



# FLIPKART'S CUSTOMER SERVICE OPERATIONS REPORT

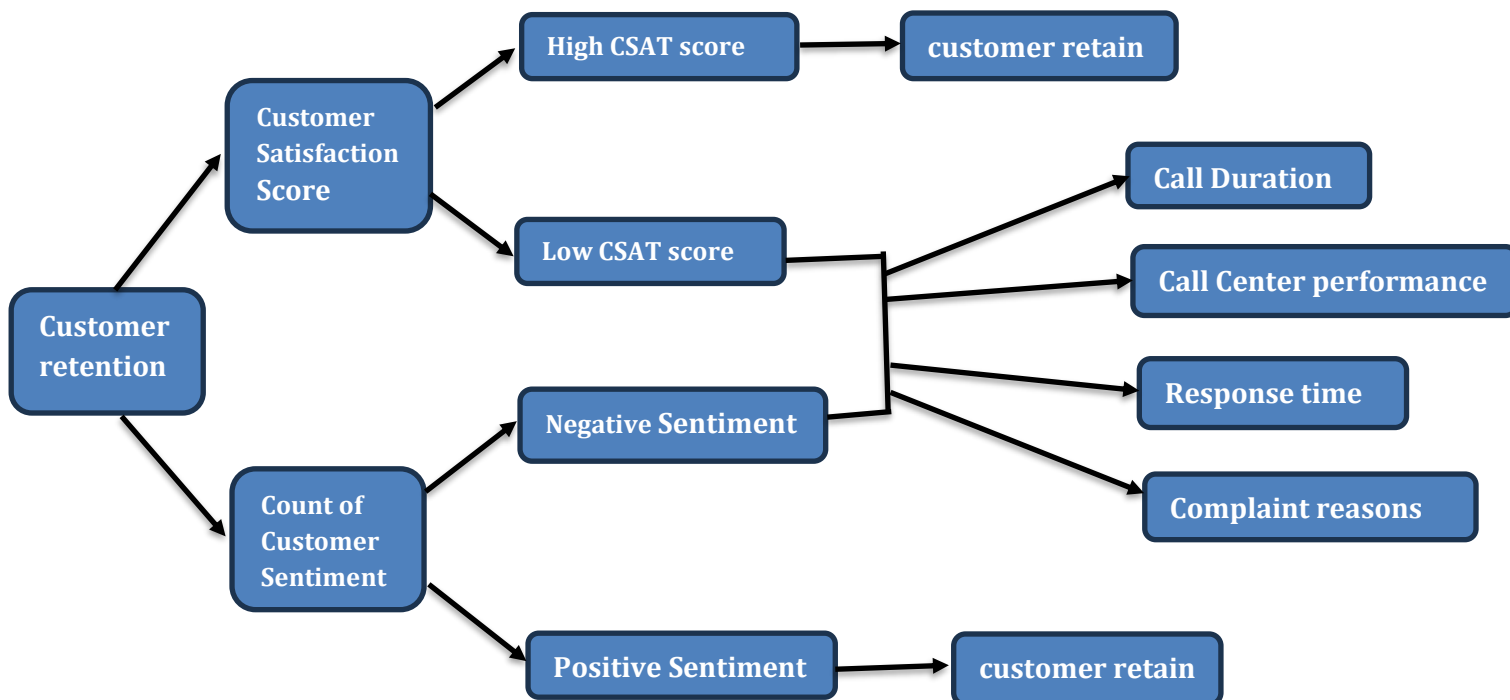
## (IMPACT OF CUSTOMER SERVICE ON CUSTOMER RETENTION)

### 1. Introduction

The purpose of this analysis is to understand the impact of customer service on customer retention at Flipkart. The goal of this analysis is to uncover specific issues exclusively within customer service operations that may be affecting customer satisfaction which ultimately leads to decline in customer retention. So, we will focus on analysing customer call data and will examine key metrics, including customer satisfaction (CSAT) scores and service performance across various call centres and support channels to determine if and how it impacts customer retention. The goal is to improve customer retention by analysing customer service operations at Flipkart.

### 2. Key Metrics to Track

Let's identify metrics essential for assessing the performance of customer service operations and provide insights into how customer service impacts retention.



key metrics for this analysis are:

- **Customer Satisfaction Score:** Shows how satisfied a customer is. High Score reflect that a customer is satisfied, whereas low score shows that customer is not satisfied. It is calculated from feedback ratings after interactions.

