

Customer
Service
Analytics
for
Improving
Customer
Retention
at Flipkart



Project Owner:
Ashutosh Chandra

Tool Used: Microsoft
Excel

Focus: CSAT, Customer
Service & Retention

Why Customer Service Matters



Decline observed in
customer retention



Customer service is a
critical post-purchase
touchpoint



Poor service
experience leads to
customer churn

Objective of the Study

01

Analyse
customer
service call
data

02

Identify drivers
of CSAT

03

Recommend
improvements
to enhance
retention

Data Description

Customer call-level dataset



Key variables include:

CSAT
score

Sentiment

Call
duration

Response
time (SLA)

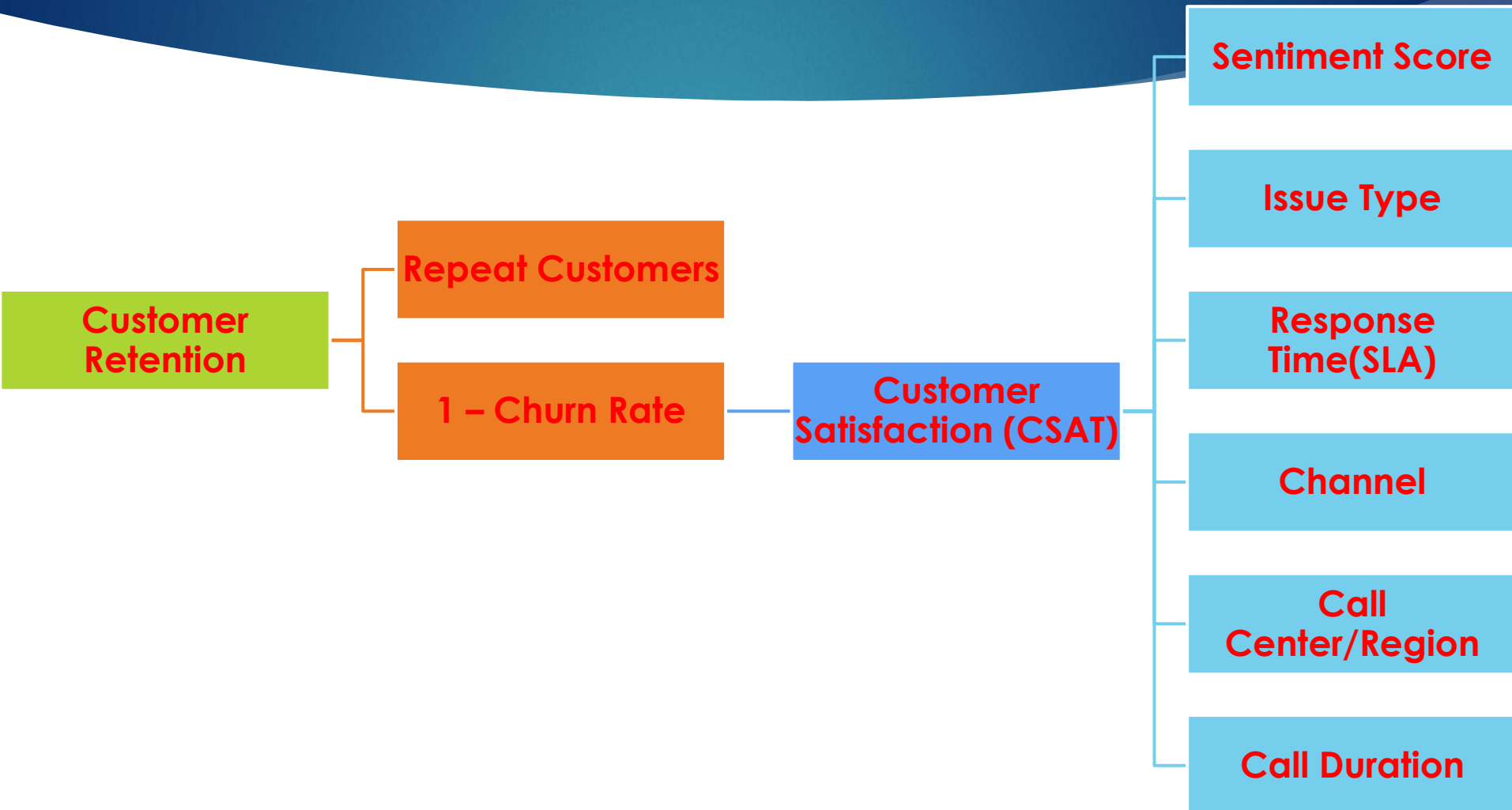
Issue type

Channel

Call
center &
region

Date &
day

Metric Tree



Hypotheses Tested



Hypotheses formulated



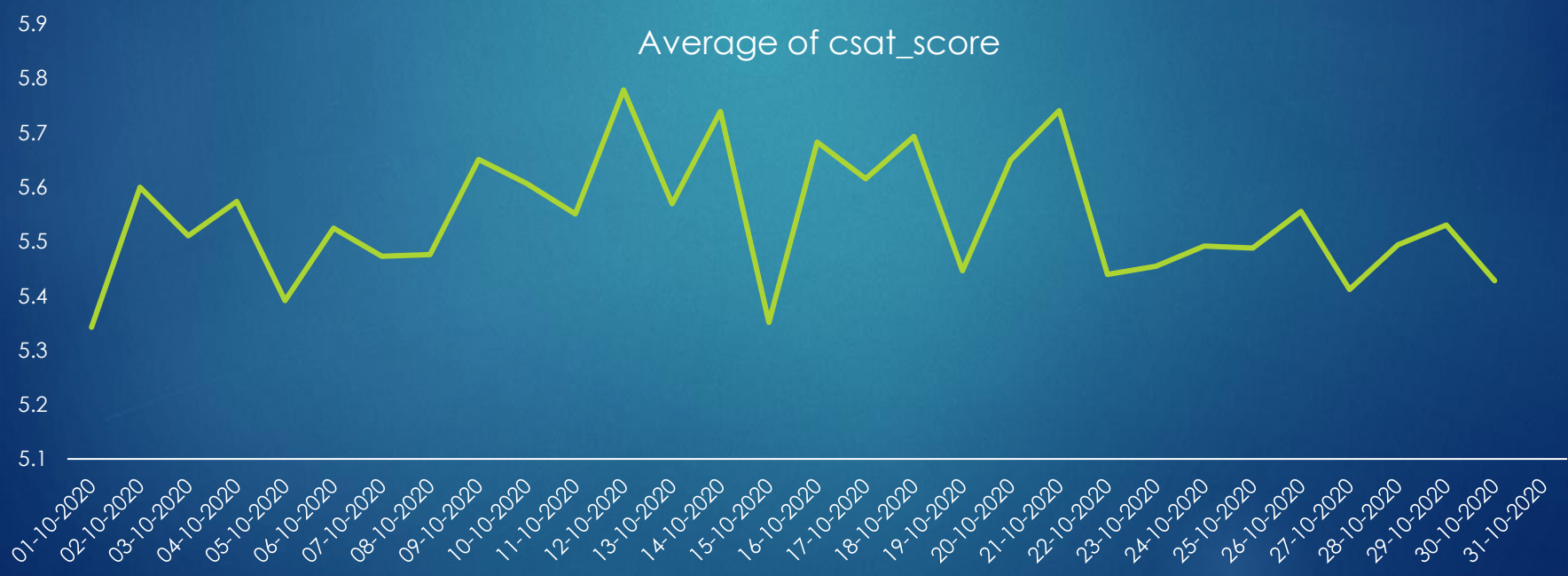
Cover:

- Time patterns
- Call center performance
- Channels & issue types
- Sentiment & efficiency metrics

