

Project Title

Customer Service Improvement Analysis



Data-Driven Insights & Actionable Recommendations



Project Overview

Objective:

- Analyze customer service interactions to identify pain points and improve satisfaction.

Scope:

- **Dataset:** 500 customer interactions (July–August 2023).
- **Tools Used:** MySQL (data processing), Jupyter Notebook (analysis & visualization).
- **Key Metrics:** CSAT scores, response times, issue categories, agent performance.

Key Findings (Summary)

1. **High Returns & Delays:**

- 40% of complaints are return-related, with delays up to **23 days**.

2. **CSAT Insights:**

- Avg. CSAT: **4.24**, but outliers (1–2 scores) indicate dissatisfaction.

3. **Agent Performance:**

- Tenure matters: **>90-day agents** handle complex cases better.

4. **Most Frequent Complaint Categories:**

- Top Complaint Drivers **Returns (40K+ cases)** and **Order Related (30K+ cases)** dominate, accounting for **~70% of total complaints**.

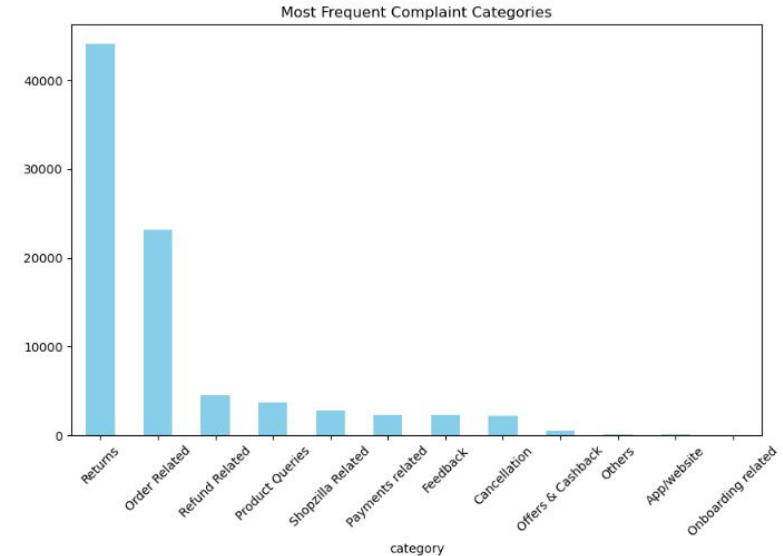
Issue Categories (Volume & Severity)

- **Top Complaint Categories:**

- Returns (42%)
- Order-Related (30%)
- Refund-Related (12%)

Action:

- Prioritize process improvements here (e.g., streamline returns, clarify order status updates).
- Audit payment gateways and enhance product descriptions.
- Implement feedback loops and easier cancellation workflows



Returns Process Breakdown

Problem:

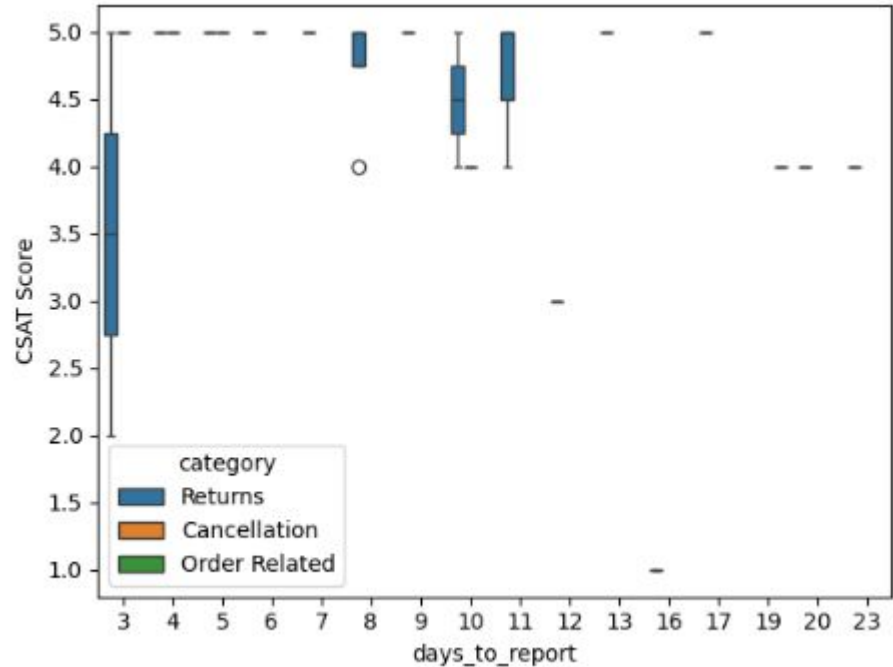
- **Median return delay = 10–23 days** (customers report late).
- **92% of late reports** are for returns.

Root Causes:

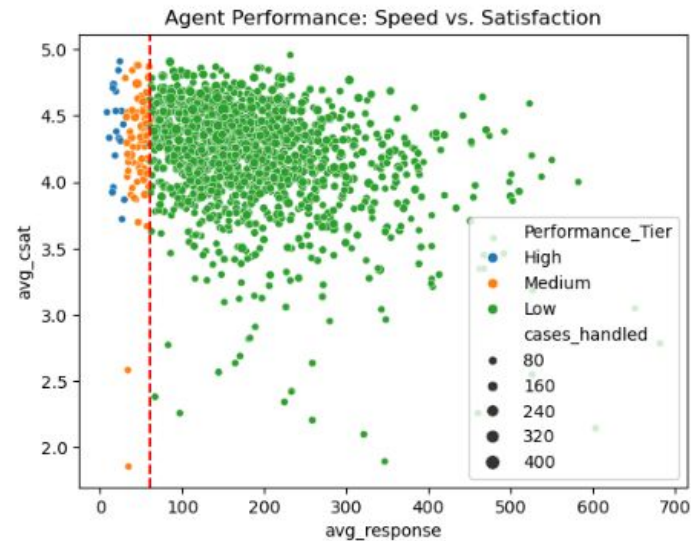
- Complicated return process.
- Lack of proactive follow-ups.