- **Count of sentiments:** Customer's sentiments like very positive and positive shows customer satisfaction, whereas very negative and negative shows that customer is not satisfied. It is further calculated for specific call center.
- **Response time:** It is the time in which customer get connected with customer support. If response time is within or below SLA customer is happy else frustrated.
- **Call duration:** It is the time taken to resolve complaint of customer, if it is less customer is happy else, unsatisfied.
- **Percentage of different Complaint reason:** If same type of issue is faced by customer again and again, it reduces credibility and hence the customer leave.

### 3. Data Cleaning

Data cleaning is done through various actions to ensure the reliability of the analysis. The steps of data cleaning is mentioned below:

- **Data Import:** Call center Data provided was in CSV file, so we imported that CSV file into Excel for further processing.
- **Handling Missing Values:**
  - **CSAT Scores:** Many missing values were found in csat\_score column. We did not remove these values as they can help in analysis when linked to other columns.
  - **City and State:** Few values in these columns were missing and labelled as N/A so we replaced those with blank as it does not affect results much. As these were not critical for the analysis, no imputation was performed, but the missing data was noted.
- **Removing Duplicates:** The dataset was checked for duplicates, as no duplicates found hence, we did not remove values.
- **Standardising Call Duration column:** Converted the call duration column to a numeric format in minutes, ensuring all values were standardised.

### 4. Data Manipulation

For better analysis new data columns were created:

- **Day of the Week:** Created from the call date column using day() function to analyse if certain days of week affects call center performance.
- **Call Date:** Date column was having dates in different formats, to make it uniform used LEFT, RIGHT, MID, and DATE functions.

## 5. Data Analysis and Insights

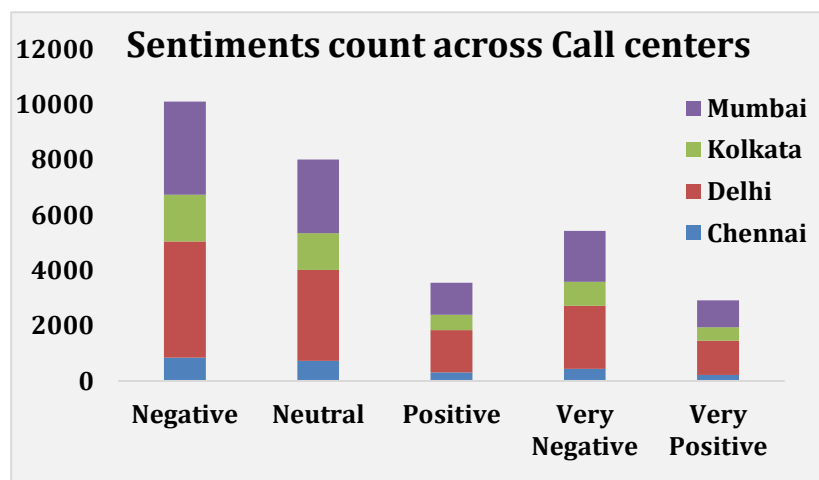
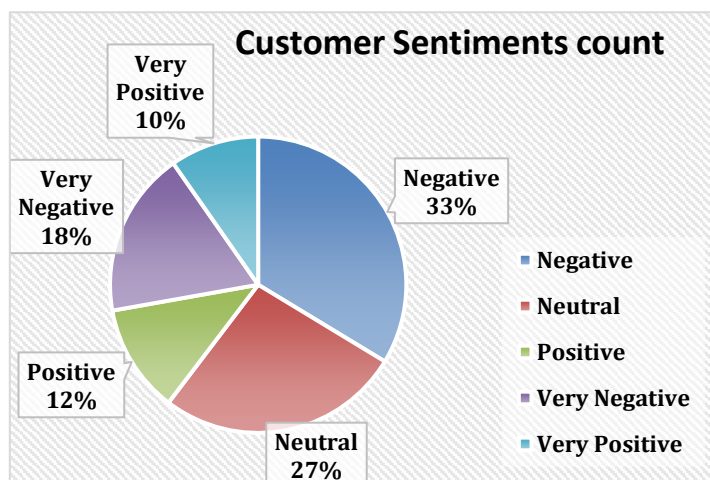
**Hypothesis 1:** Large Count of negative sentiments shows poor performance of customer support. And some center has very high number of negative sentiments count.