H1: CSAT Varies by Date

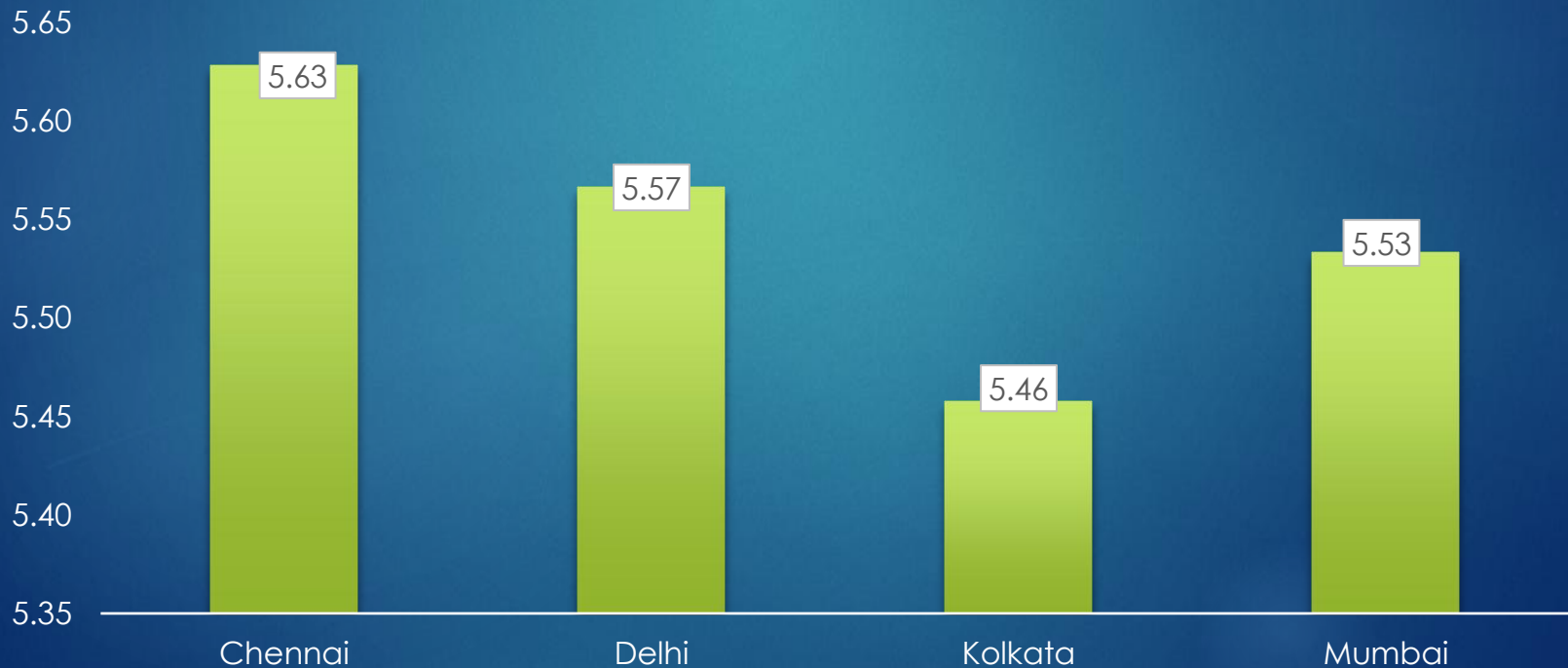


- ▶ CSAT scores during October 2020 show **moderate date-wise variation**, with slightly lower values observed on a few dates, indicating short periods of higher operational load.
- ▶ **Mid-month CSAT remains consistently higher than at the start and end of the month**, suggesting optimal service performance during stable workload periods.



H2: CSAT by Call Centre

- ▶ Chennai: Highest CSAT
- ▶ Kolkata: Lowest CSAT
- ▶ Performance varies by location



H2(a): SLA Impact

- ▶ Kolkata underperforms across all SLA categories
- ▶ Low CSAT even within SLA
- ▶ SLA alone does not explain performance

| Call Centres | Above SLA | Below SLA | Within SLA |
|--------------|-----------|-----------|------------|
| Chennai | 5.67 | 5.71 | 5.59 |
| Delhi | 5.73 | 5.63 | 5.51 |
| Kolkata | 5.42 | 5.41 | 5.49 |
| Mumbai | 5.52 | 5.56 | 5.53 |

