.

Better the customer satisfaction, below SLA time and Worse the customer satisfaction, Above the SLA time.

So, importance should be given to maintain **Below SLA** response time for maximum customer satisfaction.

IMPORTANT:

In this chart analysis below SLA is maintained, only in **8148** customers out of **32941** customers which is only **24.73%**. It should be approximately increased to 100%.

REASON OF CALLING

Service Outage,
4730, 14%

Payments,
4749, 15%

Billing
Question,
23462,
71%

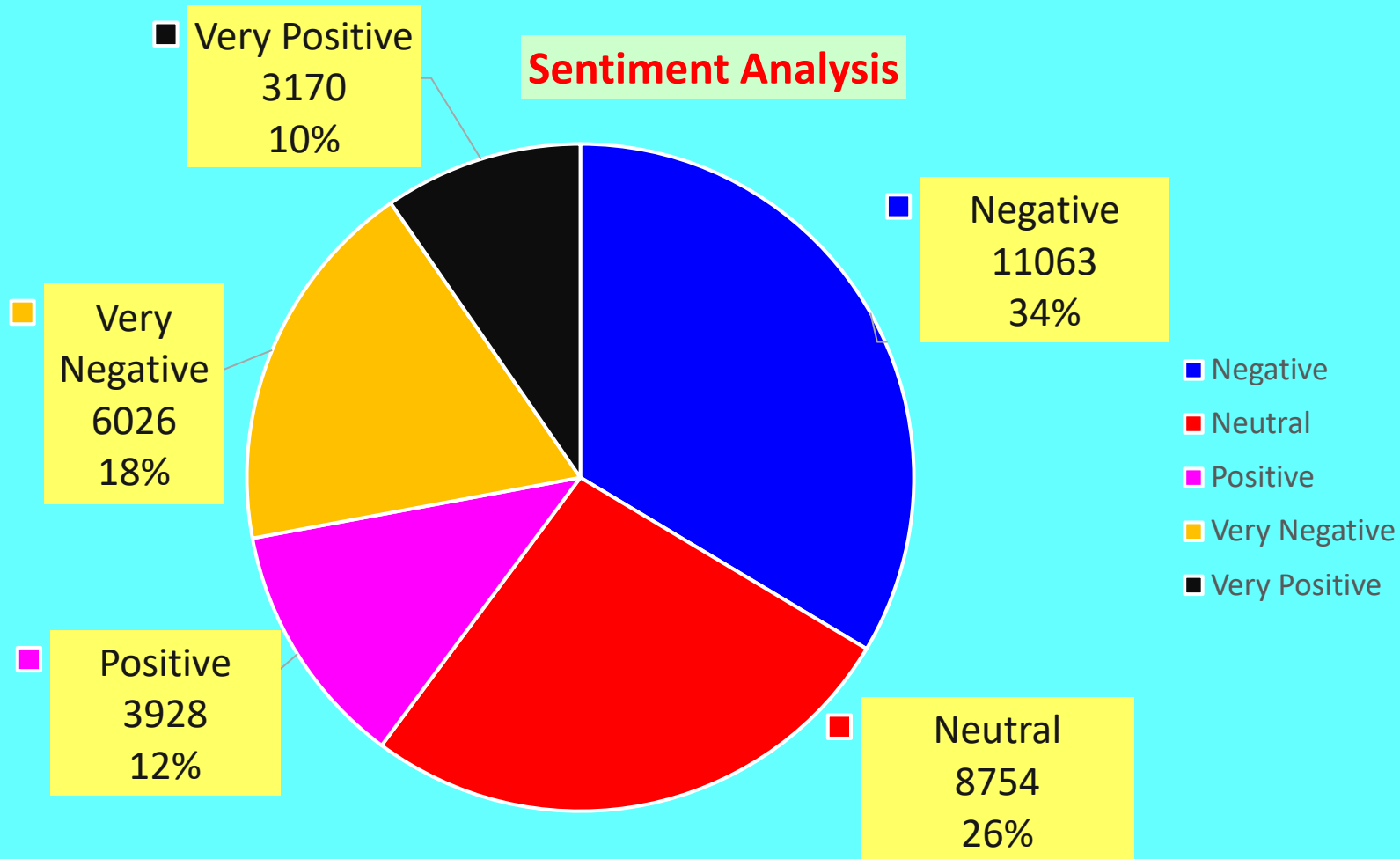
- Billing Question
- Payments
- Service Outage

Total number of customers are **32941** and **23462** have raised their question on billing amount.

So company must give importance on billing system by maintaining transparency. There must not be confusion, otherwise it ultimately will destroy the goodwill. Company will lose the customer day by day.

AI based billing system can be deployed to avoid the problem and providing customer satisfaction.

Sentiment Analysis



Customers are considered as God for every business. Satisfaction of them is the satisfaction of business organisation.

First impression is last long, once a customer is impressed, he becomes obliged to business and he remain a regular customer through out the life of business.