▪ **Key Findings:**

- 18% customers gave very negative response and 33% gave negative response, hence together we can say 51% of the customers are not satisfied which is huge number.
- Delhi has the highest number of negative sentiments, followed by Mumbai.

▪ **Conclusion:**

- This large number of negative sentiments is a matter of concern. Negative responses of customer may be the result of many reasons that needs to be further analysed.
- As Delhi has the maximum number of negative sentiments, Special attention for Delhi call center is required to enhance customer service.



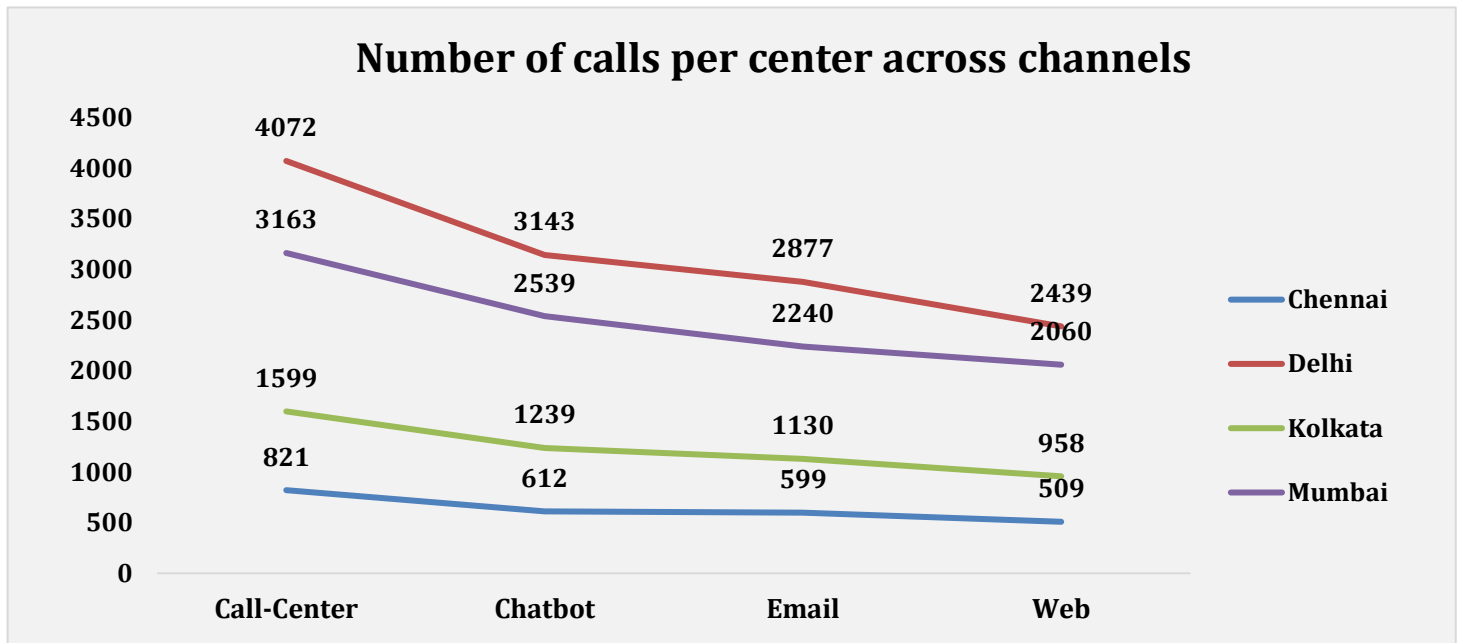
**Hypothesis 2:** Center with maximum number of complaints across different channel have maximum number of negative sentiments.

▪ **Key findings:**

- We calculated the total number of complains registered in various call centres.
- Delhi center recieved maximum complaints on all four channels viz, call-center, chatbot, Email and web, followed by Mumbai.

▪ **Conclusion:**

- Load on these centers is high which may impact the quality of services in terms of response time and failure of complaint resolution. This can be avoided by shifting the load of calls to other centers or increasing the strenght of executives.