H2(b): Regional Mismatch - Kolkata



~75% calls from other states

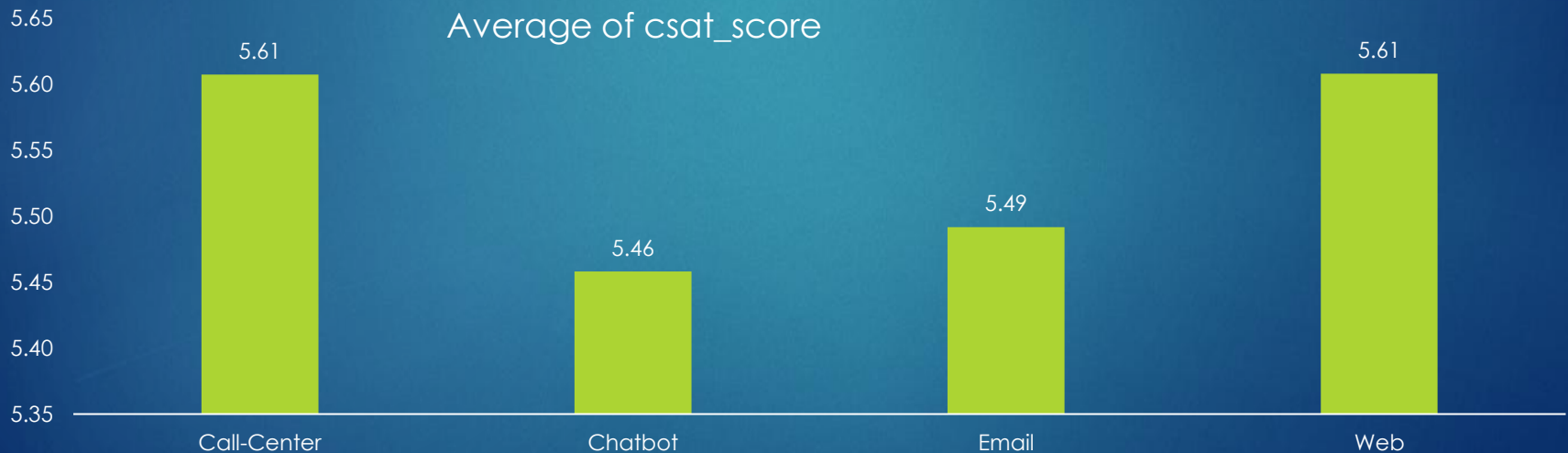


Possible language & communication barriers

| Row Labels | Count of state | Call in percentage of total |
|----------------|----------------|-----------------------------|
| Maharashtra | 650 | 13.25% |
| Uttar Pradesh | 632 | 14.86% |
| Tamil Nadu | 389 | 10.74% |
| Andhra Pradesh | 333 | 10.30% |
| Karnataka | 322 | 11.10% |
| Haryana | 280 | 5.71% |
| Rajasthan | 271 | 5.53% |
| Telangana | 209 | 4.26% |

H3: Channel Impact

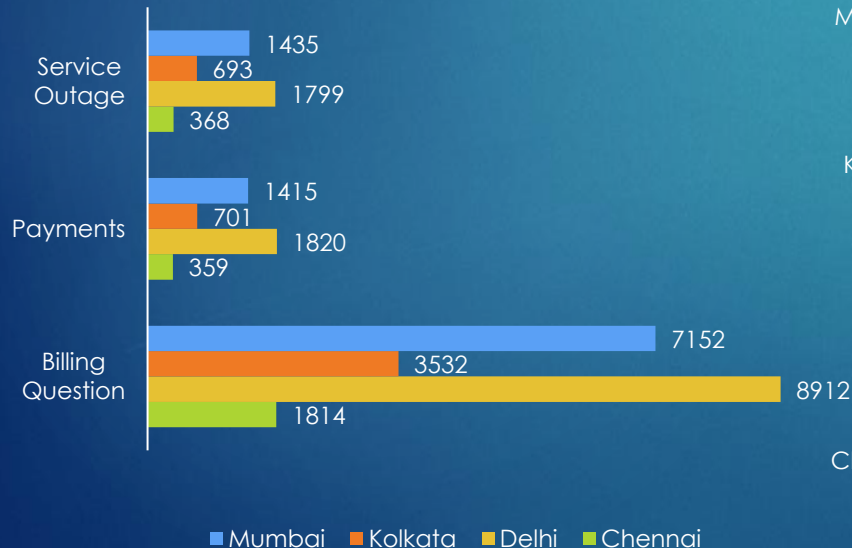
- ▶ Call Centre & Web: Highest CSAT
- ▶ Chatbot: Lowest CSAT
- ▶ Human interaction preferred