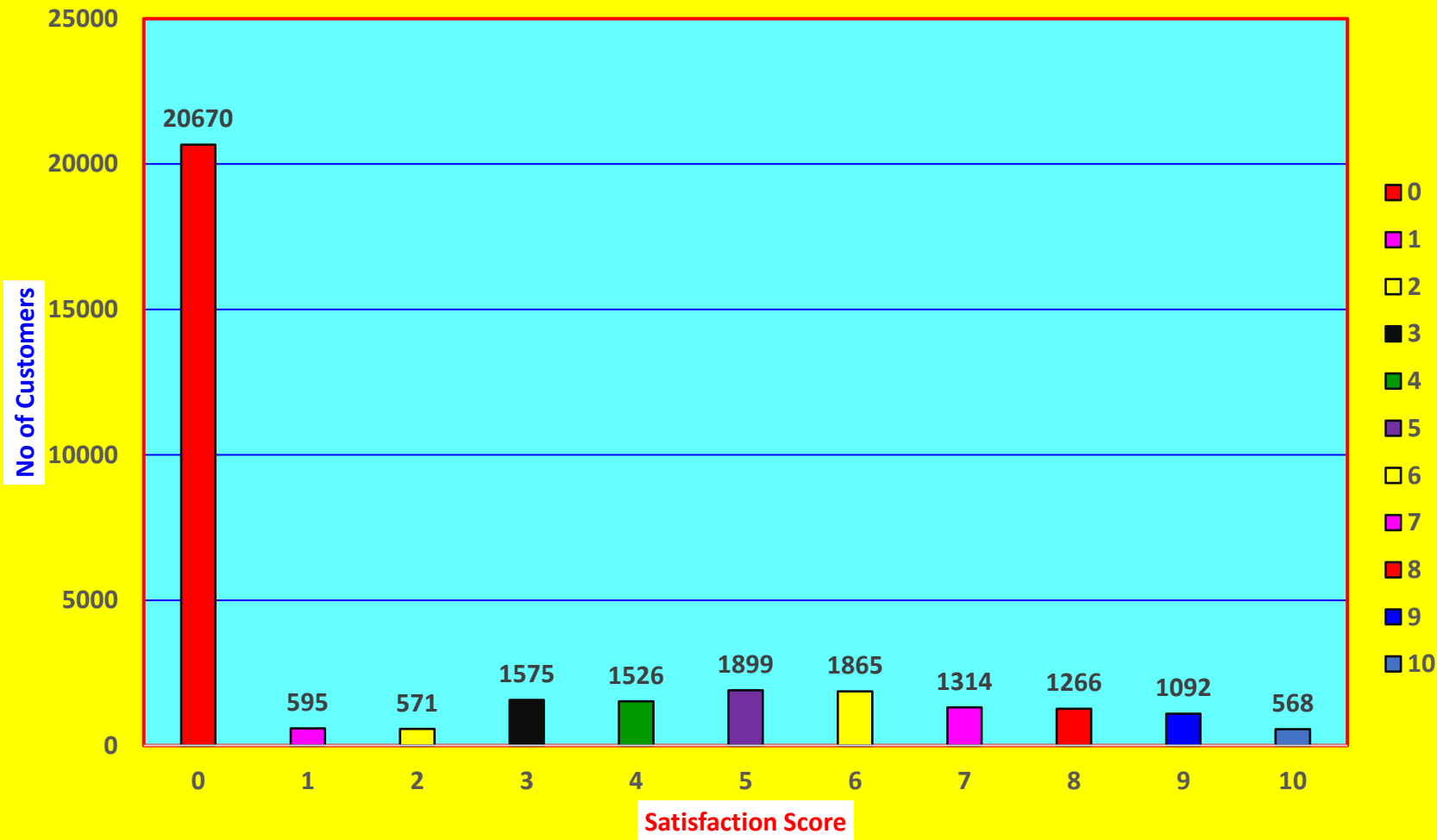
Once a customer loosed his faith on business, he never comes again to us and one by one we remain lose customer.

The analysis shows (Negative: 34% + Very Negative: 18% =) 52% customers are negative because of not providing proper service.

IMPORTANT:

At least more 52% customers should be satisfied to make them positive.

Satisfaction Score



Customer satisfaction is the most important part of a business.

The analysis shows highest number of customers (**20670 customers**) have not any type of satisfaction.

The **average satisfaction score** is only **5.54**, which is very less out of **10** points of rating satisfaction score.

IMPORTANT:

At least **7.5** rating, average score must be maintained for future benefit of the organisation.

**Average of call
duration in minutes**

25.02

**Count of call
duration in minutes**

32941

**Average CST
Score**

5.55

**Average Call Per
Day**

1062.6

Conclusion

We reach in this conclusion for actionable steps for customer satisfaction and growth of the company.

1. Largest numbers of customer i.e 10639, calls through the call centres , so there must be more call executives deployed to handle calls of customers to respond first.
2. Demographically more number of customers i.e. 3631 are there from **Carliornia state** those who have also needed customer service. Importance must be given to these populus areas for larger customer satisfaction and retention of them.
3. The analysis says that Below SLA is maintained i.e. 8148 (24.73%) to respond the customers out of 32941 (100%) customers which is very less. There must be the arrangement of more technically qualified and experienced executive to handle the calls for shorting out the problem within below SLA response time.

4. Due to improper billing system, largest portion of customers have question and confusion on “Billing”. The billing system must be streamlined by using AI based devices for maintaining transparency and pin pointed calculation.
5. Due to improper service as lacking of the above points (1 to 4), largest portion of customers are (Negative: 34% + Very Negative: 18% = 52%) in negative sentiment.. It is important to divert such 52% of customers into positive sentiment for company growth.
6. The average satisfaction score is only 5.54, which is very less out of 10 points of rating scale. It is important to be noted average satisfaction score must be 7.5 maintained by leveraging various types of offers and above pointed services for future benefit of the organisation
7. Average of call duration (25.02) in minutes and Average Call (1062.6) Per Day must be minimized by giving attention to all these above mentioned points.

**Thank
You**