### Hypothesis 3: Some specific centers have low CSAT score than others.

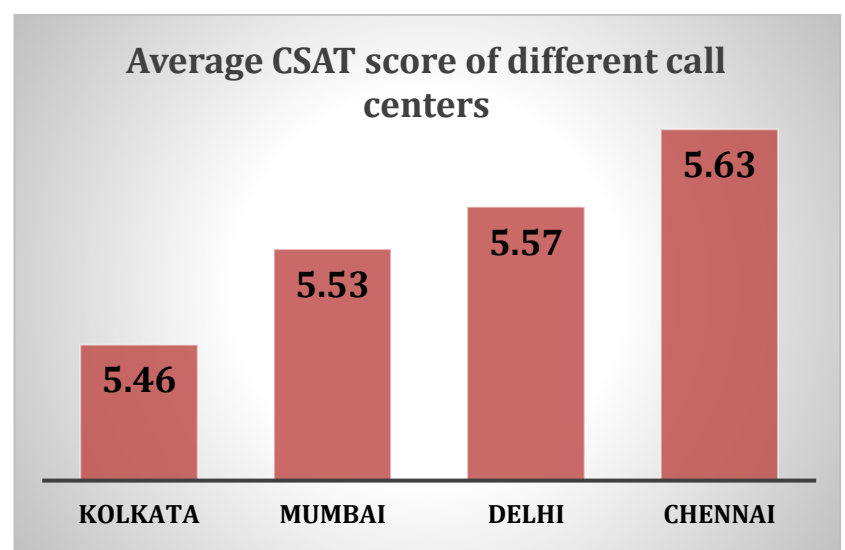
#### ▪ Key findings:

- We calculated average CSAT score for all the call centers. It suggests that Kolkata have the lowest CSAT score than other centers.

#### ▪ Conclusion:

- As we see region of call center affects the average CSAT, Kolkata call center have the lowest CSAT score may be because of lack of customer service delivery, lack of representatives in comparison to the centers etc. also detailed analysis of the causes is required
- Better training of the executives, and improving efficiency of chatbot can help to improve CSAT score customer retention.

call centres	Average CSAT score
Kolkata	5.46
Mumbai	5.53
Delhi	5.57
Chennai	5.63
<b>Grand Total</b>	<b>5.54</b>



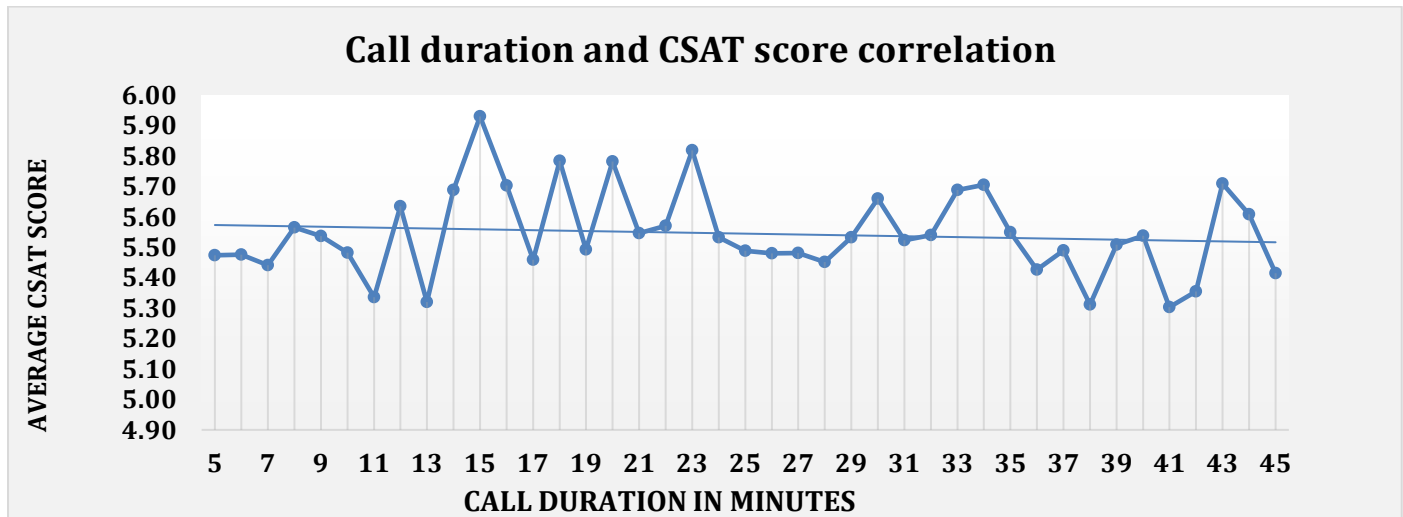
#### **Hypothesis 4: Long durations of calls have low CSAT score than short calls.**

- **Key findings:**

- ❖ The correlation (-0.1191) between call duration and CSAT score is negative and small in value, hence the call duration is not a reason of low CSAT score.