Recommendation:

- **Auto-approve returns** under ₹5,000.
- **Send reminders 3 days post-delivery.**



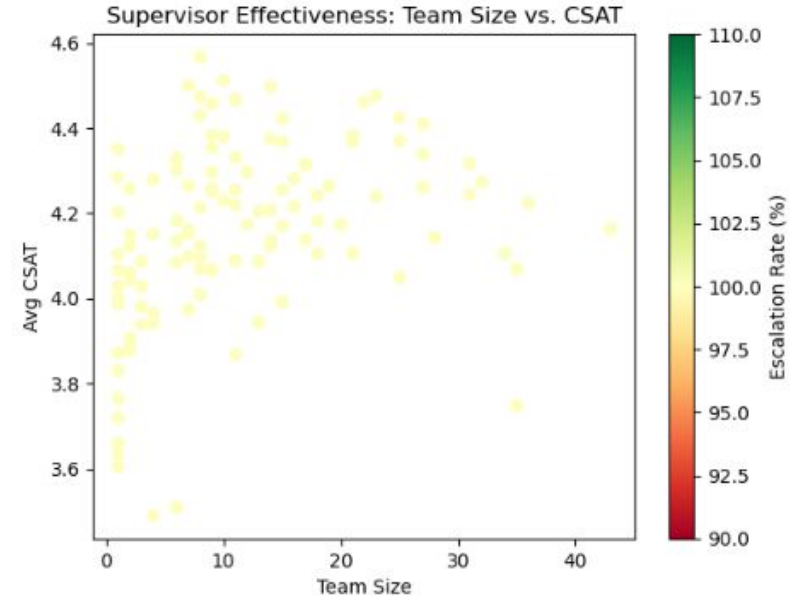
CSAT vs. Response Time



Agent Performance Quadrant Analysis				
Quadrant	Avg. Response Time	Avg. CSAT	Interpretation	Recommended Actions
Top-Left	Fast (<30 min)	High (4.5+)	Your star performers. Efficient and effective.	Reward, share best practices
Top-Right	Slow (>60 min)	High (4.5+)	Quality but slow. May be handling complex cases.	Optimize workflows, reduce non-essential tasks
Bottom-Left	Fast (<30 min)	Low (<3.5)	Rushed, poor service. Speed over quality.	Coaching on empathy/process adherence
Bottom-Right	Slow (>60 min)	Low (<3.5)	Struggling agents. Need urgent intervention.	Performance plan or reassignment

Team Size vs CSAT

- **Smaller Teams = Happier Customers**
 - Teams under **20 agents** achieve **CSAT of 4.6** (best performance).
 - Teams over **30 agents** drop to **CSAT of 3.6-4.0**.
- **Overloaded Supervisors Struggle**
 - Beyond **20 agents/supervisor**:
 - Escalation rates spike from **90%** → **97.5%** (more issues go unresolved).
 - Performance declines sharply (loss of control).

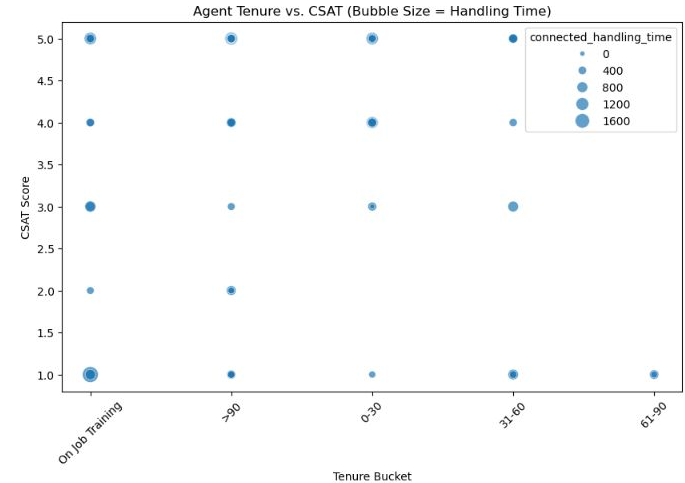


Agent Performance Analysis

- **Top Performers (Fast + High CSAT):** Reward & replicate.
- **Struggling Agents (Slow + Low CSAT):** Retrain/reassign.

Key Insight:

- **New agents (0–30 days)** need mentorship.



Recommendations

1. **Process Improvements:**

- Simplify returns & automate refunds (<₹5K).

2. **Agent Training:**

- Focus on **tenure-based coaching**.

3. **Fraud Detection:**

- Flag high-risk returns (>20-day delays).

4. **Proactive Alerts:**

- Notify customers **3 days post-delivery**.

Expected Impact

Metric	Current	Target (30 Days)
Avg. Return Delay	15–20 days	<10 days
Low CSAT (1–2)	7%	Reduce by 50%
Handling Time	136 mins	<60 mins

Next Steps

1. **Implement auto-approvals** for low-value returns.
2. **Launch mentorship program** for new agents.

Thank you!