H5: Issue Types across Region

- ▶ Billing: Highest Issue reported across all states
- ▶ Delhi : Highest Issue Reported
- ▶ Chennai : Lowest Issues reported

Types of Issues across all centres



Total Issues Reported Across call centres



H5(a): Issue Impact by Centre

- ▶ Chennai performs well across issues
- ▶ Kolkata struggles with Service Outages

| Issue types | Chennai | Delhi | Kolkata | Mumbai |
|------------------|---------|-------|---------|--------|
| Billing Question | 5.57 | 5.57 | 5.47 | 5.51 |
| Payments | 5.82 | 5.63 | 5.59 | 5.61 |
| Service Outage | 5.73 | 5.49 | 5.27 | 5.59 |
| Grand Total | 5.63 | 5.57 | 5.46 | 5.53 |

H6: Sentiment vs CSAT

- ▶ Strong positive correlation ($r \approx 0.895$)
- ▶ Higher sentiment leads to higher CSAT

| | sentiments_in_number | csat_score | call duration in minutes |
|--------------------------|----------------------|------------|--------------------------|
| sentiments_in_number | 1 | | |
| csat_score | 0.894 | 1 | |
| call duration in minutes | -0.005 | -0.006 | 1 |

H9 & H10: Call Duration

- ▶ No correlation with CSAT
- ▶ No correlation with sentiment

| | sentiments_in_number | csat_score | call duration in minutes |
|--------------------------|----------------------|------------|--------------------------|
| sentiments_in_number | 1 | | |
| csat_score | 0.894 | 1 | |
| call duration in minutes | -0.005 | -0.006 | 1 |

Key Insights

- ▶ Customer sentiment is the **strongest driver of CSAT**, showing a very strong positive relationship.
- ▶ CSAT varies by **issue type and call center**, indicating that service quality is not uniform across operations.
- ▶ **Service Outage** cases consistently record lower CSAT, highlighting higher customer frustration.
- ▶ Operational efficiency metrics such as **call duration do not influence satisfaction**.
- ▶ CSAT performance is strongest during **mid-month periods**, suggesting workload stability improves service quality.

Actionable Recommendations

- ▶ Improve **proactive communication and resolution transparency** during Service Outage cases to reduce negative sentiment.
- ▶ Deploy **language-skilled or region-aligned agents**, particularly for centers handling high out-of-state call volumes.
- ▶ Reduce reliance on **chatbots for complex issues and** route such cases to human agents.
- ▶ Replicate **best practices from the Chennai call center**, particularly in issue handling and customer communication.
- ▶ Adjust staffing and monitoring during **start and end of the month**, when CSAT tends to decline.

Expected Business Impact



- ▶ Improvement in customer sentiment leading to higher CSAT scores.
- ▶ Increased customer retention through better post-purchase service experience.
- ▶ Reduced churn risk in high-frustration scenarios such as service outages.
- ▶ More consistent service quality across regions and call centers.
- ▶ Stronger long-term customer loyalty and brand trust.

Conclusion

The analysis demonstrates that customer satisfaction at Flipkart is primarily driven by **emotional experience and issue resolution quality**, rather than operational efficiency metrics such as call duration. Variations in CSAT across time periods, issue types, channels, and call centers indicate clear opportunities for targeted service improvements. By focusing on sentiment management, effective handling of complex issues, and region-sensitive service delivery, Flipkart can enhance customer satisfaction and strengthen long-term customer retention.