- **Conclusion:**

- ❖ Since the impact of call duration on CSAT score is not much, further investigation is not advisable, need to focus on other areas.



#### **Hypothesis 5: Specific complaint reasons have lower Average CSAT score than others.**

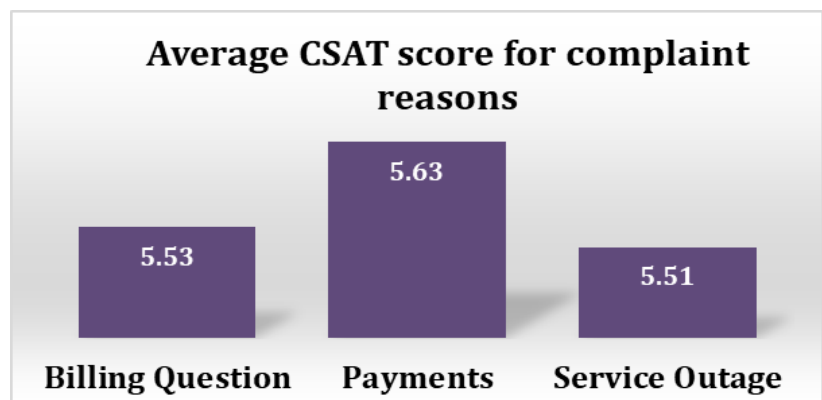
- **Key findings:**

- ❖ We calculated the average CSAT score for all the different complaint reasons such as billing question, payments and service outage.
- ❖ We analysed that CSAT score for service outage is slightly low hence need to investigate further.

- **Conclusion:**

- As we can see the lowest CSAT score is for complaint about the service outage, hence need to investigate further and to work on ensuring services in all aspects.

Reason	Average CSAT score
Billing Question	5.53
Payments	5.63
Service Outage	5.51
Grand Total	5.54



## **Hypothesis 6: Response time above SLA have lower CSAT score than below and within SLA.**

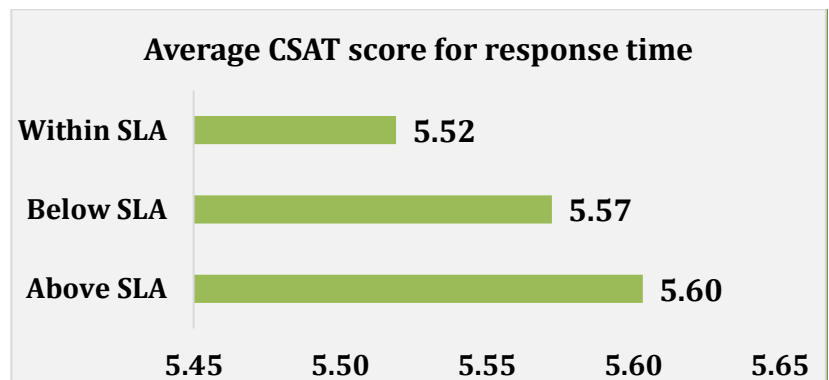
### ▪ **Key findings:**

- We calculated average response time for all three category of response time i.e. above SLA, below SLA and within SLA.
- Among which we analysed that within SLA response time has least CSAT score hence our hypothesis is not proved so need not to investigate further.

### ▪ **Conclusion:**

- As the impact of response is not seen on the CSAT score, it may not be considered as the reason behind low CSAT score and the low customer retention.
- Other reason like failure in redressal of grievances, lack of clear communication etc. might have caused low CSAT score.

Response time	Average CSAT score
Above SLA	5.60
Below SLA	5.57
Within SLA	5.52
<b>Grand Total</b>	<b>5.54</b>



## **Hypothesis 7: Some specific channel has lower CSAT score than others.**

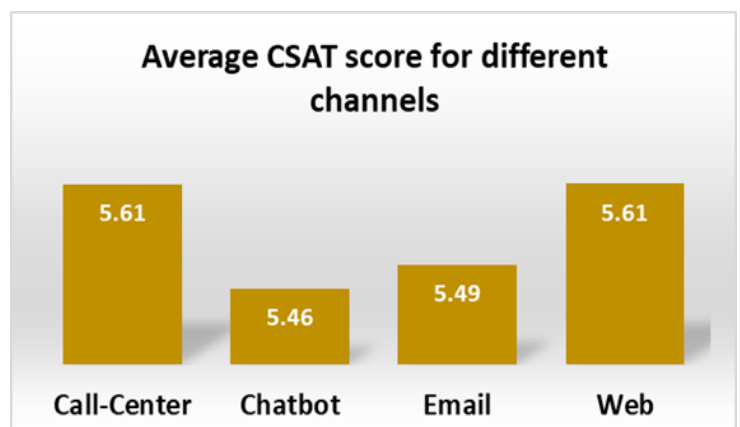
### ▪ **Key findings:**

- We calculated average CSAT score for various channels and analysed that it impacts CSAT score.
- Chatbot and e-mail channels have low CSAT score whereas call center and web have high CSAT may be because customer prefer voice interaction rather than non-voice, and may because of better redressal of complaints on call.

### ▪ **Conclusion:**

- Need to make improvements in chat response options and to enhance number of executives on overtime basis.

Channels	Average CSAT score
Call-Center	5.61
Chatbot	5.46
Email	5.49
Web	5.61
<b>Grand Total</b>	<b>5.54</b>



## **Hypothesis 8: Certain days have maximum number of complaints and have maximum number of negative sentiments.**

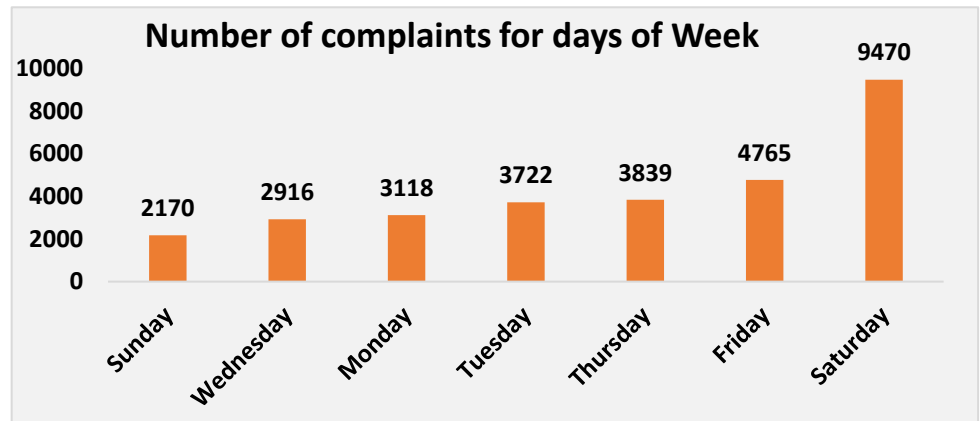
### ▪ **Key findings:**

- We calculated the number of complaints call for all days of the week. It clearly indicates that Saturdays have maximum number of complaints.
- The count of negative sentiments is maximum for Saturday. This is may be because on weekends people have extra time to connect with customer care.

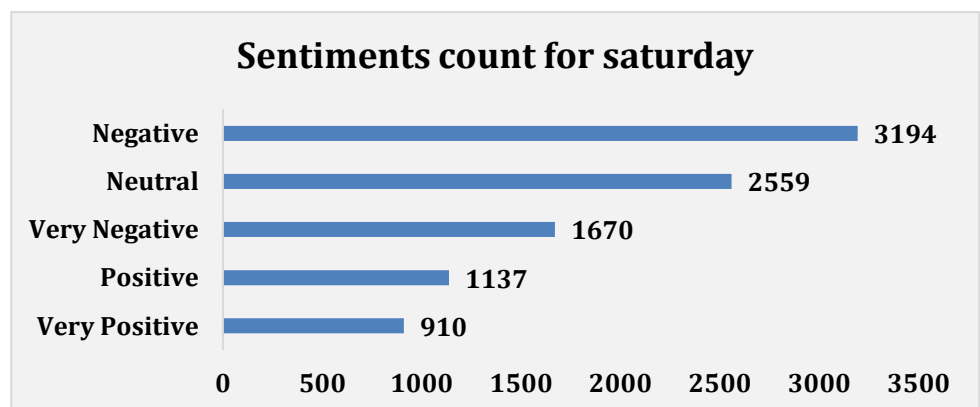
### ▪ **Conclusion:**

- Impact of days is clearly visible on sentiments. Higher number of complaints on specific day leads to low customer retention.
- Mechanism to handle extra pressure on weekend may be improved to resolve this issue.

Days of week	Number of complaints
Sunday	2170
Wednesday	2916
Monday	3118
Tuesday	3722
Thursday	3839
Friday	4765
Saturday	9470
Total	30000



Count of Sentiments	Saturday
Very Positive	910
Positive	1137
Very Negative	1670
Neutral	2559
Negative	3194
Total	9470



## **Hypothesis 9: Some specific complaint reason has maximum number of complaints that affect customer retention.**

### ▪ **Key findings:**

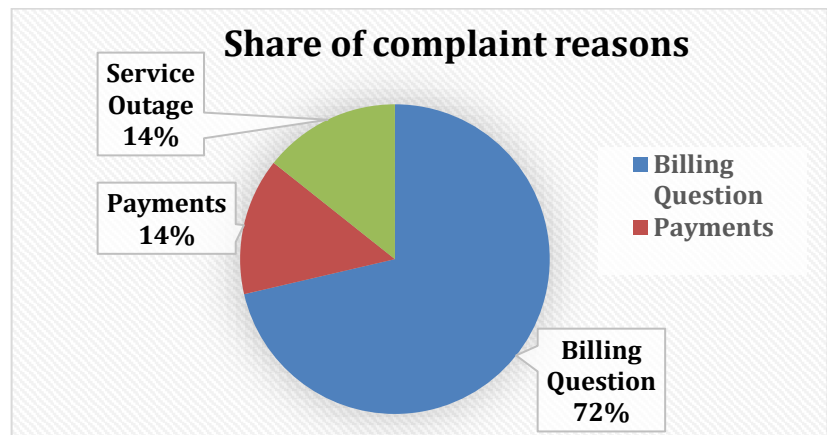
- We calculated the count of reasons for each complaint category and found out that maximum share i.e., 72% of complaint are for "Billing Question".

### ▪ **Conclusion:**

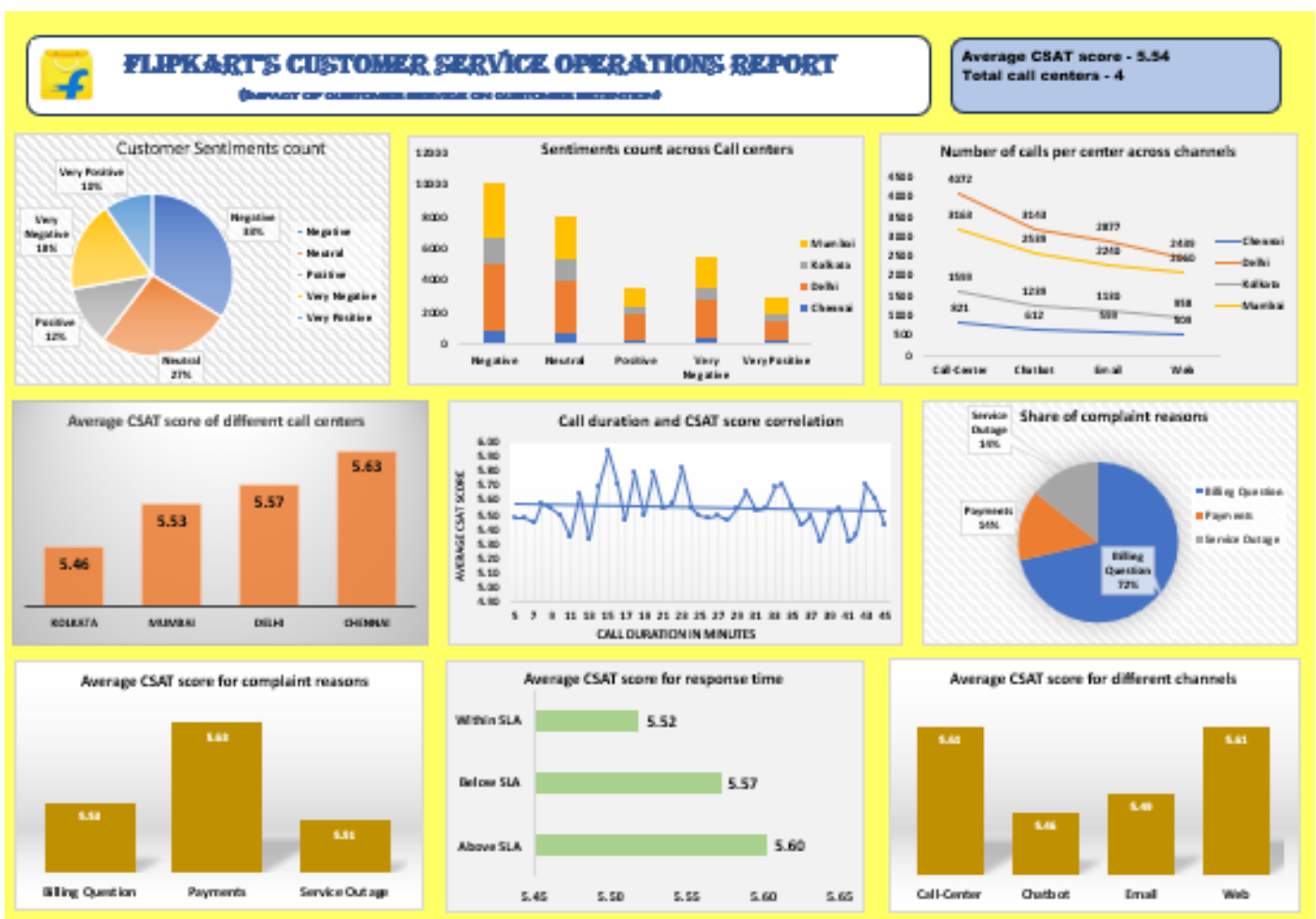
- Above analysis clearly indicates that complaint reason impacting the customer satisfaction.

- Need to look into the shortcomings of Billing department, and resolve them to enhance the customer satisfaction.

Reasons	Count of reason
Billing Question	21410
Payments	4295
Service Outage	4295
<b>Grand Total</b>	<b>30000</b>



## 6. Data Visualization and detailed analysis



**NOTE:** Interactive Dashboard and Detailed Analysis shared in Excel File shared below



## 7. Recommendations

Based on the analysis, the following recommendations are suggested to improve customer satisfaction and retention:

### 1. Enhancing call centre performance:

- ❖ Special attention for Delhi call center is required, need to shift the load of Delhi center to other centers or increase the strength of executives to enhance customer service.
- ❖ Kolkata has the lowest CSAT score hence, investigate further to understand the causes. Also, better training of the executives, and improving efficiency of chatbot can help to improve CSAT score and customer retention.

### 2. Focus on all aspects of service quality:

- ❖ As we saw that the correlation (**-0.1191**) between call duration and CSAT score is negative and small in value and does not affect CSAT score.
- ❖ Also, the impact of response time is not seen on the CSAT score, it may not be considered as the reason behind low customer retention.
- ❖ Hence, further investigation is not advisable, and need to focus on overall service delivery other than call duration and response time.

### 3. Redress shortcomings of Service Outage:

- ❖ As we can see the lowest CSAT score is for complaint about the service outage, hence need to investigate further the causes of it and to work on ensuring services in all aspects.

### 4. Revamp Support Channels:

- ❖ Chatbot and e-mail channels have low CSAT score whereas call center and web have high CSAT.
- ❖ Need to make improvements in chat response options to make it more useful.
- ❖ Increase number of executives for call response to provide better customer services.

### 5. Address the demands on specific days:

- ❖ Saturdays have maximum number of complaints. And the count of negative sentiments is also maximum for Saturday.
- ❖ Mechanism to handle extra pressure on weekend may be improved to resolve this issue.
- ❖ Can deploy more executives on Saturdays on overtime basis to address the demand.

### 6. Rectify issues in specific reason of complaint:

- ❖ 72% of complaint are for "Billing Question" only hence, need to look into the shortcomings of Billing department, and resolve them to enhance the customer satisfaction.

**THANK YOU**